Page 1959 of 2517

	nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails;	The Socwell patent discloses disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable

LIFECORE Ex. 1002

	disposition to the deck 56"); Figs. 2, 4.
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.	The Socwell patent discloses 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. *See, e.g.*, '632 patent, Col. 11, lns. 25-34; Col. 12, ln. 67- Col. 13, ln. 4 ("In addition, the present invention substantially prevents a user from falling off the back of the treadmill and whereby serves to keep the user centered on the upper surface of the rotating belt without encumbering the natural body motion of the user exercising thereon.")

Exhibit F

Page 1962 of 2517

EXHIBIT F

U.S. Patent Nos. 5,709,632 and 5,411,455 Invalidate Asserted Claims 1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 18, 19, 20, 21, 22, and 25 of U.S. Patent No. 9,039,580

Claims 1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 18, 19, 20, 21, 22, and 25 of U.S. Patent No. 9,039,580 ("the '580 patent") are invalid as anticipated and/or obvious in view of U.S. Patent No. 5,709,632 ("the '632 patent") to Socwell in combination with U.S. Patent No. 5,411,455 ("the '455 patent") to Haber. The '632 Patent was filed on September 27, 1996 and issued on January 20, 1998; the '455 patent was filed on March 19, 1994 and issued on May 2, 1995. The '632 patent is available as prior art against the '580 patent under at least 35 U.S.C. § 103.

These Invalidity Contentions, in part, utilize Woodway's interpretations of the '580 patent claims, to the extent those interpretations can be discerned from Woodway's Preliminary Infringement Contentions in this case. Plaintiffs disagree with Woodway's application and interpretation of the claims, and these Invalidity Contentions are not, and should not be construed as, an endorsement or acceptance of any of Woodway's contentions or interpretations of the '580 patent claims nor as an admission with respect to any claim or claim limitation. Plaintiffs expressly reserve the right to propose alternative constructions to those advocated by Woodway and to contest Woodway's proffered claim interpretations.

Claims of the 9,039,580 Patent	'632 patent (Socwell) and '455 patent (Haber)
1. A manually powered treadmill comprising:	This is a preamble, not entitled to any weight. Nevertheless, the '632 patent discloses a manually operated treadmill. *See, e.g.*, '632 patent, Col. 1, lns. 64-66; claim 1 as compared with dependent claim 3; Col. 11, lns. 26-28 ("In an alternate embodiment, the curved deck treadmill 10 or the present invention may be implemented without a driving means engageably disposed to a roller in order to facilitate the forced rotation of the belt 16"). The '455 patent also discloses a manually operated treadmill. *See, e.g.*, '455 patent. Col. 1, lns 7, 34 ("fully self-propelled treadmill").
a frame having a front end and a rear end positioned opposite the front end;	The Socwell patent in combination with the Haber patent disclose a frame having a front end and a rear end positioned opposite the front end. *See, e.g.*, '632 patent, Col. 4, lns. 61-64 ("As shown, the curved deck treadmill 10 comprises a support frame 12 having a first side 20 and a

LIFECORE Ex. 1002

	second opposing side 22 and having a deck 56 supportably disposed therebetween. In preferred construction, the deck 56 comprises a first end 58, a second end 60, and an intermediate portion 62 disposed therebetween."); Col. 13, lns. 5-10 ("the curved deck treadmill of the present invention comprises a first end and a second end disposed substantially parallel in dimensional relationship and including a deck having an intermediate portion disposed therebetween comprising a substantially arcuate longitudinal configuration which is disposed lower in dimensional relation to the first and second ends"); Figs. 1, 2.
a front shaft rotatably coupled to the frame at the front end;	The Socwell patent in combination with the Haber patent disclose a front shaft rotatably coupled to the frame at the front end. *See, e.g.*, '632 patent, Col. 5, lns. 4-7 ("Further, a roller assembly 14 is provided preferably comprising a first and second roller 78, 86. The first roller 78 may be rotatably disposed contiguous the first end 58 of the deck 56 between the first side 20 and the second opposing side 22 of the support frame 12."); claim 1 ("a roller assembly rotatably disposed in operable relation to said support frame").
a rear shaft rotatably coupled to the frame at the rear end;	The Socwell patent in combination with the Haber patent disclose a rear shaft rotatably coupled to the frame at the rear end. *See, e.g.*, '632 patent, Col. 5, lns. 8-12 ("Correspondingly similar in construction and design, a second roller 86 is preferably disposed contiguous the second end 60 of the deck 56 between the first and second sides 20, 22 of the support frame 12").
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Socwell patent in combination with the Haber patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94

	provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Socwell patent in combination with the Haber patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one

LIFECORE Ex. 1002

	presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
a running belt supported by the first bearing rail and the second bearing rail and disposed about the front shaft and the rear shaft, wherein the running belt follows a curved running surface; and	The Socwell patent in combination with the Haber patent disclose a running belt supported by the first bearing rail and the second bearing rail and disposed about the front shaft and the rear shaft, wherein the running belt follows a curved running surface. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Figs. 2, 4.
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 Socwell patent in combination with the Haber patent disclose 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 rotational direction.	the first rotational direction. *See, e.g.*, '632 patent, Col. 11, lns. 25-34; Col. 12, ln. 67- Col. 13, ln. 4 ("In addition, the present invention substantially prevents a user from falling off the back of the treadmill and whereby serves to keep the user centered on the upper surface of the rotating belt without encumbering the natural body motion of the user exercising thereon."). *See, e.g.*, '455 patent, Col. 1, ln. 59- Col. 2, ln. 3 ("The one-way clutch is located within one of the tread supporting drums at the front of the treadmill housing. The clutch is of the type having a number of ramped pockets spaced evenly therearound and a corresponding number of needle clutch bearings located within respective pockets. As the clutch is rotated in a particular direction, the needle clutch bearings are forced to move in an opposite direction in their respective pockets so as to ride up ramped surfaces thereof at which to exert a frictional pulling force on the drum within which the one-way clutch is located. Accordingly, the front drum and the tread supported thereby are rotated in the same direction as the clutch."); Col. 3, lns. 20-25 ("More particularly, and referring concurrently to FIGS. 2-4 of the drawings, the one-way clutch 22 is of conventional design and includes a longitudinally extending shaft 24 and a plurality of (e.g. three) needle clutch bearings 26 that are seated within a corresponding plurality of pockets 28 that are spaced evenly around the clutch 22.").
2. The manually powered treadmill of claim 1, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member.	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill of claim 1, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member. *See, e.g.*, '632 patent, Col. 8, lns. 1-9 ("As shown in FIG. 4, the first side 20 of the support frame 12 may comprise one or more rib seats 30 disposed adjacent the deck slot 32. The rib seats 30 are preferably formed having an internal surface area sufficient for seating at least one end of a support rib 54 disposed therein. As best illustrated in

	FIG. 3, one or more support ribs 54 extend substantially transverse dimensionally between the first and second sides 20, 22 of the support frame 12. In preferred construction, the support ribs 54 provide a means for structurally supporting the deck 56.")
3. The manually powered treadmill of claim 2, wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member.	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill of claim 2, wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member. *See, e.g.*, '632 patent, Col. 10, lns. 55-63 ("Referring now to FIG. 5, the belt securing assembly 94 and the corresponding cover member 68 may be attached to the support frame 12 by a conventional fastening means. For example, in one presently preferred embodiment of the present invention, a bolt 118 may be disposed through an aperture 112 formed in the cover member 168 and at least one aperture 114 formed in a respective side 20, 22 of the support frame 12. Alternatively, the bolt 118 may be disposed through an aperture 116 formed in a support rib 54 which may further serve to secure the support rib 54 to the support frame 12.")
4. The manually powered treadmill of claim 1, wherein each one of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft.	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill of claim 1, wherein each one of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft. *See, e.g.*, '632 patent, Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive

	principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
5. The manually powered treadmill of claim 1, wherein each one of the first bearing rail and the second bearing rail define in part a top profile corresponding to the curved running surface.	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill of claim 1, wherein each one of the first bearing rail and the second bearing rail define in part a top profile corresponding to the curved running surface. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Fig2. 2, 4.
6. The manually powered treadmill of claim 1, wherein the safety device includes a one-way bearing.	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill of claim 1, wherein the safety device includes a one-way bearing. *See, e.g.*, '632 patent, Col. 11, lns. 25-34; Col. 12, ln. 67- Col. 13, ln. 4 ("In addition, the present invention substantially prevents a user from falling off the back of the treadmill and whereby serves to keep the user centered on the upper surface of the rotating belt without encumbering the natural body motion of the user exercising thereon."). See, e.g., '455 patent, Col. 1, ln. 59- Col. 2, ln. 3 ("The one-way clutch is located within one of the tread supporting drums at the front of the treadmill housing. The clutch is of the type having a number of ramped pockets spaced evenly therearound and a corresponding

	number of needle clutch bearings located within respective pockets. As the clutch is rotated in a particular direction, the needle clutch bearings are forced to move in an opposite direction in their respective pockets so as to ride up ramped surfaces thereof at which to exert a frictional pulling force on the drum within which the one-way clutch is located. Accordingly, the front drum and the tread supported thereby are rotated in the same direction as the clutch."); Col. 3, lns. 20-25 ("More particularly, and referring concurrently to FIGS. 2-4 of the drawings, the one-way clutch 22 is of conventional design and includes a longitudinally extending shaft 24 and a plurality of (e.g. three) needle clutch bearings 26 that are seated within a corresponding plurality of pockets 28 that are spaced evenly around the clutch 22.").
10. The manually powered treadmill of claim 1, further comprising a handrail attached to the frame and structured to provide a support structure for the user of the manually powered treadmill.	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill of claim 1, further comprising a handrail attached to the frame and structured to provide a support structure for the user of the manually powered treadmill. *See, e.g.*, '632 patent, Col. 12, lns. 15-26 ("The handles 134, 144 may be constructed of any suitable rigid material. For example, the handles 134, 144 may be formed of a metal or metal alloy, wood, fiberglass, graphite, ceramic, plastic or any other suitable composite material. Additionally, the handles 134, 144 may include a gripping member (not shown) preferably disposed substantially adjacent the distal ends of the handles 134, 144 to enable a user to more easily grip the handle. In particular, a rubber grip may be disposed in relation to the distal end 138 of the handle 134, 144 and positioned so that a user may grasp the gripping member of the handle 134, 144 when exercising.").
11. A manually powered treadmill, comprising:	This is a preamble, not entitled to any weight. Nevertheless, the '632 patent discloses a manually operated treadmill. *See, e.g.*, '632 patent, Col. 1, lns. 64-66; claim 1 as compared with dependent claim 3; Col. 11, lns. 26-28 ("In an alternate embodiment, the curved deck treadmill 10 or the present invention may be implemented without a driving means engageably disposed to a roller in order to facilitate the

	forced rotation of the belt 16"). The '455 patent also discloses a manually operated treadmill. *See, e.g.*, '455 patent. Col. 1, lns 7, 34 ("fully self-propelled treadmill").
a frame having a front end and a rear end positioned opposite the front end;	The Socwell patent in combination with the Haber patent disclose a frame having a front end and a rear end positioned opposite the front end. *See, e.g.*, '632 patent, Col. 4, lns. 61-64 ("As shown, the curved deck treadmill 10 comprises a support frame 12 having a first side 20 and a second opposing side 22 and having a deck 56 supportably disposed therebetween. In preferred construction, the deck 56 comprises a first end 58, a second end 60, and an intermediate portion 62 disposed therebetween."); Col. 13, lns. 5-10 ("the curved deck treadmill of the present invention comprises a first end and a second end disposed substantially parallel in dimensional relationship and including a deck having an intermediate portion disposed therebetween comprising a substantially arcuate longitudinal configuration which is disposed lower in dimensional relation to the first and second ends"); Figs. 1, 2.
a front shaft attached to the frame adjacent the front end;	The Socwell patent in combination with the Haber patent disclose a front shaft attached to the frame adjacent the front end. *See, e.g.*, '632 patent, Col. 5, lns. 4-7 ("Further, a roller assembly 14 is provided preferably comprising a first and second roller 78, 86. The first roller 78 may be rotatably disposed contiguous the first end 58 of the deck 56 between the first side 20 and the second opposing side 22 of the support frame 12."); claim 14 ("a first roller rotatably disposed in relation to said first side and said second side of said support frame, said first roller disposed contiguous said first end of said support frame.").

Page 1971 of 2517

a rear shaft attached to the frame adjacent the rear end;	The Socwell patent in combination with the Haber patent disclose a rear shaft attached to the frame adjacent the rear end. *See, e.g.*, '632 patent, Col. 5, lns. 8-12 (Correspondingly similar in construction and design, a second roller 86 is preferably disposed contiguous the second end 60 of the deck 56 between the first and second sides 20, 22 of the support frame 12").
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Socwell patent in combination with the Haber patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which

LIFECORE Ex. 1002

	are consistent with the spirit and scope of the present invention.").
a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Socwell patent in combination with the Haber patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
a running belt at least partially disposed about the front shaft and the rear shaft and at least partially supported by the first bearing rail and the second bearing rail,	The Socwell patent in combination with the Haber patent disclose a running belt at least partially disposed about the front shaft and the rear shaft and at least partially supported by the first bearing rail and the second bearing rail.

LIFECORE Ex. 1002

	See, e.g., '632 patent, Col. 7, ln2. 16-24 ("In accordance with one preferred arrangement, the belt 16 is rotatably disposed in relation to the first roller 78, the second roller 86, and the third roller 88, whereby each roller 78, 86, 88 is preferably disposed in structural relation to the support frame 12 at their respectively preferred positions, as disclosed above. The tension of the belt 16 may be readily tightened or loosened in relation to the disposition of the first and second rollers 78, 86 engageably disposed in the respective elongated slot of the journal housings 28, 34."); Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention."); Figs. 1, 2.

Page 1974 of 2517

wherein the running belt includes a front belt portion proximate the front end, a rear belt portion proximate the rear end, and a central belt portion intermediate the front and rear belt	The Socwell patent in combination with the Haber patent disclose an apparatus wherein the running belt includes a front belt portion proximate the front end, a rear belt portion proximate the rear end, and a central belt portion intermediate the front and rear belt. *See, e.g.*, '632 patent Col. 4, lns. 5-17 ("Further, a roller assembly is provided preferably comprising a first and second roller. The first roller may be rotatably disposed contiguous the first end of the deck between the first side and the second side of the support frame. Correspondingly similar in construction and design, a second roller is preferably disposed contiguous the second end of the deck between the first and second sides of the support frame. In operation, an endless belt may be rotatably mounted in relation to the roller assembly and operatively disposed in relation to the deck, whereby providing a structurally supported arcuate shaped, moveable surface on which a user may exercise"); Col. 7, lns. 16-21 ("In accordance with one preferred arrangement, the belt 16 is rotatably disposed in relation to the first roller 78, the second roller 86, and the third roller 88, whereby each roller 78, 86, 88 is preferably disposed in structural relation to the support frame 12 at their respectively preferred positions, as disclosed above."); Col. 13, lns. 5-10 ("the curved deck treadmill of the present invention comprises a first end and a second end disposed substantially parallel in dimensional relationship and including a deck having an intermediate portion disposed therebetween comprising a substantially arcuate longitudinal configuration which is disposed lower in dimensional relation to the first and second ends"); Figs. 1, 3.
wherein the central belt portion is positioned vertically closer to a ground surface supporting the frame than the front and rear belt portions such that the running belt follows a curved running surface;	The Socwell patent in combination with the Haber patent disclose an apparatus wherein the central belt portion is positioned vertically closer to a ground surface supporting the frame than the front and rear belt portions such that the running belt follows a curved running surface. *See e.g.*, '632 patent, Col. 3, lns. 39-50 ("It is a still further object of the present invention to provide a curved deck treadmill which substantially prevents a user from falling off the back end of the treadmill and whereby serving to keep the user centered on the upper

LIFECORE Ex. 1002

	surface of the treadmill without encumbering the natural body motion of the user exercising thereon. In addition, it is an object of the present invention to provide a curved deck treadmill which is capable of providing meaningful walking, jogging, or running comfort in relation to the physiology of a user, thereby facilitating an upper surface which supportably provides for a longer stride with more flexibility"); Col. 13, lns. 5-10 ("the curved deck treadmill of the present invention comprises a first end and a second end disposed substantially parallel in dimensional relationship and including a deck having an intermediate portion disposed therebetween comprising a substantially arcuate longitudinal configuration which is disposed lower in dimensional relation to the first and second ends.").
and a safety device for substantially preventing 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 rotational direction.	The Socwell patent in combination with the Haber patent disclose a safety device for substantially preventing 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 rotational direction. *See, e.g.*, '632 patent, Col. 11, lns. 25-34; Col. 12, ln. 67- Col. 13, ln. 4 ("In addition, the present invention substantially prevents a user from falling off the back of the treadmill and whereby serves to keep the user centered on the upper surface of the rotating belt without encumbering the natural body motion of the user exercising thereon.") *See, e.g.*, '455 patent, Col. 1, ln. 59- Col. 2, ln. 3 ("The one-way clutch is located within one of the tread supporting drums at the front of the treadmill housing. The clutch is of the type having a number of ramped pockets spaced evenly therearound and a corresponding number of needle clutch bearings located within respective pockets. As the clutch is rotated in a particular direction, the needle clutch bearings are forced to move in an opposite direction in their respective pockets so as to ride up ramped surfaces thereof at which to exert a frictional pulling force on the drum within which the one-way clutch is located. Accordingly, the front drum and the tread

	supported thereby are rotated in the same direction as the clutch."); Col. 3, lns. 20-25 ("More particularly, and referring concurrently to FIGS. 2-4 of the drawings, the one-way clutch 22 is of conventional design and includes a longitudinally extending shaft 24 and a plurality of (e.g. three) needle clutch bearings 26 that are seated within a corresponding plurality of pockets 28 that are spaced evenly around the clutch 22.").
12. The manually powered treadmill of claim 11, wherein the safety device includes a one-way bearing.	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill of claim 11, wherein the safety device includes a one-way bearing. *See, e.g.*, '632 patent, Col. 11, lns. 25-34; Col. 12, ln. 67- Col. 13, ln. 4 ("In addition, the present invention substantially prevents a user from falling off the back of the treadmill and whereby serves to keep the user centered on the upper surface of the rotating belt without encumbering the natural body motion of the user exercising thereon."). *See, e.g.*, '455 patent, Col. 1, ln. 59- Col. 2, ln. 3 ("The one-way clutch is located within one of the tread supporting drums at the front of the treadmill housing. The clutch is of the type having a number of ramped pockets spaced evenly therearound and a corresponding number of needle clutch bearings located within respective pockets. As the clutch is rotated in a particular direction, the needle clutch bearings are forced to move in an opposite direction in their respective pockets so as to ride up ramped surfaces thereof at which to exert a frictional pulling force on the drum within which the one-way clutch is located. Accordingly, the front drum and the tread supported thereby are rotated in the same direction as the clutch."); Col. 3, lns. 20-25 ("More particularly, and referring concurrently to FIGS. 2-4 of the drawings, the one-way clutch 22 is of conventional design and includes a longitudinally extending shaft 24 and a plurality of (e.g. three) needle clutch bearings 26 that are seated within a corresponding plurality of pockets 28 that are spaced evenly around the clutch 22.").

Page 1977 of 2517

13. The manually powered treadmill of claim 11, further comprising a pair of wheels mounted to the frame, wherein the pair of wheels are mounted so that the pair of wheels are not in contact with the ground surface when the manually powered treadmill is in an operating position.	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill of claim 11, further comprising a pair of wheels mounted to the frame, wherein the pair of wheels are mounted so that the pair of wheels are not in contact with the ground surface when the manually powered treadmill is in an operating position. *See, e.g.*, '632 patent, Col. 9, lns. 5-8 ("The foot roller assembly 38 preferably includes one or more wheels 42 rotatably connected thereto in such a manner so as to provide a means for readily moving the curved deck treadmill 10.").
14. The manually powered treadmill of claim 11, further comprising support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface.	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill of claim 11, further comprising support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface. *See, e.g.*, '632 patent, Col. 9, lns. 16-18 ("The force absorbing member 40 may also include a means for stabilizing the curved deck treadmill 10 at an elevated position so as to provide a means for inclining the front end 24 of the support frame 12 for increasing user workout.").
18. The manually powered treadmill of claim 11, wherein each of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft.	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill of claim 11, wherein each of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft. *See, e.g.*, '632 patent, Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive

LIFECORE Ex. 1002

Page 1978 of 2517

	principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
19. A manually powered treadmill, comprising:	This is a preamble, not entitled to any weight. Nevertheless, the '632 patent discloses a manually operated treadmill. *See, e.g.*, '632 patent, Col. 1, lns. 64-66; claim 1 as compared with dependent claim 3; Col. 11, lns. 26-28 ("In an alternate embodiment, the curved deck treadmill 10 or the present invention may be implemented without a driving means engageably disposed to a roller in order to facilitate the forced rotation of the belt 16"). The '455 patent also discloses a manually operated treadmill. *See, e.g.*, '455 patent. Col. 1, lns 7, 34 ("fully self-propelled treadmill").
a frame having a front end and a rear end;	The Socwell patent in combination with the Haber patent disclose a frame having a front end and a rear end. *See, e.g.*, '632 patent, Col. 4, lns. 61-64 ("As shown, the curved deck treadmill 10 comprises a support frame 12 having a first side 20 and a second opposing side 22 and having a deck 56 supportably disposed therebetween. In preferred construction, the deck 56 comprises a first end 58, a second end 60, and an intermediate portion 62 disposed therebetween."); Col. 13, lns. 5-10 ("the curved deck treadmill of the present invention comprises a first end and a second end disposed substantially parallel in dimensional relationship and including a deck having an intermediate portion disposed therebetween comprising a substantially arcuate longitudinal configuration which is disposed lower in dimensional relation to the first and second ends"); Figs. 1, 2.
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Socwell patent in combination with the Haber patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16

LIFECORE Ex. 1002

	in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Socwell patent in combination with the Haber patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as

	shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
a handrail attached to the frame and structured to provide a support structure for a user of the manually powered treadmill;	The Socwell patent in combination with the Haber patent disclose a handrail attached to the frame and structured to provide a support structure for a user of the manually powered treadmill. *See, e.g.*, '632 patent, Col. 12, lns. 15-26 ("The handles 134, 144 may be constructed of any suitable rigid material. For example, the handles 134, 144 may be formed of a metal or metal alloy, wood, fiberglass, graphite, ceramic, plastic or any other suitable composite material. Additionally, the handles 134, 144 may include a gripping member (not shown) preferably disposed substantially adjacent the distal ends of the handles 134, 144 to enable a user to more easily grip the handle. In particular, a rubber grip may be disposed in relation to the distal end 138 of the handle 134, 144 and positioned so that a user may grasp the gripping member of the handle 134, 144 when exercising.").

a pair of wheels mounted to the frame, wherein the pair of wheels are mounted so that the pair of wheels are not in contact with a ground surface when the manually powered treadmill is in an operating position;	The Socwell patent in combination with the Haber patent disclose a pair of wheels mounted to the frame, wherein the pair of wheels are mounted so that the pair of wheels are not in contact with a ground surface when the manually powered treadmill is in an operating position. *See, e.g.*, '632 patent, Col. 9, lns. 5-8 ("The foot roller assembly 38 preferably includes one or more wheels 42 rotatably connected thereto in such a manner so as to provide a means for readily moving the curved deck treadmill 10.").
at least two support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface;	The Socwell patent in combination with the Haber patent disclose at least two support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface. *See, e.g.*, '632 patent, Col. 9, lns. 16-18 ("The force absorbing member 40 may also include a means for stabilizing the curved deck treadmill 10 at an elevated position so as to provide a means for inclining the front end 24 of the support frame 12 for increasing user workout.").
a running belt supported by the first and second bearing rails, wherein the running belt follows a curved running surface	The Socwell patent in combination with the Haber patent disclose a running belt supported by the first and second bearing rails, wherein the running belt follows a curved running surface. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Figs. 2, 4.

and a safety device coupled to the frame and operatively coupled to the running belt, wherein the safety device is structured to substantially prevent movement of the running belt in a first direction and permit movement of the running belt in a second direction opposite the first direction.	The Socwell patent in combination with the Haber patent disclose a safety device coupled to the frame and operatively coupled to the running belt, wherein the safety device is structured to substantially prevent movement of the running belt in a first direction and permit movement of the running belt in a second direction opposite the first direction. *See, e.g.*, '632 patent, Col. 11, lns. 25-34; Col. 12, ln. 67- Col. 13, ln. 4 ("In addition, the present invention substantially prevents a user from falling off the back of the treadmill and whereby serves to keep the user centered on the upper surface of the rotating belt without encumbering the natural body motion of the user exercising thereon."). *See, e.g.*, '455 patent, Col. 1, ln. 59- Col. 2, ln. 3 ("The one-way clutch is located within one of the tread supporting drums at the front of the treadmill housing. The clutch is of the type having a number of ramped pockets spaced evenly therearound and a corresponding number of needle clutch bearings located within respective pockets. As the clutch is rotated in a particular direction, the needle clutch bearings are forced to move in an opposite direction in their respective pockets so as to ride up ramped surfaces thereof at which to exert a frictional pulling force on the drum within which the one-way clutch is located. Accordingly, the front drum and the tread supported thereby are rotated in the same direction as the clutch."); Col. 3, lns. 20-25 ("More particularly, and referring concurrently to FIGS. 2-4 of the drawings, the one-way clutch 22 is of conventional design and includes a longitudinally extending shaft 24 and a plurality of (e.g. three) needle clutch bearings 26 that are seated within a corresponding plurality of pockets 28 that are spaced evenly around the clutch 22.")

LIFECORE Ex. 1002

20. The manually powered treadmill of claim 19, further comprising a sensor configured to acquire data indicative of a speed of the running belt.	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill of claim 19, further comprising a sensor configured to acquire data indicative of a speed of the running belt. *See, e.g.* '632 patent, Co. 11, lns. 54-64 ("In one presently preferred embodiment of the present invention, a console 132 is preferably mounted in relation to the cross-bar 130. Supportably disposed by the cross-bar 130, the console 132 may be mounted substantially above the support frame 12, the deck 56, and the belt 16 such that a user may view the information displayed on the console 132. The console 132 preferably comprises a processor, a display, and may include input keys for entering user programmable options. Similarly, the console 132 may provide a variety of feedback data, such as elapsed time, speed, distance, pulse rate, and/or other functions and features, as desired.").
21. The manually powered treadmill of claim 19, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member.	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill of claim 19, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member. *See, e.g.*, '632 patent, Col. 8, lns. 1-9 ("As shown in FIG. 4, the first side 20 of the support frame 12 may comprise one or more rib seats 30 disposed adjacent the deck slot 32. The rib seats 30 are preferably formed having an internal surface area sufficient for seating at least one end of a support rib 54 disposed therein. As best illustrated in FIG. 3, one or more support ribs 54 extend substantially transverse dimensionally between the first and second sides 20, 22 of the support frame 12. In preferred construction, the support ribs 54 provide a means for structurally supporting the deck 56.").
22. The manually powered treadmill of claim 21, wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member.	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill of claim 21, wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member. *See, e.g.*, '632 patent, Col. 10, lns. 55-63 ("Referring now to FIG. 5, the belt securing assembly 94 and the corresponding cover member

LIFECORE Ex. 1002

Page 1984 of 2517

LIFECORE Ex. 1002

	68 may be attached to the support frame 12 by a conventional fastening means. For example, in one presently preferred embodiment of the present invention, a bolt 118 may be disposed through an aperture 112 formed in the cover member 168 and at least one aperture 114 formed in a respective side 20, 22 of the support frame 12. Alternatively, the bolt 118 may be disposed through an aperture 116 formed in a support rib 54 which may further serve to secure the support rib 54 to the support frame 12.").
25. A method, comprising: providing a manually powered treadmill,	The Socwell patent in combination with the Haber patent disclose a method comprising providing a manually operated treadmill. *See, e.g.*, '632 patent, Col. 1, lns. 64-66; claim 1 as compared with dependent claim 3; Col. 11, lns. 26-28 ("In an alternate embodiment, the curved deck treadmill 10 or the present invention may be implemented without a driving means engageably disposed to a roller in order to facilitate the forced rotation of the belt 16").
the manually powered treadmill having a frame with a front end and rear end;	The Socwell patent in combination with the Haber patent disclose the manually powered treadmill having a frame with a front end and rear end. *See, e.g.*, '632 patent, Col. 4, lns. 61-64 ("As shown, the curved deck treadmill 10 comprises a support frame 12 having a first side 20 and a second opposing side 22 and having a deck 56 supportably disposed therebetween. In preferred construction, the deck 56 comprises a first end 58, a second end 60, and an intermediate portion 62 disposed therebetween."); Col. 13, lns. 5-10 ("the curved deck treadmill of the present invention comprises a first end and a second end disposed substantially parallel in dimensional relationship and including a deck having an intermediate portion disposed therebetween comprising a substantially arcuate longitudinal configuration which is disposed lower in dimensional relation to the first and second ends"); Figs. 1, 2.
providing a first bearing rail and a second bearing rail, the first and second bearing rails each comprising a plurality of bearings and extending longitudinally on the frame, wherein the first and second	The Socwell patent in combination with the Haber patent disclose providing a first bearing rail and a second bearing rail, the first and second bearing rails each comprising a plurality of bearings and

bearing rails define a curved top profile;	extending longitudinally on the frame, wherein the first and second bearing rails define a curved top profile. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails;	The Socwell patent in combination with the Haber patent disclose disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails. *See, e.g.*, '632 patent Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing

LIFECORE Ex. 1002

Page 1986 of 2517

	assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Figs. 2, 4.
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.	The Socwell patent in combination with the Haber patent disclose 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. *See, e.g.*, '632 patent, Col. 11, lns. 25-34; Col. 12, ln. 67- Col. 13, ln. 4 ("In addition, the present invention substantially prevents a user from falling off the back of the treadmill and whereby serves to keep the user centered on the upper surface of the rotating belt without encumbering the natural body motion of the user exercising thereon.") *See, e.g.*, '455 patent, Col. 1, ln. 59- Col. 2, ln. 3 ("The one-way clutch is located within one of the tread supporting drums at the front of the treadmill housing. The clutch is of the type having a number of ramped pockets spaced evenly therearound and a corresponding number of needle clutch bearings located within respective pockets. As the clutch is rotated in a particular direction, the needle clutch bearings are forced to move in an opposite direction in their respective pockets so as to ride up ramped surfaces thereof at which to exert a frictional pulling force on the drum within which the one-way clutch is located. Accordingly, the front drum and the tread supported thereby are rotated in the same direction as the clutch."); Col. 3, lns. 20-25 ("More particularly, and referring concurrently to FIGS. 2-4 of the drawings, the one-way clutch 22 is of conventional design and includes a longitudinally extending shaft 24 and a plurality of (e.g. three) needle clutch bearings 26 that are seated

LIFECORE Ex. 1002

	within a corresponding plurality of pockets 28 that are spaced evenly around the clutch 22.")

Exhibit G

Page 1989 of 2517

EXHIBIT G

U.S. Patent Nos. 5,538,489 and 5,709,632 Invalidate Asserted Claims 1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 18, 19, 20, 21, 22, and 25 of U.S. Patent No. 9,039,580

Claims 1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 18, 19, 20, 21, 22, and 25 of U.S. Patent No. 9,039,580 ("the '580 patent") are invalid as anticipated and/or obvious in view of U.S. Patent No. 5,538,489 ("the '489 patent") to Magid in combination with U.S. Patent No. 5,709,632 ("the '632 patent") to Socwell. The '489 patent was filed on July 19, 1994 and issued on July 23, 1996; the '632 Patent was filed on September 27, 1996 and issued on January 20, 1998. The '489 patent and the '632 patent are available as prior art against the '580 patent under at least 35 U.S.C. § 103.

These Invalidity Contentions, in part, utilize Woodway's interpretations of the '580 patent claims, to the extent those interpretations can be discerned from Woodway's Preliminary Infringement Contentions in this case. Plaintiffs disagree with Woodway's application and interpretation of the claims, and these Invalidity Contentions are not, and should not be construed as, an endorsement or acceptance of any of Woodway's contentions or interpretations of the '580 patent claims nor as an admission with respect to any claim or claim limitation. Plaintiffs expressly reserve the right to propose alternative constructions to those advocated by Woodway and to contest Woodway's proffered claim interpretations.

Claims of the 9,039,580 Patent	'489 patent (Magid) and '632 patent (Socwell)
1. A manually powered treadmill comprising:	This is a preamble, not entitled to any weight. Nevertheless, the '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). The '632 patent also discloses a manually operated treadmill. *See, e.g.*, '632 patent, Col. 1, lns. 64-66; claim 1 as compared with dependent claim 3; Col. 11, lns. 26-28 ("In an alternate embodiment, the curved deck treadmill 10 or the present invention may be implemented without a driving means engageably disposed to a roller in order to facilitate the forced rotation of the belt 16").

LIFECORE Ex. 1002

a frame having a front end and a rear end positioned opposite the front end;	The Magid patent in combination with the Socwell patent disclose a frame having a front end and a rear end positioned opposite the front end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '632 patent, Col. 4, lns. 61-64 ("As shown, the curved deck treadmill 10 comprises a support frame 12 having a first side 20 and a second opposing side 22 and having a deck 56 supportably disposed therebetween. In preferred construction, the deck 56 comprises a first end 58, a second end 60, and an intermediate portion 62 disposed therebetween."); Col. 13, lns. 5-10 ("the curved deck treadmill of the present invention comprises a first end and a second end disposed substantially parallel in dimensional relationship and including a deck having an intermediate portion disposed therebetween comprising a substantially arcuate longitudinal configuration which is disposed lower in dimensional relation to the first and second ends"); Figs. 1, 2.
a front shaft rotatably coupled to the frame at the front end;	The Magid patent in combination with the Socwell patent disclose a front shaft rotatably coupled to the frame at the front end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately

	on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1. *See, e.g.*, '632 patent, Col. 5, lns. 4-7 ("Further, a roller assembly 14 is provided preferably comprising a first and second roller 78, 86. The first roller 78 may be rotatably disposed contiguous the first end 58 of the deck 56 between the first side 20 and the second opposing side 22 of the support frame 12."); claim 1 ("a roller assembly rotatably disposed in operable relation to said support frame").
a rear shaft rotatably coupled to the frame at the rear end;	The Magid patent in combination with the Socwell patent disclose a rear shaft rotatably coupled to the frame at the rear end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1. *See, e.g.*, '632 patent, Col. 5, lns. 8-12 ("Correspondingly similar in construction and design, a second roller 86 is preferably disposed contiguous the second end 60 of the deck 56 between the first and second sides 20, 22 of the support frame 12").
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Magid patent in combination with the Socwell patent disclose a first bearing rail having a plurality of bearings, the first bearing rail

LIFECORE Ex. 1002

	attached to a left side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art

	may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Magid patent in combination with the Socwell patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred

LIFECORE Ex. 1002

	operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
a running belt supported by the first bearing rail and the second bearing rail and disposed about the front shaft and the rear shaft, wherein the running belt follows a curved running surface; and	The Magid patent in combination with the Socwell patent disclose a running belt supported by the first bearing rail and the second bearing rail and disposed about the front shaft and the rear shaft, wherein the running belt follows a curved running surface. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Figs. 2, 4.
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 rotational direction.	The Magid patent in combination with the Socwell patent disclose 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 rotational direction. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the

LIFECORE Ex. 1002

	front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '632 patent, Col. 11, lns. 25-34; Col. 12, ln. 67- Col. 13, ln. 4 ("In addition, the present invention substantially prevents a user from falling off the back of the treadmill and whereby serves to keep the user centered on the upper surface of the rotating belt without encumbering the natural body motion of the user exercising thereon.")
2. The manually powered treadmill of claim 1, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member.	The Magid patent in combination with the Socwell patent disclose the manually powered treadmill of claim 1, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member. *See, e.g.*, '489 patent, Col. 4, lns. 17-24 ("The base 11 has a pair of spaced front brackets 12 disposed adjacent to front left and right sides of the base 11, a first shaft 411 which extends from the front left side to the front right side and which has two ends fixed respectively to the front brackets 12, a pair of spaced rear brackets 13 disposed adjacent to rear left and right sides of the base 11, and a second shaft 421 which extends from the rear left side to the rear right side and which has two ends secured on the rear brackets 13."). *See, e.g.*, '632 patent, Col. 8, lns. 1-9 ("As shown in FIG. 4, the first side 20 of the support frame 12 may comprise one or more rib seats 30 disposed adjacent the deck slot 32. The rib seats 30 are preferably formed having an internal surface area sufficient for seating at least one end of a support rib 54 disposed therein. As best illustrated in

	FIG. 3, one or more support ribs 54 extend substantially transverse dimensionally between the first and second sides 20, 22 of the support frame 12. In preferred construction, the support ribs 54 provide a means for structurally supporting the deck 56.")
3. The manually powered treadmill of claim 2, wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member.	The Magid patent in combination with the Socwell patent disclose the manually powered treadmill of claim 2, wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member. *See, e.g.*, '489 patent, Col. 8, ln. 58- Col. 9, ln. 18 ("The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26, 26' is mounted rotatably on a respective one of the third shafts 27. A spacer 271 is provided on the central portion of each of the third shafts 26 to space apart the left and right rollers 26, 26' thereon. Each of the intermediate right rollers 26' contacts the right foot belt 4', while each of the intermediate left rollers 26 contacts the left foot belt 4. The rollers 26, 26' thus provide a supporting surface for the foot belts 4, 4'. When the user applies a moving weight, such as his left and right feet, on the left and right foot belts 4, 4' between the pair of front rollers 41 and the pair of rear rollers 42, the foot belts 4, 4' will drive frictionally the rollers 26, 26' and the rollers 41, 42. Each of the third shafts 27 further has two opposite end portions provided with a pair of retailers 27a to limit lateral movement of the intermediate left and right rollers 26, 26' thereon. Like the previous embodiment, the walker apparatus of the second preferred embodiment can also be installed with any of the previously described functional supporting frames 1a, 1b, 1c, 1d. The operation of the second preferred embodiment is substantially similar to that of the previous embodiment and will not be detailed further."). *See, e.g.*, '632 patent, Col. 10, lns. 55-63 ("Referring now to FIG. 5, the belt securing assembly 94 and the corresponding cover member

LIFECORE Ex. 1002

	68 may be attached to the support frame 12 by a conventional fastening means. For example, in one presently preferred embodiment of the present invention, a bolt 118 may be disposed through an aperture 112 formed in the cover member 168 and at least one aperture 114 formed in a respective side 20, 22 of the support frame 12. Alternatively, the bolt 118 may be disposed through an aperture 116 formed in a support rib 54 which may further serve to secure the support rib 54 to the support frame 12.")
4. The manually powered treadmill of claim 1, wherein each one of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft.	The Magid patent in combination with the Socwell patent disclose the manually powered treadmill of claim 1, wherein each one of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '632 patent, Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive

	principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
5. The manually powered treadmill of claim 1, wherein each one of the first bearing rail and the second bearing rail define in part a top profile corresponding to the curved running surface.	The Magid patent in combination with the Socwell patent disclose the manually powered treadmill of claim 1, wherein each one of the first bearing rail and the second bearing rail define in part a top profile corresponding to the curved running surface. *See, e.g.*, '489, Fig. 9. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Figs. 2, 4.
6. The manually powered treadmill of claim 1, wherein the safety device includes a one-way bearing.	The Magid patent in combination with the Socwell patent disclose the manually powered treadmill of claim 1, wherein the safety device includes a one-way bearing. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to

	release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '632 patent, Col. 11, lns. 25-34; Col. 12, ln. 67- Col. 13, ln. 4 ("In addition, the present invention substantially prevents a user from falling off the back of the treadmill and whereby serves to keep the user centered on the upper surface of the rotating belt without encumbering the natural body motion of the user exercising thereon.").
10. The manually powered treadmill of claim 1, further comprising a handrail attached to the frame and structured to provide a support structure for the user of the manually powered treadmill.	The Magid patent in combination with the Socwell patent the manually powered treadmill of claim 1, further comprising a handrail attached to the frame and structured to provide a support structure for the user of the manually powered treadmill. *See, e.g.*, '489 patent, Col. 3, lns. 44-58 ("Referring once more to FIG. 2, the base 11 is attachable to a functional supporting frame 1a. In this embodiment, the functional supporting frame 1a comprises a pair of handrails 14 mounted on opposite longitudinal sides of the base 11 to permit use of the walker apparatus as an exercise walker."). *See, e.g.*, '632 patent, Col. 12, lns. 15-26 ("The handles 134, 144 may be constructed of any suitable rigid material. For example, the handles 134, 144 may be formed of a metal or metal alloy, wood, fiberglass, graphite, ceramic, plastic or any other suitable composite material. Additionally, the handles 134, 144 may include a gripping member (not shown) preferably disposed substantially adjacent the distal ends of the handles 134, 144 to enable a user to more easily grip the handle. In particular, a rubber grip may be disposed in relation to the distal end 138 of the handle 134, 144 and positioned so that a user may grasp the gripping member of the handle 134, 144 when exercising.").
11. A manually powered treadmill, comprising:	This is a preamble, not entitled to any weight.

	Nevertheless, '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). The '632 patent also discloses a manually operated treadmill. *See, e.g.*, '632 patent, Col. 1, lns. 64-66; claim 1 as compared with dependent claim 3; Col. 11, lns. 26-28 ("In an alternate embodiment, the curved deck treadmill 10 or the present invention may be implemented without a driving means engageably disposed to a roller in order to facilitate the forced rotation of the belt 16").
a frame having a front end and a rear end positioned opposite the front end;	The Magid patent in combination with the Socwell patent disclose a frame having a front end and a rear end positioned opposite the front end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '632 patent, Col. 4, lns. 61-64 ("As shown, the curved deck treadmill 10 comprises a support frame 12 having a first side 20 and a second opposing side 22 and having a deck 56 supportably disposed therebetween. In preferred construction, the deck 56 comprises a first end 58, a second end 60, and an intermediate portion 62 disposed therebetween."); Col. 13, lns. 5-10 ("the curved deck treadmill of the present invention comprises a first end and a second end disposed substantially parallel in dimensional relationship and including a deck having an intermediate portion disposed therebetween comprising a substantially arcuate longitudinal configuration which is disposed lower in dimensional relation to the first and second ends"); Figs. 1, 2.

LIFECORE Ex. 1002

a front shaft attached to the frame adjacent the front end;	The Magid patent in combination with the Socwell patent disclose a front shaft attached to the frame adjacent the front end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1. *See, e.g.*, '632 patent, Col. 3, lns. 4-7 ("Farther, a roller assembly 14 is provided preferably comprising a first and second roller 78, 86. The first roller 78 may be rotatably disposed contiguous the first end 58 of the deck 56 between the first side 20 and the second opposing side 22 of the support frame 12."); claim 14 ("a first roller rotatably disposed in relation to said first side and said second side of said support frame, said first roller disposed contiguous said first end of said support frame.").
a rear shaft attached to the frame adjacent the rear end;	The Magid patent in combination with the Socwell patent disclose a rear shaft attached to the frame adjacent the rear end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably

	on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."). *See, e.g.*, '632 patent, Col. 5, lns. 4-7 ("Further, a roller assembly 14 is provided preferably comprising a first and second roller 78, 86. The first roller 78 may be rotatably disposed contiguous the first end 58 of the deck 56 between the first side 20 and the second opposing side 22 of the support frame 12."); claim 14 ("a first roller rotatably disposed in relation to said first side and said second side of said support frame, said first roller disposed contiguous said first end of said support frame.").
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Magid patent in combination with the Socwell patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing

	assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Magid patent in combination with the Socwell patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of

LIFECORE Ex. 1002

	intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
a running belt at least partially disposed about the front shaft and the rear shaft and at least partially supported by the first bearing rail and the second bearing rail,	The Magid patent in combination with the Socwell patent disclose a running belt at least partially disposed about the front shaft and the rear shaft and at least partially supported by the first bearing rail and the second bearing rail. *See, e.g.*, '489 patent, Col. 6, lns. 47-64 ("Referring to FIGS. 8 and 9, the second preferred embodiment of a walker apparatus according to the present invention is shown to similarly comprise a base 11, a pair

LIFECORE Ex. 1002

	of front rollers 41, a pair of rear rollers 42, endless left and right foot belts 4, 4', and a support unit. The main difference between the first and second embodiments resides in the configuration of the support unit. In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26.").
	See, e.g., '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art

	may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
wherein the running belt includes a front belt portion proximate the front end, a rear belt portion proximate the rear end, and a central belt portion intermediate the front and rear belt	The Magid patent in combination with the Socwell patent disclose an apparatus wherein the running belt includes a front belt portion proximate the front end, a rear belt portion proximate the rear end, and a central belt portion intermediate the front and rear belt. *See, e.g.*, '489 patent, Fig. 8. *See, e.g.*, '632 patent Col. 4, lns. 5-17 ("Further, a roller assembly is provided preferably comprising a first and second roller. The first roller may be rotatably disposed contiguous the first end of the deck between the first side and the second side of the support frame. Correspondingly similar in construction and design, a second roller is preferably disposed contiguous the second end of the deck between the first and second sides of the support frame. In operation, an endless belt may be rotatably mounted in relation to the roller assembly and operatively disposed in relation to the deck, whereby providing a structurally supported arcuate shaped, moveable surface on which a user may exercise"); Col. 7, lns. 16-21 ("In accordance with one preferred arrangement, the belt 16 is rotatably disposed in relation to the first roller 78, the second roller 86, and the third roller 88, whereby each roller 78, 86, 88 is preferably disposed in structural relation to the support frame 12 at their respectively preferred positions, as disclosed above."); Col. 13, lns. 5-10 ("the curved deck treadmill of the present invention comprises a first end and a second end disposed substantially parallel in dimensional relationship and including a deck having an intermediate portion disposed therebetween comprising a substantially arcuate longitudinal configuration which is disposed lower in dimensional relation to the first and second ends"); Figs. 1, 3.

wherein the central belt portion is positioned vertically closer to a ground surface supporting the frame than the front and rear belt portions such that the running belt follows a curved running surface;	The Magid patent in combination with the Socwell patent disclose an apparatus wherein the central belt portion is positioned vertically closer to a ground surface supporting the frame than the front and rear belt portions such that the running belt follows a curved running surface. *See e.g.*, '632 patent, Col. 3, lns. 39-50 ("It is a still further object of the present invention to provide a curved deck treadmill which substantially prevents a user from falling off the back end of the treadmill and whereby serving to keep the user centered on the upper surface of the treadmill without encumbering the natural body motion of the user exercising thereon. In addition, it is an object of the present invention to provide a curved deck treadmill which is capable of providing meaningful walking, jogging, or running comfort in relation to the physiology of a user, thereby facilitating an upper surface which supportably provides for a longer stride with more flexibility"); Col. 13, lns. 5-10 ("the curved deck treadmill of the present invention comprises a first end and a second end disposed substantially parallel in dimensional relationship and including a deck having an intermediate portion disposed therebetween comprising a substantially arcuate longitudinal configuration which is disposed lower in dimensional relation to the first and second ends").
and a safety device for substantially preventing 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 rotational direction.	The Magid patent in combination with the Socwell patent disclose a safety device for substantially preventing 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 rotational direction. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front

LIFECORE Ex. 1002

	rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '632 patent, Col. 11, lns. 25-34; Col. 12, ln. 67- Col. 13, ln. 4 ("In addition, the present invention substantially prevents a user from falling off the back of the treadmill and whereby serves to keep the user centered on the upper surface of the rotating belt without encumbering the natural body motion of the user exercising thereon.")
12. The manually powered treadmill of claim 11, wherein the safety device includes a one-way bearing.	The Magid patent in combination with the Socwell patent disclose the manually powered treadmill of claim 11, wherein the safety device includes a one-way bearing. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '632 patent, Col. 11, lns. 25-34; Col. 12, ln. 67- Col. 13, ln. 4 ("In addition, the present invention substantially prevents a user from falling off the back of the treadmill and whereby serves to keep the user centered on the upper surface of the rotating belt without encumbering the natural body motion of the user exercising

	thereon.")
13. The manually powered treadmill of claim 11, further comprising a pair of wheels mounted to the frame, wherein the pair of wheels are mounted so that the pair of wheels are not in contact with the ground surface when the manually powered treadmill is in an operating position.	The Magid patent in combination with the Socwell patent disclose the manually powered treadmill of claim 11, further comprising a pair of wheels mounted to the frame, wherein the pair of wheels are mounted so that the pair of wheels are not in contact with the ground surface when the manually powered treadmill is in an operating position. *See, e.g.*, '632 patent, Col. 9, lns. 5-8 ("The foot roller assembly 38 preferably includes one or more wheels 42 rotatably connected thereto in such a manner so as to provide a means for readily moving the curved deck treadmill 10.")
14. The manually powered treadmill of claim 11, further comprising support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface.	The Magid patent in combination with the Socwell patent disclose the manually powered treadmill of claim 11, further comprising support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface. *See, e.g.*, '632 patent, Col. 9, lns. 16-18 ("The force absorbing member 40 may also include a means for stabilizing the curved deck treadmill 10 at an elevated position so as to provide a means for inclining the front end 24 of the support frame 12 for increasing user workout.").
18. The manually powered treadmill of claim 11, wherein each of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft.	The Magid patent in combination with the Socwell patent disclose the manually powered treadmill of claim 11, wherein each of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of

	intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '632 patent, Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
19. A manually powered treadmill, comprising:	This is a preamble, not entitled to any weight. Nevertheless, the '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). The '632 patent also discloses a manually operated treadmill. *See, e.g.*, '632 patent, Col. 1, lns. 64-66; claim 1 as compared with dependent claim 3; Col. 11, lns. 26-28 ("In an alternate embodiment, the curved deck treadmill 10 or the present invention may be implemented without a driving means engageably disposed to a roller in order to facilitate the forced rotation of the belt 16").

Page 2011 of 2517

a frame having a front end and a rear end;	The Magid patent in combination with the Socwell patent disclose a frame having a front end and a rear end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '632 patent, Col. 4, lns. 61-64 ("As shown, the curved deck treadmill 10 comprises a support frame 12 having a first side 20 and a second opposing side 22 and having a deck 56 supportably disposed therebetween. In preferred construction, the deck 56 comprises a first end 58, a second end 60, and an intermediate portion 62 disposed therebetween."); Col. 13, lns. 5-10 ("the curved deck treadmill of the present invention comprises a first end and a second end disposed substantially parallel in dimensional relationship and including a deck having an intermediate portion disposed therebetween comprising a substantially arcuate longitudinal configuration which is disposed lower in dimensional relation to the first and second ends"); Figs. 1, 2.
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Magid patent in combination with the Socwell patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9.

LIFECORE Ex. 1002

Page 2012 of 2517

	See, e.g., '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention."). The Magid patent in combination with the Socwell patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side
a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	

LIFECORE Ex. 1002

	brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").

a handrail attached to the frame and structured to provide a support structure for a user of the manually powered treadmill;	The Magid patent in combination with the Socwell patent disclose a handrail attached to the frame and structured to provide a support structure for a user of the manually powered treadmill. *See, e.g.*, '489 patent, Col. 5, lns. 44-58 ("Referring once more to FIG. 2, the base 11 is attachable to a functional supporting frame 1a. In this embodiment, the functional supporting frame 1a comprises a pair of handrails 14 mounted on opposite longitudinal sides of the base 11 to permit use of the walker apparatus as an exercise walker."). *See, e.g.*, '632 patent, Col. 12, lns. 15-26 ("The handles 134, 144 may be constructed of any suitable rigid material. For example, the handles 134, 144 may be formed of a metal or metal alloy, wood, fiberglass, graphite, ceramic, plastic or any other suitable composite material. Additionally, the handles 134, 144 may include a gripping member (not shown) preferably disposed substantially adjacent the distal ends of the handles 134, 144 to enable a user to more easily grip the handle. In particular, a rubber grip may be disposed in relation to the distal end 138 of the handle 134, 144 and positioned so that a user may grasp the gripping member of the handle 134, 144 when exercising.").
a pair of wheels mounted to the frame, wherein the pair of wheels are mounted so that the pair of wheels are not in contact with a ground surface when the manually powered treadmill is in an operating position;	The Magid patent in combination with the Socwell patent disclose a pair of wheels mounted to the frame, wherein the pair of wheels are mounted so that the pair of wheels are not in contact with a ground surface when the manually powered treadmill is in an operating position. *See, e.g.*, '632 patent, Col. 9, lns. 5-8 ("The foot roller assembly 38 preferably includes one or more wheels 42 rotatably connected thereto in such a manner so as to provide a means for readily moving the curved deck treadmill 10.")

at least two support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface;	The Magid patent in combination with the Socwell patent disclose at least two support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface. *See, e.g.*, '632 patent, Col. 9, lns. 16-18 ("The force absorbing member 40 may also include a means for stabilizing the curved deck treadmill 10 at an elevated position so as to provide a means for inclining the front end 24 of the support frame 12 for increasing user workout.").
a running belt supported by the first and second bearing rails, wherein the running belt follows a curved running surface	The Magid patent in combination with the Socwell patent disclose a running belt supported by the first and second bearing rails, wherein the running belt follows a curved running surface. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Figs. 2, 4.
and a safety device coupled to the frame and operatively coupled to the running belt, wherein the safety device is structured to substantially prevent movement of the running belt in a first direction and permit movement of the running belt in a second direction opposite the first direction.	The Magid patent in combination with the Socwell patent disclose a safety device coupled to the frame and operatively coupled to the running belt, wherein the safety device is structured to substantially prevent movement of the running belt in a first direction and permit movement of the running belt in a second direction opposite the first direction. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the

Page 2016 of 2517

	front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '632 patent, Col. 11, lns. 25-34; Col. 12, ln. 67- Col. 13, ln. 4 ("In addition, the present invention substantially prevents a user from falling off the back of the treadmill and whereby serves to keep the user centered on the upper surface of the rotating belt without encumbering the natural body motion of the user exercising thereon.")
20. The manually powered treadmill of claim 19, further comprising a sensor configured to acquire data indicative of a speed of the running belt.	The Magid patent in combination with the Socwell patent the manually powered treadmill of claim 19, further comprising a sensor configured to acquire data indicative of a speed of the running belt. *See, e.g.*, '632 patent, Co. 11, lns. 54-64 ("In one presently preferred embodiment of the present invention, a console 132 is preferably mounted in relation to the cross-bar 130. Supportably disposed by the cross-bar 130, the console 132 may be mounted substantially above the support frame 12, the deck 56, and the belt 16 such that a user may view the information displayed on the console 132. The console 132 preferably comprises a processor, a display, and may include input keys for entering user programmable options. Similarly, the console 132 may provide a variety of feedback data, such as elapsed time, speed, distance, pulse rate, and/or other functions and features, as desired.").

LIFECORE Ex. 1002

21. The manually powered treadmill of claim 19, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member.	The Magid patent in combination with the Socwell patent discloses the manually powered treadmill of claim 19, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member. *See, e.g.*, '489 patent, Col. 4, lns. 17-24 ("The base 11 has a pair of spaced front brackets 12 disposed adjacent to front left and right sides of the base 11, a first shaft 411 which extends from the front left side to the front right side and which has two ends fixed respectively to the front brackets 12, a pair of spaced rear brackets 13 disposed adjacent to rear left and right sides of the base 11, and a second shaft 421 which extends from the rear left side to the rear right side and which has two ends secured on the rear brackets 13."). *See, e.g.*, '632 patent, Col. 8, lns. 1-9 ("As shown in FIG. 4, the first side 20 of the support frame 12 may comprise one or more rib seats 30 disposed adjacent the deck slot 32. The rib seats 30 are preferably formed having an internal surface area sufficient for seating at least one end of a support rib 54 disposed therein. As best illustrated in FIG. 3, one or more support ribs 54 extend substantially transverse dimensionally between the first and second sides 20, 22 of the support frame 12. In preferred construction, the support ribs 54 provide a means for structurally supporting the deck 56.")
22. The manually powered treadmill of claim 21, wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member.	The Magid patent in combination with the Socwell patent discloses the manually powered treadmill of claim 21, wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member. *See, e.g.*, '489 patent, Col. 8, ln. 58- Col. 9, ln. 18 ("The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26, 26' is mounted rotatably on a respective one of the third shafts 27. A spacer 271 is provided on the central portion of

Page 2018 of 2517

	each of the third shafts 26 to space apart the left and right rollers 26, 26' thereon. Each of the intermediate right rollers 26' contacts the right foot belt 4', while each of the intermediate left rollers 26 contacts the left foot belt 4. The rollers 26, 26' thus provide a supporting surface for the foot belts 4, 4'. When the user applies a moving weight, such as his left and right feet, on the left and right foot belts 4, 4' between the pair of front rollers 41 and the pair of rear rollers 42, the foot belts 4, 4' will drive frictionally the rollers 26, 26' and the rollers 41, 42. Each of the third shafts 27 further has two opposite end portions provided with a pair of retailers 27a to limit lateral movement of the intermediate left and right rollers 26, 26' thereon. Like the previous embodiment, the walker apparatus of the second preferred embodiment can also be installed with any of the previously described functional supporting frames Ia, Ib, Ic, Id. The operation of the second preferred embodiment is substantially similar to that of the previous embodiment and will not be detailed further.") *See, e.g.*, '632 patent, Col. 10, lns. 55-63 ("Referring now to FIG. 5, the belt securing assembly 94 and the corresponding cover member 68 may be attached to the support frame 12 by a conventional fastening means. For example, in one presently preferred embodiment of the present invention, a bolt 118 may be disposed through an aperture 112 formed in the cover member 168 and at least one aperture 114 formed in a respective side 20, 22 of the support frame 12. Alternatively, the bolt 118 may be disposed through an aperture 116 formed in a support rib 54 which may further serve to secure the support rib 54 to the support frame 12.")
25. A method, comprising: providing a manually powered treadmill,	The Magid patent in combination with the Socwell patent disclose a method comprising providing a manually operated treadmill. *See, e.g.* '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move.").

LIFECORE Ex. 1002

the manually powered treadmill having a frame with a front end and rear end;	The Magid patent in combination with the Socwell patent disclose the manually powered treadmill having a frame with a front end and rear end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '632 patent, Col. 4, lns. 61-64 ("As shown, the curved deck treadmill 10 comprises a support frame 12 having a first side 20 and a second opposing side 22 and having a deck 56 supportably disposed therebetween. In preferred construction, the deck 56 comprises a first end 58, a second end 60, and an intermediate portion 62 disposed therebetween."); Col. 13, lns. 5-10 ("the curved deck treadmill of the present invention comprises a first end and a second end disposed substantially parallel in dimensional relationship and including a deck having an intermediate portion disposed therebetween comprising a substantially arcuate longitudinal configuration which is disposed lower in dimensional relation to the first and second ends"); Figs. 1, 2.
providing a first bearing rail and a second bearing rail, the first and second bearing rails each comprising a plurality of bearings and extending longitudinally on the frame, wherein the first and second bearing rails define a curved top profile;	The Magid patent in combination with the Socwell patent disclose providing a first bearing rail and a second bearing rail, the first and second bearing rails each comprising a plurality of bearings and extending longitudinally on the frame, wherein the first and second bearing rails define a curved top profile. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as

	shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Col. 9, ln. 57- Col. 10, ln. 4 ("In one presently preferred embodiment of the present invention, the belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96. The mounting bracket 96 is preferably disposed in relation to the roller 98 such that the roller 98 may engage the belt 16, thereby substantially retaining a side portion of the belt 16 substantially flush with the deck 56. In preferred operation, as the belt 16 rotates in relation to the roller assembly 14, the rollers 98 of the belt securing assembly 94 preferably rotate in relation thereto. It will be apparent that other belt securing mechanisms may be constructed in accordance with the inventive principles set forth herein. Correspondingly, those skilled in the art may recognize other possible modifications and/or adaptations which are consistent with the spirit and scope of the present invention.").
disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails;	The Magid patent in combination with the Socwell patent disclose disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails. *See, e.g.*, '632 patent, Col. 9, lns. 44-56 ("Referring now to FIG. 5, the curved deck treadmill 10 may include one or more belt securing assemblies 94 which provide a means for retaining the endless belt 16 in a curvilinear configuration being substantially flush with the upper surface 66 of the deck 56. Preferably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration of the intermediate portion 62 of the deck 56. In design, one or more belt securing assemblies 94 may be disposed in spaced-apart relation along the upper surface 66 of the intermediate portion 62 of the deck 56, as shown in FIG. 2, to sufficiently retain the belt 16 in operable disposition to the deck 56"); Figs. 2, 4.
permitting movement of the running belt in a first direction; and substantially preventing movement of the running belt in a second	The Magid patent in combination with the Socwell patent disclose permitting movement of the running belt in a first direction; and

direction opposite the first direction.	substantially preventing movement of the running belt in a second direction opposite the first direction. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '632 patent, Col. 11, lns. 25-34; Col. 12, ln. 67- Col. 13, ln. 4 ("In addition, the present invention substantially prevents a user from falling off the back of the treadmill and whereby serves to keep the user centered on the upper surface of the rotating belt without encumbering the natural body motion of the user exercising thereon.").

Exhibit H

EXHIBIT H

U.S. Patent Nos. 5,538,489 and 3,642,279 Invalidate Asserted Claims 1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 18, 19, 21, 22, and 25 of U.S. Patent No. 9,039,580

Claims 1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 18, 19, 21, 22, and 25 of U.S. Patent No. 9,039,580 ("the '580 patent") are invalid as anticipated and/or obvious in view of U.S. Patent No. 5,538,489 ("the '489 patent") to Magid in combination with U.S. Patent No. 3,642,279 ("the '279 patent") to Cutter. The '489 patent was filed on July 19, 1994 and issued on July 23, 1996; the '279 patent was filed on February 11, 1970 and issued on February 15, 1972. The '489 patent and the '279 patent are available as prior art against the '580 patent under at least 35 U.S.C. § 103.

These Invalidity Contentions, in part, utilize Woodway's interpretations of the '580 patent claims, to the extent those interpretations can be discerned from Woodway's Preliminary Infringement Contentions in this case. Plaintiffs disagrees with Woodway's application and interpretation of the claims, and these Invalidity Contentions are not, and should not be construed as, an endorsement or acceptance of any of Woodway's contentions or interpretations of the '580 patent claims nor as an admission with respect to any claim or claim limitation. Plaintiffs expressly reserves the right to propose alternative constructions to those advocated by Woodway and to contest Woodway's proffered claim interpretations

Claims of the 9,039,580 Patent	'489 patent (Magid) and '279 patent (Cutter)
1. A manually powered treadmill comprising:	This is a preamble, not entitled to any weight. Nevertheless, the '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). The '279 patent discloses a manually operated treadmill. *See, e.g.*, '279 patent, Col. 4, lns 10-13 ("[o]ne of the main features of the invention, is the unimpeded belt track that it presents without having to be impeded by any handles, belts, or other support members, and without having to use a motor, so that the user of it can run on it, or jog on it, or walk on it, and will have his position located by the concave path").

LIFECORE Ex. 1002

a frame having a front end and a rear end positioned opposite the front end;	The Magid patent in combination with the Cutter patent disclose a frame having a front end and a rear end positioned opposite the front end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '279 patent, claim 1 ("a rigid frame having a pair of rigid frame members"); Fig. 1.
a front shaft rotatably coupled to the frame at the front end;	The Magid patent in combination with the Cutter patent disclose a front shaft rotatably coupled to the frame at the front end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1. *See, e.g.*, '279 patent, Col. 3, lns. 1-6, 8-11 ("The inside face of each of the two side members 11 and 12 is provided with a series of journaling sockets 16, arranged along a concavely curving path that is highest at its forward end. Each socket 16 serves as journal for the stub shaft 17 of a roller 18… Also, forward of all the rollers 18 and preferably somewhat lower is a pair of sockets 23 that rotatably

LIFECORE Ex. 1002

	support the stub shaft 24 of a roller 25").
a rear shaft rotatably coupled to the frame at the rear end;	The Magid patent in combination with the Cutter patent disclose a rear shaft rotatably coupled to the frame at the rear end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1. *See, e.g.*, '279 patent, Col. 3, lns. 1-10 ("The inside face of each of the two side members 11 and 12 is provided with a series of journaling sockets 16, arranged along a concavely curving path that is highest at its forward end. Each socket 16 serves as journal for the stub shaft 17 of a roller 18. A slotted rearmost socket 19 supports the rearmost roller 20 of this series by its stub shafts 21, and springs 22 tend to pull the roller 20 toward the rear, i.e., toward the rod 13 to which the springs 22 are preferably anchored.").
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Magid patent in combination with the Cutter patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the

	rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '279 patent, Col. 3, lns. 1-12 ("The inside face of each of the two side members 11 and 12 is provided with a series of journaling sockets 16, arranged along a concavely curving path that is highest at its forward end. Each socket 16 serves as journal for the stub shaft 17 of a roller 18. A slotted rearmost socket 19 supports the rearmost roller 20 of this series by its stub shafts 21, and springs 22 tend to pull the roller 20 toward the rear, i.e., toward the rod 13 to which the springs 22 are preferably anchored. Also, forward of all the rollers 18 and preferably somewhat lower is a pair of sockets 23 that rotatably support the stub shaft 24 of a roller 25"); Col. 3, lns. 13-26 ("At each side of roller 25 is provided a flywheel 26 or 27, preferably of heavier metal, such as lead. These flywheels 26 and 27 are identical in size and weight and are located symmetrically with respect to the center of the roller 25 and are inboard of the frame, that is they lie adjacent but inside the two side members 11 and 12. This imparts a very smooth action because the flywheels 26 and 27 may be made relatively large and heavy, from a suitable heavy metal, and they may be able thereby to impart a very smooth action to the treadmill, quite in contrast to the jerky action that would be present without any flywheel. Being inboard, the flywheels 26 and 27 can be directly attached to the belt pulley or roller 25 and are not required to be dependent upon a set screw attached to a shaft. "); claim 1 ("a series of rollers rotatably supported by and lying between the side members and supported at each said side member at a series of points"), Fig. 3.

a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Magid patent in combination with the Cutter patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '279 patent, Col. 3, lns. 1-12 ("The inside face of each of the two side members 11 and 12 is provided with a series of journaling sockets 16, arranged along a concavely curving path that is highest at its forward end. Each socket 16 serves as journal for the stub shaft 17 of a roller 18. A slotted rearmost socket 19 supports the rearmost roller 20 of this series by its stub shafts 21, and springs 22 tend to pull the roller 20 toward the rear, i.e., toward the rod 13 to which the springs 22 are preferably anchored. Also, forward of all the rollers 18 and preferably somewhat lower is a pair of sockets 23 that rotatably support the stub shaft 24 of a roller 25"); claim 1 ("a series of rollers rotatably supported by and lying between the side members and supported at each said side member at a series of points"), Fig. 3.
a running belt supported by the first bearing rail and the second bearing rail and disposed about the front shaft and the rear shaft, wherein the running belt follows a curved running surface; and	The Magid patent in combination with the Cutter patent disclose a running belt supported by the first bearing rail and the second bearing rail and disposed about the front shaft and the rear shaft, wherein the running belt follows a curved running surface. *See, e.g.*, '279 patent, Col. 3, lns. 33-42 ("A continuous belt 30 extends around the rollers 18, 20 and 25 and is supported by and trained on them. The belt 30 is continuous and is arranged along a

LIFECORE Ex. 1002

	curved path, having the forward portion higher than the rear portion, and providing a generally concave configuration. This is a very important feature of the invention for it enables automatic adjustment of the position of the user to his weight and speed of use. The belt 30 lies in between the flywheels 26 and 27; the flywheels 26 and 27 thereby act as belt guides and aid in keeping the belt 30 centered."); claim 1 ("a continuous belt having an upper course lying above all said rollers and a lower course below all said rollers, said belt having its upper course supported directly by said rollers").
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 rotational direction.	The Magid patent in combination with the Cutter patent disclose 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 rotational direction. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result.").
2. The manually powered treadmill of claim 1, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member.	The Magid patent in combination with the Cutter patent disclose the manually powered treadmill of claim 1, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member.

	See, e.g., '489 patent, Col. 4, lns. 17-24 ("The base 11 has a pair of spaced front brackets 12 disposed adjacent to front left and right sides of the base 11, a first shaft 411 which extends from the front left side to the front right side and which has two ends fixed respectively to the front brackets 12, a pair of spaced rear brackets 13 disposed adjacent to rear left and right sides of the base 11, and a second shaft 421 which extends from the rear left side to the rear right side and which has two ends secured on the rear brackets 13."). *See, e.g.*, '279 patent, Col. 3, lns. 58-63 ("[a]n important feature of the invention is shown in FIG. 4, a bottom view: a pair of crossing diagonal turnbuckles 31 and 32 are each anchored to each of the two side frame members 11 and 12.").
3. The manually powered treadmill of claim 2, wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member.	The Magid patent in combination with the Cutter patent disclose the manually powered treadmill of claim 2, wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member. *See, e.g.*, '489 patent, Col. 8, ln. 58- Col. 9, ln. 18 ("The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26, 26' is mounted rotatably on a respective one of the third shafts 27. A spacer 271 is provided on the central portion of each of the third shafts 26 to space apart the left and right rollers 26, 26' thereon. Each of the intermediate right rollers 26' contacts the right foot belt 4', while each of the intermediate left rollers 26 contacts the left foot belt 4. The rollers 26, 26' thus provide a supporting surface for the foot belts 4, 4'. When the user applies a moving weight, such as his left and right feet, on the left and right foot belts 4, 4' between the pair of front rollers 41 and the pair of rear rollers 42, the foot belts 4, 4' will drive frictionally the rollers 26, 26' and the rollers 41, 42. Each of the third shafts 27 further has two opposite end portions provided with a pair of retailers 27a to limit

LIFECORE Ex. 1002

	lateral movement of the intermediate left and right rollers 26, 26' thereon. Like the previous embodiment, the walker apparatus of the second preferred embodiment can also be installed with any of the previously described functional supporting frames Ia, Ib, Ic, Id. The operation of the second preferred embodiment is substantially similar to that of the previous embodiment and will not be detailed further."). *See, e.g.*, '279 patent, claims 2-4; Fig. 4.
4. The manually powered treadmill of claim 1, wherein each one of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft.	The Magid patent in combination with the Cutter patent disclose the manually powered treadmill of claim 1, wherein each one of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26'"); Figs. 8, 9. *See, e.g.*, '279 patent, Col. 3, lns. 1-12 ("The inside face of each of the two side members 11 and 12 is provided with a series of journaling sockets 16, arranged along a concavely curving path that is highest at its forward end. Each socket 16 serves as journal for the stub shaft 17 of a roller 18. A slotted rearmost socket 19 supports the rearmost roller 20 of this series by its stub shafts 21, and springs 22 tend to pull the roller 20 toward the rear, i.e., toward the rod 13 to which the springs 22 are preferably anchored."); Fig. 4.
5. The manually powered treadmill of claim 1, wherein each one of the first bearing rail and the second bearing rail	The Magid patent in combination with the Cutter patent disclose the manually powered treadmill of claim 1, wherein each one of the first

define in part a top profile corresponding to the curved running surface.	bearing rail and the second bearing rail define in part a top profile corresponding to the curved running surface. *See, e.g.*, '489, Fig. 9. *See, e.g.*, '279 patent, Col. 3, lns. 33-37 ("A continuous belt 30 extends around the rollers 18, 20 and 25 and is supported by and trained on them. The belt 30 is continuous and is arranged along a curved path, having the forward portion higher than the rear portion, and providing a generally concave configuration.").
6. The manually powered treadmill of claim 1, wherein the safety device includes a one-way bearing.	The Magid patent in combination with the Cutter patent disclose the manually powered treadmill of claim 1, wherein the safety device includes a one-way bearing. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result.").
10. The manually powered treadmill of claim 1, further comprising a handrail attached to the frame and structured to provide a support structure for the user of the manually powered treadmill.	The Magid patent in combination with the Cutter patent the manually powered treadmill of claim 1, further comprising a handrail attached to the frame and structured to provide a support structure for the user of the manually powered treadmill. *See, e.g.*, '489 patent, Col. 5, lns. 44-58 ("Referring once more to FIG. 2, the base 11 is attachable to a functional supporting frame 1a. In this embodiment, the functional supporting frame 1a comprises a pair of handrails 14 mounted on opposite longitudinal sides of the

Page 2032 of 2517

	base 11 to permit use of the walker apparatus as an exercise walker."). *See, e.g.*, '279 patent, Col. 4, lns 24-26 ("a feature of the device is that it provides a handle 33").
11. A manually powered treadmill, comprising:	This is a preamble, not entitled to any weight. Nevertheless, '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). The '279 patent discloses a manually operated treadmill. *See, e.g.*, '279 patent, Col. 4, lns 10-13 ("[o]ne of the main features of the invention, is the unimpeded belt track that it presents without having to be impeded by any handles, belts, or other support members, and without having to use a motor, so that the user of it can run on it, or jog on it, or walk on it, and will have his position located by the concave path.").
a frame having a front end and a rear end positioned opposite the front end;	The Magid patent in combination with the Cutter patent disclose a frame having a front end and a rear end positioned opposite the front end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '279 patent, claim 1 ("a rigid frame having a pair of rigid frame members"); Fig. 1.

LIFECORE Ex. 1002

a front shaft attached to the frame adjacent the front end;	The Magid patent in combination with the Cutter patent disclose a front shaft attached to the frame adjacent the front end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1. *See, e.g.*, '279 patent, Col. 3, lns. 1-6, 8-11 ("The inside face of each of the two side members 11 and 12 is provided with a series of journaling sockets 16, arranged along a concavely curving path that is highest at its forward end. Each socket 16 serves as journal for the stub shaft 17 of a roller 18.... Also, forward of all the rollers 18 and preferably somewhat lower is a pair of sockets 23 that rotatably support the stub shaft 24 of a roller 25").
a rear shaft attached to the frame adjacent the rear end;	The Magid patent in combination with the Cutter patent disclose a rear shaft attached to the frame adjacent the rear end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and

LIFECORE Ex. 1002

	right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."). *See, e.g.*, '279 patent, Col. 3, lns. 1-10 ("The inside face of each of the two side members 11 and 12 is provided with a series of journaling sockets 16, arranged along a concavely curving path that is highest at its forward end. Each socket 16 serves as journal for the stub shaft 17 of a roller 18. A slotted rearmost socket 19 supports the rearmost roller 20 of this series by its stub shafts 21, and springs 22 tend to pull the roller 20 toward the rear, i.e., toward the rod 13 to which the springs 22 are preferably anchored.").
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Magid patent in combination with the Cutter patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '279 patent, Col. 3, lns. 1-12 ("The inside face of each of the two side members 11 and 12 is provided with a series of journaling sockets 16, arranged along a concavely curving path that is

LIFECORE Ex. 1002

	highest at its forward end. Each socket 16 serves as journal for the stub shaft 17 of a roller 18. A slotted rearmost socket 19 supports the rearmost roller 20 of this series by its stub shafts 21, and springs 22 tend to pull the roller 20 toward the rear, i.e., toward the rod 13 to which the springs 22 are preferably anchored. Also, forward of all the rollers 18 and preferably somewhat lower is a pair of sockets 23 that rotatably support the stub shaft 24 of a roller 25"); Col. 3, lns. 13-26 ("At each side of roller 25 is provided a flywheel 26 or 27, preferably of heavier metal, such as lead. These flywheels 26 and 27 are identical in size and weight and are located symmetrically with respect to the center of the roller 25 and are inboard of the frame, that is they lie adjacent but inside the two side members 11 and 12. This imparts a very smooth action because the flywheels 26 and 27 may be made relatively large and heavy, from a suitable heavy metal, and they may be able thereby to impart a very smooth action to the treadmill, quite in contrast to the jerky action that would be present without any flywheel. Being inboard, the flywheels 26 and 27 can be directly attached to the belt pulley or roller 25 and are not required to be dependent upon a set screw attached to a shaft. "); claim 1 ("a series of rollers rotatably supported by and lying between the side members and supported at each said side member at a series of points"), Fig. 3.
a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Magid patent in combination with the Cutler patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.,* '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of

LIFECORE Ex. 1002

	intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '279 patent, Col. 3, lns. 1-12 ("The inside face of each of the two side members 11 and 12 is provided with a series of journaling sockets 16, arranged along a concavely curving path that is highest at its forward end. Each socket 16 serves as journal for the stub shaft 17 of a roller 18. A slotted rearmost socket 19 supports the rearmost roller 20 of this series by its stub shafts 21, and springs 22 tend to pull the roller 20 toward the rear, i.e., toward the rod 13 to which the springs 22 are preferably anchored. Also, forward of all the rollers 18 and preferably somewhat lower is a pair of sockets 23 that rotatably support the stub shaft 24 of a roller 25"); claim 1 ("a series of rollers rotatably supported by and lying between the side members and supported at each said side member at a series of points"), Fig. 3.
a running belt at least partially disposed about the front shaft and the rear shaft and at least partially supported by the first bearing rail and the second bearing rail,	The Magid patent in combination with the Cutter patent disclose a running belt at least partially disposed about the front shaft and the rear shaft and at least partially supported by the first bearing rail and the second bearing rail. *See, e.g.*, '489 patent, Col. 6, lns. 47-64 ("Referring to FIGS. 8 and 9, the second preferred embodiment of a walker apparatus according to the present invention is shown to similarly comprise a base 11, a pair of front rollers 41, a pair of rear rollers 42, endless left and right foot belts 4, 4', and a support unit. The main difference between the first and second embodiments resides in the configuration of the support unit. In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26,

LIFECORE Ex. 1002

	26'. Each of the pairs of intermediate left and right rollers 26."). *See, e.g.*, '279 patent, Col. 3, lns 33-42 ("A continuous belt 30 extends around the rollers 18, 20 and 25 and is supported by and trained on them. The belt 30 is continuous and is arranged along a curved path, having the forward portion higher than the rear portion, and providing a generally concave configuration. This is a very important feature of the invention for it enables automatic adjustment of the position of the user to his weight and speed of use. The belt 30 lies in between the flywheels 26 and 27; the flywheels 26 and 27 thereby act as belt guides and aid in keeping the belt 30 centered."); claim 1 ("a continuous belt having an upper course lying above all said rollers and a lower course below all said rollers, said belt having its upper course supported directly by said rollers").
wherein the running belt includes a front belt portion proximate the front end, a rear belt portion proximate the rear end, and a central belt portion intermediate the front and rear belt	The Magid patent in combination with the Cutter patent disclose an apparatus wherein the running belt includes a front belt portion proximate the front end, a rear belt portion proximate the rear end, and a central belt portion intermediate the front and rear belt. *See, e.g.*, '489 patent, Fig. 8. *See, e.g.*, '279 patent, Col. 3, lns. 33-35 ("[a] continuous belt 30 extends around the rollers 18, 20 and 25 and is supported by and trained on them"); Fig. 2.
wherein the central belt portion is positioned vertically closer to a ground surface supporting the frame than the front and rear belt portions such that the running belt follows a curved running surface;	The Magid patent in combination with the Cutter patent disclose an apparatus wherein the central belt portion is positioned vertically closer to a ground surface supporting the frame than the front and rear belt portions such that the running belt follows a curved running surface. *See e.g.*, '279 patent, Col. 3, lns. 34-39 ("The belt 30 is continuous and is arranged along a curved path, having the forward portion higher than the reason portion and providing a generally concave configuration").
and a safety device for substantially preventing rotation of at least one of the front shaft and the rear shaft in a first rotational direction while	The Magid patent in combination with the Cutter patent disclose a safety device for substantially preventing rotation of at least one of

LIFECORE Ex. 1002

permitting rotation of the at least one of the front shaft and the rear shaft in a second rotational direction opposite the first rotational direction.	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 rotational direction. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result.").
12. The manually powered treadmill of claim 11, wherein the safety device includes a one-way bearing.	The Magid patent in combination with the Cutter patent disclose the manually powered treadmill of claim 11, wherein the safety device includes a one-way bearing. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result.").

13. The manually powered treadmill of claim 11, further comprising a pair of wheels mounted to the frame, wherein the pair of wheels are mounted so that the pair of wheels are not in contact with the ground surface when the manually powered treadmill is in an operating position.	The Magid patent in combination with the Cutter patent disclose the manually powered treadmill of claim 11, further comprising a pair of wheels mounted to the frame, wherein the pair of wheels are mounted so that the pair of wheels are not in contact with the ground surface when the manually powered treadmill is in an operating position. *See, e.g.*, '279 patent, Col. 4, lns. 52-62 ("an additional roller 45 forward of the belt 30 and not involved with it, lying between the two frame members 11 and 12 and extending below the edges 43 and 44 of this forward inclined portion but not below the edges 41 and 42 of the main portions, and preferably slightly above them. Thus, when the device rests flat on the floor as shown in FIG. 3, the roller 45 does not interfere at all with the ability of the device to resist movement but when the rear end of the device is raised, all the weight of the machine is put onto the roller 45, and the exerciser 10 is easily rolled from place to place, as shown in FIG. 8. When stored vertically, as in FIG. 7, it rests on front edges 46 and 47, which lie perpendicular to the edges 41 and 42.").
14. The manually powered treadmill of claim 11, further comprising support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface.	The Magid patent in combination with the Cutter patent disclose the manually powered treadmill of claim 11, further comprising support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface. *See, e.g.*, '279 patent, Col. 4, lns. 43-54 ("the bottom edges 41 and 42 of the side members 11 and 12 are flat over a main portion and therefore rest on the floor and prevent sliding action, so that the weight of the user is transmitted in a vertical plane and he may run without tending to cause movement of the exerciser 10 itself; still the exerciser 10 can readily be moved around from place to place when that is desired and can be stored vertically (FIGS. 7 and 8). For instance, it may be kept under the bed and moved in and out, or it may be moved to the side and stored against the sidewall and various other things are possible. This is made easier by the use of a forward inclined edges 43 and 44 which rise up above the floor level").

18. The manually powered treadmill of claim 11, wherein each of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft.	The Magid patent in combination with the Cutter patent disclose the manually powered treadmill of claim 11, wherein each of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '279 patent, Col. 3, lns. 1-12 ("The inside face of each of the two side members 11 and 12 is provided with a series of journaling sockets 16, arranged along a concavely curving path that is highest at its forward end. Each socket 16 serves as journal for the stub shaft 17 of a roller 18. A slotted rearmost socket 19 supports the rearmost roller 20 of this series by its stub shafts 21, and springs 22 tend to pull the roller 20 toward the rear, i.e., toward the rod 13 to which the springs 22 are preferably anchored."); Fig. 4.
19. A manually powered treadmill, comprising:	This is a preamble, not entitled to any weight. Nevertheless, the '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). The '279 patent discloses a manually operated treadmill. *See, e.g.*, '279 patent, Col. 4, lns 10-13 ("[o]ne of the main features of the invention, is the unimpeded belt track that it presents without having

LIFECORE Ex. 1002

	to be impeded by any handles, belts, or other support members, and without having to use a motor, so that the user of it can run on it, or jog on it, or walk on it, and will have his position located by the concave path").
a frame having a front end and a rear end;	The Magid patent in combination with the Cutter patent disclose a frame having a front end and a rear end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '279 patent, claim 1 ("a rigid frame having a pair of rigid frame members"); Fig. 1.
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Magid patent in combination with the Cutter patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '279 patent, Col. 3, lns. 1-12 ("The inside face of each of the two side members 11 and 12 is provided with a series of journaling sockets 16, arranged along a concavely curving path that is highest at its forward end. Each socket 16 serves as journal for the stub shaft 17 of a roller 18. A slotted rearmost socket 19 supports the rearmost roller 20 of this series by its stub shafts 21, and springs 22

	tend to pull the roller 20 toward the rear, i.e., toward the rod 13 to which the springs 22 are preferably anchored. Also, forward of all the rollers 18 and preferably somewhat lower is a pair of sockets 23 that rotatably support the stub shaft 24 of a roller 25"); Col. 3, lns. 13-26 ("At each side of roller 25 is provided a flywheel 26 or 27, preferably of heavier metal, such as lead. These flywheels 26 and 27 are identical in size and weight and are located symmetrically with respect to the center of the roller 25 and are inboard of the frame, that is they lie adjacent but inside the two side members 11 and 12. This imparts a very smooth action because the flywheels 26 and 27 may be made relatively large and heavy, from a suitable heavy metal, and they may be able thereby to impart a very smooth action to the treadmill, quite in contrast to the jerky action that would be present without any flywheel. Being inboard, the flywheels 26 and 27 can be directly attached to the belt pulley or roller 25 and are not required to be dependent upon a set screw attached to a shaft. "); claim 1 ("a series of rollers rotatably supported by and lying between the side members and supported at each said side member at a series of points"), Fig. 3.
a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Magid patent in combination with the Cutter patent discloses a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '279 patent, Col. 3, lns. 1-12 ("The inside face of each of

LIFECORE Ex. 1002

	the two side members 11 and 12 is provided with a series of journaling sockets 16, arranged along a concavely curving path that is highest at its forward end. Each socket 16 serves as journal for the stub shaft 17 of a roller 18. A slotted rearmost socket 19 supports the rearmost roller 20 of this series by its stub shafts 21, and springs 22 tend to pull the roller 20 toward the rear, i.e., toward the rod 13 to which the springs 22 are preferably anchored. Also, forward of all the rollers 18 and preferably somewhat lower is a pair of sockets 23 that rotatably support the stub shaft 24 of a roller 25"); claim 1 ("a series of rollers rotatably supported by and lying between the side members and supported at each said side member at a series of points"), Fig. 3.
a handrail attached to the frame and structured to provide a support structure for a user of the manually powered treadmill;	The Magid patent in combination with the Cutter patent disclose a handrail attached to the frame and structured to provide a support structure for a user of the manually powered treadmill. *See, e.g.*, '489 patent, Col. 5, lns. 44-58 ("Referring once more to FIG. 2, the base 11 is attachable to a functional supporting frame 1a. In this embodiment, the functional supporting frame 1a comprises a pair of handrails 14 mounted on opposite longitudinal sides of the base 11 to permit use of the walker apparatus as an exercise walker."). *See, e.g.*, '279 patent, Col. 4, lns 24-26 ("a feature of the device is that it provides a handle 33").
a pair of wheels mounted to the frame, wherein the pair of wheels are mounted so that the pair of wheels are not in contact with a ground surface when the manually powered treadmill is in an operating position;	The Magid patent in combination with the Cutter patent disclose a pair of wheels mounted to the frame, wherein the pair of wheels are mounted so that the pair of wheels are not in contact with a ground surface when the manually powered treadmill is in an operating position. *See, e.g.*, '279 patent, Col. 4, lns. 53-62 ("an additional roller 45 forward of the belt 30 and not involved with it, lying between the two frame members 11 and 12 and extending below the edges 43 and 44 of this forward inclined portion but not below the edges 41 and 42 of the main portions, and preferably slightly above them. Thus, when

	the device rests flat on the floor as shown in FIG. 3, the roller 45 does not interfere at all with the ability of the device to resist movement but when the rear end of the device is raised, all the weight of the machine is put onto the roller 45, and the exerciser 10 is easily rolled from place to place, as shown in FIG. 8. When stored vertically, as in FIG. 7, it rests on front edges 46 and 47, which lie perpendicular to the edges 41 and 42.")
at least two support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface;	The Magid patent in combination with the Cutter patent disclose at least two support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface. *See, e.g.*, '279 patent, Col. 4, lns. 43-54 ("the bottom edges 41 and 42 of the side members 11 and 12 are flat over a main portion and therefore rest on the floor and prevent sliding action, so that the weight of the user is transmitted in a vertical plane and he may run without tending to cause movement of the exerciser 10 itself; still the exerciser 10 can readily be moved around from place to place when that is desired and can be stored vertically (FIGS. 7 and 8). For instance, it may be kept under the bed and moved in and out, or it may be moved to the side and stored against the sidewall and various other things are possible. This is made easier by the use of a forward inclined edges 43 and 44 which rise up above the floor level").
a running belt supported by the first and second bearing rails, wherein the running belt follows a curved running surface	The Magid patent in combination with the Cutter patent disclose a running belt supported by the first and second bearing rails, wherein the running belt follows a curved running surface. *See, e.g.*, '279 patent, Col. 3, lns 33-42 ("A continuous belt 30 extends around the rollers 18, 20 and 25 and is supported by and trained on them. The belt 30 is continuous and is arranged along a curved path, having the forward portion higher than the rear portion, and providing a generally concave configuration. This is a very important feature of the invention for it enables automatic adjustment of the position of the user to his weight and speed of use. The belt 30 lies in between the flywheels 26 and 27; the flywheels 26 and 27 thereby act as belt guides and aid in keeping the belt 30 centered.");

	claim 1 ("a continuous belt having an upper course lying above all said rollers and a lower course below all said rollers, said belt having its upper course supported directly by said rollers").
and a safety device coupled to the frame and operatively coupled to the running belt, wherein the safety device is structured to substantially prevent movement of the running belt in a first direction and permit movement of the running belt in a second direction opposite the first direction.	The Magid patent in combination with the Cutter patent disclose a safety device coupled to the frame and operatively coupled to the running belt, wherein the safety device is structured to substantially prevent movement of the running belt in a first direction and permit movement of the running belt in a second direction opposite the first direction. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result.").
21. The manually powered treadmill of claim 19, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member.	The Magid patent in combination with the Cutter patent discloses the manually powered treadmill of claim 19, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member. *See, e.g.*, '489 patent, Col. 4, lns. 17-24 ("The base 11 has a pair of spaced front brackets 12 disposed adjacent to front left and right sides of the base 11, a first shaft 411 which extends from the front left side to the front right side and which has two ends fixed respectively to the front brackets 12, a pair of spaced rear brackets 13 disposed adjacent to rear left and right sides of the base 11, and a second shaft 421 which extends from the rear left side to the rear right side and

LIFECORE Ex. 1002

	which has two ends secured on the rear brackets 13."). *See, e.g.*, '279 patent, Col. 3, lns. 58-63 ("[a]n important feature of the invention is shown in FIG. 4, a bottom view: a pair of crossing diagonal turnbuckles 31 and 32 are each anchored to each of the two side frame members 11 and 12.")
22. The manually powered treadmill of claim 21, wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member.	The Magid patent in combination with the Cutter patent discloses the manually powered treadmill of claim 21, wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member. *See, e.g.*, '489 patent, Col. 8, ln. 58- Col. 9, ln. 18 ("The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26, 26' is mounted rotatably on a respective one of the third shafts 27. A spacer 271 is provided on the central portion of each of the third shafts 26 to space apart the left and right rollers 26, 26' thereon. Each of the intermediate right rollers 26' contacts the right foot belt 4', while each of the intermediate left rollers 26 contacts the left foot belt 4. The rollers 26, 26' thus provide a supporting surface for the foot belts 4, 4'. When the user applies a moving weight, such as his left and right feet, on the left and right foot belts 4, 4' between the pair of front rollers 41 and the pair of rear rollers 42, the foot belts 4, 4' will drive frictionally the rollers 26, 26' and the rollers 41, 42. Each of the third shafts 27 further has two opposite end portions provided with a pair of retailers 27a to limit lateral movement of the intermediate left and right rollers 26, 26' thereon. Like the previous embodiment, the walker apparatus of the second preferred embodiment can also be installed with any of the previously described functional supporting frames 1a, 1b, 1c, 1d. The operation of the second preferred embodiment is substantially similar to that of the previous embodiment and will not be detailed further.") *See, e.g.*, '279 patent, claims 2-4; Fig. 4.

LIFECORE Ex. 1002

25. A method, comprising: providing a manually powered treadmill,	The Magid patent in combination with the Cutter patent disclose a method comprising providing a manually operated treadmill. *See, e.g.* '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). *See, e.g.,* '279 patent, Col. 4, lns 10-13 ("[o]ne of the main features of the invention, is the unimpeded belt track that it presents without having to be impeded by any handles, belts, or other support members, and without having to use a motor, so that the user of it can run on it, or jog on it, or walk on it, and will have his position located by the concave path").
the manually powered treadmill having a frame with a front end and rear end;	The Magid patent in combination with the Cutter patent disclose the manually powered treadmill having a frame with a front end and rear end. *See, e.g.,* '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.,* '279 patent, claim 1 ("a rigid frame having a pair of rigid frame members"); Fig. 1.
providing a first bearing rail and a second bearing rail, the first and second bearing rails each comprising a plurality of bearings and extending longitudinally on the frame, wherein the first and second bearing rails define a curved top profile;	The Magid patent in combination with the Cutter patent disclose providing a first bearing rail and a second bearing rail, the first and second bearing rails each comprising a plurality of bearings and extending longitudinally on the frame, wherein the first and second bearing rails define a curved top profile. *See, e.g.,* '279 patent, Col. 3, lns 33-42 ("A continuous belt 30 extends around the rollers 18, 20 and 25 and is supported by and trained on them. The belt 30 is continuous and is arranged along a curved path, having the forward portion higher than the rear portion,

LIFECORE Ex. 1002

	and providing a generally concave configuration. This is a very important feature of the invention for it enables automatic adjustment of the position of the user to his weight and speed of use. The belt 30 lies in between the flywheels 26 and 27; the flywheels 26 and 27 thereby act as belt guides and aid in keeping the belt 30 centered."); claim 1 ("a continuous belt having an upper course lying above all said rollers and a lower course below all said rollers, said belt having its upper course supported directly by said rollers").
disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails;	The Magid patent in combination with the Cutter patent disclose disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails. *See, e.g.*, '279 patent, Col. 3, lns 33-42 ("A continuous belt 30 extends around the rollers 18, 20 and 25 and is supported by and trained on them. The belt 30 is continuous and is arranged along a curved path, having the forward portion higher than the rear portion. and providing a generally concave configuration. This is a very important feature of the invention for it enables automatic adjustment of the position of the user to his weight and speed of use. The belt 30 lies in between the flywheels 26 and 27; the flywheels 26 and 27 thereby act as belt guides and aid in keeping the belt 30 centered."); claim 1 ("a continuous belt having an upper course lying above all said rollers and a lower course below all said rollers, said belt having its upper course supported directly by said rollers").
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.	The Magid patent in combination with the Cutter patent disclose 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. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a

LIFECORE Ex. 1002

	pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result.").

LIFECORE Ex. 1002

Exhibit I

EXHIBIT I

U.S. Patent Nos. 5,538,489 and 4,334,676 Invalidate Asserted Claims 1, 2, 3, 4, 5, 6, 10, 11, 12, 18, and 25 of U.S. Patent No. 9,039,580

Claims 1, 2, 3, 4, 5, 6, 10, 11, 12, 18, and 25 of U.S. Patent No. 9,039,580 ("the '580 patent") are invalid as anticipated and/or obvious in view of U.S. Patent No. 5,538,489 ("the '489 patent") to Magid in combination with U.S. Patent No. 4,334,676 ("the '676 patent") to Schönenberger. The '489 patent was filed on July 19, 1994 and issued on July 23, 1996; the '676 patent was filed on July 19, 1978 and issued on June 15, 1982. The '489 patent and the '676 patent are available as prior art against the '580 patent under at least 35 U.S.C. § 103.

These Invalidity Contentions, in part, utilize Woodway's interpretations of the '580 patent claims, to the extent those interpretations can be discerned from Woodway's Preliminary Infringement Contentions in this case. Plaintiffs disagree with Woodway's application and interpretation of the claims, and these Invalidity Contentions are not, and should not be construed as, an endorsement or acceptance of any of Woodway's contentions or interpretations of the '580 patent claims nor as an admission with respect to any claim or claim limitation. Plaintiffs expressly reserve the right to propose alternative constructions to those advocated by Woodway and to contest Woodway's proffered claim interpretations

Claims of the 9,039,580 Patent	'489 patent (Magid) and '676 patent (Schönenberger)
1. A manually powered treadmill comprising:	This is a preamble, not entitled to any weight. Nevertheless, the '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). The '676 patent discloses a manually operated treadmill. *See, e.g.* '676 patent, Col. 4, lns 36-38 ("[o]ne of the drums 10 is driven by motor 33, or by gravity of earth or by any other suitable motive drive apparatus by means of a drive belt 43."); Col. 6, lns. 15-18 ("[t]his invention allows a runner to use the apparatus in a 5% elevation without any external motor power.").
a frame having a front end and a rear end positioned opposite the front end;	The Magid patent in combination with the Schönenberger patent disclose a frame having a front end and a rear end positioned opposite

LIFECORE Ex. 1002

	the front end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '676 patent, Col., 4, lns. 12-15 ("[t]he housing 2 includes frame members 36, 37 (FIG. 2) which provides for physical and structural support. The frame members 36, 37 are only shown schematically. They may have any suitable structure or profile.)
a front shaft rotatably coupled to the frame at the front end;	The Magid patent in combination with the Schönenberger patent disclose a front shaft rotatably coupled to the frame at the front end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1. *See, e.g.*, '676 patent, Col. 4, lns. 12-23 ("At either end of the apparatus (see FIGS. 3 and 12), and within the housing 2 are located rotatable drums, rollers, sheaves, sprockets, or the like, about which the surface 1, which is an endless loop, is placed. The rotatable elements, preferably in the form of two operating drums or rollers 10, are suitably journalled in the frame as seen at 50, FIG. 3. If two

	sheaves or pulleys are provided at either end of the apparatus, one will be located at either side thereof, suitably journalled and, preferably, connected by a transverse shaft 26 (FIG. 19).”).
a rear shaft rotatably coupled to the frame at the rear end;	The Magid patent in combination with the Schönenberger patent disclose a rear shaft rotatably coupled to the frame at the rear end. *See, e.g.*, ‘489 patent, Col. 2, lns. 1-16 (“The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate.”); claim 1. *See, e.g.*, ‘676 patent, Col. 4, lns. 12-23 (“At either end of the apparatus (see FIGS. 3 and 12), and within the housing 2 are located rotatable drums, rollers, sheaves, sprockets, or the like, about which the surface 1, which is an endless loop, is placed. The rotatable elements, preferably in the form of two operating drums or rollers 10, are suitably journalled in the frame as seen at 50, FIG. 3. If two sheaves or pulleys are provided at either end of the apparatus, one will be located at either side thereof, suitably journalled and, preferably, connected by a transverse shaft 26 (FIG. 19).”).
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Magid patent in combination with the Schönenberger patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame.

	See, e.g., '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26". Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '676 patent, Col. 5, lns. 36- 63 ("The support rollers 12, 12' are journalled to rotate about screws or bolts 21 (FIG. 5). The bolts 21 are held in U-channels 20 (FIG. 7). The U-channels 20 are carried, in turn, by transversely located angle irons, T-rails, or channel rails, or other suitable structural members, seen generally at 32 (FIG. 7) and supported, for example, on, or forming part of the frame members 36, 37 (FIG. 2), or otherwise suitably secured to the frame members and housing 2 of the apparatus. The connection between the U-channels 20 and the rails 32, preferably, is by screws 28, although any other suitable connection may be used such as welding. The support rollers 12, 12' are journalled by means of low-friction bearings, for example needle bearings or ball bearings (FIG. 5) although sleeve bearings operating with low friction with respect to bolt 21 may also be used. The spacing between the upper surface of the support belt 13 and the lower surface 14 of the step slats 4 is so selected in the area, where the U-belt 13' (FIG. 7) or support belt 13 (FIG. 5) is positioned over the support rollers 12 that a small distance in the order of, for example, about 1/2 cm, preferably, is left when the surface 1 is unloaded. Upon loading, for example by the user stepping on the slats 4, the flat underside 14 of the respective slat 4 will engage the support belt 13, 13'. Support belt 13, 13' is carried along in the direction of the arrow A (FIG. 2) when engaged by the lower surface of the respective step slat 4 so that, as a consequence, the support rollers 12 will rotate.").

a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Magid patent in combination with the Schönenberger patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '676 patent, Col. 5, lns. 36- 63 ("The support rollers 12, 12' are journalled to rotate about screws or bolts 21 (FIG. 5). The bolts 21 are held in U-channels 20 (FIG. 7). The U-channels 20 are carried, in turn, by transversely located angle irons, T-rails, or channel rails, or other suitable structural members, seen generally at 32 (FIG. 7) and supported, for example, on, or forming part of the frame members 36, 37 (FIG. 2), or otherwise suitably secured to the frame members and housing 2 of the apparatus. The connection between the U-channels 20 and the rails 32, preferably, is by screws 28, although any other suitable connection may be used such as welding. The support rollers 12, 12' are journalled by means of low-friction bearings, for example needle bearings or ball bearings (FIG. 5) although sleeve bearings operating with low friction with respect to bolt 21 may also be used. The spacing between the upper surface of the support belt 13 and the lower surface 14 of the step slats 4 is so selected in the area, where the U-belt 13' (FIG. 7) or support belt 13 (FIG. 5) is positioned over the support rollers 12 that a small distance in the order of, for example, about 1/2 cm, preferably, is left when the surface 1 is unloaded. Upon loading, for example by the user stepping on the slats 4, the flat underside 14 of the respective slat 4 will engage the support belt 13, 13'. Support belt 13, 13' is carried along in

LIFECORE Ex. 1002

	the direction of the arrow A (FIG. 2) when engaged by the lower surface of the respective step slat 4 so that, as a consequence, the support rollers 12 will rotate.").
a running belt supported by the first bearing rail and the second bearing rail and disposed about the front shaft and the rear shaft, wherein the running belt follows a curved running surface; and	The Magid patent in combination with the Schönenberger patent disclose a running belt supported by the first bearing rail and the second bearing rail and disposed about the front shaft and the rear shaft, wherein the running belt follows a curved running surface. *See, e.g.*, '676 patent, Col. 5, lns. 35-63 ("The support rollers 12, 12' are journalled to rotate about screws or bolts 21 (FIG. 5). The bolts 21 are held in U-channels 20 (FIG. 7). The U-channels 20 are carried, in turn, by transversely located angle irons, T-rails, or channel rails, or other suitable structural members, seen generally at 32 (FIG. 7) and supported, for example, on, or forming part of the frame members 36, 37 (FIG. 2), or otherwise suitably secured to the frame members and housing 2 of the apparatus. The connection between the U-channels 20 and the rails 32, preferably, is by screws 28, although any other suitable connection may be used such as welding. The support rollers 12, 12' are journalled by means of low-friction bearings, for example needle bearings or ball bearings (FIG. 5) although sleeve bearings operating with low friction with respect to bolt 21 may also be used. The spacing between the upper surface of the support belt 13 and the lower surface 14 of the step slats 4 is so selected in the area, where the U-belt 13' (FIG. 7) or support belt 13 (FIG. 5) is positioned over the support rollers 12 that a small distance in the order of, for example, about 1/2 cm, preferably, is left when the surface 1 is unloaded. Upon loading, for example by the user stepping on the slats 4, the flat underside 14 of the respective slat 4 will engage the support belt 13, 13'. Support belt 13, 13' is carried along in the direction of the arrow A (FIG. 2) when engaged by the lower surface of the respective step slat 4 so that, as a consequence, the support rollers 12 will rotate. The support belt 13 will the move with the same speed as the movable surface 1."); Col. 7, lns. 37-51 ("The path of the support belts 13, 13' need not be entirely flat and parallel to that of the surface 1. FIG. 12 illustrates, for example, that the terminal rollers 12a are positioned slightly lower than the remaining

	rollers 12, of which only a few are shown for illustration. The terminal or end rollers 12a may also be slightly larger than the other rollers 12 to provide for a greater turn-around radius which additionally decreases the noise level of operation, and the power requirements. FIG. 12 merely shows the general arrangement, all parts unnecessary to an understanding of the concept explained in connection therewith having been omitted for clarity. The structural elements and the remainder of the apparatus may be as described in connection with the preceding figures.").
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 rotational direction.	The Magid patent in combination with the Schönenberger patent disclose 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 rotational direction. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '676 patent, Col. 2, lns. 10-16 ("an elongated support frame has rotatable driving elements, such as drums, sheaves, pulleys or the like at either end, around which the movable surface is looped. At least one of these driving elements has a toothed or ribbed circumference."); Col. 4, lns. 27-34 ("Two endless gear belts 5 (FIGS. 3, 4), one each located at a respective side of the apparatus, and both

	having internally projecting teeth 7 (FIG. 4), are engaged with the circumference of the ribbed or toothed rollers 10, thus ensuring slipless, positive common drive of both of the toothed belts 5 in the operating direction and preventing lateral dislocation of the endless loop as shown by Arrow A in FIG. 2.").
2. The manually powered treadmill of claim 1, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member.	The Magid patent in combination with the Schönenberger patent disclose the manually powered treadmill of claim 1, wherein the frame includes at least one cross-member, a left side member, and a right side member; and wherein the at least one cross-member extends between the left side member and the right side member. *See, e.g.*, '489 patent, Col. 4, lns. 17-24 ("The base 11 has a pair of spaced front brackets 12 disposed adjacent to front left and right sides of the base 11, a first shaft 411 which extends from the front left side to the front right side and which has two ends fixed respectively to the front brackets 12, a pair of spaced rear brackets 13 disposed adjacent to rear left and right sides of the base 11, and a second shaft 421 which extends from the rear left side to the rear right side and which has two ends secured on the rear brackets 13.").
3. The manually powered treadmill of claim 2. wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member.	The Magid patent in combination with the Schönenberger patent disclose the manually powered treadmill of claim 2, wherein each one of the first and second bearing rails are coupled to at least one of the at least one cross-member. *See, e.g.*, '489 patent, Col. 8, ln. 58- Col. 9, ln. 18 ("The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26, 26' is mounted rotatably on a respective one of the third shafts 27. A spacer 271 is provided on the central portion of each of the third shafts 26 to space apart the left and right rollers 26, 26' thereon. Each of the intermediate right rollers 26' contacts the right foot belt 4', while each of the intermediate left rollers 26

LIFECORE Ex. 1002

	contacts the left foot belt 4. The rollers 26, 26' thus provide a supporting surface for the foot belts 4, 4'. When the user applies a moving weight, such as his left and right feet, on the left and right foot belts 4, 4' between the pair of front rollers 41 and the pair of rear rollers 42, the foot belts 4, 4' will drive frictionally the rollers 26, 26' and the rollers 41, 42. Each of the third shafts 27 further has two opposite end portions provided with a pair of retailers 27a to limit lateral movement of the intermediate left and right rollers 26, 26' thereon. Like the previous embodiment, the walker apparatus of the second preferred embodiment can also be installed with any of the previously described functional supporting frames la, lb, lc, ld. The operation of the second preferred embodiment is substantially similar to that of the previous embodiment and will not be detailed further.").
4. The manually powered treadmill of claim 1, wherein each one of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft.	The Magid patent in combination with the Schönenberger patent disclose the manually powered treadmill of claim 1, wherein each one of the first and second bearing rails are attached longitudinally to the frame between the from shaft and the rear shaft. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '676 patent, Col. 5, lns. 35-63 ("The support rollers 12, 12' are journalled to rotate about screws or bolts 21 (FIG. 5). The bolts 21 are held in U-channels 20 (FIG. 7). The U-channels 20 are carried, in turn, by transversely located angle irons, T-rails, or channel rails, or other suitable structural members, seen generally at 32 (FIG. 7) and supported, for example, on, or forming part of the frame

	members 36, 37 (FIG. 2), or otherwise suitably secured to the frame members and housing 2 of the apparatus. The connection between the U-channels 20 and the rails 32, preferably, is by screws 28, although any other suitable connection may be used such as welding. The support rollers 12, 12' are journalled by means of low-friction bearings, for example needle bearings or ball bearings (FIG. 5) although sleeve bearings operating with low friction with respect to bolt 21 may also be used. The spacing between the upper surface of the support belt 13 and the lower surface 14 of the step slats 4 is so selected in the area, where the U-belt 13' (FIG. 7) or support belt 13 (FIG. 5) is positioned over the support rollers 12 that a small distance in the order of, for example, about 1/2 cm, preferably, is left when the surface 1 is unloaded. Upon loading, for example by the user stepping on the slats 4, the flat underside 14 of the respective slat 4 will engage the support belt 13, 13'. Support belt 13, 13' is carried along in the direction of the arrow A (FIG. 2) when engaged by the lower surface of the respective step slat 4 so that, as a consequence, the support rollers 12 will rotate. The support belt 13 will the move with the same speed as the movable surface 1."); Col. 7, lns. 37-51 ("The path of the support belts 13, 13' need not be entirely flat and parallel to that of the surface 1. FIG. 12 illustrates, for example, that the terminal rollers 12a are positioned slightly lower than the remaining rollers 12, of which only a few are shown for illustration. The terminal or end rollers 12a may also be slightly larger than the other rollers 12 to provide for a greater turn-around radius which additionally decreases the noise level of operation, and the power requirements. FIG. 12 merely shows the general arrangement, all parts unnecessary to an understanding of the concept explained in connection therewith having been omitted for clarity. The structural elements and the remainder of the apparatus may be as described in connection with the preceding figures.").
5. The manually powered treadmill of claim 1, wherein each one of the first bearing rail and the second bearing rail define in part a top profile corresponding to the curved running surface.	The Magid patent in combination with the Schönenberger patent disclose the manually powered treadmill of claim 1, wherein each one of the first bearing rail and the second bearing rail define in part a top profile corresponding to the curved running surface.

LIFECORE Ex. 1002

	See, e.g., '489, Fig. 9. *See, e.g.*, '676 patent, Col. 5, lns. 35-63 ("The support rollers 12, 12' are journalled to rotate about screws or bolts 21 (FIG. 5). The bolts 21 are held in U-channels 20 (FIG. 7). The U-channels 20 are carried, in turn, by transversely located angle irons, T-rails, or channel rails, or other suitable structural members, seen generally at 32 (FIG. 7) and supported, for example, on, or forming part of the frame members 36, 37 (FIG. 2), or otherwise suitably secured to the frame members and housing 2 of the apparatus. The connection between the U-channels 20 and the rails 32, preferably, is by screws 28, although any other suitable connection may be used such as welding. The support rollers 12, 12' are journalled by means of low-friction bearings, for example needle bearings or ball bearings (FIG. 5) although sleeve bearings operating with low friction with respect to bolt 21 may also be used. The spacing between the upper surface of the support belt 13 and the lower surface 14 of the step slats 4 is so selected in the area, where the U-belt 13' (FIG. 7) or support belt 13 (FIG. 5) is positioned over the support rollers 12 that a small distance in the order of, for example, about 1/2 cm, preferably, is left when the surface 1 is unloaded. Upon loading, for example by the user stepping on the slats 4, the flat underside 14 of the respective slat 4 will engage the support belt 13, 13'. Support belt 13, 13' is carried along in the direction of the arrow A (FIG. 2) when engaged by the lower surface of the respective step slat 4 so that, as a consequence, the support rollers 12 will rotate. The support belt 13 will the move with the same speed as the movable surface 1."); Col. 7, lns. 37-51 ("The path of the support belts 13, 13' need not be entirely flat and parallel to that of the surface 1. FIG. 12 illustrates, for example, that the terminal rollers 12a are positioned slightly lower than the remaining rollers 12, of which only a few are shown for illustration. The terminal or end rollers 12a may also be slightly larger than the other rollers 12 to provide for a greater turn-around radius which additionally decreases the noise level of operation, and the power requirements. FIG. 12 merely shows the general arrangement, all parts unnecessary to an understanding of the concept explained in connection therewith having been omitted for clarity. The structural

LIFECORE Ex. 1002

	elements and the remainder of the apparatus may be as described in connection with the preceding figures.").
6. The manually powered treadmill of claim 1, wherein the safety device includes a one-way bearing.	The Magid patent in combination with the Schönenberger patent disclose the manually powered treadmill of claim 1, wherein the safety device includes a one-way bearing. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '676 patent, Col. 2, lns. 10-16 ("an elongated support frame has rotatable driving elements, such as drums, sheaves, pulleys or the like at either end, around which the movable surface is looped. At least one of these driving elements has a toothed or ribbed circumference."); Col. 4, lns. 27-34 ("Two endless gear belts 5 (FIGS. 3, 4), one each located at a respective side of the apparatus, and both having internally projecting teeth 7 (FIG. 4), are engaged with the circumference of the ribbed or toothed rollers 10, thus ensuring slipless, positive common drive of both of the toothed belts 5 in the operating direction and preventing lateral dislocation of the endless loop as shown by Arrow A in FIG. 2.").

10. The manually powered treadmill of claim 1, further comprising a handrail attached to the frame and structured to provide a support structure for the user of the manually powered treadmill.	The Magid patent in combination with the Schönenberger patent the manually powered treadmill of claim 1, further comprising a handrail attached to the frame and structured to provide a support structure for the user of the manually powered treadmill. *See, e.g.*, '489 patent, Col. 5, lns. 44-58 ("Referring once more to FIG. 2, the base 11 is attachable to a functional supporting frame 1a. In this embodiment, the functional supporting frame 1a comprises a pair of handrails 14 mounted on opposite longitudinal sides of the base 11 to permit use of the walker apparatus as an exercise walker."). *See, e.g.*, '676 patent, Fig. 1.
11. A manually powered treadmill, comprising:	This is a preamble, not entitled to any weight. Nevertheless, '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). The '676 patent discloses a manually operated treadmill. *See, e.g.* '676 patent, Col. 4, lns 36-38 ("[o]ne of the drums 10 is driven by motor 33, or by gravity of earth or by any other suitable motive drive apparatus by means of a drive belt 43."); Col. 6, lns. 15-18 ("[t]his invention allows a runner to use the apparatus in a 5% elevation without any external motor power.").
a frame having a front end and a rear end positioned opposite the front end;	The Magid patent in combination with the Schönenberger patent disclose a frame having a front end and a rear end positioned opposite the front end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof.").

	See, e.g., '676 patent, Col., 4, lns. 12-15 ("[t]he housing 2 includes frame members 36, 37 (FIG. 2) which provides for physical and structural support. The frame members 36, 37 are only shown schematically. They may have any suitable structure or profile.)
a front shaft attached to the frame adjacent the front end;	The Magid patent in combination with the Schönenberger patent disclose a front shaft attached to the frame adjacent the front end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1. *See, e.g.*, '676 patent, Col. 4, lns. 12-23 ("At either end of the apparatus (see FIGS. 3 and 12), and within the housing 2 are located rotatable drums, rollers, sheaves, sprockets, or the like, about which the surface 1, which is an endless loop, is placed. The rotatable elements, preferably in the form of two operating drums or rollers 10, are suitably journalled in the frame as seen at 50, FIG. 3. If two sheaves or pulleys are provided at either end of the apparatus, one will be located at either side thereof, suitably journalled and, preferably, connected by a transverse shaft 26 (FIG. 19).")
a rear shaft attached to the frame adjacent the rear end;	The Magid patent in combination with the Schönenberger patent disclose a rear shaft attached to the frame adjacent the rear end.

	See, e.g., '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."). *See, e.g.*, '676 patent, Col. 4, lns. 12-23 ("At either end of the apparatus (see FIGS. 3 and 12), and within the housing 2 are located rotatable drums, rollers, sheaves, sprockets, or the like, about which the surface 1, which is an endless loop, is placed. The rotatable elements, preferably in the form of two operating drums or rollers 10, are suitably journalled in the frame as seen at 50, FIG. 3. If two sheaves or pulleys are provided at either end of the apparatus, one will be located at either side thereof, suitably journalled and, preferably, connected by a transverse shaft 26 (FIG. 19)..").
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Magid patent in combination with the Schönenberger patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side

LIFECORE Ex. 1002

	brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '676 patent, Col. 5, lns. 36- 63 ("The support rollers 12, 12' are journalled to rotate about screws or bolts 21 (FIG. 5). The bolts 21 are held in U-channels 20 (FIG. 7). The U-channels 20 are carried, in turn, by transversely located angle irons, T-rails, or channel rails, or other suitable structural members, seen generally at 32 (FIG. 7) and supported, for example, on, or forming part of the frame members 36, 37 (FIG. 2), or otherwise suitably secured to the frame members and housing 2 of the apparatus. The connection between the U-channels 20 and the rails 32, preferably, is by screws 28, although any other suitable connection may be used such as welding. The support rollers 12, 12' are journalled by means of low-friction bearings, for example needle bearings or ball bearings (FIG. 5) although sleeve bearings operating with low friction with respect to bolt 21 may also be used. The spacing between the upper surface of the support belt 13 and the lower surface 14 of the step slats 4 is so selected in the area, where the U-belt 13' (FIG. 7) or support belt 13 (FIG. 5) is positioned over the support rollers 12 that a small distance in the order of, for example, about 1/2 cm, preferably, is left when the surface 1 is unloaded. Upon loading, for example by the user stepping on the slats 4, the flat underside 14 of the respective slat 4 will engage the support belt 13, 13'. Support belt 13, 13' is carried along in the direction of the arrow A (FIG. 2) when engaged by the lower surface of the respective step slat 4 so that, as a consequence, the support rollers 12 will rotate.").
a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Magid patent in combination with the Schönenberger patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the

LIFECORE Ex. 1002

	rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '676 patent, Col. 5, lns. 36- 63 ("The support rollers 12, 12' are journalled to rotate about screws or bolts 21 (FIG. 5). The bolts 21 are held in U-channels 20 (FIG. 7). The U-channels 20 are carried, in turn, by transversely located angle irons, T-rails, or channel rails, or other suitable structural members, seen generally at 32 (FIG. 7) and supported, for example, on, or forming part of the frame members 36, 37 (FIG. 2), or otherwise suitably secured to the frame members and housing 2 of the apparatus. The connection between the U-channels 20 and the rails 32, preferably, is by screws 28, although any other suitable connection may be used such as welding. The support rollers 12, 12' are journalled by means of low-friction bearings, for example needle bearings or ball bearings (FIG. 5) although sleeve bearings operating with low friction with respect to bolt 21 may also be used. The spacing between the upper surface of the support belt 13 and the lower surface 14 of the step slats 4 is so selected in the area, where the U-belt 13' (FIG. 7) or support belt 13 (FIG. 5) is positioned over the support rollers 12 that a small distance in the order of, for example, about 1/2 cm, preferably, is left when the surface 1 is unloaded. Upon loading, for example by the user stepping on the slats 4, the flat underside 14 of the respective slat 4 will engage the support belt 13, 13'. Support belt 13, 13' is carried along in the direction of the arrow A (FIG. 2) when engaged by the lower surface of the respective step slat 4 so that, as a consequence, the support rollers 12 will rotate.")
a running belt at least partially disposed about the front shaft and the rear shaft and at least partially supported by the first bearing rail and the second bearing rail,	The Magid patent in combination with the Schönenberger patent disclose a running belt at least partially disposed about the front shaft and the rear shaft and at least partially supported by the first bearing

LIFECORE Ex. 1002

	rail and the second bearing rail. *See, e.g.,* '489 patent, Col. 6, lns. 47-64 ("Referring to FIGS. 8 and 9, the second preferred embodiment of a walker apparatus according to the present invention is shown to similarly comprise a base 11, a pair of front rollers 41, a pair of rear rollers 42, endless left and right foot belts 4, 4', and a support unit. The main difference between the first and second embodiments resides in the configuration of the support unit. In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26,"). *See, e.g.,* '676 patent, Col. 5, lns. 35-63 ("The support rollers 12, 12' are journalled to rotate about screws or bolts 21 (FIG. 5). The bolts 21 are held in U-channels 20 (FIG. 7). The U-channels 20 are carried, in turn, by transversely located angle irons, T-rails, or channel rails, or other suitable structural members, seen generally at 32 (FIG. 7) and supported, for example, on, or forming part of the frame members 36, 37 (FIG. 2), or otherwise suitably secured to the frame members and housing 2 of the apparatus. The connection between the U-channels 20 and the rails 32, preferably, is by screws 28, although any other suitable connection may be used such as welding. The support rollers 12, 12' are journalled by means of low-friction bearings, for example needle bearings or ball bearings (FIG. 5) although sleeve bearings operating with low friction with respect to bolt 21 may also be used. The spacing between the upper surface of the support belt 13 and the lower surface 14 of the step slats 4 is so selected in the area, where the U-belt 13' (FIG. 7) or support belt 13 (FIG. 5) is positioned over the support rollers 12 that a small distance in the order of, for example, about 1/2 cm, preferably, is left when the

LIFECORE Ex. 1002

	surface 1 is unloaded. Upon loading, for example by the user stepping on the slats 4, the flat underside 14 of the respective slat 4 will engage the support belt 13, 13'. Support belt 13, 13' is carried along in the direction of the arrow A (FIG. 2) when engaged by the lower surface of the respective step slat 4 so that, as a consequence, the support rollers 12 will rotate. The support belt 13 will the move with the same speed as the movable surface 1."); Col. 7, lns. 37-51 ("The path of the support belts 13, 13' need not be entirely flat and parallel to that of the surface 1. FIG. 12 illustrates, for example, that the terminal rollers 12a are positioned slightly lower than the remaining rollers 12, of which only a few are shown for illustration. The terminal or end rollers 12a may also be slightly larger than the other rollers 12 to provide for a greater turn-around radius which additionally decreases the noise level of operation, and the power requirements. FIG. 12 merely shows the general arrangement, all parts unnecessary to an understanding of the concept explained in connection therewith having been omitted for clarity. The structural elements and the remainder of the apparatus may be as described in connection with the preceding figures.").
wherein the running belt includes a front belt portion proximate the front end, a rear belt portion proximate the rear end, and a central belt portion intermediate the front and rear belt	The Magid patent in combination with the Schönenberger patent disclose an apparatus wherein the running belt includes a front belt portion proximate the front end, a rear belt portion proximate the rear end, and a central belt portion intermediate the front and rear belt. *See, e.g.*, '489 patent, Fig. 8. *See, e.g.*, '676 patent, Fig. 9.
wherein the central belt portion is positioned vertically closer to a ground surface supporting the frame than the front and rear belt portions such that the running belt follows a curved running surface;	The Magid patent in combination with the Schönenberger patent disclose an apparatus wherein the central belt portion is positioned vertically closer to a ground surface supporting the frame than the front and rear belt portions such that the running belt follows a curved running surface. *See, e.g.*, '676 patent, Col. 5, lns. 35-63 ("The support rollers 12, 12' are journalled to rotate about screws or bolts 21 (FIG. 3). The bolts 21 are held in U-channels 20 (FIG. 7). The U-channels 20 are carried,

	in turn, by transversely located angle irons, T-rails, or channel rails, or other suitable structural members, seen generally at 32 (FIG. 7) and supported, for example, on, or forming part of the frame members 36, 37 (FIG. 2), or otherwise suitably secured to the frame members and housing 2 of the apparatus. The connection between the U-channels 20 and the rails 32, preferably, is by screws 28, although any other suitable connection may be used such as welding. The support rollers 12, 12' are journalled by means of low-friction bearings, for example needle bearings or ball bearings (FIG. 5) although sleeve bearings operating with low friction with respect to bolt 21 may also be used. The spacing between the upper surface of the support belt 13 and the lower surface 14 of the step slats 4 is so selected in the area, where the U-belt 13' (FIG. 7) or support belt 13 (FIG. 5) is positioned over the support rollers 12 that a small distance in the order of, for example, about 1/2 cm, preferably, is left when the surface 1 is unloaded. Upon loading, for example by the user stepping on the slats 4, the flat underside 14 of the respective slat 4 will engage the support belt 13, 13'. Support belt 13, 13' is carried along in the direction of the arrow A (FIG. 2) when engaged by the lower surface of the respective step slat 4 so that, as a consequence, the support rollers 12 will rotate. The support belt 13 will the move with the same speed as the movable surface 1."); Col. 7, lns. 37-51 ("The path of the support belts 13, 13' need not be entirely flat and parallel to that of the surface 1. FIG. 12 illustrates, for example, that the terminal rollers 12a are positioned slightly lower than the remaining rollers 12, of which only a few are shown for illustration. The terminal or end rollers 12a may also be slightly larger than the other rollers 12 to provide for a greater turn-around radius which additionally decreases the noise level of operation, and the power requirements. FIG. 12 merely shows the general arrangement, all parts unnecessary to an understanding of the concept explained in connection therewith having been omitted for clarity. The structural elements and the remainder of the apparatus may be as described in connection with the preceding figures.").
and a safety device for substantially preventing rotation of at least one of the front shaft and the rear shaft in a first rotational direction while	The Magid patent in combination with the Schönenberger patent disclose a safety device for substantially preventing rotation of at

LIFECORE Ex. 1002

permitting rotation of the at least one of the front shaft and the rear shaft in a second rotational direction opposite the first rotational direction.	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 rotational direction. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '676 patent, Col. 2, lns. 10-16 ("an elongated support frame has rotatable driving elements, such as drums, sheaves, pulleys or the like at either end, around which the movable surface is looped. At least one of these driving elements has a toothed or ribbed circumference."); Col. 4, lns. 27-34 ("Two endless gear belts 5 (FIGS. 3, 4), one each located at a respective side of the apparatus, and both having internally projecting teeth 7 (FIG. 4), are engaged with the circumference of the ribbed or toothed rollers 10, thus ensuring slipless, positive common drive of both of the toothed belts 5 in the operating direction and preventing lateral dislocation of the endless loop as shown by Arrow A in FIG. 2.").
12. The manually powered treadmill of claim 11, wherein the safety device includes a one-way bearing.	The Magid patent in combination with the Schönenberger patent disclose the manually powered treadmill of claim 11, wherein the safety device includes a one-way bearing. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the

	left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '676 patent, Col. 2, lns. 10-16 ("an elongated support frame has rotatable driving elements, such as drums, sheaves, pulleys or the like at either end, around which the movable surface is looped. At least one of these driving elements has a toothed or ribbed circumference."); Col. 4, lns. 27-34 ("Two endless gear belts 5 (FIGS. 3, 4), one each located at a respective side of the apparatus, and both having internally projecting teeth 7 (FIG. 4), are engaged with the circumference of the ribbed or toothed rollers 10, thus ensuring slipless, positive common drive of both of the toothed belts 5 in the operating direction and preventing lateral dislocation of the endless loop as shown by Arrow A in FIG. 2.")
18. The manually powered treadmill of claim 11, wherein each of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft.	The Magid patent in combination with the Schönenberger patent disclose the manually powered treadmill of claim 11, wherein each of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of

LIFECORE Ex. 1002

	the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '676 patent, Col. 5, lns. 35-63 ("The support rollers 12, 12' are journalled to rotate about screws or bolts 21 (FIG. 5). The bolts 21 are held in U-channels 20 (FIG. 7). The U-channels 20 are carried, in turn, by transversely located angle irons, T-rails, or channel rails, or other suitable structural members, seen generally at 32 (FIG. 7) and supported, for example, on, or forming part of the frame members 36, 37 (FIG. 2), or otherwise suitably secured to the frame members and housing 2 of the apparatus. The connection between the U-channels 20 and the rails 32, preferably, is by screws 28, although any other suitable connection may be used such as welding. The support rollers 12, 12' are journalled by means of low-friction bearings, for example needle bearings or ball bearings (FIG. 5) although sleeve bearings operating with low friction with respect to bolt 21 may also be used. The spacing between the upper surface of the support belt 13 and the lower surface 14 of the step slats 4 is so selected in the area, where the U-belt 13' (FIG. 7) or support belt 13 (FIG. 5) is positioned over the support rollers 12 that a small distance in the order of, for example, about 1/2 cm, preferably, is left when the surface 1 is unloaded. Upon loading, for example by the user stepping on the slats 4, the flat underside 14 of the respective slat 4 will engage the support belt 13, 13'. Support belt 13, 13' is carried along in the direction of the arrow A (FIG. 2) when engaged by the lower surface of the respective step slat 4 so that, as a consequence, the support rollers 12 will rotate. The support belt 13 will the move with the same speed as the movable surface 1."); Col. 7, lns. 37-51 ("The path of the support belts 13, 13' need not be entirely flat and parallel to that of the surface 1. FIG. 12 illustrates, for example, that the terminal rollers 12a are positioned slightly lower than the remaining rollers 12, of which only a few are shown for illustration. The terminal or end rollers 12a may also be slightly larger than the other rollers 12 to provide for a greater turn-around radius which additionally decreases the noise level of operation, and the power requirements. FIG. 12 merely shows the general arrangement, all

	parts unnecessary to an understanding of the concept explained in connection therewith having been omitted for clarity. The structural elements and the remainder of the apparatus may be as described in connection with the preceding figures.").
25. A method, comprising: providing a manually powered treadmill,	The Magid patent in combination with the Schönenberger patent disclose a method comprising providing a manually operated treadmill. *See, e.g.* '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). The '676 patent discloses a manually operated treadmill. *See, e.g.* '676 patent, Col. 4, lns 36-38 ("[o]ne of the drums 10 is driven by motor 33, or by gravity of earth or by any other suitable motive drive apparatus by means of a drive belt 43."); Col. 6, lns. 15-18 ("[t]his invention allows a runner to use the apparatus in a 5% elevation without any external motor power.").
the manually powered treadmill having a frame with a front end and rear end;	The Magid patent in combination with the Schönenberger patent disclose the manually powered treadmill having a frame with a front end and rear end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '676 patent, Fig. 1.
providing a first bearing rail and a second bearing rail, the first and second bearing rails each comprising a plurality of bearings and extending longitudinally on the frame, wherein the first and second bearing rails define a curved top profile;	The Magid patent in combination with the Schönenberger patent disclose providing a first bearing rail and a second bearing rail, the first and second bearing rails each comprising a plurality of bearings and extending longitudinally on the frame, wherein the first and

LIFECORE Ex. 1002

	second bearing rails define a curved top profile. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '676 patent, Col. 5, lns. 36- 63 ("The support rollers 12, 12' are journalled to rotate about screws or bolts 21 (FIG. 5). The bolts 21 are held in U-channels 20 (FIG. 7). The U-channels 20 are carried, in turn, by transversely located angle irons, T-rails, or channel rails, or other suitable structural members, seen generally at 32 (FIG. 7) and supported, for example, on, or forming part of the frame members 36, 37 (FIG. 2), or otherwise suitably secured to the frame members and housing 2 of the apparatus. The connection between the U-channels 20 and the rails 32, preferably, is by screws 28, although any other suitable connection may be used such as welding. The support rollers 12, 12' are journalled by means of low-friction bearings, for example needle bearings or ball bearings (FIG. 5) although sleeve bearings operating with low friction with respect to bolt 21 may also be used. The spacing between the upper surface of the support belt 13 and the lower surface 14 of the step slats 4 is so selected in the area, where the U-belt 13' (FIG. 7) or support belt 13 (FIG. 5) is positioned over the support rollers 12 that a small distance in the order of, for example, about 1/2 cm, preferably, is left when the surface 1 is unloaded. Upon loading, for example by the user stepping on the slats 4, the flat underside 14 of the respective slat 4 will engage the support belt 13, 13'. Support belt 13, 13' is carried along in the direction of the arrow A (FIG. 2) when engaged by the lower surface of the respective step slat 4 so that, as a consequence, the

	support rollers 12 will rotate.”).
disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails;	The Magid patent in combination with the Schönenberger patent disclose disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails. *See, e.g.*, ‘676 patent, Col. 5, lns. 36- 63 (“The support rollers 12, 12' are journalled to rotate about screws or bolts 21 (FIG. 5). The bolts 21 are held in U-channels 20 (FIG. 7). The U-channels 20 are carried, in turn, by transversely located angle irons, T-rails, or channel rails, or other suitable structural members, seen generally at 32 (FIG. 7) and supported, for example, on, or forming part of the frame members 36, 37 (FIG. 2), or otherwise suitably secured to the frame members and housing 2 of the apparatus. The connection between the U-channels 20 and the rails 32, preferably, is by screws 28, although any other suitable connection may be used such as welding. The support rollers 12, 12' are journalled by means of low-friction bearings, for example needle bearings or ball bearings (FIG. 5) although sleeve bearings operating with low friction with respect to bolt 21 may also be used. The spacing between the upper surface of the support belt 13 and the lower surface 14 of the step slats 4 is so selected in the area, where the U-belt 13' (FIG. 7) or support belt 13 (FIG. 5) is positioned over the support rollers 12 that a small distance in the order of, for example, about 1/2 cm, preferably, is left when the surface 1 is unloaded. Upon loading, for example by the user stepping on the slats 4, the flat underside 14 of the respective slat 4 will engage the support belt 13, 13'. Support belt 13, 13' is carried along in the direction of the arrow A (FIG. 2) when engaged by the lower surface of the respective step slat 4 so that, as a consequence, the support rollers 12 will rotate.”).
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.	The Magid patent in combination with the Schönenberger patent disclose 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.

	See, e.g., '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result.").

LIFECORE Ex. 1002

IN THE UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT

CHAPCO, INC. and SAMSARA FITNESS, LLC	:	CIVIL ACTION NO. 3:15-cv-01665 (JCH)
Plaintiffs,	:	
v.	:	
WOODWAY USA, Inc.	:	
Defendant.	:	AUGUST 8, 2016

PLAINTIFFS' SUPPLEMENTAL INVALIDITY CONTENTIONS

Pursuant to the Court's Order (Dkt. No. 51), Plaintiffs Chapco, Inc. and Samsara Fitness, LLC (collectively, "Plaintiffs") make the following Supplemental Invalidity Contentions, which are responsive to the Supplemental Infringement Contentions served by Defendant Woodway USA, Inc. ("Woodway").

According to its Supplemental Infringement Contentions, Woodway asserts claims 11, 12, 13, 14, 15 and 16 of U.S. Patent No. 8,590,169 ("the '169 Patent"), claims 1, 4, 5, 6, 10, 11, 12, 13, 14, 18, 19, 20, and 25 of U.S. Patent No. 9,039,580 (the '580 Patent"), and the claims of United States Design Patents Nos. D736,866 and D753,776. Plaintiffs claim that each asserted claim is invalid under at least 35 U.S.C. §§ 102, 103, and/or 112.

This disclosure is based on information that Plaintiffs have been able to obtain to date and on the infringement contentions Woodway served. Plaintiffs expressly reserve the right to supplement or amend their contentions if Woodway amends or alters its infringement contentions or its position on claim construction in any way. Further, by applying Woodway's apparent constructions, in whole or in part, Plaintiffs do not concede in any way that Woodway's constructions are correct, and instead expressly reserve the right to oppose those constructions at the appropriate time.

I. Identification of Prior Art for U.S. Patent No. 9,039,580

In addition to the prior art previously identified, which is incorporated herein by reference, Plaintiffs also contend that the following prior art renders one or more asserted claims of the '580 patent invalid:

A. U.S. Patent No. 6,042,514 ("Abelbeck") in combination with U.S. Patent No. 5,538,489 ("Magid"), **Exhibit J**;

B. U.S. Patent No. 6,053,848 ("Eschenbach") in combination with U.S. Patent No. 5,538,489 ("Magid"); **Exhibit K;**

Plaintiffs further contend that the anticipatory references in combination with the knowledge and skill of one of ordinary skill in the art at the time of the alleged invention and/or other prior art disclosing the allegedly missing limitations would have rendered each of the patents-in-suit obvious. The differences, if any, between the relevant prior art reference and the patents-in-suit would have been within the knowledge and common sense of one of ordinary skill in the art, and modification, if any, needed to achieve the claimed invention would have a routine design choice with a reasonable expectation of success. *KSR Int'l Co. v. Teleflex, Inc. et al.*, 550 U.S. 398, 401 (2007).

The motivation to combine the teachings of the identified prior art reference is found in the references themselves and/or: (1) the nature of the problem being solved; (2) the express, implied and inherent teachings of the prior art; (3) the knowledge of one of ordinary skill in the art; and/or (4) the predictable results obtained in combining the different elements of the prior art references.

To the extent any item or combination of prior art cited herein is deemed not to disclose, explicitly or inherently, any limitation of an asserted claim, Plaintiffs reserve the right to argue that any difference between that reference and the corresponding patent claim would have been obvious to one of ordinary skill in the art.

Plaintiffs' supplemental claim charts are attached hereto as Exhibits J-K. As with the initial claim charts, Plaintiffs have cited representative portions of identified references, even where a reference may contain additional support for a particular claim element. Persons of ordinary skill in the art at the time of the filing of the patents-in-suit knew to read references as a whole, and in the context of other publications and literature and the general knowledge in the field. Plaintiffs may rely on all such information, including uncited portions of the prior art references listed herein, and on other publications and expert testimony, to provide context and as aids to understanding and interpreting the listed references, or to establish that a person of ordinary skill in the art would have been motivated to modify or combine any of the cited references so as to render the claims obvious. Additionally, citations to a particular figure in a prior art reference encompass all text relating to the figure, and citations to text encompass all figures relating to that text.

Plaintiffs reserve the right to rely on admissions concerning the scope of the prior art relevant to the patents-in-suit found *inter alia* in: (i) the patent prosecution and reexamination histories of the patents-in-suit and related patents and/or patent applications; (ii) any deposition testimony in this or other actions of the named inventors on the patents-in-suit; and/or (iii) any evidence submitted by Woodway in connection with this or any other litigation.

II. Identification of Functionality Invalidity Defense

With respect to the asserted claims of United States Design Patents Nos. D736,866 and D753,776, Plaintiffs reserve the right to rely on the defense of functionality, i.e. that the claimed design serves a utilitarian purpose and the appearance of the claimed design is dictated by how the article claimed in the patent works.

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Dated: August 8, 2016

CERTIFICATE OF SERVICE

I hereby certify that on the 8th day of August, 2016, the within *Plaintiffs' Supplemental Invalidity Contentions* was served electronically to:

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Exhibit J

Page 2084 of 2517

EXHIBIT J

U.S. Patent Nos. 5,538,489 and 6,042,514 Invalidate Asserted Claims 1, 4, 5, 6, 10, 11, 12, 18, and 25 of U.S. Patent No. 9,039,580

Claims 1, 4, 5, 6, 10, 11, 12, 18, and 25 of U.S. Patent No. 9,039,580 ("the '580 patent") are invalid as anticipated and/or obvious in view of U.S. Patent No. 5,538,489 ("the '489 patent") to Magid in combination with U.S. Patent No. 6,042,514 ("the '514 patent") to Abelbeck. The '489 patent was filed on July 19, 1994 and issued on July 23, 1996; the '514 Patent was filed on May 30, 1998 and issued on March 28, 2000. The '489 patent and the '514 patent are available as prior art against the '580 patent under at least 35 U.S.C. § 103.

These Invalidity Contentions, in part, utilize Woodway's interpretations of the '580 patent claims, to the extent those interpretations can be discerned from Woodway's Preliminary and Supplemental Infringement Contentions in this case. Plaintiffs disagree with Woodway's application and interpretation of the claims, and these Invalidity Contentions are not, and should not be construed as, an endorsement or acceptance of any of Woodway's contentions or interpretations of the '580 patent claims nor as an admission with respect to any claim or claim limitation. Plaintiffs expressly reserve the right to propose alternative constructions to those advocated by Woodway and to contest Woodway's proffered claim interpretations

Claims of the 9,039,580 Patent	'489 patent (Magid) and '514 patent (Abelbeck)
1. A manually powered treadmill comprising:	This is a preamble, not entitled to any weight. Nevertheless, the '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). The '514 patent also discloses a manually operated treadmill. *See, e.g.*, '514 patent, Col. 10, lns. 9-13 ("due to the minimal friction in the system, the user's body weight could run the deck members 22 through the coils and generate sufficient power to run the system"); Col. 10, lns. 28-33 ("Either way the benefit of eliminating the device from being tethered to an external power outlet is very valuable from a convenience factor, aside from the fact that external power must be modified to conform to the voltages and frequencies of different

LIFECORE Ex. 1002

	countries, adding to the cost of the device.").
a frame having a front end and a rear end positioned opposite the front end;	The Magid patent in combination with the Abelbeck patent disclose a frame having a front end and a rear end positioned opposite the front end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."), *See, e.g.*, '514 patent, Summary of the Invention, Col. 5, lns. 3-5 ("The endless track being supported by bearings on the side of the frame, at least in the area of the upper run."); Col. 6, lns. 48-51 ("The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel."); Figs. 2, 3.
a front shaft rotatably coupled to the frame at the front end;	The Magid patent in combination with the Abelbeck patent disclose a front shaft rotatably coupled to the frame at the front end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1.

	See, e.g., '514 patent, Fig. 2.
a rear shaft rotatably coupled to the frame at the rear end;	The Magid patent in combination with the Abelbeck patent disclose a rear shaft rotatably coupled to the frame at the rear end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1. *See, e.g.*, '514 patent, Fig. 2.
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Magid patent in combination with the Abelbeck patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of

LIFECORE Ex. 1002

	intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '514 patent, Col. 4, lns. 34-42 ("The individual members of at least the upper run are supported by a series of support members which are traditionally ball bearings. These bearings can be mounted to the frame, being received by the deck members as they traverse part of the upper run, or they may be mounted to the deck members, the bearing being received by a track formed in the frame of the invention"); Col. 6, lns. 43-51 ("In this embodiment, the deck members 22 are shown in greater detail in that they are pivotally mounted one to another by pivot tubes 34. Each deck member 22 is supported by a support member 36 which is here shown to be a wheel or ball bearing. The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel); Col. 7, lns. 55-60 ("The side frames are also shown as one example of the infinite number of functional variations. In this version the support members (bearings) 36 are rotatably mounted to the deck members 22, whereby the side frames 38 clearly show the upper race 40 and the lower race 42.").
a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Magid patent in combination with the Abelbeck patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '514 patent, Col. 4, lns. 34-42 ("The individual members of

LIFECORE Ex. 1002

	at least the upper run are supported by a series of support members which are traditionally ball bearings. These bearings can be mounted to the frame, being received by the deck members as they traverse part of the upper run, or they may be mounted to the deck members, the bearing being received by a track formed in the frame of the invention"); Col. 6, lns. 43-51 ("In this embodiment, the deck members 22 are shown in greater detail in that they are pivotally mounted one to another by pivot tubes 34. Each deck member 22 is supported by a support member 36 which is here shown to be a wheel or ball bearing. The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel); Col. 7, lns. 55-60 ("The side frames are also shown as one example of the infinite number of functional variations. In this version the support members (bearings) 36 are rotatably mounted to the deck members 22, whereby the side frames 38 clearly show the upper race 40 and the lower race 42.").
a running belt supported by the first bearing rail and the second bearing rail and disposed about the front shaft and the rear shaft, wherein the running belt follows a curved running surface; and	The Magid patent in combination with the Abelbeck patent disclose a running belt supported by the first bearing rail and the second bearing rail and disposed about the front shaft and the rear shaft, wherein the running belt follows a curved running surface. *See, e.g.*, '514 patent, Fig. 2; Col. 6, lns. 28-33 ("The treadmill deck is comprised of a plurality of individual deck members 22 together making a continuous segmented track 23 which is used as the running surface of the treadmill"); Col. 6, lns. 43-51 ("In this embodiment, the deck members 22 are shown in greater detail in that they are pivotally mounted one to another by pivot tubes 34. Each deck member 22 is supported by a support member 36 which is here shown to be a wheel or a ball bearing. The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel. This enables an upper run and a lower run respectively. The upper run is the running surface of the treadmill and would traverse in the direction of the arrow 44"); Col. 7, lns. 48-60 ("The deck member 22 is likely made of a material that is reasonably light weight and very durable. The deck member 22 can be designed to flex upon impact with the

LIFECORE Ex. 1002

	user's foot and there by absorb the impact of the user's foot"); Col. 8, lns. 46-48 ("Thus, minor misalignment of the support member 36 and the front tube 80 may be desireable in some situations, but the basic design remains."); Claims 4, 5, 6.
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 rotational direction.	The Magid patent in combination with the Abelbeck patent disclose 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 rotational direction. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '514 patent, Col. 5, lns. 107 ("An alternative design is disclosed which also utilizes the individual deck members that are pivotally connected to form an endless track. The endless track being supported by bearings on the side of the frame, at least in the area of the upper run. The invention includes a rotary drive sprocket at the rear of the upper run which articulates directly with the individual deck members thereby driving same.").
4. The manually powered treadmill of claim 1, wherein each one of the first and second bearing rails are attached	The Magid patent in combination with the Abelbeck patent disclose the manually powered treadmill of claim 1, wherein each one of the first and second bearing rails are attached longitudinally to the frame

LIFECORE Ex. 1002

longitudinally to the frame between the front shaft and the rear shaft.	between the front shaft and the rear shaft. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '514 patent, Col. 4, lns. 34-42 ("The individual members of at least the upper run are supported by a series of support members which are traditionally ball bearings. These bearings can be mounted to the frame, being received by the deck members as they traverse part of the upper run, or they may be mounted to the deck members, the bearing being received by a track formed in the frame of the invention"); Col. 7, lns. 55-60 ("The side frames are also shown as one example of the infinite number of functional variations. In this version the support members (bearings) 36 are rotatably mounted to the deck members 22, whereby the side frames 38 clearly show the upper race 40 and the lower race 42.").
5. The manually powered treadmill of claim 1, wherein each one of the first bearing rail and the second bearing rail define in part a top profile corresponding to the curved running surface.	The Magid patent in combination with the Abelbeck patent disclose the manually powered treadmill of claim 1, wherein each one of the first bearing rail and the second bearing rail define in part a top profile corresponding to the curved running surface. *See, e.g.*, '489, Fig. 9. *See, e.g.*, '514 patent, Fig. 2; Col. 6, lns. 28-33 ("The treadmill deck is comprised of a plurality of individual deck members 22 together making a continuous segmented track 23 which is used as the running surface of the treadmill"); Col. 6, lns. 43-51 ("In this embodiment,

LIFECORE Ex. 1002

	the deck members 22 are shown in greater detail in that they are pivotally mounted one to another by pivot tubes 34. Each deck member 22 is supported by a support member 36 which is here shown to be a wheel or a ball bearing. The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel. This enables an upper run and a lower run respectively. The upper run is the running surface of the treadmill and would traverse in the direction of the arrow 44"); Col. 7, lns. 48-60 ("The deck member 22 is likely made of a material that is reasonably light weight and very durable. The deck member 22 can be designed to flex upon impact with the user's foot and there by absorb the impact of the user's foot"); Col. 8, lns. 46-48 ("Thus, minor misalignment of the support member 36 and the front tube 80 may be desireable in some situations, but the basic design remains."); Claims 4, 5, 6.
6. The manually powered treadmill of claim 1, wherein the safety device includes a one-way bearing.	The Magid patent in combination with the Abelbeck patent disclose the manually powered treadmill of claim 1, wherein the safety device includes a one-way bearing. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result.").

10. The manually powered treadmill of claim 1, further comprising a handrail attached to the frame and structured to provide a support structure for the user of the manually powered treadmill.	The Magid patent in combination with the Abelbeck patent the manually powered treadmill of claim 1, further comprising a handrail attached to the frame and structured to provide a support structure for the user of the manually powered treadmill. *See, e.g.*, '489 patent, Col. 5, lns. 44-58 ("Referring once more to FIG. 2, the base 11 is attachable to a functional supporting frame 1a. In this embodiment, the functional supporting frame 1a comprises a pair of handrails 14 mounted on opposite longitudinal sides of the base 11 to permit use of the walker apparatus as an exercise walker."). *See, e.g.*, '514 patent, Figs. 1-2, Col. 6, lns. 31-37 ("As with traditional treadmills, the preferred embodiment includes a display 24 supported by a handle frame 26. The handle frame 25 is likely constructed of a hollow metal tube thus enabling interaction of the user to the machine…").
11. A manually powered treadmill, comprising:	This is a preamble, not entitled to any weight. Nevertheless, '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). The '514 patent also discloses a manually operated treadmill. *See, e.g.*, '514 patent, Col. 10, lns. 9-13 ("due to the minimal friction in the system, the user's body weight could run the deck members 22 through the coils and generate sufficient power to run the system"); Col. 10, lns. 28-33 ("Either way the benefit of eliminating the device from being tethered to an external power outlet is very valuable from a convenience factor, aside from the fact that external power must be modified to conform to the voltages and frequencies of different countries, adding to the cost of the device.").
a frame having a front end and a rear end positioned opposite the front end;	The Magid patent in combination with the Abelbeck patent disclose a frame having a front end and a rear end positioned opposite the front

	end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '514 patent, Summary of the Invention, Col. 5, lns. 3-5 ("The endless track being supported by bearings on the side of the frame, at least in the area of the upper run."); Col. 6, lns. 48-51 ("The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel."); Figs. 2, 3.
a front shaft attached to the frame adjacent the front end;	The Magid patent in combination with the Abelbeck patent disclose a front shaft attached to the frame adjacent the front end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1. *See, e.g.*, '514 patent, Fig. 2.
a rear shaft attached to the frame adjacent the rear end;	The Magid patent in combination with the Abelbeck patent disclose a rear shaft attached to the frame adjacent the rear end.

LIFECORE Ex. 1002

	See, e.g., '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."). *See, e.g.*, '514 patent, Fig. 2.
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Magid patent in combination with the Abelbeck patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '514 patent, Col. 4, lns. 34-42 ("The individual members of at least the upper run are supported by a series of support members which are traditionally ball bearings. These bearings can be mounted

	to the frame, being received by the deck members as they traverse part of the upper run, or they may be mounted to the deck members, the bearing being received by a track formed in the frame of the invention"); Col. 6, lns. 43-51 ("In this embodiment, the deck members 22 are shown in greater detail in that they are pivotally mounted one to another by pivot tubes 34. Each deck member 22 is supported by a support member 36 which is here shown to be a wheel or ball bearing. The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel); Col. 7, lns. 55-60 ("The side frames are also shown as one example of the infinite number of functional variations. In this version the support members (bearings) 36 are rotatably mounted to the deck members 22, whereby the side frames 38 clearly show the upper race 40 and the lower race 42.").
a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Magid patent in combination with the Abelbeck patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '514 patent, Col. 4, lns. 34-42 ("The individual members of at least the upper run are supported by a series of support members which are traditionally ball bearings. These bearings can be mounted to the frame, being received by the deck members as they traverse part of the upper run, or they may be mounted to the deck members, the bearing being received by a track formed in the frame of the

	invention"); Col. 6, lns. 43-51 ("In this embodiment, the deck members 22 are shown in greater detail in that they are pivotally mounted one to another by pivot tubes 34. Each deck member 22 is supported by a support member 36 which is here shown to be a wheel or ball bearing. The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel); Col. 7, lns. 55-60 ("The side frames are also shown as one example of the infinite number of functional variations. In this version the support members (bearings) 36 are rotatably mounted to the deck members 22, whereby the side frames 38 clearly show the upper race 40 and the lower race 42.").
a running belt at least partially disposed about the front shaft and the rear shaft and at least partially supported by the first bearing rail and the second bearing rail,	The Magid patent in combination with the Abelbeck patent disclose a running belt at least partially disposed about the front shaft and the rear shaft and at least partially supported by the first bearing rail and the second bearing rail. *See, e.g.*, '489 patent, Col. 6, lns. 47-64 ("Referring to FIGS. 8 and 9, the second preferred embodiment of a walker apparatus according to the present invention is shown to similarly comprise a base 11, a pair of front rollers 41, a pair of rear rollers 42, endless left and right foot belts 4, 4', and a support unit. The main difference between the first and second embodiments resides in the configuration of the support unit. In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26."). *See, e.g.*, '514 patent, Fig. 2; Col. 6, lns. 28-33 ("The treadmill deck is comprised of a plurality of individual deck members 22 together making a continuous segmented track 23 which is used as the running

LIFECORE Ex. 1002

	surface of the treadmill"); Col. 6, lns. 43-51 ("In this embodiment, the deck members 22 are shown in greater detail in that they are pivotally mounted one to another by pivot tubes 34. Each deck member 22 is supported by a support member 36 which is here shown to be a wheel or a ball bearing. The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel. This enables an upper run and a lower run respectively. The upper run is the running surface of the treadmill and would traverse in the direction of the arrow 44"); Col. 7, lns. 48-60 ("The deck member 22 is likely made of a material that is reasonably light weight and very durable. The deck member 22 can be designed to flex upon impact with the user's foot and there by absorb the impact of the user's foot"); Col. 8, lns. 46-48 ("Thus, minor misalignment of the support member 36 and the front tube 80 may be desireable in some situations, but the basic design remains."); Claims 4, 5, 6.
wherein the running belt includes a front belt portion proximate the front end, a rear belt portion proximate the rear end, and a central belt portion intermediate the front and rear belt	The Magid patent in combination with the Abelbeck patent disclose an apparatus wherein the running belt includes a front belt portion proximate the front end, a rear belt portion proximate the rear end, and a central belt portion intermediate the front and rear belt. *See, e.g.*, '489 patent, Fig. 8. *See, e.g.*, '514 patent, Fig. 2; Col. 6, lns. 28-33 ("The treadmill deck is comprised of a plurality of individual deck members 22 together making a continuous segmented track 23 which is used as the running surface of the treadmill"); Col. 6, lns. 43-51 ("In this embodiment, the deck members 22 are shown in greater detail in that they are pivotally mounted one to another by pivot tubes 34. Each deck member 22 is supported by a support member 36 which is here shown to be a wheel or a ball bearing. The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel. This enables an upper run and a lower run respectively. The upper run is the running surface of the treadmill and would traverse in the direction of the arrow 44"); Col. 7, lns. 48-60 ("The deck member 22 is likely made of a material that is reasonably light weight and very durable.

Page 2098 of 2517

	The deck member 22 can be designed to flex upon impact with the user's foot and there by absorb the impact of the user's foot"); Col. 8, lns. 46-48 ("Thus, minor misalignment of the support member 36 and the front tube 80 may be desireable in some situations, but the basic design remains."); Claims 4, 5, 6.
wherein the central belt portion is positioned vertically closer to a ground surface supporting the frame than the front and rear belt portions such that the running belt follows a curved running surface;	The Magid patent in combination with the Abelbeck patent disclose an apparatus wherein the central belt portion is positioned vertically closer to a ground surface supporting the frame than the front and rear belt portions such that the running belt follows a curved running surface. *See e.g.*, '514 patent, Fig. 2; Col. 6, lns. 28-33 ("The treadmill deck is comprised of a plurality of individual deck members 22 together making a continuous segmented track 23 which is used as the sunning surface of the treadmill"); Col. 6, lns. 43-51 ("In this embodiment, the deck members 22 are shown in greater detail in that they are pivotally mounted one to another by pivot tubes 34. Each deck member 22 is supported by a support member 36 which is here shown to be a wheel or a ball bearing. The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel. This enables an upper run and a lower run respectively. The upper run is the running surface of the treadmill and would traverse in the direction of the arrow 44"); Col. 7, lns. 48-60 ("The deck member 22 is likely made of a material that is reasonably light weight and very durable. The deck member 22 can be designed to flex upon impact with the user's foot and there by absorb the impact of the user's foot"); Col. 8, lns. 46-48 ("Thus, minor misalignment of the support member 36 and the front tube 80 may be desireable in some situations, but the basic design remains."); Claims 4, 5, 6.
and a safety device for substantially preventing 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 rotational direction.	The Magid patent in combination with the Abelbeck patent disclose a safety device for substantially preventing 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

LIFECORE Ex. 1002

	shaft in a second rotational direction opposite the first rotational direction. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '514 patent, Col. 5, lns. 107 ("An alternative design is disclosed which also utilizes the individual deck members that are pivotally connected to form an endless track. The endless track being supported by bearings on the side of the frame, at least in the area of the upper run. The invention includes a rotary drive sprocket at the rear of the upper run which articulates directly with the individual deck members thereby driving same.").
12. The manually powered treadmill of claim 11, wherein the safety device includes a one-way bearing.	The Magid patent in combination with the Abelbeck patent disclose the manually powered treadmill of claim 11, wherein the safety device includes a one-way bearing. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot

LIFECORE Ex. 1002

	belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result.").
18. The manually powered treadmill of claim 11, wherein each of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft.	The Magid patent in combination with the Abelbeck patent disclose the manually powered treadmill of claim 11, wherein each of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '514 patent, Col. 4, lns. 34-42 ("The individual members of at least the upper run are supported by a series of support members which are traditionally ball bearings. These bearings can be mounted to the frame, being received by the deck members as they traverse part of the upper run, or they may be mounted to the deck members, the bearing being received by a track formed in the frame of the invention"); Col. 7, lns. 55-60 ("The side frames are also shown as one example of the infinite number of functional variations. In this version the support members (bearings) 36 are rotatably mounted to the deck members 22, whereby the side frames 38 clearly show the upper race 40 and the lower race 42.").

25. A method, comprising: providing a manually powered treadmill,	The Magid patent in combination with the Abelbeck patent disclose a method comprising providing a manually operated treadmill. *See, e.g.* '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). *See, e.g.*,'514 patent, Col. 10, lns. 9-13 ("due to the minimal friction in the system, the user's body weight could run the deck members 22 through the coils and generate sufficient power to run the system"); Col. 10, lns. 28-33 ("Either way the benefit of eliminating the device from being tethered to an external power outlet is very valuable from a convenience factor, aside from the fact that external power must be modified to conform to the voltages and frequencies of different countries, adding to the cost of the device.").
the manually powered treadmill having a frame with a front end and rear end;	The Magid patent in combination with the Abelbeck patent disclose the manually powered treadmill having a frame with a front end and rear end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '514 patent, Summary of the Invention, Col. 5, lns. 3-5 ("The endless track being supported by bearings on the side of the frame, at least in the area of the upper run."); Col. 6, lns. 48-51 ("The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel."); Figs. 2, 3.
providing a first bearing rail and a second bearing rail, the first and second bearing rails each comprising a plurality of bearings and extending longitudinally on the frame, wherein the first and second	The Magid patent in combination with the Abelbeck patent disclose providing a first bearing rail and a second bearing rail, the first and second bearing rails each comprising a plurality of bearings and extending longitudinally on the frame, wherein the first and second

LIFECORE Ex. 1002

bearing rails define a curved top profile;	bearing rails define a curved top profile. *See, e.g.*, '514 patent, Col. 4, lns. 34-42 ("The individual members of at least the upper run are supported by a series of support members which are traditionally ball bearings. These bearings can be mounted to the frame, being received by the deck members as they traverse part of the upper run, or they may be mounted to the deck members, the bearing being received by a track formed in the frame of the invention"); Col. 6, lns. 43-51 ("In this embodiment, the deck members 22 are shown in greater detail in that they are pivotally mounted one to another by pivot tubes 34. Each deck member 22 is supported by a support member 36 which is here shown to be a wheel or ball bearing. The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel); Col. 7, lns. 55-60 ("The side frames are also shown as one example of the infinite number of functional variations. In this version the support members (bearings) 36 are rotatably mounted to the deck members 22, whereby the side frames 38 clearly show the upper race 40 and the lower race 42.").
disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails;	The Magid patent in combination with the Abelbeck patent disclose disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails. *See, e.g.*, '514 patent, Fig. 2; Col. 6, lns. 28-33 ("The treadmill deck is comprised of a plurality of individual deck members 22 together making a continuous segmented track 23 which is used as the running surface of the treadmill"); Col. 6, lns. 43-51 ("In this embodiment, the deck members 22 are shown in greater detail in that they are pivotally mounted one to another by pivot tubes 34. Each deck member 22 is supported by a support member 36 which is here shown to be a wheel or a ball bearings. The support members 36 are supported by the side frame 38 which includes an upper race 40 and a lower race 42 on which the support members 36 travel. This enables an upper run and a lower run respectively. The upper run is the

LIFECORE Ex. 1002

	running surface of the treadmill and would traverse in the direction of the arrow 44"); Col. 7, lns. 48-60 ("The deck member 22 is likely made of a material that is reasonably light weight and very durable. The deck member 22 can be designed to flex upon impact with the user's foot and there by absorb the impact of the user's foot"); Col. 8, lns. 46-48 ("Thus, minor misalignment of the support member 36 and the front tube 80 may be desireable in some situations, but the basic design remains."); Claims 4, 5, 6
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.	The Magid patent in combination with the Abelbeck patent disclose 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. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '514 patent, Col. 5, lns. 107 ("An alternative design is disclosed which also utilizes the individual deck members that are pivotally connected to form an endless track. The endless track being supported by bearings on the side of the frame, at least in the area of the upper run. The invention includes a rotary drive sprocket at the rear of the upper run which articulates directly with the individual deck members thereby driving same.").

LIFECORE Ex. 1002

Exhibit K

Page 2105 of 2517

EXHIBIT K

U.S. Patent Nos. 5,538,489 and 6,053,848 Invalidate Asserted Claims 1, 4, 5, 6, 10, 11, 12, 14, 18, and 25 of U.S. Patent No. 9,039,580

Claims 1, 4, 5, 6, 10, 11, 12, 14, 18, and 25 of U.S. Patent No. 9,039,580 ("the '580 patent") are invalid as anticipated and/or obvious in view of U.S. Patent No. 5,538,489 ("the '489 patent") to Magid in combination with U.S. Patent No. 6,053,848 ("the '848 patent") to Eschenbach. The '489 patent was filed on July 19, 1994 and issued on July 23, 1996; the '848 Patent was filed on August 24, 1998 and issued on April 25, 2000. The '489 patent and the '848 patent are available as prior art against the '580 patent under at least 35 U.S.C. § 103.

These Invalidity Contentions, in part, utilize Woodway's interpretations of the '580 patent claims, to the extent those interpretations can be discerned from Woodway's Preliminary and Supplemental Infringement Contentions in this case. Plaintiffs disagree with Woodway's application and interpretation of the claims, and these Invalidity Contentions are not, and should not be construed as, an endorsement or acceptance of any of Woodway's contentions or interpretations of the '580 patent claims nor as an admission with respect to any claim or claim limitation. Plaintiffs expressly reserve the right to propose alternative constructions to those advocated by Woodway and to contest Woodway's proffered claim interpretations

Claims of the 9,039,580 Patent	'489 patent (Magid) and '848 patent (Eschenbach)
1. A manually powered treadmill comprising:	This is a preamble, not entitled to any weight. Nevertheless, the '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."), The '848 patent also discloses a manually operated treadmill. *See, e.g.*, '848 patent, Col. 2, lns. 58-60 ("Alternately, the deck can be porous to allow a pressure differential to be imposed under the deck to maintain the belt in contact with the deck").
a frame having a front end and a rear end positioned opposite the front end;	The Magid patent in combination with the Eschenbach patent disclose a frame having a front end and a rear end positioned opposite the front end.

LIFECORE Ex. 1002

	See, e.g., '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '848 patent, Col. 2, lns. 17-20 ("The present invention provides an exercise treadmill including a frame, first and second roller assemblies rotatably mounted on the frame, and an endless belt trained about the first and second roller assemblies").
a front shaft rotatably coupled to the frame at the front end;	The Magid patent in combination with the Eschenbach patent disclose a front shaft rotatably coupled to the frame at the front end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1. *See, e.g.*, '848 patent, Col. 2, lns. 17-20 ("The present invention provides an exercise treadmill including a frame, first and second roller assemblies rotatably mounted on the frame, and an endless belt trained about the first and second roller assemblies"); Col. 3, lns. 19-21 ("The deck ends are attached to frame cross members proximate each other. The cross members can be rigidly or pivotally attached to the chassis"); Col. 6, lns. 59-61 ("Belt 260 is trained to engage rollers 262, 264 which are rotatably attached at shafts 259, 261 to the

	framework (not shown).").
a rear shaft rotatably coupled to the frame at the rear end;	The Magid patent in combination with the Eschenbach patent disclose a rear shaft rotatably coupled to the frame at the rear end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1. *See, e.g.*, '848 patent, Col. 2, lns. 17-20 ("The present invention provides an exercise treadmill including a frame, first and second roller assemblies rotatably mounted on the frame, and an endless belt trained about the first and second roller assemblies"); Col. 3, lns. 19-21 ("The deck ends are attached to frame cross members proximate each other. The cross members can be rigidly or pivotally attached to the chassis"); Col. 6, lns. 59-61 ("Belt 260 is trained to engage rollers 262, 264 which are rotatably attached at shafts 259, 261 to the framework (not shown)."); Claims 22, 23.
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Magid patent in combination with the Eschenbach patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the

LIFECORE Ex. 1002

	respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26'"); Figs. 8, 9. *See, e.g.*, '848 patent, Col. 2, lns. 26-38 ("In the preferred embodiment, the deck is suspended underneath by flexible linking; in this case, a first pair of cables on either side of the deck. The term flexible linking, in the present invention, is used to include various types of linear low extensible flexible options such as cable, wire, multiple strand wire, reinforced belt, chain, elastomeric strand and other forms… The term cushion is used broadly to include elastomeric polymers, viscous damping, springs, air or fluid pistons, etc. that can have linear or non-linear fluid attenuation"); Col. 2, lns. 48-55 ("The belt is guided by the first and second end rollers and by two idlers disposed intermediate the end rollers contacting the lower belt run. The idlers are movable to adjust the upper belt run in contact with the curved belt surface"); Col. 3, ln. 66- Col. 4, ln. 11 (A further embodiment uses a generally linear or crowned deck suspended underneath by flexible linking, in this case, a pair of cables on either side of the deck with cushioned ends. The cables form a parabolic curve that supports the deck with varying height crossover supports extending upwards to the generally flat deck. The crossover supports contact the cable with curved surfaces which can be pivoted to rotate as a roller or a pulley.").

a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Magid patent in combination with the Eschenbach patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '848 patent, Col. 2, lns. 26-38 ("In the preferred embodiment, the deck is suspended underneath by flexible linking; in this case, a first pair of cables on either side of the deck. The term flexible linking, in the present invention, is used to include various types of linear low extensible flexible options such as cable, wire, multiple strand wire, reinforced belt, chain, elastomeric strand and other forms... The term cushion is used broadly to include elastomeric polymers, viscous damping, springs, air or fluid pistons, etc. that can have linear or non-linear fluid attenuation"); Col. 2, lns. 48-55 ("The belt is guided by the first and second end rollers and by two idlers disposed intermediate the end rollers contacting the lower belt run. The idlers are movable to adjust the upper belt run in contact with the curved belt surface"); Col. 3, ln. 66- Col. 4, ln. 11 (A further embodiment uses a generally linear or crowned deck suspended underneath by flexible linking, in this case, a pair of cables on either side of the deck with cushioned ends. The cables form a parabolic curve that supports the deck with varying height crossover supports extending upwards to the generally flat deck. The crossover supports contact the cable with curved surfaces which can be pivoted to rotate as a roller or a pulley.").

a running belt supported by the first bearing rail and the second bearing rail and disposed about the front shaft and the rear shaft, wherein the running belt follows a curved running surface; and	The Magid patent in combination with the Eschenbach patent disclose a running belt supported by the first bearing rail and the second bearing rail and disposed about the front shaft and the rear shaft, wherein the running belt follows a curved running surface. *See, e.g.*, '848 patent, Col. 4, ln. 64- Col. 5, ln. 10 ("In the preferred embodiment shown in FIGS. 1 and 2, endless belt 12 is trained upon the front first roller 26, rear second roller 28 and pair of idlers 34. The belt 12 upper run is supported by a curved deck 10 which is composed of a semi-rigid material having a removable frictionless upper surface. Deck 10 is supported by first cable pair 8 that are in slidable contact with curved support surfaces 23 and attached at the cable ends to eyebolts 24 by cable clamps 22. Eyebolts 24 pass through brackets 39, elastomeric members 19 and are threadably secured to adjustment knobs 21. Rotation of knobs 21 change the cable 8 length between the curved support surfaces 23 to vary deck 10 curvature. Idlers can then be adjusted to assume belt 12 upper run compliance with the curved deck"); Col. 6, lns. 48-63 ("Yet another embodiment is shown in FIG. 5 where the second cable pair 124 of the previous embodiment is replaced with connectors 256. Connectors 256 can be rods, cables, belts, chains or elastomeric strands attached to cable pair 258 and to deck crossovers 266. The cable pair 258 pass over curved supports 252 terminating at elastomeric cushions 255 and adjustment knobs 257. Cushions 255 are supported by brackets 253 which along with curved supports 252 are attached to a framework (not shown). Deck 280 supports upper belt 260 run, and is similar to the previous embodiment having two outer layers 251, 252 covering an internal layer 250 or can be of a single material. Belt 260 is trained to engage rollers 262, 264 which are rotatably attached at shafts 259, 261 to the framework (not shown). Foot impact is absorbed by deck 280, elastomeric cushions 255 and elastomeric strands 256, where used."); Claims 22, 23, 28.
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	The Magid patent in combination with the Eschenbach patent disclose 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

LIFECORE Ex. 1002

front shaft and the rear shaft in a second rotational direction opposite the first rotational direction.	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 rotational direction. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '848 patent, Claim 29.
4. The manually powered treadmill of claim 1, wherein each one of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft.	The Magid patent in combination with the Eschenbach patent disclose the manually powered treadmill of claim 1, wherein each one of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '848 patent, Col. 2, lns. 26-38 ("In the preferred

LIFECORE Ex. 1002

	embodiment, the deck is suspended underneath by flexible linking, in this case, a first pair of cables on either side of the deck. The term flexible linking, in the present invention, is used to include various types of linear low extensible flexible options such as cable, wire, multiple strand wire, reinforced belt, chain, elastomeric strand and other forms… The term cushion is used broadly to include elastomeric polymers, viscous damping, springs, air or fluid pistons, etc. that can have linear or non-linear fluid attenuation"); Col. 2, lns. 48-55 ("The belt is guided by the first and second end rollers and by two idlers disposed intermediate the end rollers contacting the lower belt run. The idlers are movable to adjust the upper belt run in contact with the curved belt surface"); Col. 3, ln. 66- Col. 4, ln. 11 (A further embodiment uses a generally linear or crowned deck suspended underneath by flexible linking, in this case, a pair of cables on either side of the deck with cushioned ends. The cables form a parabolic curve that supports the deck with varying height crossover supports extending upwards to the generally flat deck. The crossover supports contact the cable with curved surfaces which can be pivoted to rotate as a roller or a pulley.").
5. The manually powered treadmill of claim 1. wherein each one of the first bearing rail and the second bearing rail define in part a top profile corresponding to the curved running surface.	The Magid patent in combination with the Eschenbach patent disclose the manually powered treadmill of claim 1, wherein each one of the first bearing rail and the second bearing rail define in part a top profile corresponding to the curved running surface. *See, e.g.*, '489, Fig. 9. *See, e.g.*, '848 patent, Col. 2, lns. 26-38 ("In the preferred embodiment, the deck is suspended underneath by flexible linking; in this case, a first pair of cables on either side of the deck. The term flexible linking, in the present invention, is used to include various types of linear low extensible flexible options such as cable, wire, multiple strand wire, reinforced belt, chain, elastomeric strand and other forms… The term cushion is used broadly to include elastomeric polymers, viscous damping, springs, air or fluid pistons, etc. that can have linear or non-linear fluid attenuation"); Col. 2, lns. 48-55 ("The belt is guided by the first and second end rollers and by

LIFECORE Ex. 1002

	two idlers disposed intermediate the end rollers contacting the lower belt run. The idlers are movable to adjust the upper belt run in contact with the curved belt surface"); Col. 3, ln. 66- Col. 4, ln. 11 (A further embodiment uses a generally linear or crowned deck suspended underneath by flexible linking, in this case, a pair of cables on either side of the deck with cushioned ends. The cables form a parabolic curve that supports the deck with varying height crossover supports extending upwards to the generally flat deck. The crossover supports contact the cable with curved surfaces which can be pivoted to rotate as a roller or a pulley.").
6. The manually powered treadmill of claim 1, wherein the safety device includes a one-way bearing.	The Magid patent in combination with the Eschenbach patent disclose the manually powered treadmill of claim 1, wherein the safety device includes a one-way bearing. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result.").
10. The manually powered treadmill of claim 1, further comprising a handrail attached to the frame and structured to provide a support structure for the user of the manually powered treadmill.	The Magid patent in combination with the Eschenbach patent the manually powered treadmill of claim 1, further comprising a handrail attached to the frame and structured to provide a support structure for the user of the manually powered treadmill. *See, e.g.*, '489 patent, Col. 5, lns. 44-58 ("Referring once more to FIG. 2, the base 11 is attachable to a functional supporting frame 1a. In this embodiment, the functional supporting frame 1a comprises a

	pair of handrails 14 mounted on opposite longitudinal sides of the base 11 to permit use of the walker apparatus as an exercise walker."). *See, e.g.*, '848 patent, Col. 5, lns. 28-32 ("Framework base 44 is configured to be supported by the floor. Upright supports 46 are attached to the framework base 44 to provide support for rollers 26, 28, curved support surfaces 23 and handles 40, 42"); Fig. 1.
11. A manually powered treadmill, comprising:	This is a preamble, not entitled to any weight. Nevertheless, '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). The '848 patent also discloses a manually operated treadmill. *See, e.g.*, '848 patent , Col. 2, lns. 58-60 ("Alternately, the deck can be porous to allow a pressure differential to be imposed under the deck to maintain the belt in contact with the deck").
a frame having a front end and a rear end positioned opposite the front end;	The Magid patent in combination with the Eschenbach patent disclose a frame having a front end and a rear end positioned opposite the front end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '848 patent, Col. 2, lns. 17-20 ("The present invention provides an exercise treadmill including a frame, first and second roller assemblies rotatably mounted on the frame, and an endless belt trained about the first and second roller assemblies"); Fig. 1.

Page 2115 of 2517

a front shaft attached to the frame adjacent the front end;	The Magid patent in combination with the Eschenbach patent disclose a front shaft attached to the frame adjacent the front end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."); claim 1. *See, e.g.*, '848 patent, Col. 2, lns. 17-20 ("The present invention provides an exercise treadmill including a frame, first and second roller assemblies rotatably mounted on the frame, and an endless belt trained about the first and second roller assemblies"); Col. 3, lns. 19-21 ("The deck ends are attached to frame cross members proximate each other. The cross members can be rigidly or pivotally attached to the chassis"); Col. 6, lns. 59-61 ("Belt 260 is trained to engage rollers 262, 264 which are rotatably attached at shafts 259, 261 to the framework (not shown)."); Fig. 1.
a rear shaft attached to the frame adjacent the rear end;	The Magid patent in combination with the Eschenbach patent disclose a rear shaft attached to the frame adjacent the rear end. *See, e.g.*, '489 patent, Col. 2, lns. 1-16 ("The base has front left and right sides, a first shaft extending from the front left side to the front right side, rear left and right sides, and a second shaft extending from the rear left side to the rear right side. The front rollers are mounted rotatably on the first shaft and are disposed respectively on the front

LIFECORE Ex. 1002

	left and right sides of the base. The rear rollers are mounted rotatably on the second shaft and are disposed respectively on the rear left and right sides of the base. Each of the foot belts engages a respective one of the front rollers and a respective one of the rear rollers. The support means is disposed between the pair of front rollers and the pair of rear rollers and provides a supporting surface for the foot belts. Thus, the presence of a moving weight which moves separately on the foot belts between the pair of front rollers and the pair of rear rollers will cause the foot belts to move and the front and rear rollers to rotate."). *See, e.g.*, '848 patent, Col. 2, lns. 17-20 ("The present invention provides an exercise treadmill including a frame, first and second roller assemblies rotatably mounted on the frame, and an endless belt trained about the first and second roller assemblies"); Col. 3, lns. 19-21 ("The deck ends are attached to frame cross members proximate each other. The cross members can be rigidly or pivotally attached to the chassis"); Col. 6, lns. 59-61 ("Belt 260 is trained to engage rollers 262, 264 which are rotatably attached at shafts 259, 261 to the framework (not shown)."); Fig. 1.
a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame;	The Magid patent in combination with the Eschenbach patent disclose a first bearing rail having a plurality of bearings, the first bearing rail attached to a left side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9.

LIFECORE Ex. 1002

Page 2117 of 2517

	See, e.g., '848 patent, Col. 2, lns. 26-38 ("In the preferred embodiment, the deck is suspended underneath by flexible linking; in this case, a first pair of cables on either side of the deck. The term flexible linking, in the present invention, is used to include various types of linear low extensible flexible options such as cable, wire, multiple strand wire, reinforced belt, chain, elastomeric strand and other forms… The term cushion is used broadly to include elastomeric polymers, viscous damping, springs, air or fluid pistons, etc. that can have linear or non-linear fluid attenuation"); Col. 2, lns. 48-55 ("The belt is guided by the first and second end rollers and by two idlers disposed intermediate the end rollers contacting the lower belt run. The idlers are movable to adjust the upper belt run in contact with the curved belt surface"); Col. 3, ln. 66- Col. 4, ln. 11 (A further embodiment uses a generally linear or crowned deck suspended underneath by flexible linking, in this case, a pair of cables on either side of the deck with cushioned ends. The cables form a parabolic curve that supports the deck with varying height crossover supports extending upwards to the generally flat deck. The crossover supports contact the cable with curved surfaces which can be pivoted to rotate as a roller or a pulley.").
a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame;	The Magid patent in combination with the Eschenbach patent disclose a second bearing rail having a plurality of bearings, the second bearing rail attached to a right side of the frame. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9.

LIFECORE Ex. 1002

Page 2118 of 2517

	See, e.g., '848 patent, Col. 2, lns. 26-38 ("In the preferred embodiment, the deck is suspended underneath by flexible linking; in this case, a first pair of cables on either side of the deck. The term flexible linking, in the present invention, is used to include various types of linear low extensible flexible options such as cable, wire, multiple strand wire, reinforced belt, chain, elastomeric strand and other forms… The term cushion is used broadly to include elastomeric polymers, viscous damping, springs, air or fluid pistons, etc. that can have linear or non-linear fluid attenuation"); Col. 2, lns. 48-55 ("The belt is guided by the first and second end rollers and by two idlers disposed intermediate the end rollers contacting the lower belt run. The idlers are movable to adjust the upper belt run in contact with the curved belt surface"); Col. 3, ln. 66- Col. 4, ln. 11 (A further embodiment uses a generally linear or crowned deck suspended underneath by flexible linking, in this case, a pair of cables on either side of the deck with cushioned ends. The cables form a parabolic curve that supports the deck with varying height crossover supports extending upwards to the generally flat deck. The crossover supports contact the cable with curved surfaces which can be pivoted to rotate as a roller or a pulley.").
a running belt at least partially disposed about the front shaft and the rear shaft and at least partially supported by the first bearing rail and the second bearing rail.	The Magid patent in combination with the Eschenbach patent disclose a running belt at least partially disposed about the front shaft and the rear shaft and at least partially supported by the first bearing rail and the second bearing rail. *See, e.g.*, '489 patent, Col. 6, lns. 47-64 ("Referring to FIGS. 8 and 9, the second preferred embodiment of a walker apparatus according to the present invention is shown to similarly comprise a base 11, a pair of front rollers 41, a pair of rear rollers 42, endless left and right foot belts 4, 4', and a support unit. The main difference between the first and second embodiments resides in the configuration of the support unit. In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are

LIFECORE Ex. 1002

	parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26."). *See, e.g.*, '848 patent, Col. 2, lns. 26-38 ("In the preferred embodiment, the deck is suspended underneath by flexible linking; in this case, a first pair of cables on either side of the deck. The term flexible linking, in the present invention, is used to include various types of linear low extensible flexible options such as cable, wire, multiple strand wire, reinforced belt, chain, elastomeric strand and other forms… The term cushion is used broadly to include elastomeric polymers, viscous damping, springs, air or fluid pistons, etc. that can have linear or non-linear fluid attenuation"); Col. 2, lns. 48-55 ("The belt is guided by the first and second end rollers and by two idlers disposed intermediate the end rollers contacting the lower belt run. The idlers are movable to adjust the upper belt run in contact with the curved belt surface"); Col. 3, ln. 66- Col. 4, ln. 11 (A further embodiment uses a generally linear or crowned deck suspended underneath by flexible linking, in this case, a pair of cables on either side of the deck with cushioned ends. The cables form a parabolic curve that supports the deck with varying height crossover supports extending upwards to the generally flat deck. The crossover supports contact the cable with curved surfaces which can be pivoted to rotate as a roller or a pulley.").
wherein the running belt includes a front belt portion proximate the front end, a rear belt portion proximate the rear end, and a central belt portion intermediate the front and rear belt	The Magid patent in combination with the Eschenbach patent disclose an apparatus wherein the running belt includes a front belt portion proximate the front end, a rear belt portion proximate the rear end, and a central belt portion intermediate the front and rear belt. *See, e.g.*, '489 patent, Fig. 8. *See, e.g.*, '848 patent, Col. 4, ln. 64- Col. 5, ln. 10 ("In the preferred embodiment shown in FIGS. 1 and 2, endless belt 12 is trained upon the front first roller 26, rear second roller 28 and pair of idlers 34. The belt 12 upper run is supported by a curved deck 10 which is

LIFECORE Ex. 1002

	composed of a semi-rigid material having a removable frictionless upper surface. Deck 10 is supported by first cable pair 8 that are in slidable contact with curved support surfaces 23 and attached at the cable ends to eyebolts 24 by cable clamps 22. Eyebolts 24 pass through brackets 39, elastomeric members 19 and are threadably secured to adjustment knobs 21. Rotation of knobs 21 change the cable 8 length between the curved support surfaces 23 to vary deck 10 curvature. Idlers can then be adjusted to assume belt 12 upper run compliance with the curved deck"); Col. 6, lns. 48-63 ("Yet another embodiment is shown in FIG. 5 where the second cable pair 124 of the previous embodiment is replaced with connectors 256. Connectors 256 can be rods, cables, belts, chains or elastomeric strands attached to cable pair 258 and to deck crossovers 266. The cable pair 258 pass over curved supports 252 terminating at elastomeric cushions 255 and adjustment knobs 257. Cushions 255 are supported by brackets 253 which along with curved supports 252 are attached to a framework (not shown). Deck 280 supports upper belt 260 run, and is similar to the previous embodiment having two outer layers 251, 252 covering an internal layer 250 or can be of a single material. Belt 260 is trained to engage rollers 262, 264 which are rotatably attached at shafts 259, 261 to the framework (not shown). Foot impact is absorbed by deck 280, elastomeric cushions 255 and elastomeric strands 256, where used."); Claims 22, 23, 28.
wherein the central belt portion is positioned vertically closer to a ground surface supporting the frame than the front and rear belt portions such that the running belt follows a curved running surface;	The Magid patent in combination with the Eschenbach patent disclose an apparatus wherein the central belt portion is positioned vertically closer to a ground surface supporting the frame than the front and rear belt portions such that the running belt follows a curved running surface. *See, e.g.*, '848 patent, Col. 4, ln. 64- Col. 5, ln. 10 ("In the preferred embodiment shown in FIGS. 1 and 2, endless belt 12 is trained upon the front first roller 26, rear second roller 28 and pair of idlers 34. The belt 12 upper run is supported by a curved deck 10 which is composed of a semi-rigid material having a removable frictionless upper surface. Deck 10 is supported by first cable pair 8 that are in slidable contact with curved support surfaces 23 and attached at the

Page 2121 of 2517

	cable ends to eyebolts 24 by cable clamps 22. Eyebolts 24 pass through brackets 39, elastomeric members 19 and are threadably secured to adjustment knobs 21. Rotation of knobs 21 change the cable 8 length between the curved support surfaces 23 to vary deck 10 curvature. Idlers can then be adjusted to assume belt 12 upper run compliance with the curved deck"); Col. 6, lns. 48-63 ("Yet another embodiment is shown in FIG. 5 where the second cable pair 124 of the previous embodiment is replaced with connectors 256. Connectors 256 can be rods, cables, belts, chains or elastomeric strands attached to cable pair 258 and to deck crossovers 266. The cable pair 258 pass over curved supports 252 terminating at elastomeric cushions 255 and adjustment knobs 257. Cushions 255 are supported by brackets 253 which along with curved supports 252 are attached to a framework (not shown). Deck 280 supports upper belt 260 run, and is similar to the previous embodiment having two outer layers 251, 252 covering an internal layer 250 or can be of a single material. Belt 260 is trained to engage rollers 262, 264 which are rotatably attached at shafts 259, 261 to the framework (not shown). Foot impact is absorbed by deck 280, elastomeric cushions 255 and elastomeric strands 256, where used."); Claims 22, 23, 28.
and a safety device for substantially preventing 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 rotational direction.	The Magid patent in combination with the Eschenbach patent disclose a safety device for substantially preventing 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 rotational direction. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to

LIFECORE Ex. 1002

	release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '848 patent, Claim 29.
12. The manually powered treadmill of claim 11, wherein the safety device includes a one-way bearing.	The Magid patent in combination with the Eschenbach patent disclose the manually powered treadmill of claim 11, wherein the safety device includes a one-way bearing. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result.").
14. The manually powered treadmill of claim 11, further comprising support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface.	The Magid patent in combination with the Eschenbach patent disclose the manually powered treadmill of claim 11, further comprising support feet coupled to the frame, wherein the support feet are vertically adjustable to adjust an incline of the manually powered treadmill relative to the ground surface. *See, e.g.*, '848 patent, Figs. 1-3 (depicting sets of support feet perpendicular to support surface at the front and rear of the apparatus); Col. 4, lns. 17-19 ("In all of the above embodiments, an additional mechanism can be added to raise or lower one end of the chassis as is common with modern treadmills"); Claim 11.
18. The manually powered treadmill of claim 11,	The Magid patent in combination with the Eschenbach patent

wherein each of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft.	disclose the manually powered treadmill of claim 11, wherein each of the first and second bearing rails are attached longitudinally to the frame between the front shaft and the rear shaft. *See, e.g.*, '489 patent, Col. 6, lns. 53-64 ("In the second preferred embodiment, each of the foot belt 4, 4' is wound circulatively on the respective one of the front rollers 41 and on the respective one of the rear rollers 42, and the support unit includes a plurality of adjacent parallel third shafts 27 between the front and rear rollers 41, 42. The third shafts 27 have axes which are parallel to the first and second shafts 411, 421, and two ends which are secured on a pair of side brackets 24' that extend upwardly from opposite longitudinal sides of the base 11. The support unit further includes a plurality of pairs of intermediate left and right rollers 26, 26'. Each of the pairs of intermediate left and right rollers 26"); Figs. 8, 9. *See, e.g.*, '848 patent, Col. 2, lns. 26-38 ("In the preferred embodiment, the deck is suspended underneath by flexible linking; in this case, a first pair of cables on either side of the deck. The term flexible linking, in the present invention, is used to include various types of linear low extensible flexible options such as cable, wire, multiple strand wire, reinforced belt, chain, elastomeric strand and other forms… The term cushion is used broadly to include elastomeric polymers, viscous damping, springs, air or fluid pistons, etc. that can have linear or non-linear fluid attenuation"); Col. 2, lns. 48-55 ("The belt is guided by the first and second end rollers and by two idlers disposed intermediate the end rollers contacting the lower belt run. The idlers are movable to adjust the upper belt run in contact with the curved belt surface"); Col. 3, ln. 66- Col. 4, ln. 11 (A further embodiment uses a generally linear or crowned deck suspended underneath by flexible linking, in this case, a pair of cables on either side of the deck with cushioned ends. The cables form a parabolic curve that supports the deck with varying height crossover supports extending upwards to the generally flat deck. The crossover supports contact the cable with curved surfaces which can be pivoted to rotate as a roller or a pulley.").

Page 2124 of 2517

25. A method, comprising: providing a manually powered treadmill,	The Magid patent in combination with the Eschenbach patent disclose a method comprising providing a manually operated treadmill. *See, e.g.* '489 patent discloses a manually operated treadmill. *See, e.g.* '489 patent, Col. 2, lns. 12-16 ("the presence of a moving weigh which moves separately on the footbelts between the pair of front rollers and the pair of rear rollers will cause the footbelts to move and the front and rear rollers to move."). *See, e.g.*, '848 patent, Col. 2, lns. 58-60 ("Alternately, the deck can be porous to allow a pressure differential to be imposed under the deck to maintain the belt in contact with the deck").
the manually powered treadmill having a frame with a front end and rear end;	The Magid patent in combination with the Eschenbach patent disclose the manually powered treadmill having a frame with a front end and rear end. *See, e.g.*, '489 patent, Col. 2, lns. 17-19 ("The base may further have a pair of spared front brackets disposed adjacent to the front left and right sides thereof and a pair of spaced rear brackets disposed adjacent to the rear left and right sides thereof."). *See, e.g.*, '848 patent, Col. 2, lns. 17-20 ("The present invention provides an exercise treadmill including a frame, first and second roller assemblies rotatably mounted on the frame, and an endless belt trained about the first and second roller assemblies"); Fig. 1.
providing a first bearing rail and a second bearing rail, the first and second bearing rails each comprising a plurality of bearings and extending longitudinally on the frame, wherein the first and second bearing rails define a curved top profile;	The Magid patent in combination with the Eschenbach patent disclose providing a first bearing rail and a second bearing rail, the first and second bearing rails each comprising a plurality of bearings and extending longitudinally on the frame, wherein the first and second bearing rails define a curved top profile. *See, e.g.*, '848 patent, Col. 2, lns. 26-38 ("In the preferred embodiment, the deck is suspended underneath by flexible linking; in this case, a first pair of cables on either side of the deck. The term flexible linking, in the present invention, is used to include various

LIFECORE Ex. 1002

	types of linear low extensible flexible options such as cable, wire, multiple strand wire, reinforced belt, chain, elastomeric strand and other forms… The term cushion is used broadly to include elastomeric polymers, viscous damping, springs, air or fluid pistons, etc. that can have linear or non-linear fluid attenuation"); Col. 2, lns. 48-55 ("The belt is guided by the first and second end rollers and by two idlers disposed intermediate the end rollers contacting the lower belt run. The idlers are movable to adjust the upper belt run in contact with the curved belt surface"); Col. 3, ln. 66- Col. 4, ln. 11 (A further embodiment uses a generally linear or crowned deck suspended underneath by flexible linking, in this case, a pair of cables on either side of the deck with cushioned ends. The cables form a parabolic curve that supports the deck with varying height crossover supports extending upwards to the generally flat deck. The crossover supports contact the cable with curved surfaces which can be pivoted to rotate as a roller or a pulley.").
disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails;	The Magid patent in combination with the Eschenbach patent disclose disposing a running belt on the plurality of bearings of the first bearing rail and the second bearing rail such that the running belt follows a top curved running surface corresponding to the curved top profile of the first and second bearing rails. *See, e.g.*, '848 patent, Col. 4, ln. 64- Col. 5, ln. 10 ("In the preferred embodiment shown in FIGS. 1 and 2, endless belt 12 is trained upon the front first roller 26, rear second roller 28 and pair of idlers 34. The belt 12 upper run is supported by a curved deck 10 which is composed of a semi-rigid material having a removable frictionless upper surface. Deck 10 is supported by first cable pair 8 that are in slidable contact with curved support surfaces 23 and attached at the cable ends to eyebolts 24 by cable clamps 22. Eyebolts 24 pass through brackets 39, elastomeric members 19 and are threadably secured to adjustment knobs 21. Rotation of knobs 21 change the cable 8 length between the curved support surfaces 23 to vary deck 10 curvature. Idlers can then be adjusted to assume belt 12 upper run compliance with the curved deck"); Col. 6, lns. 48-63 ("Yet another embodiment is shown in FIG. 5 where the second cable pair 124 of

LIFECORE Ex. 1002

	the previous embodiment is replaced with connectors 256. Connectors 256 can be rods, cables, belts, chains or elastomeric strands attached to cable pair 258 and to deck crossovers 266. The cable pair 258 pass over curved supports 252 terminating at elastomeric cushions 255 and adjustment knobs 257. Cushions 255 are supported by brackets 253 which along with curved supports 252 are attached to a framework (not shown). Deck 280 supports upper belt 260 run, and is similar to the previous embodiment having two outer layers 251, 252 covering an internal layer 250 or can be of a single material. Belt 260 is trained to engage rollers 262, 264 which are rotatably attached at shafts 259, 261 to the framework (not shown). Foot impact is absorbed by deck 280, elastomeric cushions 255 and elastomeric strands 256, where used."); Claims 22, 23, 28.
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.	The Magid patent in combination with the Eschenbach patent disclose 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. *See, e.g.*, '489 patent, Col. 4, lns. 47-60 ("A unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. In this embodiment, the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing bidirectional movement of the foot belts 4, 4'. A releasable means (not shown) may be provided to release selectively the pawls 62 from the ratchet gears 61 in a known manner to permit reciprocating movement of the foot belts 4, 4' when desired. Of course, the ratchet gears may be attached to the rear rollers 42 to achieve the same result."). *See, e.g.*, '848 patent, Claim 29.

EXHIBIT 1

Leg-Powered Treadmill

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Case Name:	Speedfit LLC and Aurel Astilean, v. Woodway USA
Beacon Project No.:	10034
Report Date:	July 27, 2015
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Table of Contents

Assignment 3
Enclosure List 3
Provisional Patent Application 4
Patent US 8,308,619 B1 6
Patent US 8,343,016 B1 10
Testing 10
Discussion 22
Conclusions 25
Signatures 26
Enclosures 27

ASSIGNMENT

On July 21, 2015, Mr. John Vodopia contacted Beacon Forensic, P.C. (BFPC) to review file material concerning a leg-powered treadmill. The plaintiff, Mr. Aurel Astilean, invented a leg-powered treadmill and filed a provisional patent application and subsequently secured two issued patents. It was reported that the defendant, Woodway USA and Mr. Douglas Bayerlein its President and CEO, stated that the leg-powered treadmill as disclosed in the provisional patent application does not enable one to make the invention as claimed in the issued patents.

The scope of the assignment was to determine if the invention as described in the provisional patent application was sufficient to allow one to make the invention as claimed in two issued patents: United States Patent 8,308,619 B1 (Patent 619) and United States Patent 8,343,016 B1 (Patent 016).

In response to this request, BFPC completed the following:

- Reviewed file material:
  - Provisional Patent Application No. 61/280,265
  - United States Patent 8,308,619 B1
  - United States Patent 8,343,016 B1
  - Letter from Mr. Richard McKenna dated January 21, 2011
  - Strategic Evaluation Agreement not completed
  - Document titled "Woodway Debuts SpeedBoard at IHRSA Show"
  - 275 digital colored photographs of the leg-powered treadmill
  - 7 colored drawings of the leg-powered treadmill
  - 49 colored photocopied drawings and photographs of the leg-powered treadmill and additional images
  - Second Amended Complaint dated February 17, 2015
- BFPC constructed test fixtures and completed testing as to the inventions disclosed in the provisional patent application and claimed in the issued patents
- BFPC completed an analysis as to the similarity of designs in the provisional patent application and Patents 619 and 016

ENCLOSURE LIST

- Appendix A: Provisional Patent Application No. 61/280,265
- Appendix B: United States Patent 8,308,619 B1
- Appendix C: United States Patent 8,343,016 B1

PROVISIONAL PATENT APPLICATION

The following was noted from the Provisional Patent Application (Appendix A):

Application Number:	61/280,265
Filing Date:	11/02/2009
Applicant:	Mr. Astilean, East Hampton, New York

The written description contained the following:

> The description of the invention which follows, together with the accompanying drawing should not be construed as limiting the invention to the example shown and described, because those skilled in the art to which this invention appertains will be able to devise other forms thereof.
>
> Fig. 1 (**Figure 1**) is a perspective view of a leg-powered treadmill constructed and having an operating mode according to the present invention.
>
> Illustrated are two leg supports 10 and 12 which lift the treadmill 14 in a clearance position above a support surface 16, said treadmill 10 having space apart sides 18 and 20 which have journalled for rotation end rollers 22 and 24 which support a closed loop treadmill belt 26. Springs (not shown) exert spring urgency in opposite directions holding taut the length of the lower belt portion 26A in a dimension of approximately twenty-three inches denoted by arrow 30 and in the upper belt portion 26B weighing approximately forty pounds, denoted by the arrow 30.
>
> It is to be noted that an essential feature of treadmill 10 is a concave shape subtending an acute angle 34 in the treadmill 10 front end 14A which in practice results in the exerciser 36 running uphill and concomitantly exerting body weight 38 that contributes to driving lengthwise 40 in the direction 42 in which the exerciser runs and achieves the benefits of the exercise.
>
> It is known from common experience that in prior art treadmills, the upper length portion of their closed loops are flat due, it is believed, because of the inability to maintain the concave shape 34 in the length portion 26B. This shortcoming is overcome by the weight 30 which in practice has been found to hold the concave shape 34 during the uphill running of the exerciser 36.

The provisional patent application referenced a drawing seen in **Figure 1**.

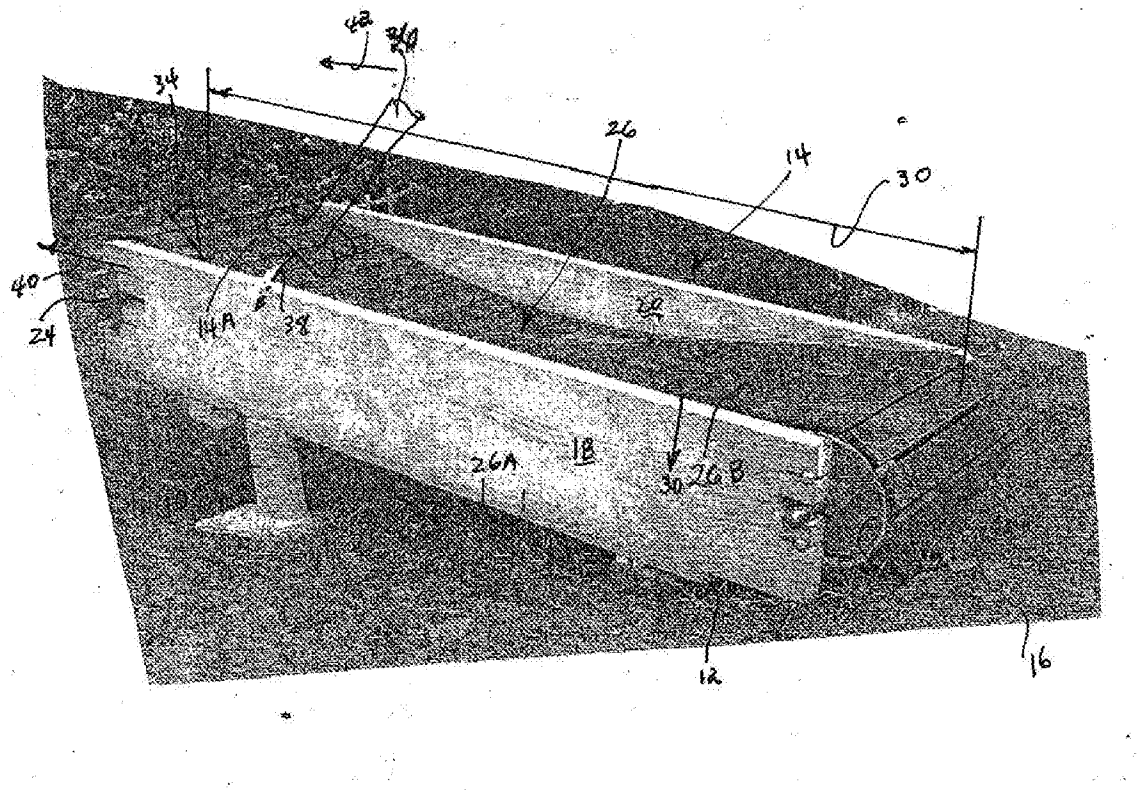


Figure 1: Provisional Patent Application Figure 1.

PATENT US 8,308,619 B1

The following was noted from the Patent 619 (Appendix B):

Patent No.:	US 8,308,619 B1
Application No.:	12/925,770
Filing Date:	10/29/2010
Patent Date:	11/13/2012
Inventor:	Mr. Astilean, East Hampton, New York
Related US Application Data:	Provisional application No. 61/280,265, filed on Nov 2, 2009

The patent contained a single claim which stated the following:

> 1. A motor-less, leg-powered treadmill comprising:
>
> a treadmill frame;
>
> a set of respective front and rear pulley end rollers for rotation, said front and rear pulleys supporting a closed loop treadmill belt;
>
> said closed loop treadmill belt comprising a plurality of parallel slats oriented perpendicular to an axis of rotation of said belt, said parallel slats attached to each other in a resilient fashion;
>
> said closed loop treadmill belt being of such a length as compared to the distance between the end rollers to permit it to assume a required concave upper contour;
>
> a means
>
> > for slackening an upper concave portion of said closed loop treadmill belt while simultaneously keeping a lower portion of said closed loop treadmill belt taut, preventing said lower portion from drooping down during rotation and exertion of walking or miming force upon said upper concave portion of said closed loop treadmill belt,
> >
> > said means for slackening the upper portion while simultaneously keeping the lower portion taut, preventing said lower portion from drooping down during rotation and exertion of walking or running force upon said upper concave portion of said closed loop treadmill belt
> >
> > comprises a timing belt having respective timing belt pulleys attached to said front and rear pulley rollers for said closed loop treadmill belt,
> >
> > wherein timing belt idlers are used to configure said timing belt geometrically to fit within constraints of side contours of said treadmill,
> >
> > wherein if said closed loop treadmill belt is prevented from slipping relative to said end rollers by a high friction coefficient, once configured, said timing belt will not permit drooping down of said lower taut portion of said closed loop treadmill belt because all respective motion is synchronous.

The description of patent 619 provided additional detail concerning the means for slackening the upper portion of the belt while simultaneously keeping the lower portion of the belt taut. Specifically:

> A closed loop treadmill belt 26 is formed with a running surface of transverse wooden, plastic or rubber slats 49 (see FIG. 1 (**Figure 2**)) attached to each other in a resilient fashion. Since an essential feature of treadmill 10 is the concave shape of the low friction running surface of belt 26 in upper portion 26B, methods are used to insure that this shape is maintained during actual use. These methods must prevent the lower portion 26A of treadmill belt 26 from drooping down (i.e. must be held taut), otherwise top portion 26B would be pulled taut into a flat shape between rollers 22 and 24. Three methods are illustrated by the side view schematic drawings of FIGS. 2-4.
>
> The method of FIG. 2 (**Figure 3**) shows a flat support belt loop 50 engaged with two side pulleys 54 and a third pulley 56 which is attached to treadmill 10 frame. Two springs 52 pulling in opposite directions hold belt 50 taut with a flat top configuration in contact with bottom treadmill belt portion 26A. Since pulleys 54 and 52 are low friction, and there is no relative movement between belt 50 and belt 26, belt 50 imposes very little drag on belt 26 while supporting lower belt portion 26A vertically preventing it from drooping down.
>
> The method shown in FIG. 3 (**Figure 3**) shows the use of a timing belt 67 in achieving a similar result. Here end rollers 60 and 64 are attached to timing belt pulleys 62 and 66 respectively. Timing belt idlers 68 are simply used to configure timing belt geometrically to fit within the constraints of the side contours of treadmill 10. If belt 26 is prevented from slipping relative to end rollers 60 and 64 by high friction coefficient (or by the use an integral timing belt on the inside of belt 26 and rollers with timing belt engagement grooves), once configured as shown, timing belt 67 will not permit drooping down of section 26A since all motion is now synchronous.
>
> In another method shown in FIG. 4, (**Figure 3**) one or more linear arrays of bearings 70 extending along opposite peripheral edges of said treadmill frame physically support lower section 26A of treadmill belt 26 thereby preventing drooping. Bearings 70 may be ball bearings or straight ball bearing casters attached and located at respective side peripheral edges to the bottom surface of the frame of treadmill 10.

Patent 619 referenced one drawing seen in **Figure 2** and three drawings seen in **Figure 3**.

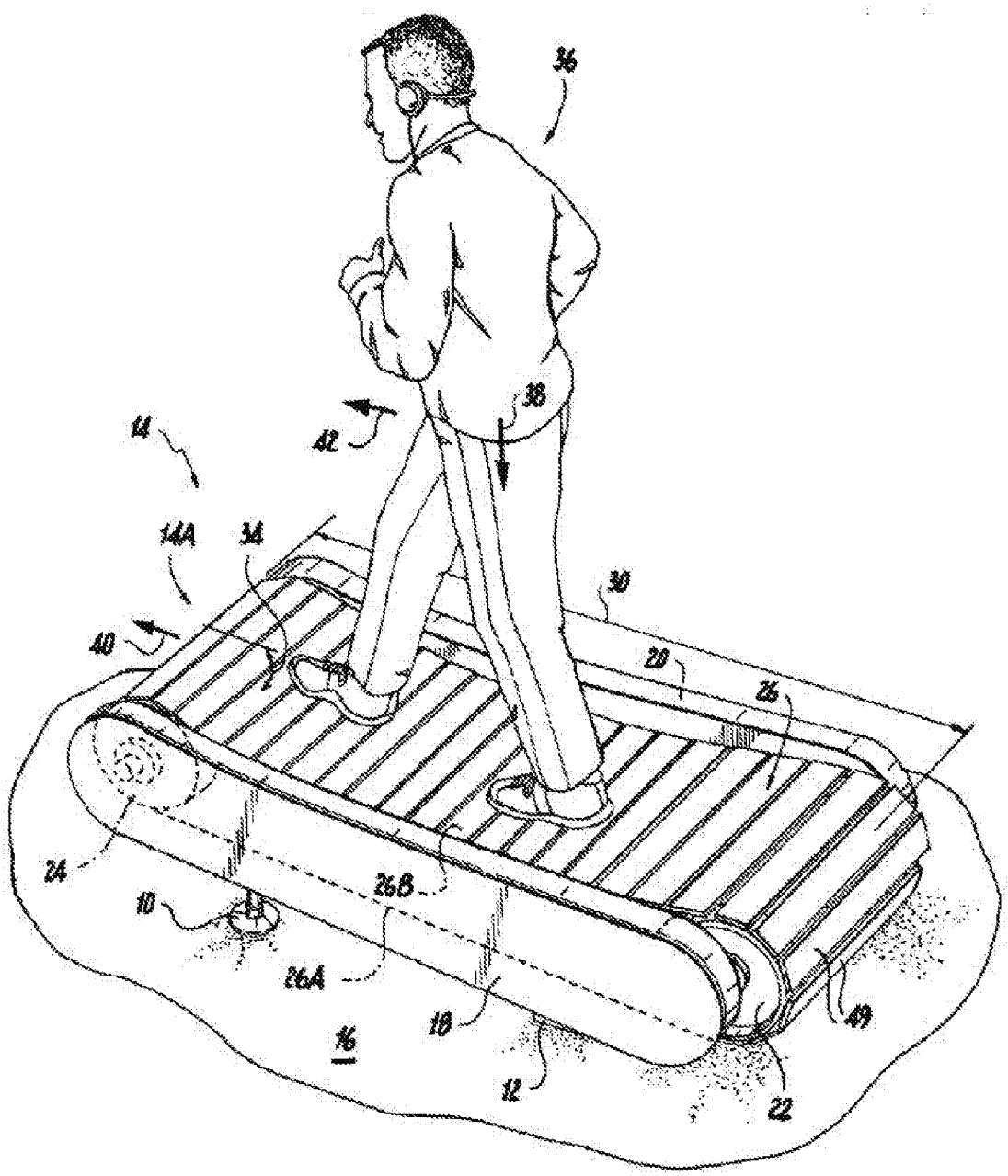


Fig. 1

Figure 2: Drawing 1 from Patent 619.

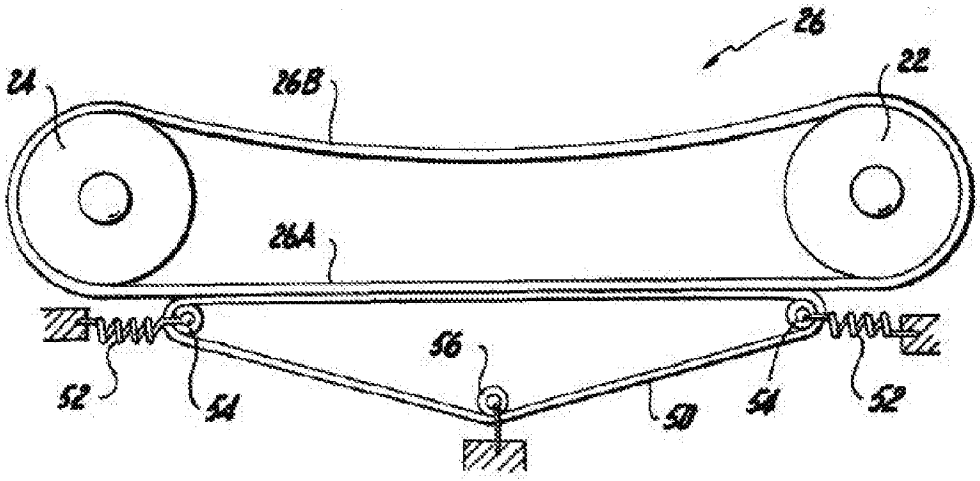


Fig. 2

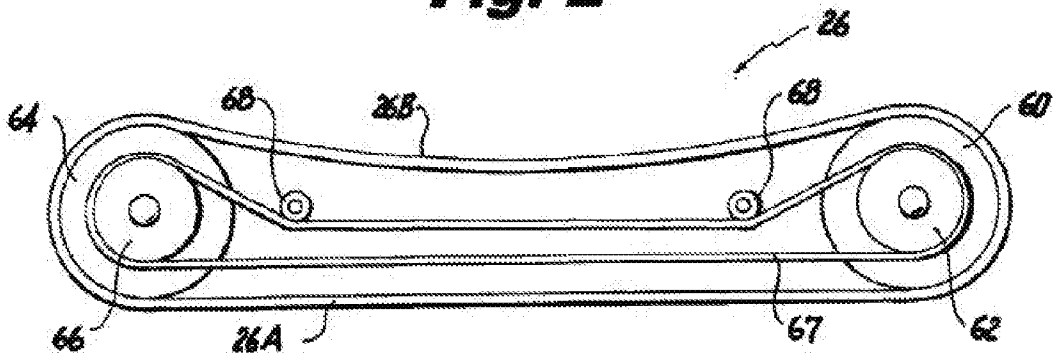


Fig. 3

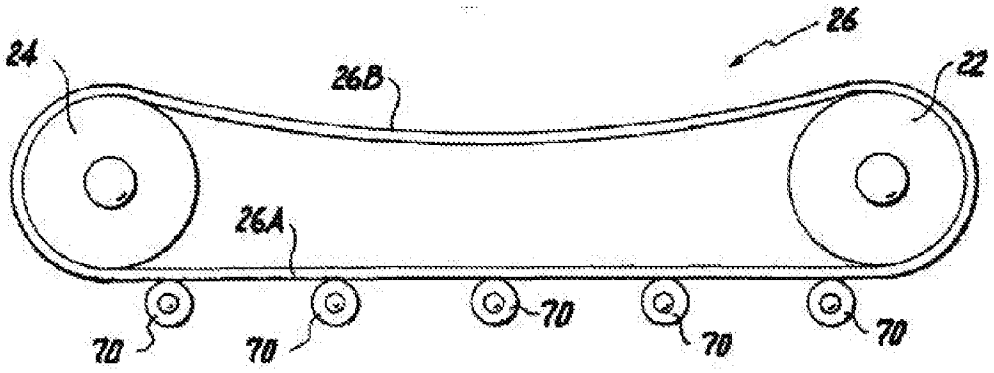


Fig. 4

Figure 3: Drawings 2 through 4 from Patent 619.

PATENT US 8,343,016 B1

The following was noted from the Patent 016 (Appendix C):

Patent No.:	US 8,343,016 B1
Application No.:	12/925,892
Filing Date:	11/1/2010
Patent Date:	1/1/2013
Inventor:	Mr. Astilean, East Hampton, New York
Related US Application Data:	Continuation-in-part of application No. 12/925,770 Provisional application No. 61/280,265, filed on Nov 2, 2009

The patent contained 17 claims. Claim 1 stated the following:

> 1. A motor-less, leg-powered curved treadmill comprising:
>
> a treadmill frame;
>
> a set of respective front and rear pulley end rollers for rotation, said front and rear pulleys supporting a closed loop treadmill belt;
>
> said closed loop treadmill belt comprising a plurality of parallel slats oriented perpendicular to an axis of rotation of said belt, said parallel slats attached to each other in a resilient fashion;
>
> said closed loop treadmill belt being of such a length as compared to the distance between the end rollers to permit it to assume a required concave upper contour;
>
> a means for slackening an upper concave portion while simultaneously keeping a lower portion of the belt taut, preventing said lower portion from drooping down during rotation and exertion of walking or running force upon said upper concave portion of said closed loop treadmill belt;
>
> wherein each said slat is made of a material with sufficient resiliency and strength and weight to lie on and conform to a concave row of upper support peripheral ball bearings located at each peripheral side of said upper portion of said motor-less, leg-powered curved treadmill.

The description of Patent 016 provided additional detail concerning the means for slackening the upper portion of the belt while simultaneously keeping the lower portion of the belt taut. It also contained drawings to assist in understanding the subject matter. The said description and drawings in the Patent 016 were generally repeated from the Patent 619. They were not repeated in this section of the report.

TESTING

Demonstrative testing of the inventions as described in the provisional patent application and the patents was completed. A control model contained the elements of the invention except a method of keeping the lower belt portion taut. The test setup consisted of six variations.

The first two models were constructed to be consistent with the description of the provisional patent application. The first model (**Figure 4**) comprised of a frame that represented the treadmill frame, which had two sides. The sides were spaced apart and had journalled ends to accept bearings which coupled to

end rollers. The end rollers supported a closed loop belt. The closed loop belt comprised of an upper portion and lower portion. The belt portions had weight. A spring loaded in tension, such that the resultant load was in opposite directions at the spring's end and held taut the lower belt portion. The following was observed during testing: as the weight and belt traveled, the top portion of the belt retained the concave shape and the bottom portion of the belt was taut, not slacked (**Figure 5**). When the weight was removed from the belt, the top belt portion retained its concave shape and the bottom portion remained taut, not slacked (**Figure 6**).

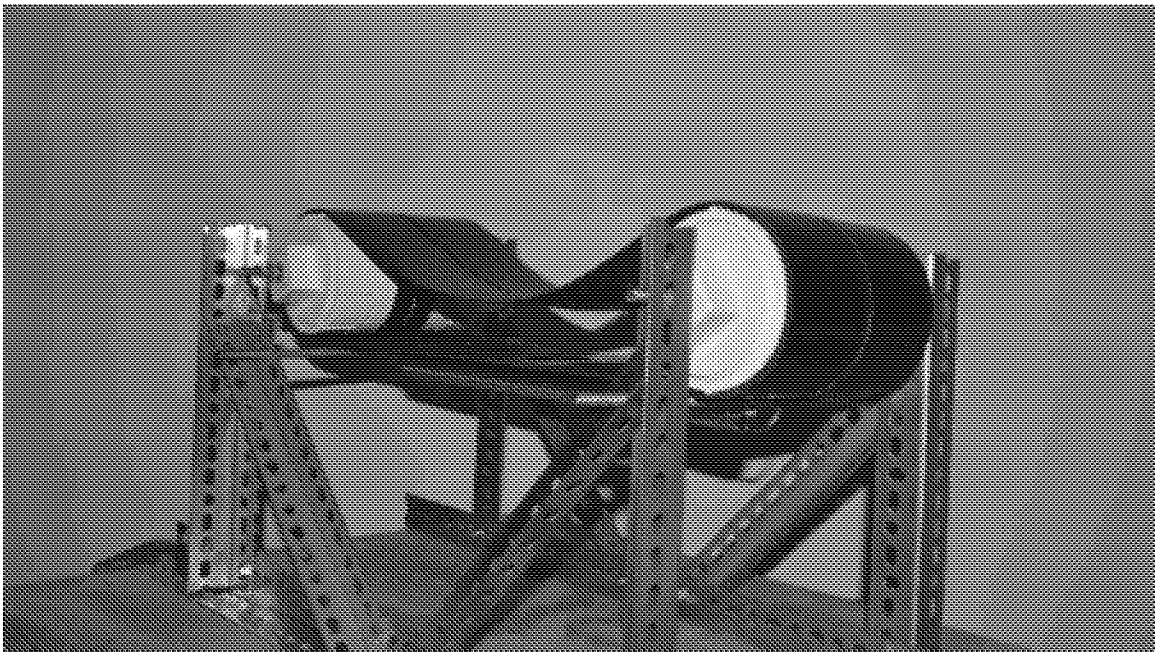


Figure 4: Model consistent with the provisional patent application description.

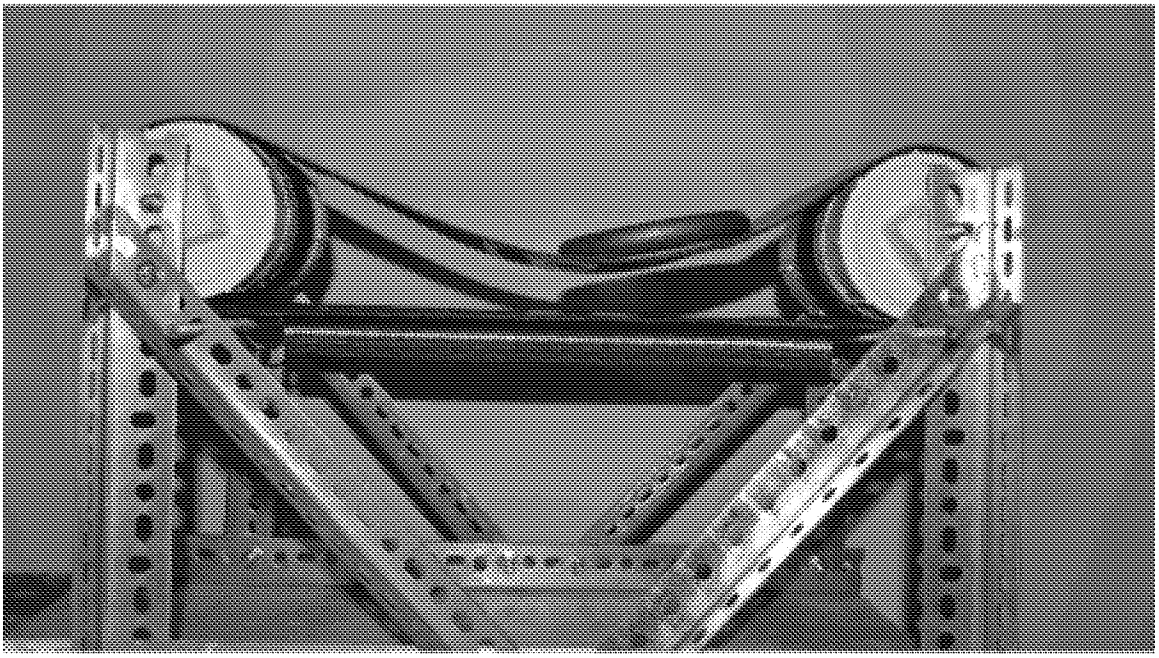


Figure 5: Model consistent with the provisional patent application description, loaded.

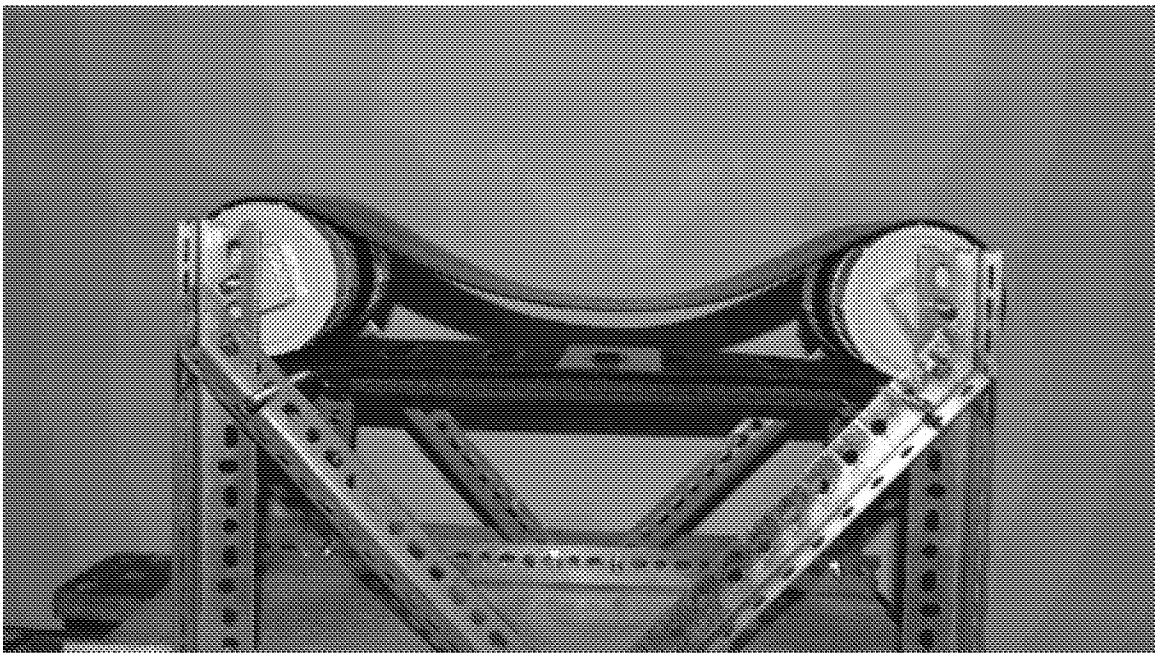


Figure 6: Model consistent with the provisional patent application description, unloaded. Note the treadmill belt top portion retained the concave shape and the bottom portion was taut.

The second model (**Figure 7**) comprised of a frame that represented the treadmill frame, which had two sides. The sides were spaced apart and had journalled ends to accept bearings which coupled to end rollers. The end rollers supported a closed loop belt. The closed loop belt comprised of an upper portion and lower portion. The belt portions had weight. A leaf spring loaded in bending, such that the resultant load was in opposite directions at the spring's end and midpoint, held taut the lower belt portion. The following was observed during testing: as the weight and belt traveled, the top portion of the belt retained the concave shape and the bottom portion of the belt was taut, not slacked (**Figure 8**). When the weight was removed from the belt, the top belt portion retained its concave shape and the bottom portion remained taut, not slacked (**Figure 9**).

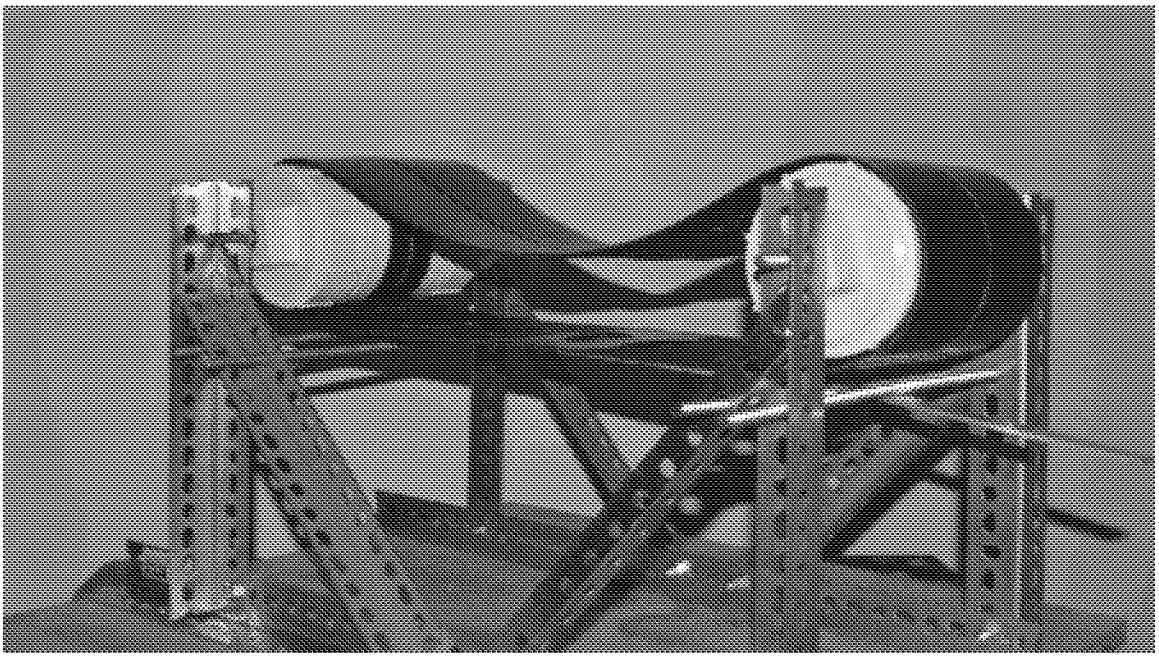


Figure 7: Model consistent with the provisional patent application description.

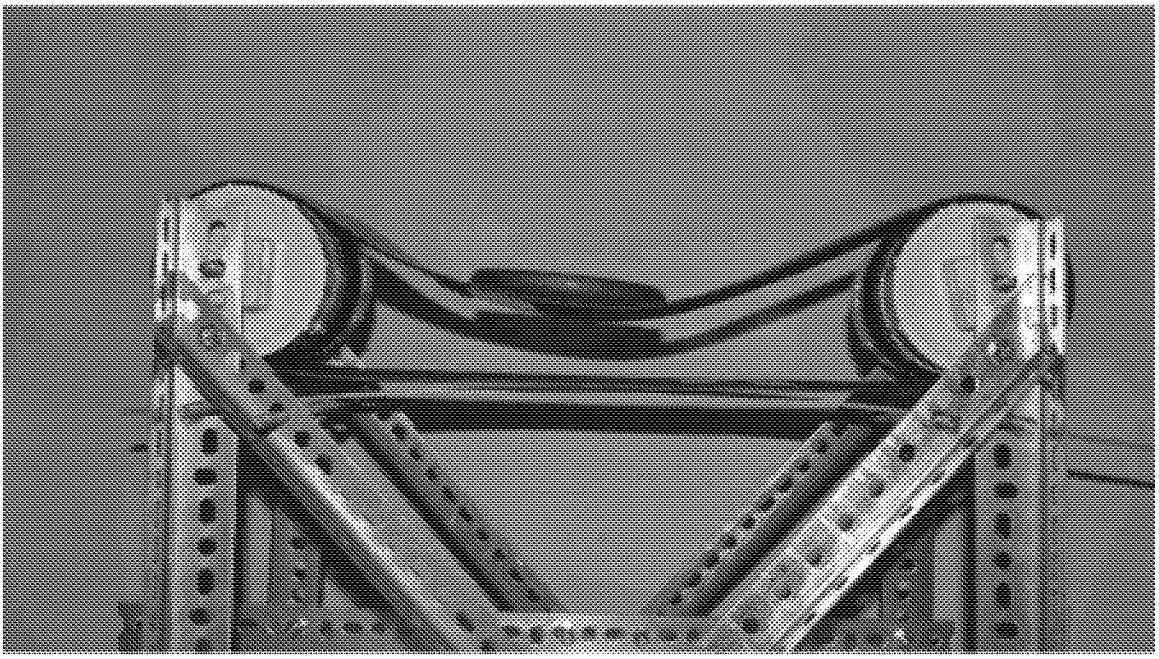


Figure 8: Model consistent with the provisional patent application description, loaded.

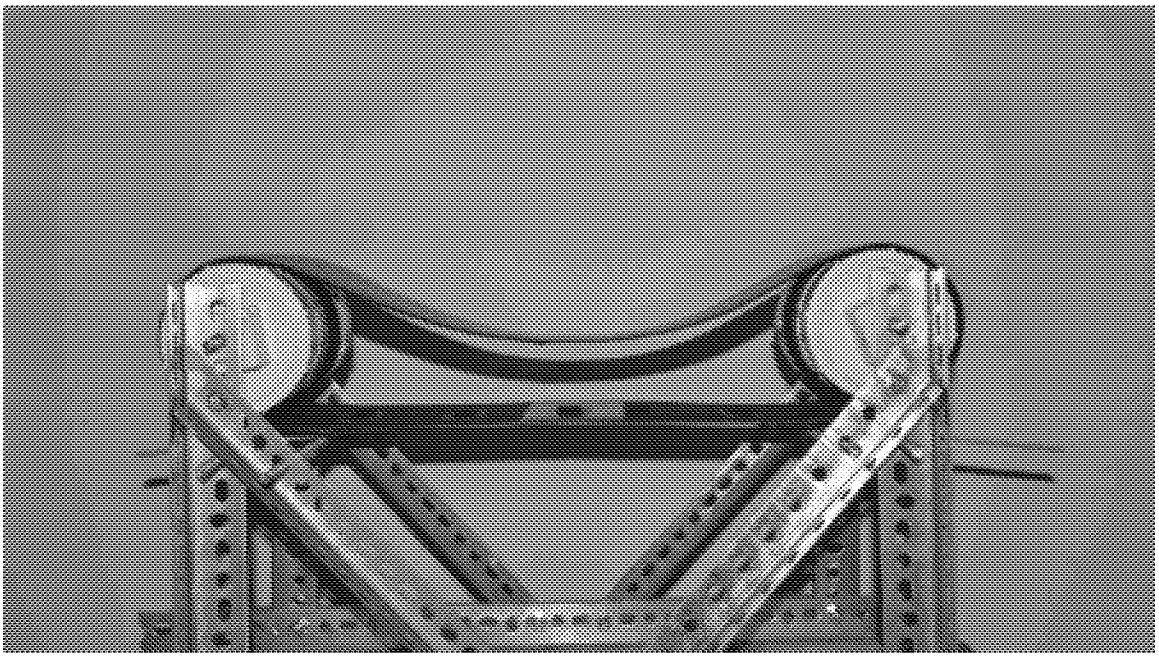


Figure 9: Model consistent with the provisional patent application description, unloaded. Note the treadmill belt top portion retained the concave shape and the bottom portion was taut.

The third model (**Figure 10**) was constructed to be consistent with what was claimed and contained in the description of Patents 619 and 016. It comprised of a frame that represented the treadmill frame; front and rear pulley end rollers for rotation; a closed loop belt supported by the pulley end rollers; the test belt did not contain slats which could have been added and would not change the test results; the said closed loop belt having a concave upper contour; a means for slackening the upper belt portion and simultaneous keeping the lower belt portion taut during rotation and exertion to include cyclical forces on the upper belt portion. The said means for slackening included: a timing belt; timing belt pulleys are attached to said front and rear pulley rollers; timing belt idlers are used to configure the said timing belt geometrically; high friction coefficient to prevent the said closed loop treadmill belt from slipping relative to the end rollers; and the said timing belt prevents drooping of the said lower taut portion of said closed loop treadmill belt because all respective motion is synchronous. The following was observed during testing: as the weight and belt traveled, the top portion of the belt retained the concave shape and the bottom portion of the belt was taut, not slacked (**Figure 11**). When the weight was removed from the belt, the top belt portion retained its concave shape and the bottom portion remained taut, not slacked (**Figure 12**).

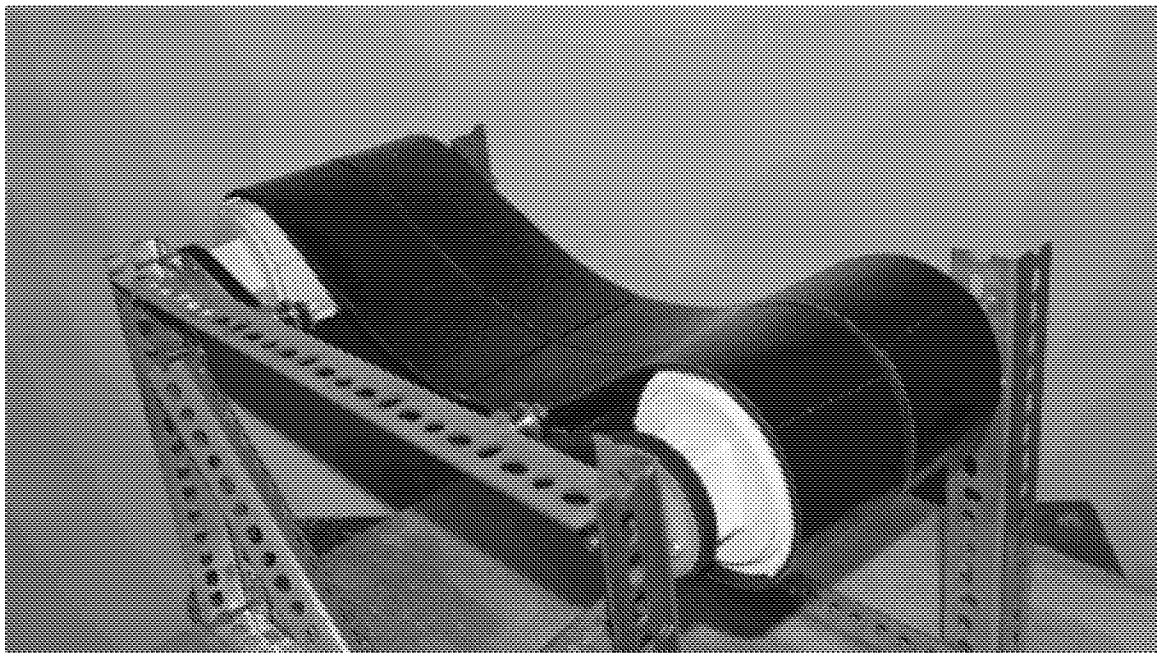


Figure 10: Model consistent with Patents 619 and 016.

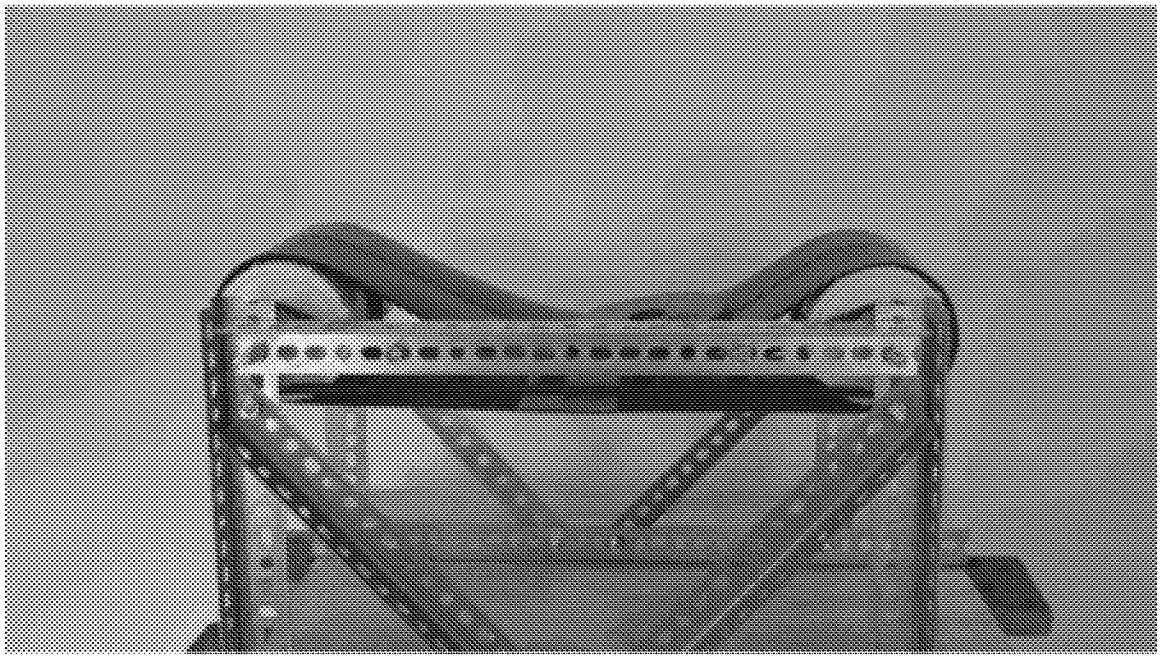


Figure 11: Model consistent with Patents 619 and 016, loaded.

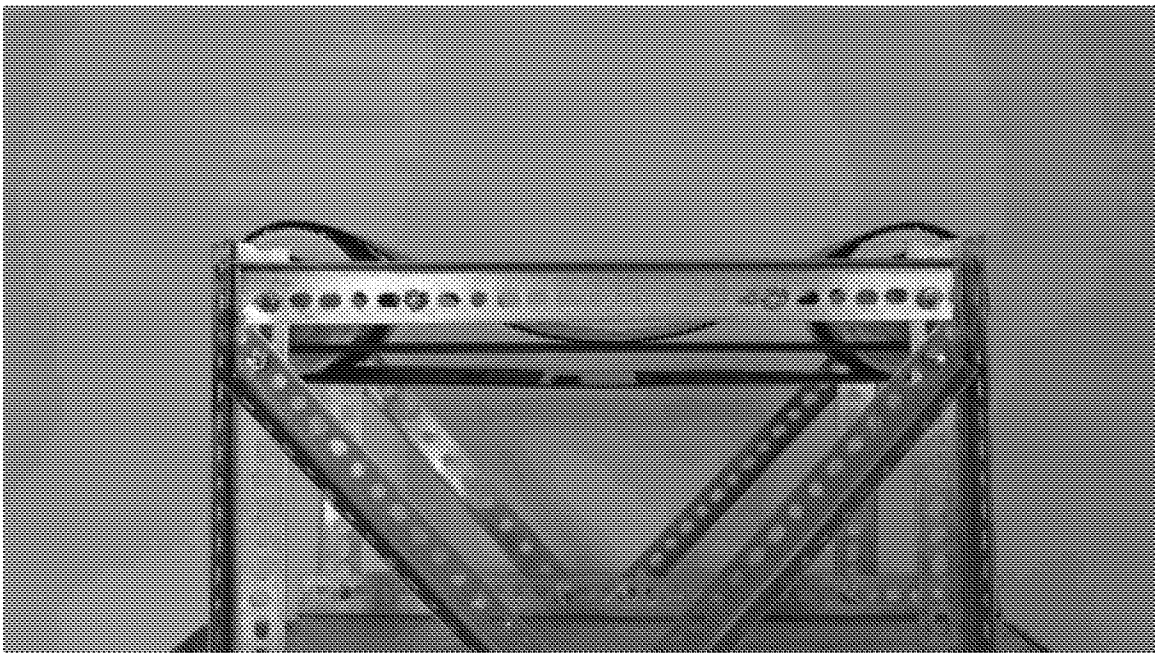


Figure 12: Model consistent with Patents 619 and 016, unloaded. Note the treadmill belt top portion retained the concave shape and the bottom portion was taut.

The fourth model (**Figure 13**) was constructed to be consistent with what was claimed and described in Patent 016 and described in Patent 619. It comprised of a frame that represented the treadmill frame; front and rear pulley end rollers for rotation; a closed loop belt supported by the pulley end rollers; the test belt did not contain slats which could have been added and would not change the test results; the said closed loop belt having a concave upper contour; a means for slackening the upper belt portion and simultaneous keeping the lower belt portion taut during rotation and exertion to include cyclical forces on the upper belt portion. The said means for slackening comprised: a flat support belt loop; two side pulleys engaged with the said flat support belt loop; a third pulley engaged with the said flat support belt loop and attached to treadmill frame; two springs pulling in opposite directions hold the flat support belt loop taut in contact with closed loop belt bottom portion; and the treadmill closed loop belt bottom portion is supported, preventing it from drooping down. The following was observed during testing: as the weight and belt traveled, the top portion of the belt retained the concave shape and the bottom portion of the belt was taut, not slacked (**Figure 14**). When the weight was removed from the belt, the top belt portion retained its concave shape and the bottom portion remained taut, not slacked (**Figure 15**). Also, slippage was observed between the two belts, but the treadmill closed loop belt remained taut.

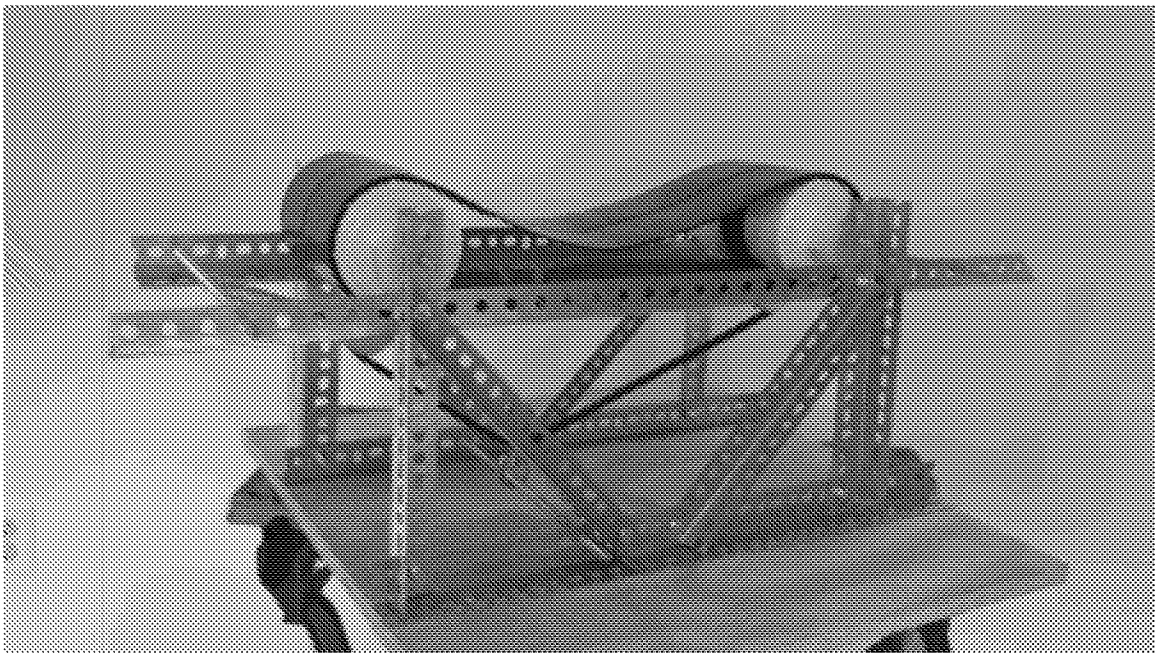


Figure 13: Model consistent with Patents 619 and 016.

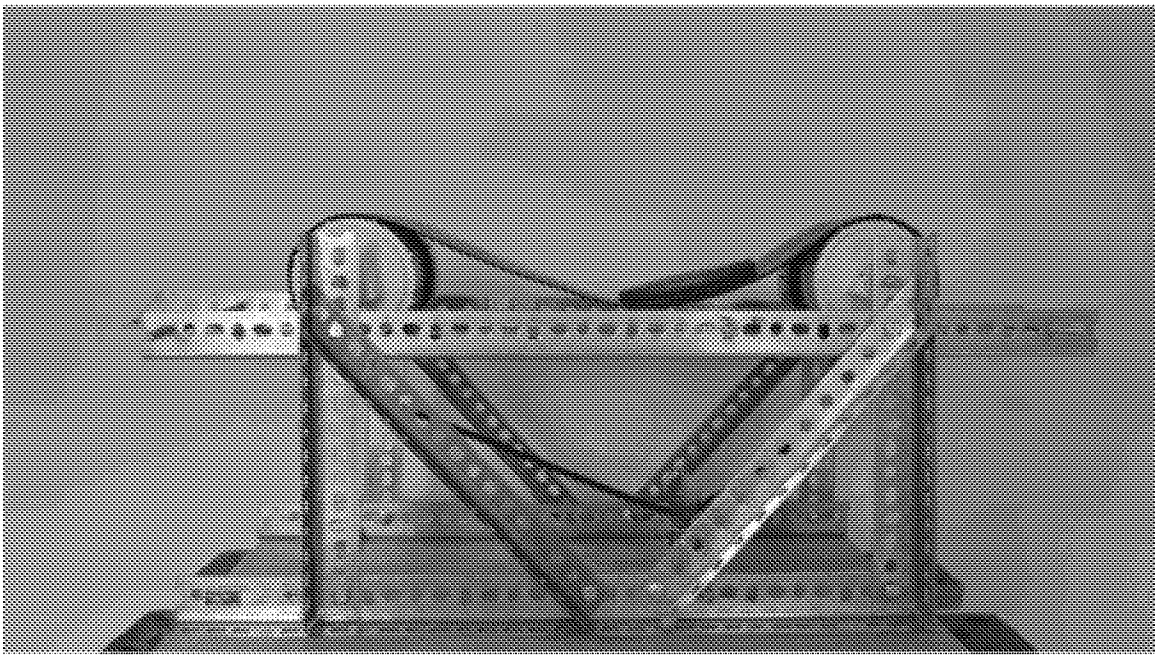


Figure 14: Model consistent with Patents 619 and 016, loaded.

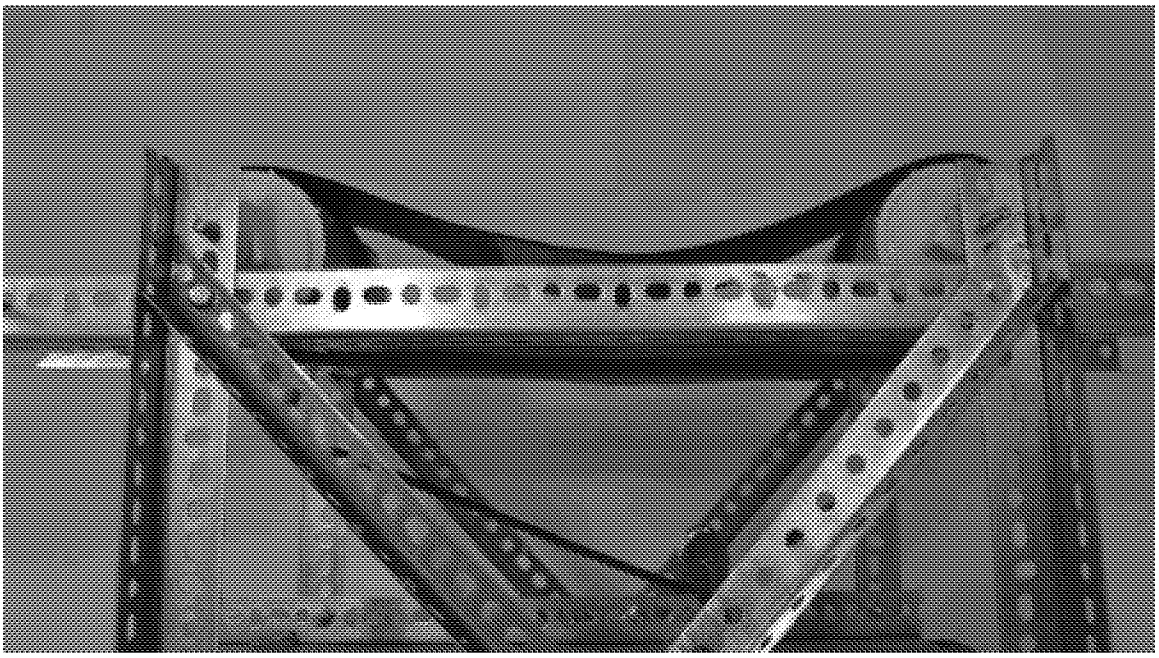


Figure 15: Model consistent with Patents 619 and 016, unloaded. Note the treadmill belt top portion retained the concave shape and the bottom portion was taut.

The fifth model (**Figure 16**) was constructed to be consistent with what was claimed and described in Patent 016 and described in Patent 619. It comprised of a frame that represented the treadmill frame; front and rear pulley end rollers for rotation; a closed loop belt supported by the pulley end rollers; the test belt did not contain slats which could have been added and would not change the test results; the said closed loop belt having a concave upper contour; a means for slackening the upper belt portion and simultaneous keeping the lower belt portion taut during rotation and exertion to include cyclical forces on the upper belt portion. The said means for slackening comprised: two linear arrays of bearings extending along opposite peripheral edges of said treadmill frame; the said bearings physically support the closed loop treadmill belt lower portion preventing drooping; and the said bearings were attached and located at respective side peripheral edges to the bottom surface of the frame of treadmill. The following was observed during testing: as the weight and belt traveled, the top portion of the belt retained the concave shape and the bottom portion of the belt was taut, not slacked (**Figure 17**). When the weight was removed from the belt, the top belt portion retained its concave shape and the bottom portion remained taut, not slacked (**Figure 18**).

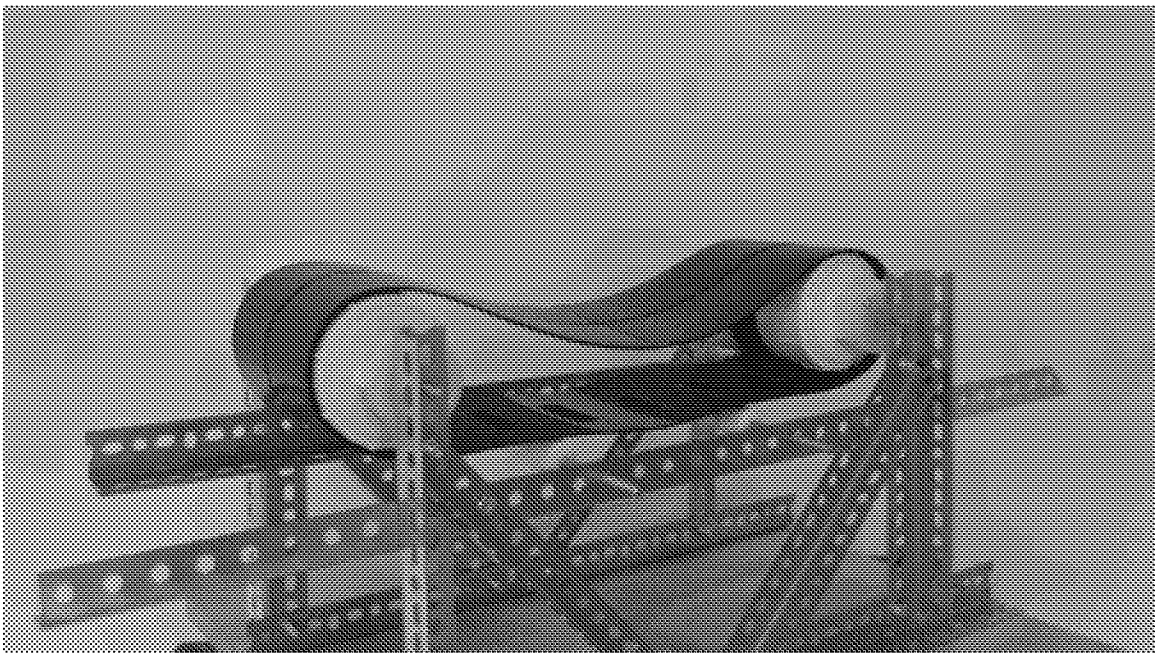


Figure 16: Model consistent with Patents 619 and 016.

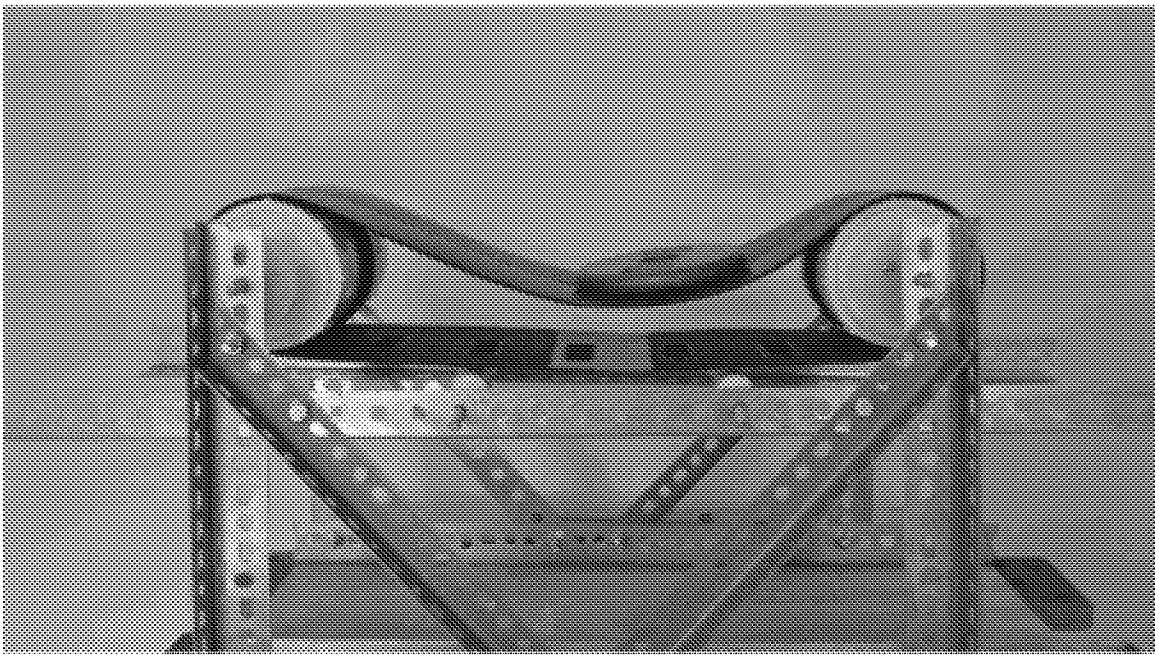


Figure 17: Model consistent with Patents 619 and 016, loaded.

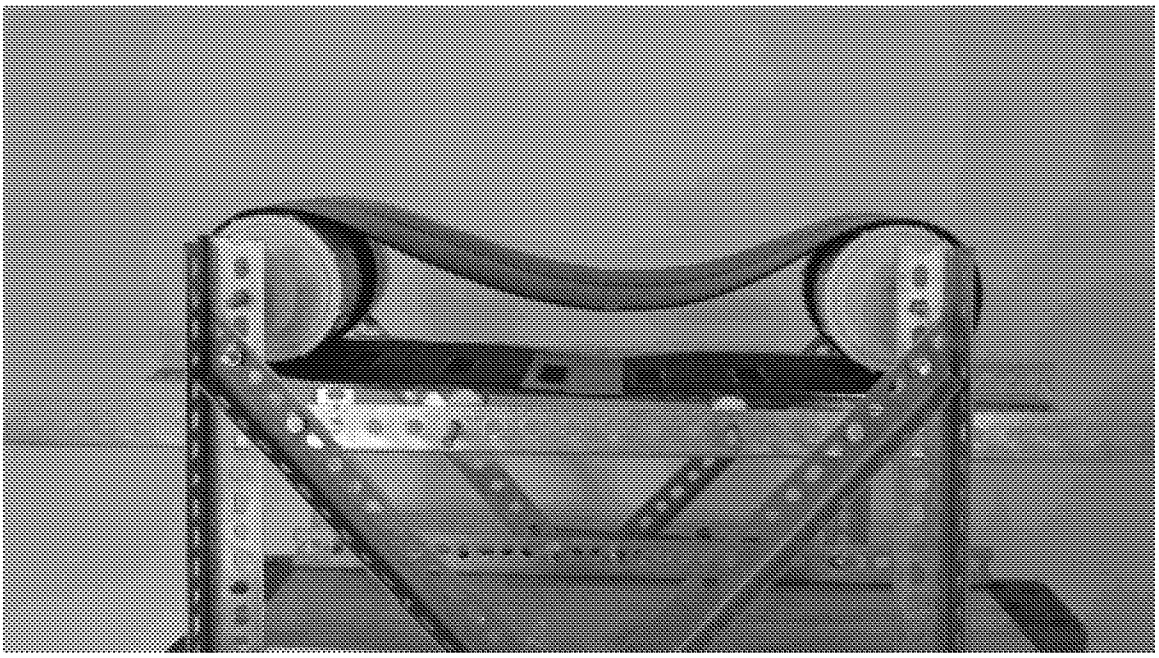


Figure 18: Model consistent with Patents 619 and 016, unloaded. Note the treadmill belt top portion retained the concave shape and the bottom portion was taut.

The sixth model was a control model that contained the elements of a treadmill without a means for keeping the belt taut when the top belt portion was unloaded. The following was observed during testing: as the weight and belt traveled, the top portion of the belt retained the concave shape and the bottom portion of the belt was taut, not slacked (**Figure 19**). When the weight was removed from the belt, the top belt portion lost its concave shape and the bottom portion became slacked (**Figure 20**).

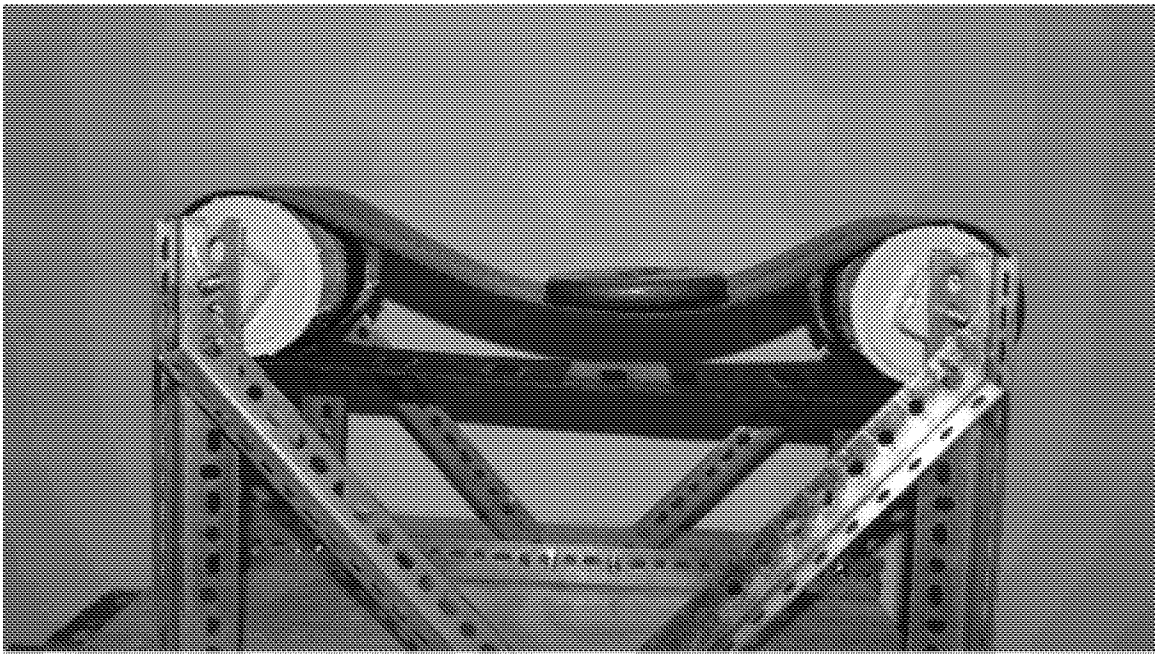


Figure 19: The control model, loaded.

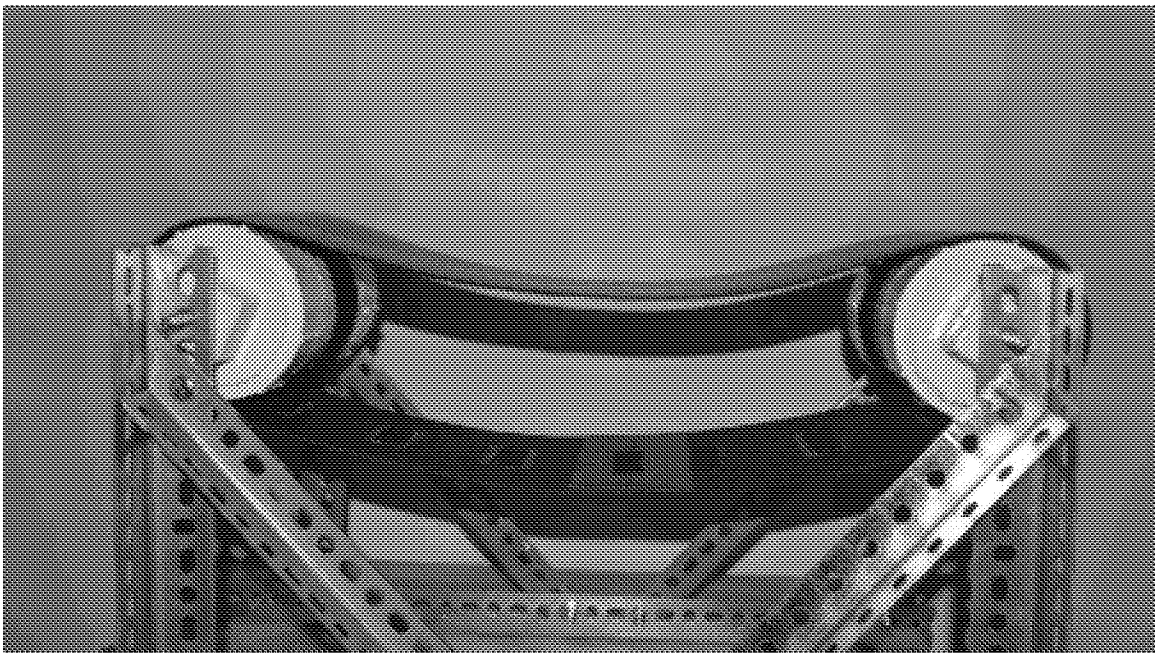


Figure 20: The control model, unloaded. Note the treadmill belt top portion lost the concave shape and the bottom portion was no longer taut.

DISCUSSION

The provisional patent application described a leg-powered treadmill which included the following elements:

a) two leg supports which lift a treadmill above a support surface;
b) the said treadmill;
c) with space-apart-sides;
d) the said space-apart sides are journalled;
e) rotation end rollers at the said journalled;
f) a closed loop treadmill belt on the said rotation end rollers;
g) the lower belt portion is taut approximately 23 inches by springs exerting spring urgency;
h) the said spring urgency acts in opposite directions;
i) the upper belt portion weighs approximate 40 pounds.

The provisional patent application further described the upper belt portion. It stated that an essential feature is a concave shape subtending an acute angle in the treadmill front end. The 40 pound weight was found to hold the concave shape during the uphill running. A drawing, **Figure 1**, was provided to assist in understanding the invention. The drawing showed a belt which contained a plurality of parallel slats oriented perpendicular to an axis of rotation.

Patent 619 had a single claim for a motor-less leg-powered treadmill comprising the following:

a) a treadmill frame;
b) front and rear pulley end rollers for rotation;
c) a closed loop belt supported by the pulley end rollers;
d) said closed loop belt comprising a plurality of parallel slats oriented perpendicular to an axis of rotation in which the slats are attached in a resilient fashion;
e) the said closed loop belt having a concave upper contour.

The single claim in Patent 619 further comprised a means for slackening the upper belt portion and simultaneous keeping the lower belt portion taut during rotation and exertion to include walking or running forces on the upper belt portion. The claimed means included the following elements:

a) a timing belt;
b) timing belt pulleys are attached to said front and rear pulley rollers;
c) timing belt idlers are used to configure the said timing belt geometrically;
d) high friction coefficient to prevent the said closed loop treadmill belt from slipping relative to the end rollers;
e) the said timing belt prevents drooping of the said lower taut portion of said closed loop treadmill belt because all respective motion is synchronous.

Patent 016 had 17 claims. Claim 1 claimed a motor-less, leg-powered curved treadmill comprising:

a) a treadmill frame;
b) front and rear pulley end rollers for rotation;
c) a closed loop belt supported by the pulley end rollers;
d) said closed loop belt comprising a plurality of parallel slats oriented perpendicular to an axis of rotation in which the slats are attached in a resilient fashion;
e) the said closed loop belt having a concave upper contour.

Claim 1 in Patent 016 further claimed a means for slackening the upper belt portion and simultaneously keeping the lower belt portion taut during rotation and exertion to include walking or running forces on the upper belt portion.

Claim 1 in Patent 016 also claimed that:

a) said slats are made of material of sufficient resiliency, strength and weight to lie;
b) on a concave row of upper support peripheral ball bearings located at each said side of the treadmill.

The description of Patent 016 contained three methods for slackening the upper belt portion and simultaneously keeping the lower belt portion taut. The three method were documented in the drawings of Patents 619 and 016(**Figure 3**).

The first method, denoted FIG. 2, in **Figure 3**, comprised of a:

a) flat support belt loop;
b) two side pulleys engaged with the said flat support belt loop;
c) a third pulley engaged with the said flat support belt loop and attached to treadmill frame;
d) two springs pulling in opposite directions hold the flat support belt loop taut in contact with closed loop belt bottom portion;
e) the treadmill closed loop belt bottom portion is supported, preventing it from drooping down, by the flat support belt and both belts move together due to a low friction pulley system.

The second method, denoted FIG. 3, in **Figure 3**, comprised of a:

a) a timing belt;
b) timing belt pulleys are attached to said front and rear pulley rollers;
c) timing belt idlers are used to configure the said timing belt geometrically;
d) high friction coefficient to prevent the said closed loop treadmill belt from slipping relative to the end rollers or an additional integral timing belt with rollers and timing belt engagement grooves;
e) the said timing belt prevents drooping of the said lower taut portion of said closed loop treadmill belt because all respective motion is synchronous.

The third method, denoted FIG. 4, in **Figure 3,** comprised of:

a) one or more linear arrays of bearings extending along opposite peripheral edges of said treadmill frame;
b) the said bearings physically support the closed loop treadmill belt lower portion preventing drooping;
c) the said bearings may be ball bearings or straight ball bearing casters attached and located at respective side peripheral edges to the bottom surface of the frame of treadmill.

The provisional patent application disclosed and Patents 619 and 016 claimed common elements of a leg-powered treadmill including: a treadmill frame; front and rear pulley end rollers for rotation; a closed loop belt supported by the pulley end rollers; said closed loop belt having a concave upper contour; said closed loop belt lower section remaining taut, not slacked. The provisional patent application contained a drawing (**Figure 1**) and US patents 619 and 016 claimed a closed loop belt

comprising a plurality of parallel slats oriented perpendicular to an axis of rotation in which the slats are attached.

One advantage of the leg-powered treadmill in both the provisional patent application and Patents 619 and 016 is that the closed loop belt upper contour remains concave and the lower belt portion remains taut while an exerciser loads the closed loop belt cyclically by walking or running. If the closed loop belt does not have a means for remaining taut, then it will lose its concave upper contour and the lower section will not remain taut (**Figure 20**).

The provisional patent application disclosed and Patents 619 and 016 claimed different methods for keeping the lower belt portion taut, but all documents disclosed or claimed a taut lower belt or maintained the upper belt portion in a slackened state. The provisional patent application disclosed springs which were modeled as seen in **Figures 4 through 9**. Patents 619 and 016 claimed multiple methods outlined in this report. The methods were modeled as seen in **Figures 10 through 18**.

The methods of keeping the lower belt portion taut and the upper belt portion concave as claimed in Patents 619 and 016 were mechanical and performed similar as to the method disclosed in the provisional patent application, which disclosed means for maintaining the upper portion of the running belt in a slackened state. All methods keep the lower belt portion taut and the upper belt portion concave during cyclical loading as seen in walking or running.

CONCLUSIONS

Based on BFPC's investigation and analysis, the following has been determined:

1. The provisional patent application disclosed and Patents 619 and 016 claimed common elements of a leg-powered treadmill including: a treadmill frame; front and rear pulley end rollers for rotation; a closed loop belt supported by the pulley end rollers; said closed loop belt having a concave upper contour; said closed loop belt lower section remaining taut, not slacked.

2. One advantage of the leg-powered treadmill in both the provisional patent application and Patents 619 and 016 is that the closed loop belt upper contour remains concave and the lower belt portion remains taut while an exerciser loads the closed loop belt cyclically by walking or running.

3. The provisional patent application disclosed and Patents 619 and 016 claimed different methods for keeping the lower belt portion taut, but all documents disclosed or claimed a taut lower belt or maintained the upper belt portion in a slackened state.

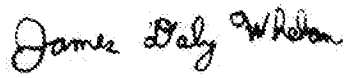
4. The methods of keeping the lower belt portion taut and the upper belt portion concave as claimed in Patents 619 and 016 were mechanical and performed similar as to the method disclosed in the provisional patent application, which disclosed means for maintaining the upper portion of the running belt in a slackened state.

SIGNATURES

This report contains opinions and conclusions that are based on the information available at this time. The conclusions are made with a reasonable degree of professional certainty and based on reliable principles in combination with my knowledge, skill, education, training and experience. Should additional information become available, the right to add to this report is reserved should it become necessary.

Beacon Forensic, P.C. appreciates this opportunity to provide consulting services in this matter. Please contact us should any questions arise concerning this report, or if we may be of further assistance.

Respectfully submitted,



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ENCLOSURES

Appendix A

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
61/280,265	11/02/2009		110	P-4096-38A		

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Date Mailed: 11/18/2009

Receipt is acknowledged of this provisional patent application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

Aurel A. Astilean, East Hampton, NY;

Power of Attorney:
Myron Amer--18650

If Required, Foreign Filing License Granted: 11/16/2009

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 61/280,265**

Projected Publication Date: None, application is not eligible for pre-grant publication

Non-Publication Request: No

Early Publication Request: No
** **SMALL ENTITY** **
Title

Leg-powered treadmill

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Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international

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Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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U.S. PTO
61/280265
11/02/2009

110209
17439 U.S. PTO

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Attorney at Law
Patents, Trademarks, Copyrights

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October 29, 2009

Box Provisional Patent Application
Assistant Commissioner of Patents
Alexandria, VA 22313-1450

Re: Filing of Provisional Patent Application
for Applicant Aurel A. Astilean
for LEG-POWERED TREADMILL
Our File No. P-4096-38A

Dear Sir:

Enclosed for filing are the following:

1. Provisional Patent Application for LEG-POWERED TREADMILL;
2. Drawing;
3. Filing fee check in the amount of $110.00; and
4. Self-addressed, return postcard.

Respectfully,

MYRON AMER

MA/sc
Enclosures

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Box Provisional Patent Application, Assistant Commissioner of Patents, Alexandria, VA 22313-1450, on October 29, 2009.

Signed: Susan Capellini
Susan Capellini

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

LEG-POWERED TREADMILL

Cover Sheet For Filing Provisional Application
37 CFR 1.53(c)

Box Provisional Patent Application
Assistant Commissioner of Patents
Alexandria, VA 22313-1450

Sir:

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.539(c). The suggested classification and Technology Center is not known.

1. The following comprises the information required by 37 CFR 1.51(c).

2. The name of the inventor is:

   AUREL A. ASTILEAN

3. Residence address of the inventor is:

   323 Georgica Road
   East Hampton, NY 11937

4. The title of the invention is:

   LEG-POWERED TREADMILL

5. The name, registration and telephone number of the attorney is:

Myron Amer, Esq.
Registration No. 18,650
(516) 670-9820

6. The docket number used to identify this application is:

P-4096-38A

7. The correspondence address for this application is:

Myron Amer, Esq.
Myron Amer, P.C.
350 National Boulevard, Suite 2B
Long Beach, NY 11561-3327

8. Domestic Priority Information:

Provisional Patent Application Serial No. 61/193,239 for LEG-POWERED TREADMILL filed November 7, 2008.

9. Identification of documents accompanying this cover sheet:

A. Documents required by 37 CFR 1.51(c)(2) and 37 CFR 1.51(c)(3):

LEG-POWERED TREADMILL

BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWING

The description of the invention which follows, together with the accompanying drawing should not be construed as limiting the invention to the example shown and described, because those skilled in the art to which this invention appertains will be able to devise other forms thereof.

Fig. 1 is a perspective view of a leg-powered treadmill constructed and having an operating mode according to the present invention.

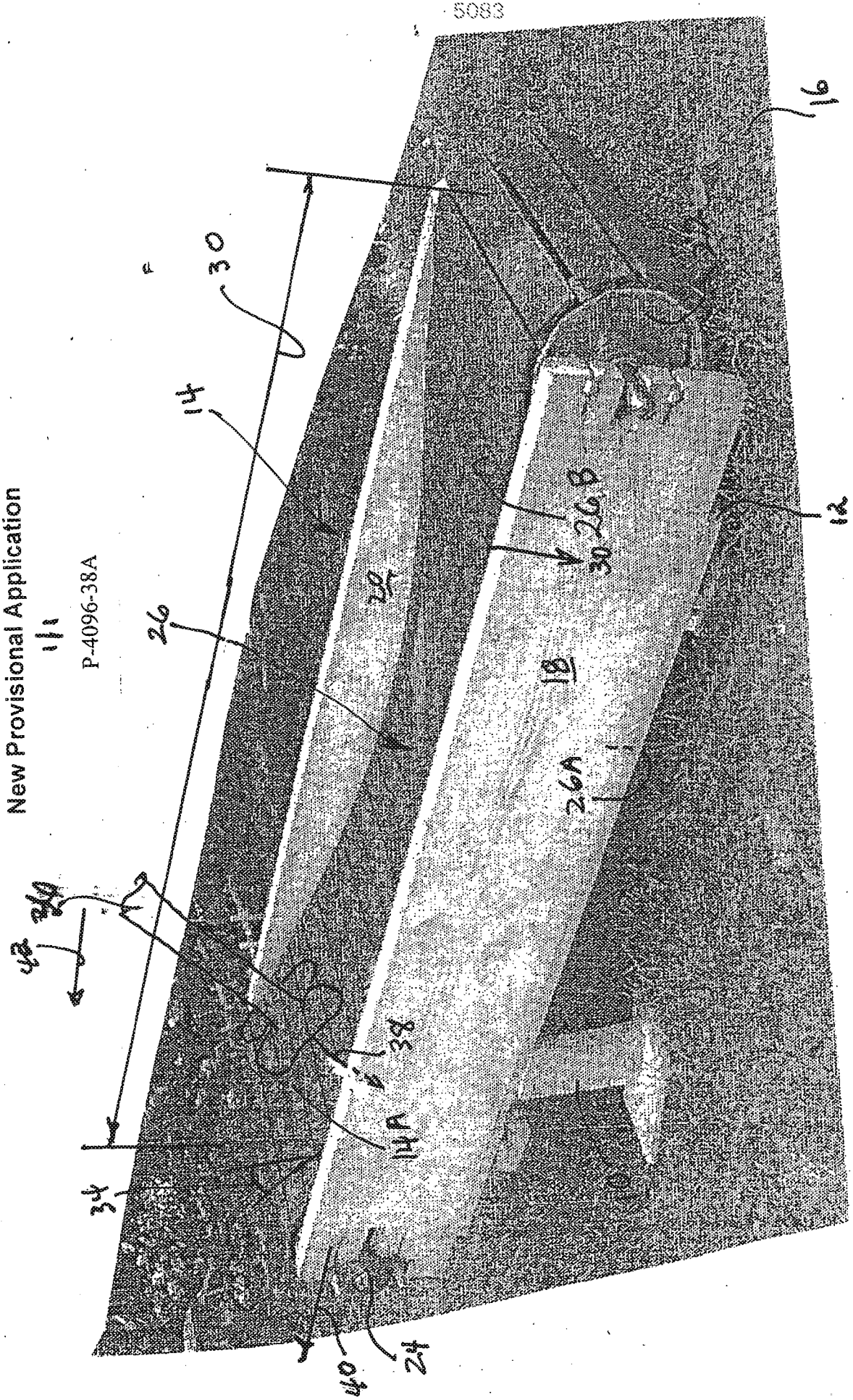
Illustrated are two leg supports 10 and 12 which lift the treadmill 14 in a clearance position above a support surface 16, said treadmill 10 having space apart sides 18 and 20 which have journalled for rotation end rollers 22 and 24 which support a closed loop treadmill belt 26. Springs (not shown) exert spring urgency in opposite directions holding taut the length of the lower belt portion 26A in a dimension of approximately twenty-three inches denoted by arrow 30 and in the upper belt portion 26B weighing approximately forty pounds, denoted by the arrow 30.

It is to be noted that an essential feature of treadmill 10 is a concave shape subtending an acute angle 34 in the treadmill 10 front end 14A which in practice results in the exerciser 36 running uphill and concomitantly exerting body weight 38 that contributes to driving lengthwise 40 in the direction 42 in which the exerciser runs and achieves the benefits of the exercise.

It is known from common experience that in prior art treadmills, the upper length portion of their closed loops are flat due, it is believed, because of the inability to maintain the

concave shape 34 in the length portion 26B. This shortcoming is overcome by the weight 30 which in practice has been found to hold the concave shape 34 during the uphill running of the exerciser 36.

9. Fee: **The filing fee for this provisional application is $110.00 and is enclosed herewith.**



New Provisional Application
11
P-4096-38A

Fig. 1

PATENT APPLICATION SERIAL NO._____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

11/03/2009 HALI33 00000016 61200265
01 FC:2005 110.00 OP

PTO-1556
(5/87)

*U.S. Government Printing Office: 2002- 489-267/69033

Appendix B

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Richmond, VA 23233

US008308619B1

(12) **United States Patent**
Astilean

(10) **Patent No.: US 8,308,619 B1**
(45) **Date of Patent: Nov. 13, 2012**

(54) **LEG-POWERED TREADMILL**

(76) Inventor: **Aurel A. Astilean**, East Hampton, NY (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 146 days.

(21) Appl. No.: **12/925,770**

(22) Filed: **Oct. 29, 2010**

Related U.S. Application Data

(60) Provisional application No. 61/280,265, filed on Nov. 2, 2009.

(51) **Int. Cl.**
A63B 22/02 (2006.01)

(52) **U.S. Cl.** **482/54**

(58) **Field of Classification Search** 482/23, 482/37, 51, 54, 69–71, 79; 119/700; 434/247, 434/255; D21/662, 668–669; *A63B 22/02*
See application file for complete search history.

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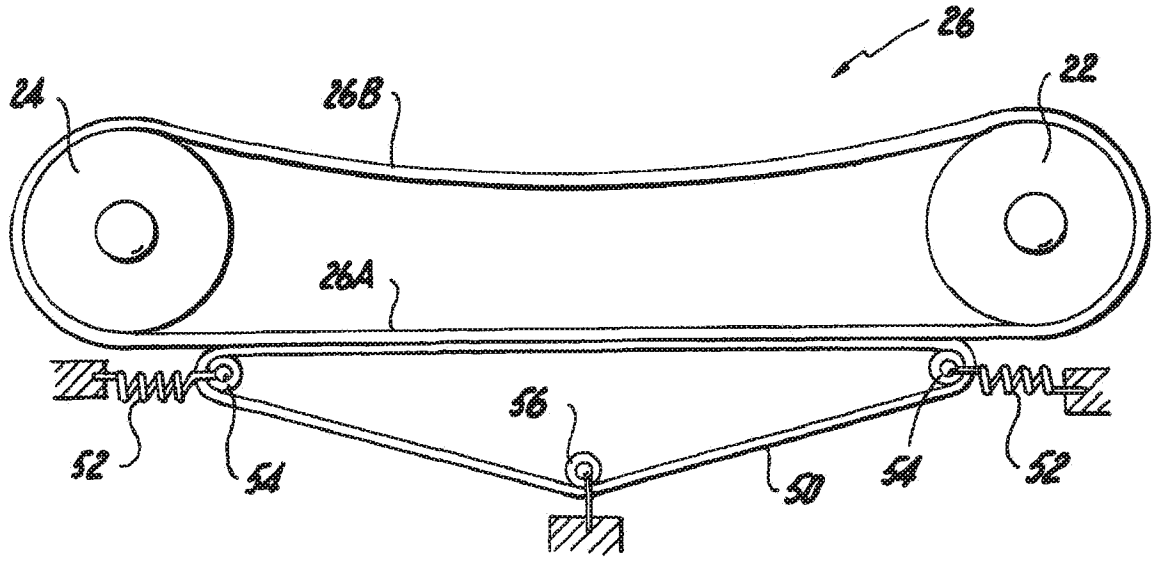
* cited by examiner

Primary Examiner — Loan Thanh
Assistant Examiner — Oren Ginsberg
(74) *Attorney, Agent, or Firm* — Alfred M. Walker; Myron Amer

(57) **ABSTRACT**

A motor-less leg-powered curved treadmill produced that allows people to walk, jog, run, and sprint without making any adjustments to the treadmill other than shifting the user's center of gravity forward and backwards. A closed loop treadmill belt is formed with a low friction running surface of transverse wooden, plastic or rubber slats attached to each other in a resilient fashion. Since an essential feature of treadmill is the concave shape of the running surface of belt in its respective upper portion, methods are used to insure that this shape is maintained during actual use. These methods prevent the lower portion of the treadmill belt from drooping down (i.e.—it must be held taut), to prevent the top portion to be pulled taut into a flat shape between the front and rear pulley rollers.

1 Claim, 4 Drawing Sheets



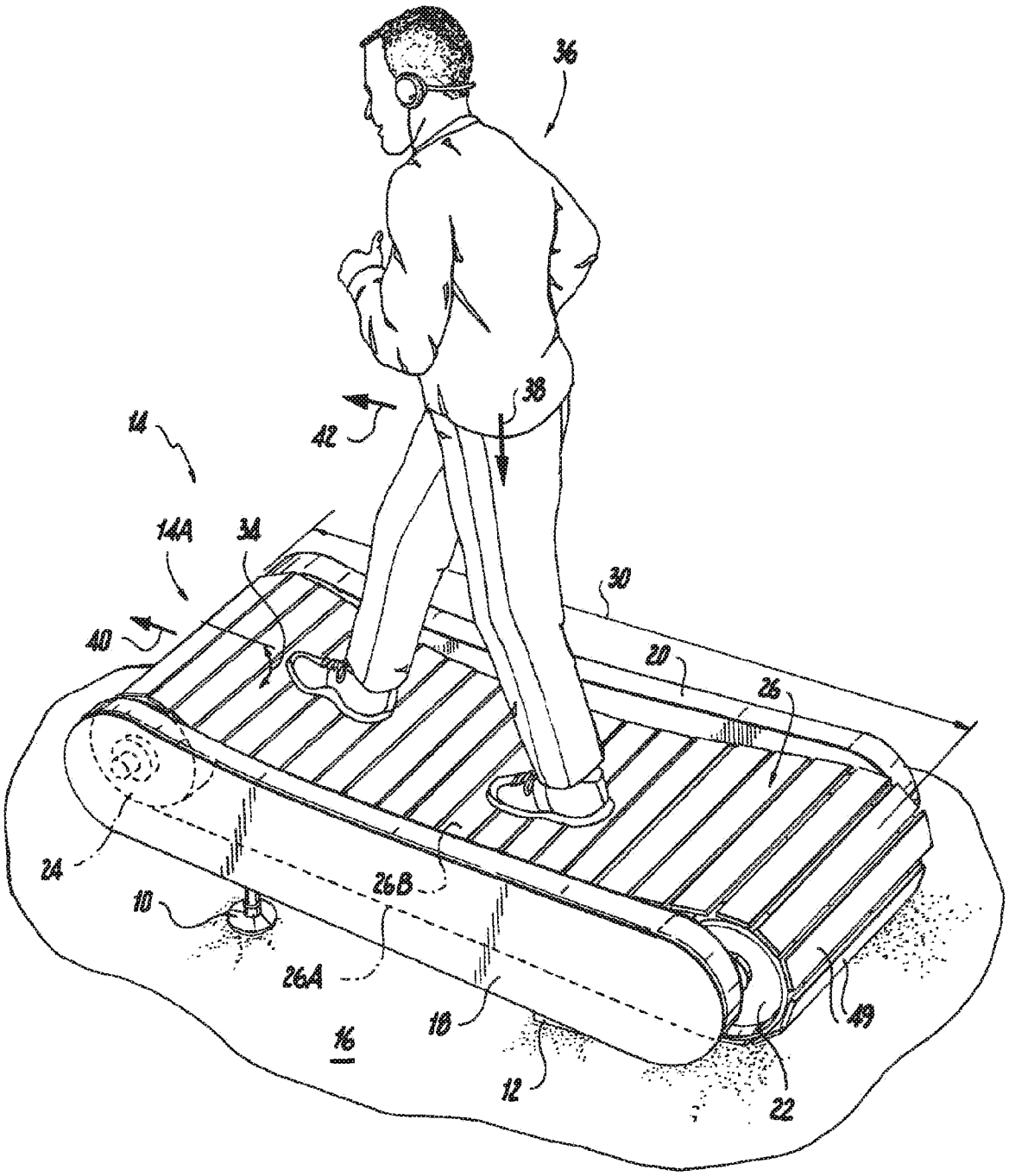


Fig. 1

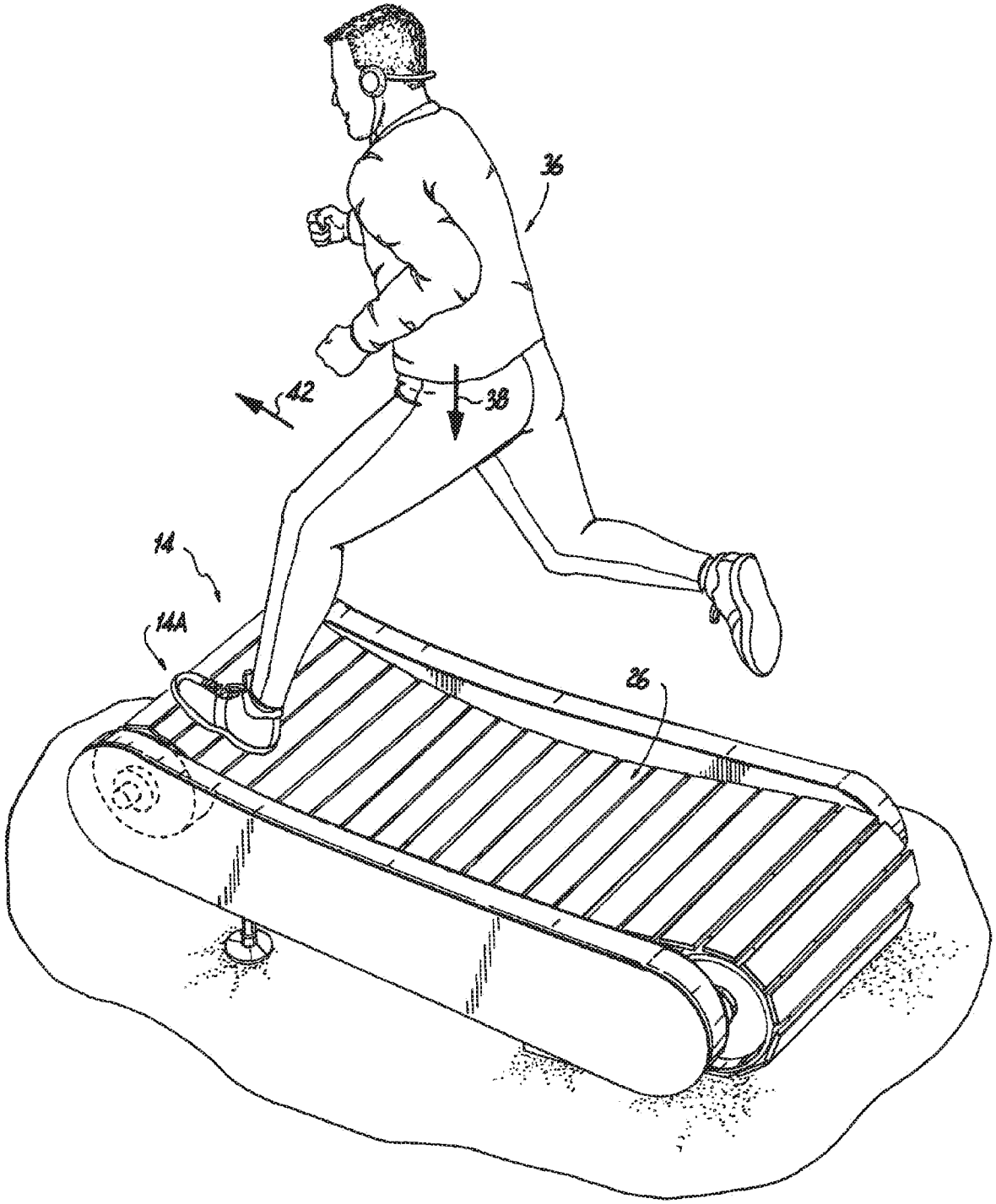


Fig. 1A

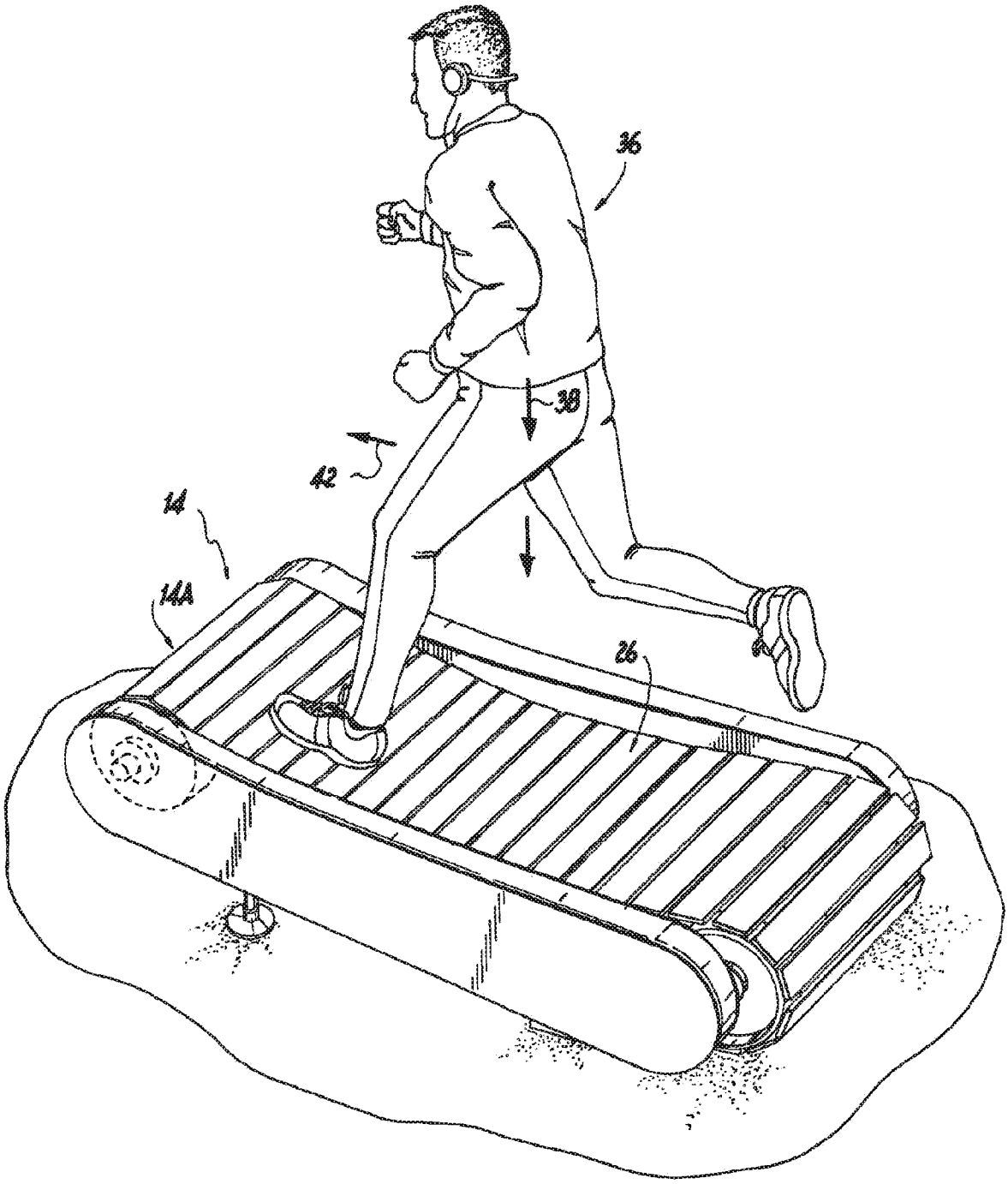


Fig. 1B

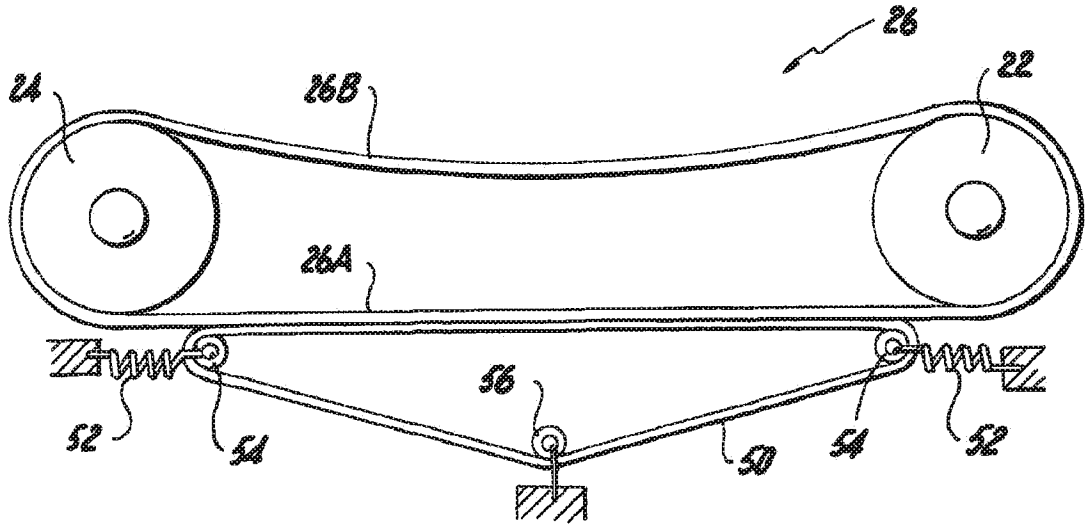


Fig. 2

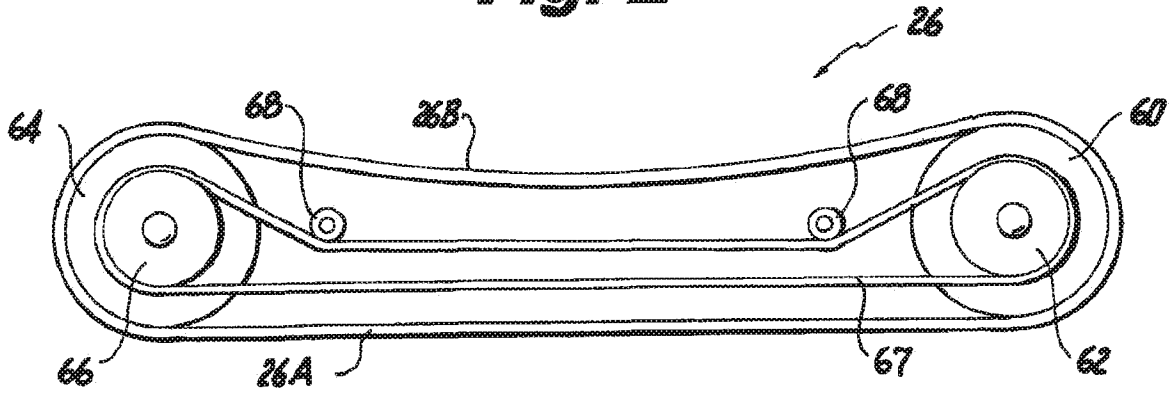


Fig. 3

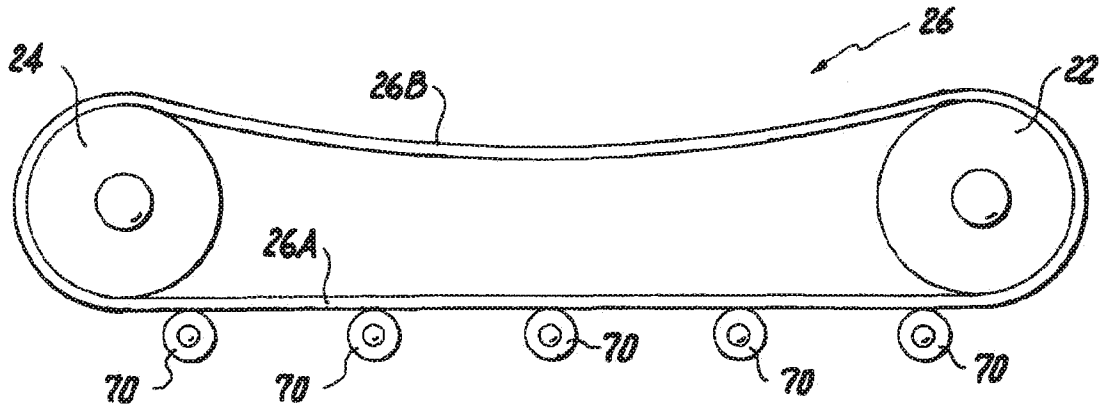


Fig. 4

LEG-POWERED TREADMILL

RELATED APPLICATIONS

This application claims benefit in part under 35 U.S.C. 119(e) from provisional Application No. 61/280,265 filed Nov. 2, 2009, the entire disclosure of which is incorporated by reference herein.

FIELD OF THE INVENTION

The present invention relates to a motor-less leg-powered treadmill produced that allows people to walk, jog, run, and sprint without making any adjustments to the treadmill other than shifting the user's center of gravity forward and backwards.

BACKGROUND OF THE INVENTION

Exercise treadmills allow people to walk, jog, run, and sprint on a stationary machine with an endless belt moving over a front and rear sets of pulleys.

OBJECTS OF THE INVENTION

It is an object of the present invention to provide a motor-less leg-powered curved treadmill produced that allows people to walk, jog, run, and sprint without making any adjustments to the treadmill other than shifting the user's center of gravity forward and backwards.

It is also an object of the present invention to provide a closed loop curved treadmill belt in a concave shape supported by end rollers in a low friction manner in a substantial stationery frame.

It is also an object of the present invention to provide a curved treadmill that assumes a concave upper contour and a taut lower portion.

Other objects which become apparent from the following description of the present invention.

SUMMARY OF THE INVENTION

The present invention is a motor-less leg-powered curved treadmill produced wherein the curved, low friction surface allows people to walk, jog, run, and sprint without making any adjustments to the treadmill other than shifting the user's center of gravity forward and backwards. This novel speed control due to the curve allows people of any weight and size to adjust their own speed in fractions of a second. The user controls the speed by positioning their body along the curved running surface. Stepping forward initiates movement, as the user propels themselves up the curve the speed increases. To slow down, the user simply drifts back towards the rear curve. For running athletes, no handrails are needed. Handrails are optional for non-athletes with balance or stability limitations. The motor-less leg-powered treadmill permits low foot impact on the running surface through it's new design, forcing the user to run correctly on the ball of the feet and therefore reducing pressure ands strain of the leg joints. This unique design of the curve in a low friction surface allows any user, regardless of weight and size, to find and maintain the speed they desire. The user steps on the concave curved treadmill belt section and begins walking, steps up further and begins running, steps up even farther and starts to sprint. When stepping backward the motor-less leg-powered treadmill will stop.

Utilizing a closed loop treadmill belt supported by end rollers in a low friction manner in a substantial stationery frame, the curved treadmill of this invention makes it possible for the user to experience a free running session, with the potential to have the real feeling of running, and the ability to stop and sprint and walk instantly, thereby simulating running outside on a running track. This novel speed control in running was not possible in the prior art because of the lack of curved low friction running surfaces.

The closed loop treadmill belt must be of such a length as compared to the distance between the end rollers to permit it to assume the required concave upper contour. To keep it in that configuration in all operational modes, a method of slackening the curved upper portion while simultaneously keeping the lower portion taut (i.e.—preventing it from drooping down) is used. This method must not add significant friction to the treadmill belt since this would detract from the running experience of the user.

Several methods of controlling the treadmill belt configuration in a low friction manner are described. One method is to use a support belt under the treadmill belt lower portion. This support belt is kept in a taut configuration with a horizontal section by using springs pulling pulleys in opposite directions.

Another method uses a timing belt linking the treadmill belt end rollers such that after the desired configuration is achieved, the treadmill belt and end rollers must move synchronously thereby denying the treadmill belt the opportunity to have its lower section droop down.

Yet another method is to support the lower section of the treadmill belt from drooping down by directly supporting this section with one or more linear arrays of low friction bearings at the peripheral edges of the belt below the lower section.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention can best be understood in connection with the accompanying drawings. It is noted that the invention is not limited to the precise embodiments shown in drawings, in which:

FIG. **1** is a perspective view of the exterior of one embodiment of the present invention; showing the runner in a slow walk in the droop of the concave upper portion of the treadmill ball.

FIG. **1**A is a perspective view of the exterior of the embodiment in FIG. **1**, showing the runner running at a fast pace uphill.

FIG. **1**B is a perspective view of the exterior of the embodiment in FIG. **1**, showing the runner running slowly in the droop of the concave portion.

FIG. **2** is a diagrammatic side view of the system components for the embodiment of FIG. **1** for implementing the present invention.

FIG. **3** is a diagrammatic side view of the system components for a second embodiment for implementing the present invention.

FIG. **4** is a diagrammatic side view of the system components for a third embodiment for implementing the present invention.

DETAILED DESCRIPTION OF THE DRAWINGS

The description of the invention which follows, together with the accompanying drawing should not be construed as limiting the invention to the example shown and described, because those skilled in the art to which this invention appertains will be able to devise other forms thereof.

FIG. **1** is a perspective view of a leg-powered treadmill **10** constructed and having an operating mode according to the present invention.

As noted in FIG. **1**, no hand rails are shown. The curved treadmill **10** can be used without hand rails. Hand rails can be optionally provided for non-athletes with balance or running stabilities limitations.

Illustrated are two leg supports **10** and **12** which lift the treadmill **14** in a clearance position above a support surface **16**, said treadmill **10** having space apart sides **18** and **20** which have journalled for rotation end rollers **22** and **24** which support a closed loop treadmill belt **26**. Low friction methods to be described are used to hold taut the length of the lower belt portion **26**A in a dimension of approximately forty-three inches denoted by dimension line **30**. The upper belt portion **26**B weighs approximately forty pounds is also denoted by the dimension line **30**.

It is to be noted that an essential feature of treadmill **10** is a concave shape subtending an acute angle **34** in the treadmill **10** front end **14**A which in practice results in the exerciser **36** running uphill and concomitantly exerting body weight **38** that contributes to driving lengthwise **40** in the direction **42** in which the exerciser runs and achieves the benefits of the exercise. As the runner **36** encounters the different positions on the treadmill belt **26** of the treadmill **14**, the angle of the surface of running changes For example, as shown in FIG. **1**, when the center of gravity of body weight, indicated by downward directional arrow **38**, below the hips of the user **36**, is in the lower dropping portion of the concave upper portion **26**B of the treadmill belt **26**, the runner **36** walks or slowly jogs in a generally horizontal orientation, as indicated by directional arrow **42** in a first slow jogging speed. But, as shown in FIG. **1**A, as the runner **36** speeds up and advances the runner's hips and center of gravity of body weight further forward up the angled slope at the front end **14**A of the treadmill belt **26**, the angle of movement **42** changes from a generally horizontal angle **42** in FIG. **1** to an acute angle **42** up off the horizontal as in FIG. **1**A, which concurrently causes the runner **36** to run vigorously faster, at the acute angle **42** up the slope of the front **14**A of the concave curve of upper belt portion **26**B of treadmill belt **26**, the runner **36** runs faster uphill. Furthermore, as shown in FIG. **1**B, it does not matter where the runner **36** puts the forward foot to change the speed. In FIG. **1**B the center of gravity in the hip region of the runner **36**'s body weight, indicated by downward directional arrow **38**, is still in the lower part of the concave droop of the upper portion **26**A of treadmill belt **26**. So even though the runner **36** in FIG. **1**B is jogging faster than walking or slowly jogging as in FIG. **1**, so long as the runner **36** has the forward foot partially up the angled slope of the forward portion **14**A of the upper belt portion **26**B, the runner will still run slower in FIG. **1**B, not because the forward foot is up the slope of upper belt portion **26**B of the treadmill belt **26**, but because the center of gravity of body weight, as indicated by downward directional arrow **38**, is still within the lower confines of the droop of the concave upper belt portion **26**B. Therefore, what changes the speed of the runner **36** and the treadmill belt **26**, is when the runner **36** moves the center of gravity of the hips of the body weight indicated by downward directional arrow **38** higher up the slope of concave upper portion **26**B of treadmill belt **26**, which causes the runner to run faster and the belt **26** to concurrently move faster around pulleys **22** and **24** with the pace of the forward advancing runner **36**.

It is known from common experience that in prior art treadmills, the upper length portion of their closed loops are flat due, it is believed, because of the inability to maintain the concave shape **34** in the length portion **26**B. This shortcoming

is overcome by the weight **30** which in practice has been found to hold the concave shape **34** during the uphill running of the exerciser **36**.

A closed loop treadmill belt **26** is formed with a running surface of transverse wooden, plastic or rubber slats **49** (see FIG. **1**) attached to each other in a resilient fashion. Since an essential feature of treadmill **10** is the concave shape of the low friction running surface of belt **26** in upper portion **26**B. methods are used to insure that this shape is maintained during actual use. These methods must prevent the lower portion **26**A of treadmill belt **26** from drooping down (i.e.—must be held taut), otherwise top portion **26**B would be pulled taut into a flat shape between rollers **22** and **24**. Three methods are illustrated by the side view schematic drawings of FIGS. **2-4**.

The method of FIG. **2** shows a flat support belt loop **50** engaged with two side pulleys **54** and a third pulley **56** which is attached to treadmill **10** frame. Two springs **52** pulling in opposite directions hold belt **50** taut with a flat top configuration in contact with bottom treadmill belt portion **26**A. Since pulleys **54** and **52** are low friction, and there is no relative movement between belt **50** and belt **26**, belt **50** imposes very little drag on belt **26** while supporting lower belt portion **26**A vertically preventing it from drooping down.

The method shown in FIG. **3** shows the use of a timing belt **67** in achieving a similar result. Here end rollers **60** and **64** are attached to timing belt pulleys **62** and **66** respectively. Timing belt idlers **68** are simply used to configure timing belt geometrically to fit within the constraints of the side contours of treadmill **10**. If belt **26** is prevented from slipping relative to end rollers **60** and **64** by high friction coefficient (or by the use an integral timing belt on the inside of belt **26** and rollers with timing belt engagement grooves), once configured as shown, timing belt **67** will not permit drooping down of section **26**A since all motion is now synchronous.

In another method shown in FIG. **4**, one or more linear arrays of bearings **70** extending along opposite peripheral edges of said treadmill frame physically support lower section **26**A of treadmill belt **26** thereby preventing drooping. Bearings **70** may be ball bearings or straight ball bearing casters attached and located at respective side peripheral edges to the bottom surface of the frame of treadmill **10**.

In the foregoing description, certain terms and visual depictions are used to illustrate the preferred embodiment. However, no unnecessary limitations are to be construed by the terms used or illustrations depicted, beyond what is shown in the prior art, since the terms and illustrations are exemplary only, and are not meant to limit the scope of the present invention.

It is further known that other modifications may be made to the present invention, without departing the scope of the invention, as noted in the appended Claims.

I claim:

1. A motor-less, leg-powered treadmill comprising:

a treadmill frame;

a set of respective front and rear pulley end rollers for rotation, said front and rear pulleys supporting a closed loop treadmill belt;

said closed loop treadmill belt comprising a plurality of parallel slats oriented perpendicular to an axis of rotation of said belt, said parallel slats attached to each other in a resilient fashion;

said closed loop treadmill belt being of such a length as compared to the distance between the end rollers to permit it to assume a required concave upper contour;

a means for slackening an upper concave portion of said closed loop treadmill belt while simultaneously keeping

a lower portion of said closed loop treadmill belt taut, preventing said lower portion from drooping down during rotation and exertion of walking or miming force upon said upper concave portion of said closed loop treadmill belt, said means for slackening the upper portion while simultaneously keeping the lower portion taut, preventing said lower portion from drooping down during rotation and exertion of walking or running force upon said upper concave portion of said closed loop treadmill belt comprises a timing belt having respective timing belt pulleys attached to said front and rear pulley

rollers for said closed loop treadmill belt, wherein timing belt idlers are used to configure said timing belt geometrically to fit within constraints of side contours of said treadmill, wherein if said closed loop treadmill belt is prevented from slipping relative to said end rollers by a high friction coefficient, once configured, said timing belt will not permit drooping down of said lower taut portion of said closed loop treadmill belt because all respective motion is synchronous.

* * * * *

Appendix C

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(12) **United States Patent**
Astilean

(10) **Patent No.: US 8,343,016 B1**
(45) **Date of Patent: Jan. 1, 2013**

(54) **LEG-POWERED TREADMILL**

(76) Inventor: **Aurel A. Astilean**, East Hampton, NY (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 156 days.

(21) Appl. No.: **12/925,892**

(22) Filed: **Nov. 1, 2010**

Related U.S. Application Data

(63) Continuation-in-part of application No. 12/925,770, filed on Oct. 29, 2010.

(60) Provisional application No. 61/280,265, filed on Nov. 2, 2009.

(51) **Int. Cl.**
A63B 22/02 (2006.01)

(52) **U.S. Cl.** **482/54**

(58) **Field of Classification Search** 482/23, 482/37, 51, 54, 69–71, 79; 119/700; 434/247, 434/255; D21/662, 668–669; *A63B 22/02*
See application file for complete search history.

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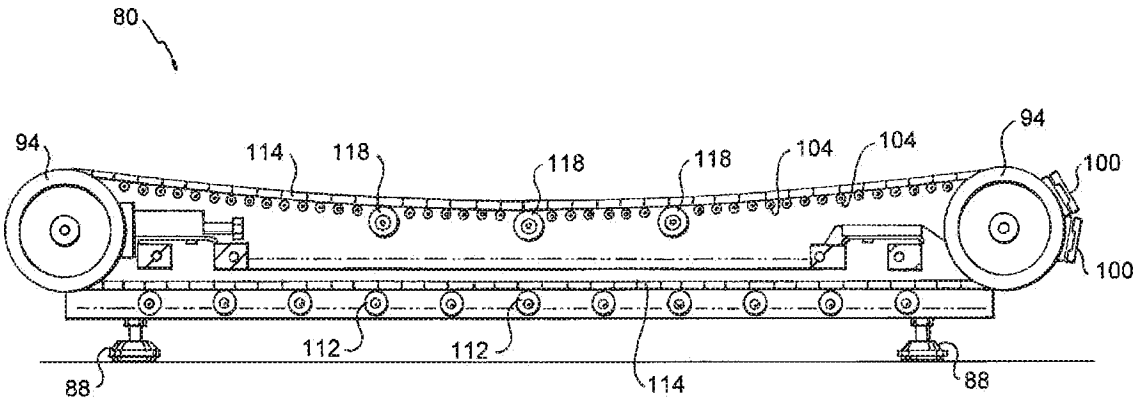
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Primary Examiner — Oren Ginsberg
(74) *Attorney, Agent, or Firm* — Alfred M. Walker; Myron Amer

(57) **ABSTRACT**

A motor-less leg-powered curved treadmill produced that allows people to walk, jog, run, and sprint without making any adjustments to the treadmill other than shifting the user's center of gravity forward and backwards. A closed loop treadmill belt is formed with a low friction running surface of transverse wooden, plastic or rubber slats attached to each other in a resilient fashion. Since an essential feature of treadmill is the concave shape of the running surface of belt in its respective upper portion, curved and linear arrays of bearings are used to insure that this shape is maintained during actual use. These bearings prevent the lower portion of the treadmill belt from drooping down (i.e.—it must be held taut), to prevent the top portion to be pulled taut into a flat shape between the front and rear pulley rollers.

17 Claims, 8 Drawing Sheets



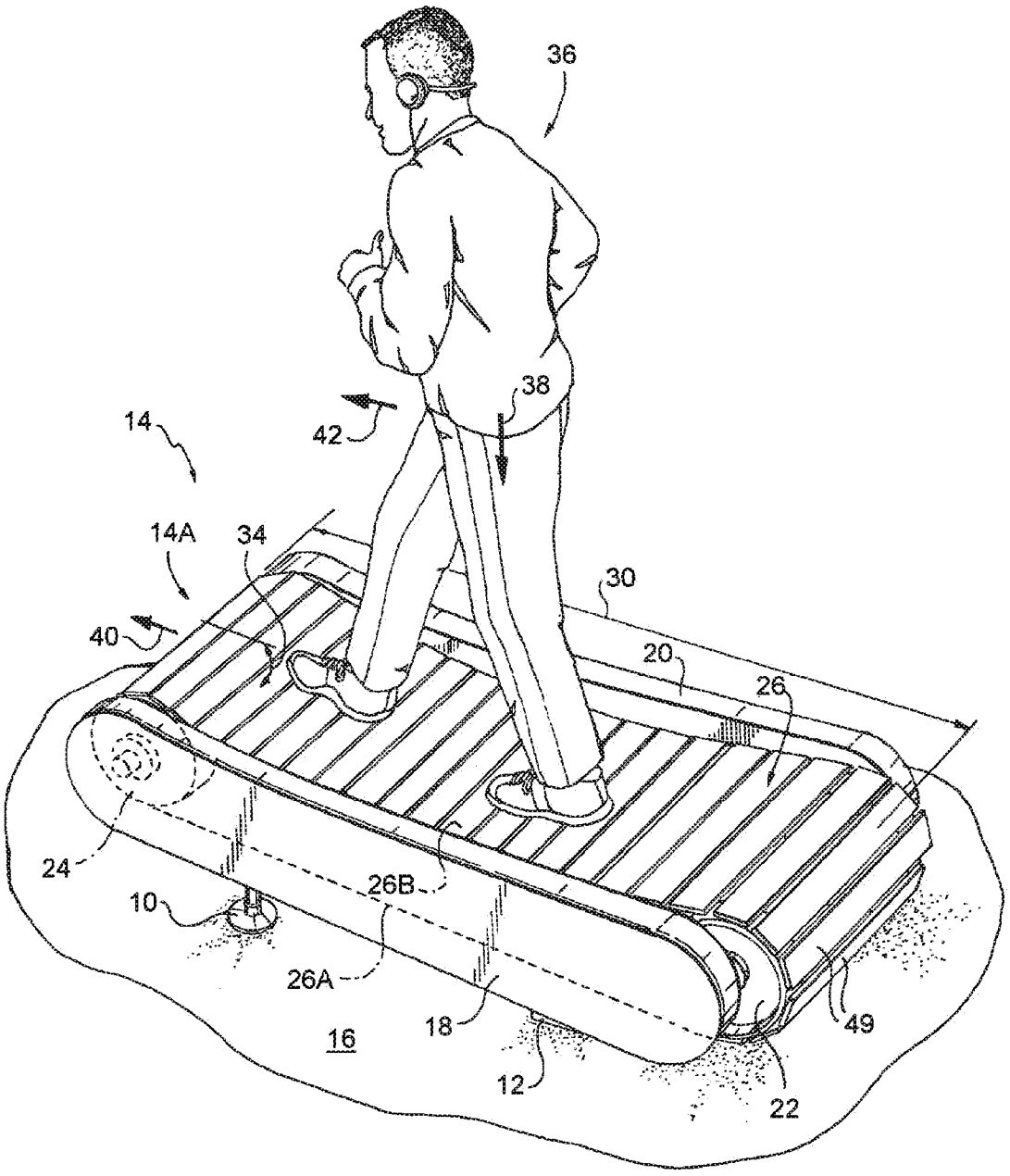


Fig. 1

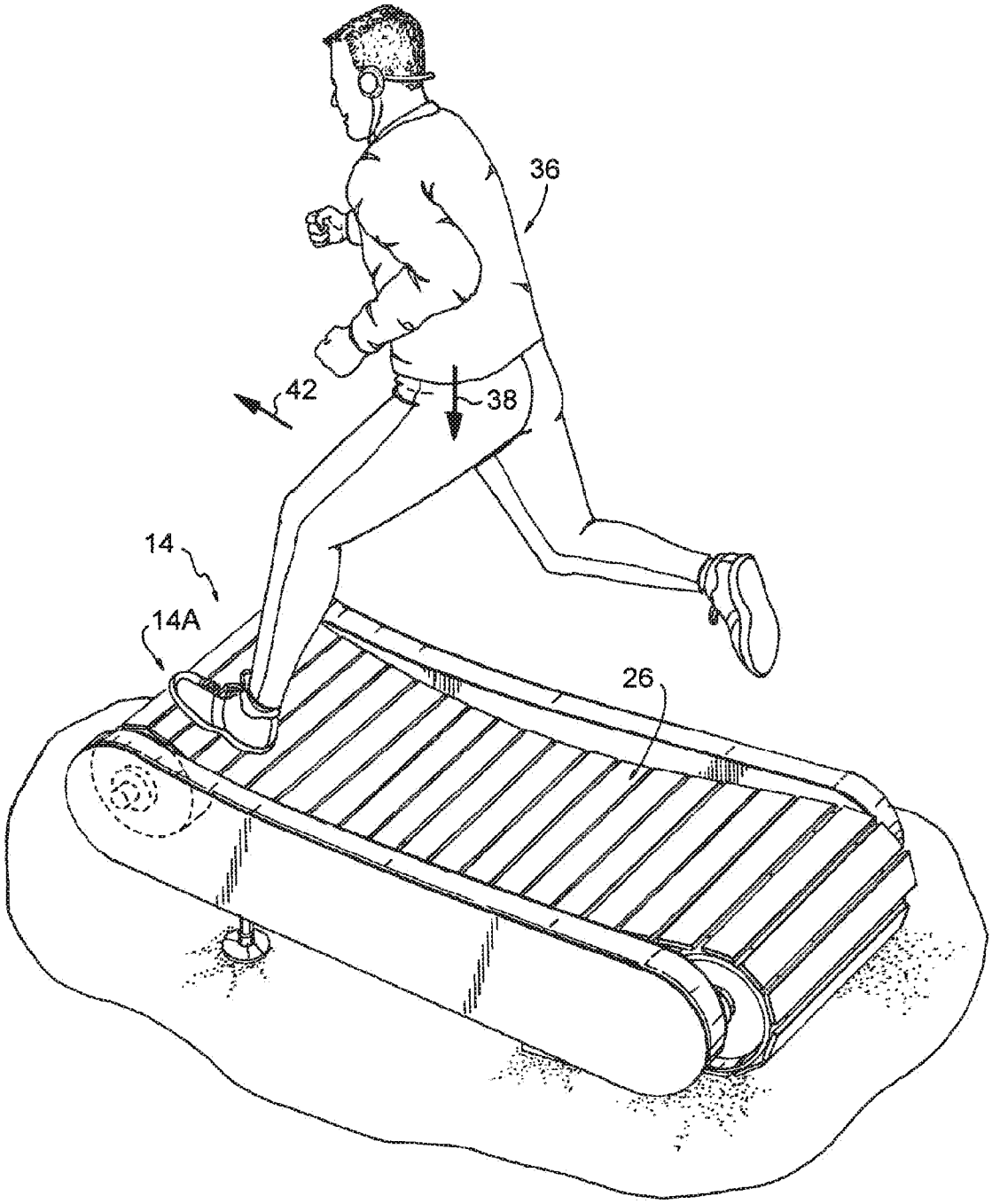


Fig. 1A

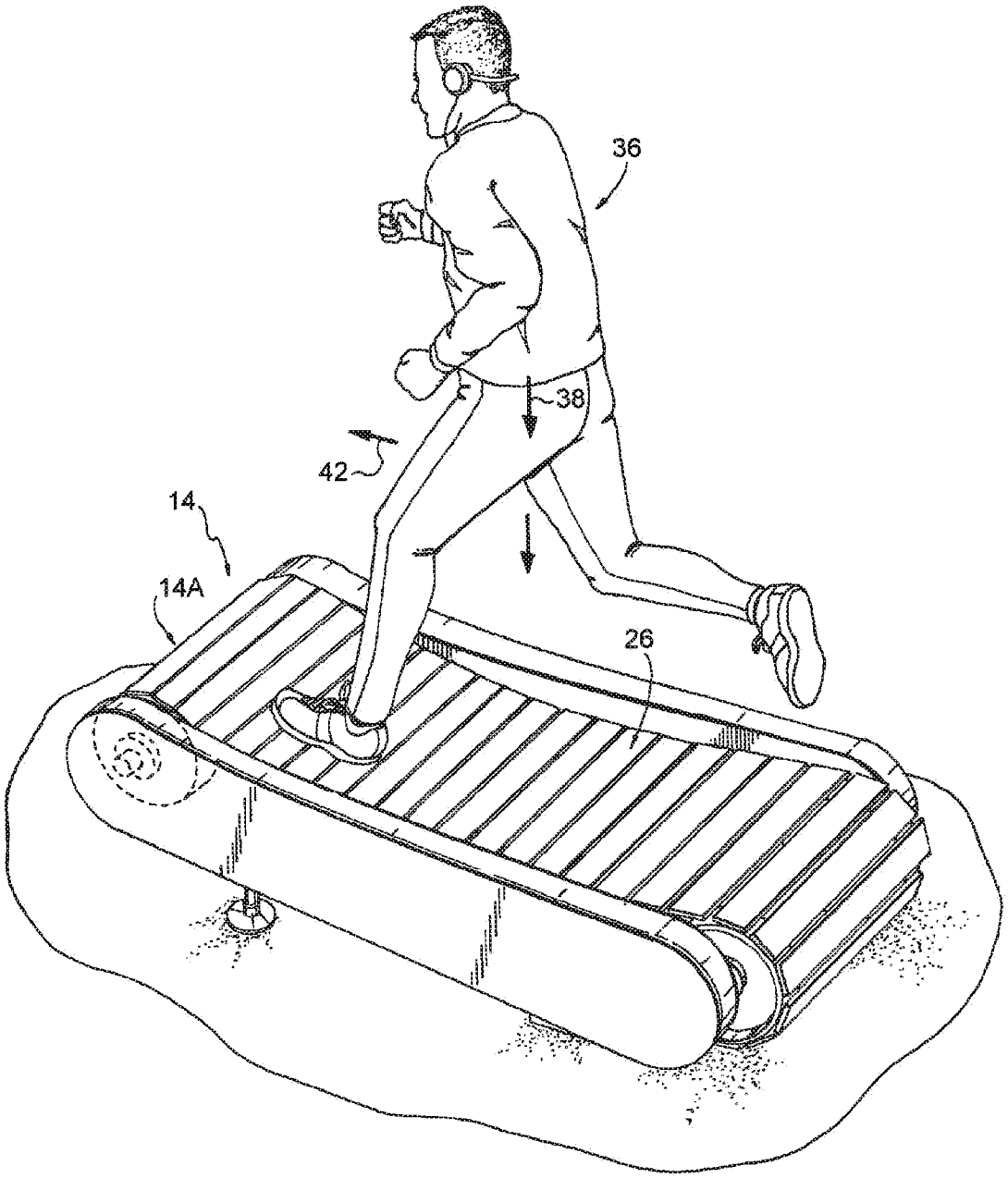


Fig. 1B

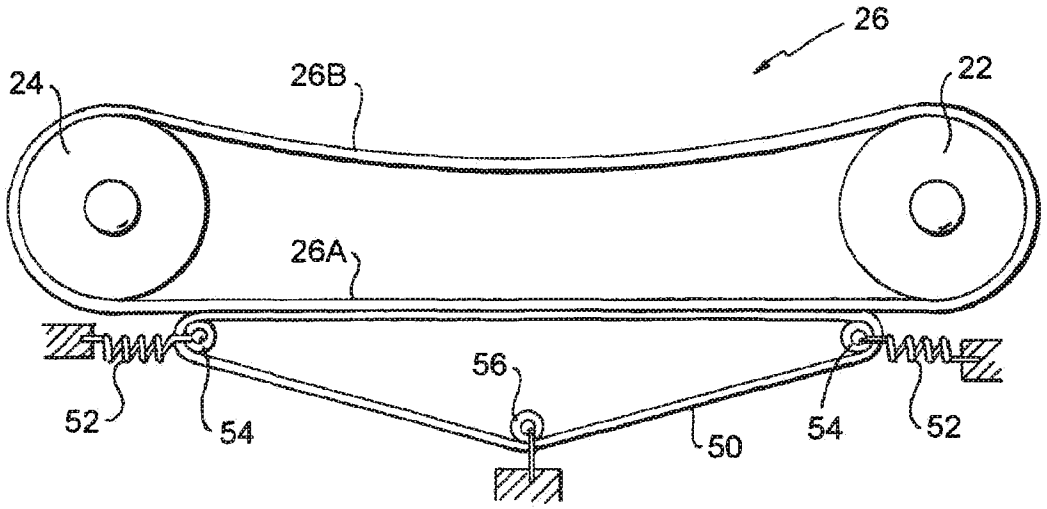


Fig. 2

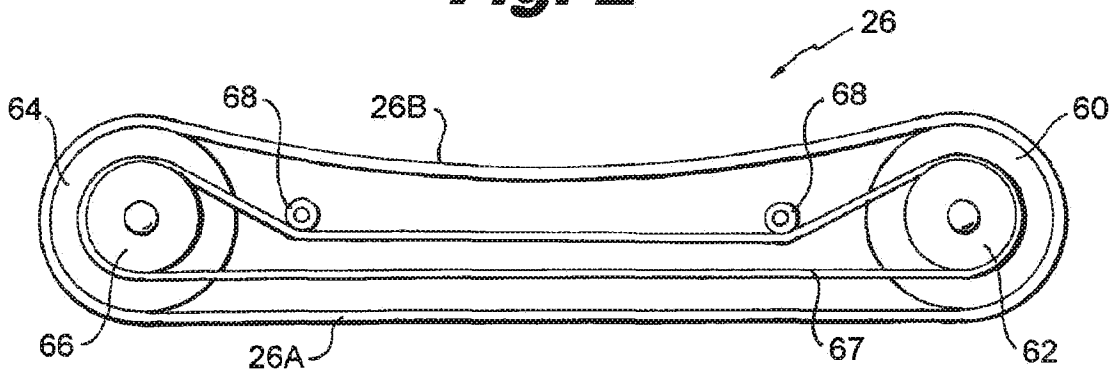


Fig. 3

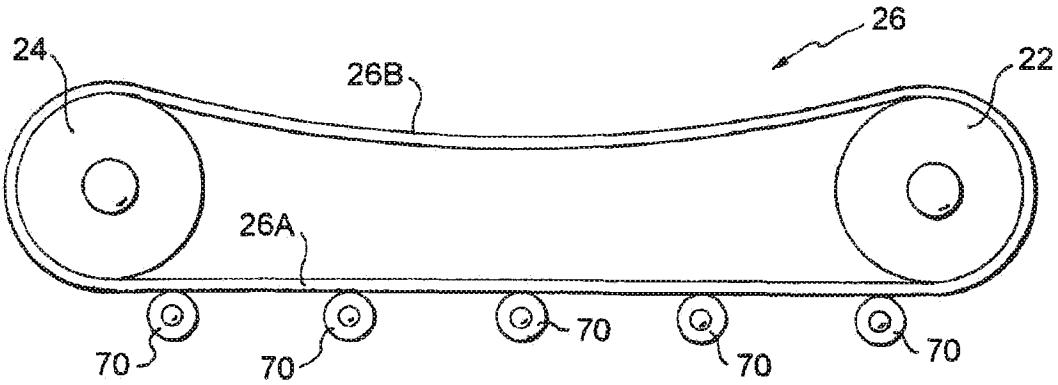


Fig. 4

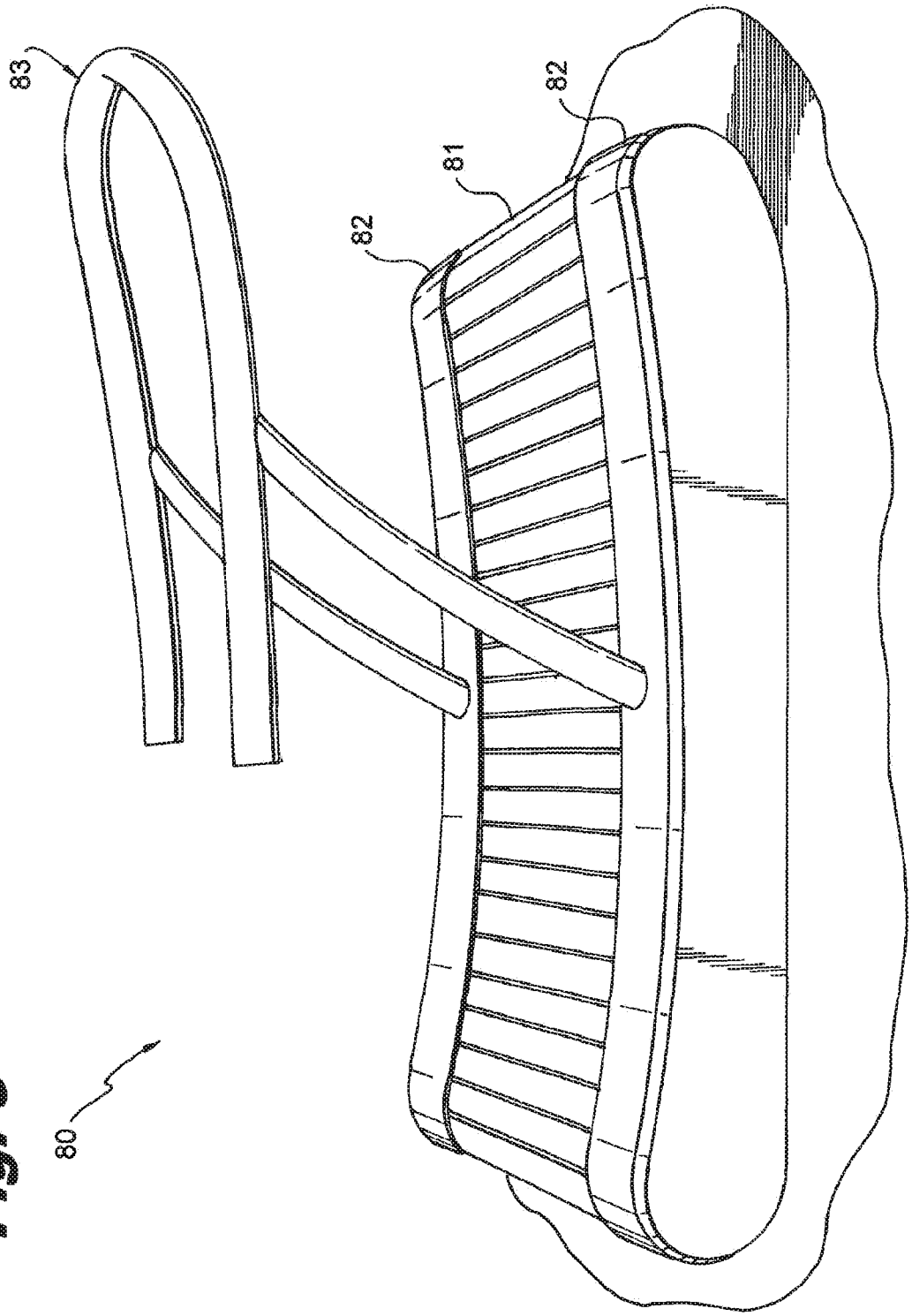


Fig. 5

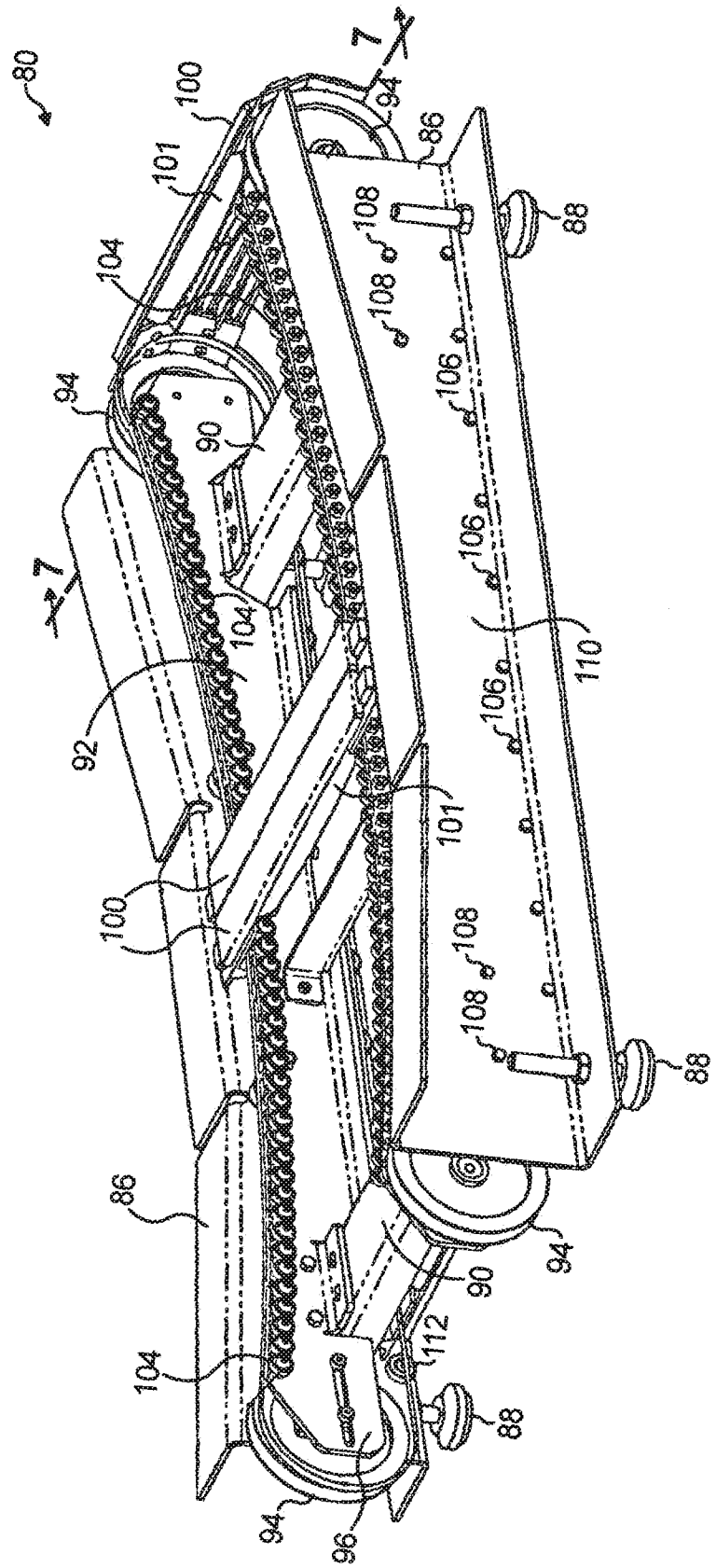


Fig. 6

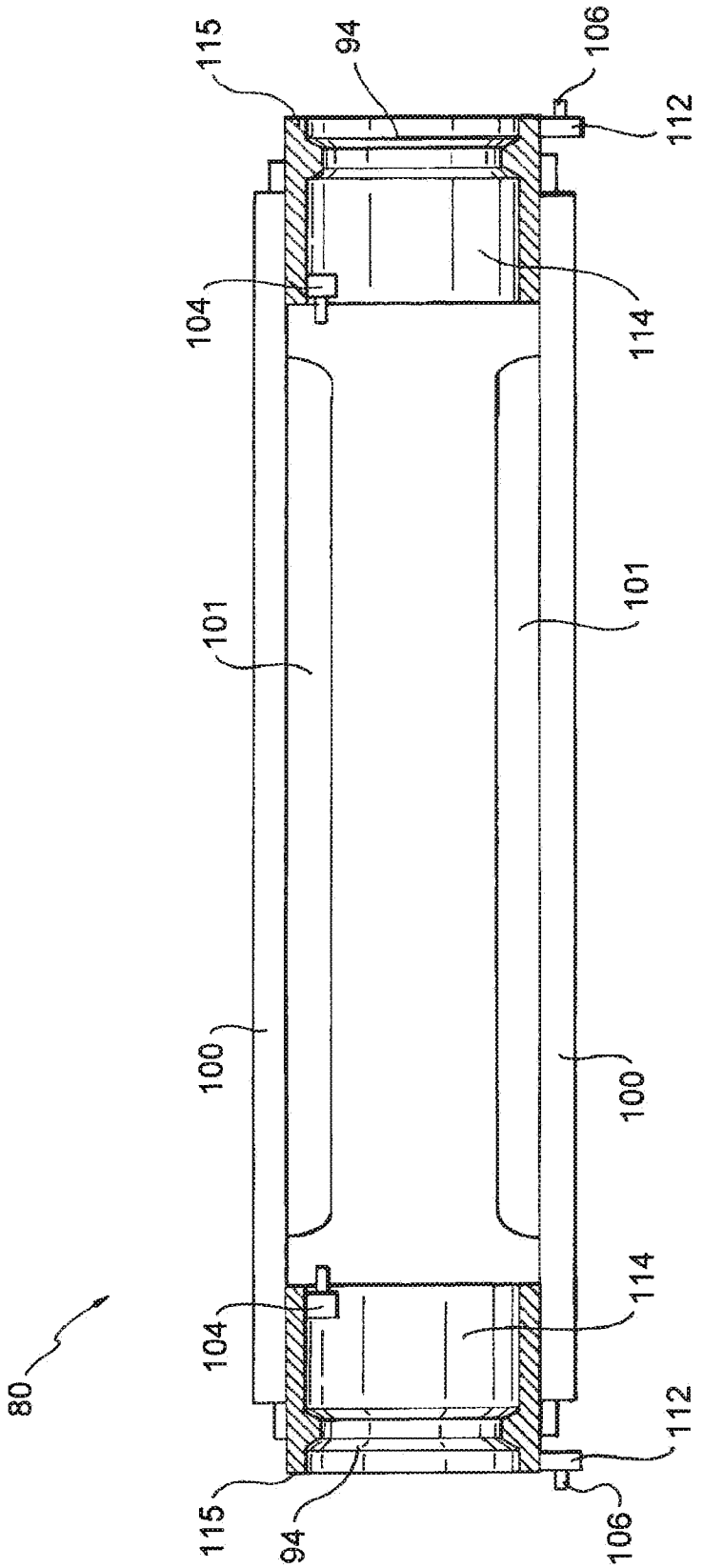


Fig. 7

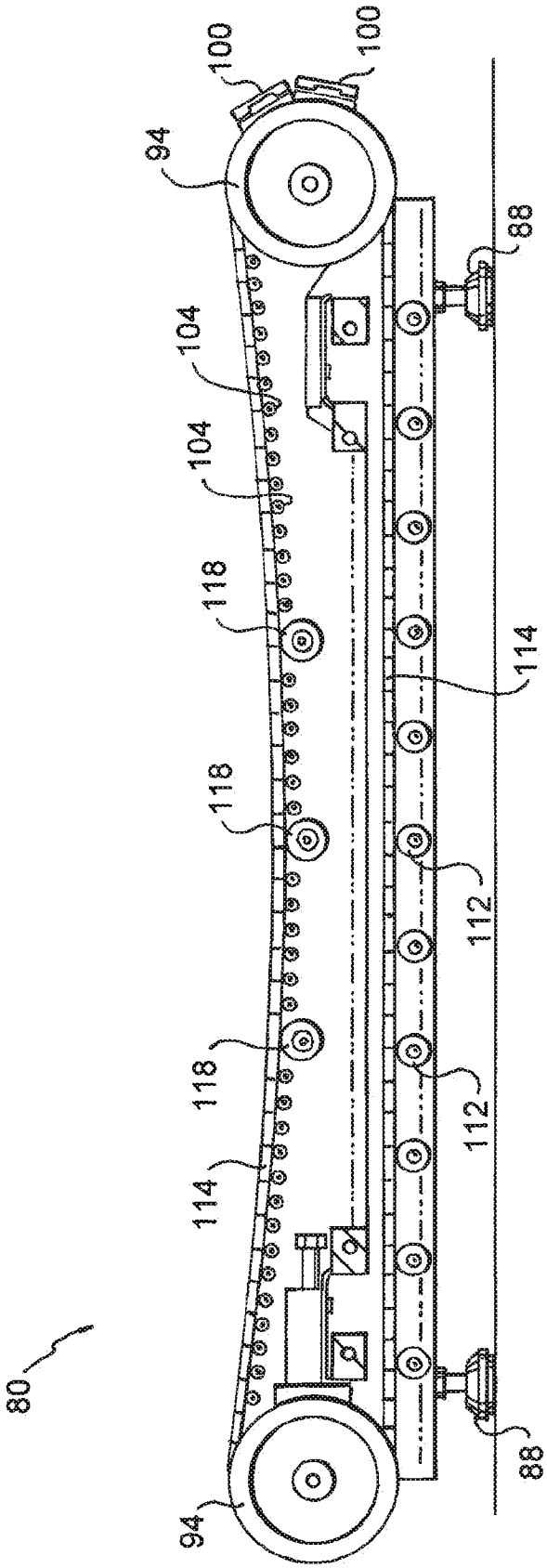


Fig. 8

LEG-POWERED TREADMILL

RELATED APPLICATIONS

This application claims benefit and priority in part under 35 U.S.C. 119(e) from provisional Application No. 61/280,265 filed Nov. 2, 2009, the entire disclosure of which is incorporated by reference herein. This application is a continuation-in-part of a regular examinable utility patent application filed on Oct. 29, 2010, Ser. No. 12/925,770, the entire disclosure of which is incorporated by reference herein. Applicant claims priority in part under 35 U.S.C. §120 therefrom.

FIELD OF THE INVENTION

The present invention relates to a motor-less leg-powered treadmill produced that allows people to walk, jog, run, and sprint without making any adjustments to the treadmill other than shifting the user's center of gravity forward and backwards.

BACKGROUND OF THE INVENTION

Exercise treadmills allow people to walk, jog, run, and sprint on a stationary machine with an endless belt moving over a front and rear sets of pulleys.

OBJECTS OF THE INVENTION

It is an object of the present invention to provide a motor-less leg-powered curved treadmill produced that allows people to walk, jog, run, and sprint without making any adjustments to the treadmill other than shifting the user's center of gravity forward and backwards.

It is also an object of the present invention to provide a closed loop curved treadmill belt in a concave shape supported by end rollers in a low friction manner in a substantial stationery frame.

It is also an object of the present invention to provide a curved treadmill that assumes a concave upper contour and a taut lower portion.

Other objects which become apparent from the following description of the present invention.

SUMMARY OF THE INVENTION

The present invention is a motor-less leg-powered curved treadmill produced wherein the curved, low friction surface allows people to walk, jog, run, and sprint without making any adjustments to the treadmill other than shifting the user's center of gravity forward and backwards. This novel speed control due to the curve allows people of any weight and size to adjust their own speed in fractions of a second. The user controls the speed by positioning their body along the curved running surface. Stepping forward initiates movement, as the user propels themselves up the curve the speed increases. To slow down, the user simply drifts back towards the rear curve. For running athletes, no handrails are needed. Handrails are optional for non-athletes with balance or stability limitations. The motor-less leg-powered treadmill permits low foot impact on the running surface through it's new design, forcing the user to run correctly on the ball of the feet and therefore reducing pressure ands strain of the leg joints. This unique design of the curve in a low friction surface allows any user, regardless of weight and size, to find and maintain the speed they desire. The user steps on the concave curved treadmill belt section and begins walking, steps up further and begins running, steps up even farther and starts to sprint. When stepping backward the motor-less leg-powered treadmill will stop.

Utilizing a closed loop treadmill belt supported by end rollers in a low friction manner in a substantial stationery frame, the curved treadmill of this invention makes it possible for the user to experience a free running session, with the potential to have the real feeling of running, and the ability to stop and sprint and walk instantly, thereby simulating running outside on a running track. This novel speed control in running was not possible in the prior art because of the lack of curved low friction running surfaces.

The closed loop treadmill belt must be of such a length as compared to the distance between the end rollers to permit it to assume the required concave upper contour. To keep it in that configuration in all operational modes, a method of slackening the curved upper portion while simultaneously keeping the lower portion taut (i.e.—preventing it from drooping down) is used. This method must not add significant friction to the treadmill belt since this would detract from the running experience of the user.

Several methods of controlling the treadmill belt configuration in a low friction manner are described. One method is to use a support belt under the treadmill belt lower portion. This support belt is kept in a taut configuration with a horizontal section by using springs pulling pulleys in opposite directions.

Another method uses a timing belt linking the treadmill belt end rollers such that after the desired configuration is achieved, the treadmill belt and end rollers must move synchronously thereby denying the treadmill belt the opportunity to have its lower section droop down.

Yet another method is to support the lower section of the treadmill belt from drooping down by directly supporting this section with one or more linear arrays of low friction bearings at the peripheral edges of the belt below the lower section.

In another embodiment of this invention, the treadmill belt is constructed of two loops of v-belt with a custom crossection attached with fasteners near each end of each transverse slat. Thus the adjacent slats cover the entire user surface on the outside of the v-belt loops. The slats themselves can be fabricated from wood, wood products, plastic, or even rubber. The v-belt custom crossection provides flat extensions on either side of the v-section for support of the treadmill belt away from the large v-belt pulleys at the front and back of the treadmill. By supporting on a resilient continuous belt surface instead of the slats themselves, smoothness of operation is insured.

The v-belt construction provides excellent lateral centering of the treadmill belt in the chassis. Ball bearing support rollers in a linear array at each side bearing on the outer flat v-belt extensions support the bottom portion of the belt to keep it from drooping. A concave array of ball bearings at each side of the chassis supports the treadmill belt by bearing on the inner v-belt extensions to support the top user-contact section. The weight of the treadmill belt itself helps it conform to this support contour.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention can best be understood in connection with the accompanying drawings. It is noted that the invention is not limited to the precise embodiments shown in drawings, in which:

FIG. **1** is a perspective view of the exterior of one embodiment of the present invention; showing the runner in a slow walk in the droop of the concave upper portion of the treadmill ball.

FIG. **1**A is a perspective view of the exterior of the embodiment in FIG. **1**, showing the runner running at a fast pace uphill.

FIG. **1**B is a perspective view of the exterior of the embodiment in FIG. **1**, showing the runner running slowly in the droop of the concave portion.

FIG. **2** is a diagrammatic side view of the system components for the embodiment of FIG. **1** for implementing the present invention.

FIG. **3** is a diagrammatic side view of the system components for a second embodiment for implementing the present invention.

FIG. **4** is a diagrammatic side view of the system components for a third embodiment for implementing the present invention.

FIG. **5** is a perspective view of the third embodiment shown in FIG. **4**, having a v-belt and a lower linear array of ball bearings in the curved treadmill, and showing an optional removable handlebar assembly.

FIG. **6** is a perspective view of the curved treadmill embodiment of FIG. **5** having a v-belt and a lower linear array of ball bearings, with the side covers and treadmill belt removed to reveal the various operating parts.

FIG. **7** is an end view of the curved treadmill embodiment of FIG. **5** having a v-belt and a lower linear array of ball bearings, illustrating the support of a top slat and a bottom slat using the side extension features of the custom v-belt.

FIG. **8** is a side elevation of the v-belt treadmill chassis of the embodiment of FIG. **5** with a v-belt and a lower linear array of ball bearings, showing the supported path of the v-belt; wherein the vertical side of the outer frame member is rendered invisible for clarity of detail.

DETAILED DESCRIPTION OF THE DRAWINGS

The description of the invention which follows, together with the accompanying drawing should not be construed as limiting the invention to the example shown and described, because those skilled in the art to which this invention appertains will be able to devise other forms thereof.

FIG. **1** is a perspective view of a leg-powered treadmill **10** constructed and having an operating mode according to the present invention.

As noted in FIG. **1**, no hand rails are shown. The curved treadmill **10** can be used without hand rails. Hand rails can be optionally provided for non-athletes with balance or running stabilities limitations.

Illustrated are two leg supports **10** and **12** which lift the treadmill **14** in a clearance position above a support surface **16**, said treadmill **10** having space apart sides **18** and **20** which have journalled for rotation end rollers **22** and **24** which support a closed loop treadmill belt **26**. Low friction methods to be described are used to hold taut the length of the lower belt portion **26**A in a dimension of approximately forty-three inches denoted by dimension line **30**. The upper belt portion **26**B weighs approximately forty pounds is also denoted by the dimension line **30**.

It is to be noted that an essential feature of treadmill **10** is a concave shape subtending an acute angle **34** in the treadmill **10** front end **14**A which in practice results in the exerciser **36** running uphill and concomitantly exerting body weight **38** that contributes to driving lengthwise **40** in the direction **42** in which the exerciser runs and achieves the benefits of the exercise. As the runner **36** encounters the different positions on the treadmill belt **26** of the treadmill **14**, the angle of the surface of running changes For example, as shown in FIG. **1**, when the center of gravity of body weight, indicated by downward directional arrow **38**, below the hips of the user **36**, is in the lower dropping portion of the concave upper portion **26**B of the treadmill belt **26**, the runner **36** walks or slowly jogs in a generally horizontal orientation, as indicated by directional arrow **42** in a first slow jogging speed. But, as shown in FIG. **1**A, as the runner **36** speeds up and advances the runner's hips and center of gravity of body weight further forward up the angled slope at the front end **14**A of the treadmill belt **26**, the angle of movement **42** changes from a generally horizontal angle **42** in FIG. **1** to an acute angle **42** up off the horizontal as in FIG. **1**A, which concurrently causes the runner **36** to run vigorously faster, at the acute angle **42** up the slope of the front **14**A of the concave curve of upper belt portion **26**B of treadmill belt **26**, the runner **36** runs faster uphill. Furthermore, as shown in FIG. **1**B, it does not matter where the runner **36** puts the forward foot to change the speed. In FIG. **1**B the center of gravity in the hip region of the runner **36**'s body weight, indicated by downward directional arrow **38**, is still in the lower part of the concave droop of the upper portion **26**A of treadmill belt **26**. So even though the runner **36** in FIG. **1**B is jogging faster than walking or slowly jogging as in FIG. **1**, so long as the runner **36** has the forward foot partially up the angled slope of the forward portion **14**A of the upper belt portion **26**B, the runner will still run slower in FIG. **1**B, not because the forward foot is up the slope of upper belt portion **26**B of the treadmill belt **26**, but because the center of gravity of body weight, as indicated by downward directional arrow **38**, is still within the lower confines of the droop of the concave upper belt portion **26**B. Therefore, what changes the speed of the runner **36** and the treadmill belt **26**, is when the runner **36** moves the center of gravity of the hips of the body weight indicated by downward directional arrow **38** higher up the slope of concave upper portion **26**B of treadmill belt **26**, which causes the runner to run faster and the belt **26** to concurrently move faster around pulleys **22** and **24** with the pace of the forward advancing runner **36**.

It is known from common experience that in prior art treadmills, the upper length portion of their closed loops are flat due, it is believed, because of the inability to maintain the concave shape **34** in the length portion **26**B. This shortcoming is overcome by the weight **30** which in practice has been found to hold the concave shape **34** during the uphill running of the exerciser **36**.

A closed loop treadmill belt **26** is formed with a running surface of transverse wooden, plastic or rubber slats **49** (see FIG. **1**) attached to each other in a resilient fashion. Since an essential feature of treadmill **10** is the concave shape of the low friction running surface of belt **26** in upper portion **26**B, methods are used to insure that this shape is maintained during actual use. These methods must prevent the lower portion **26**A of treadmill belt **26** from drooping down (i.e.—must be held taut), otherwise top portion **26**B would be pulled taut into a flat shape between rollers **22** and **24**. Three methods are illustrated by the side view schematic drawings of FIGS. **2**-**4**.

The method of FIG. **2** shows a flat support belt loop **50** engaged with two side pulleys **54** and a third pulley **56** which is attached to treadmill **10** frame. Two springs **52** pulling in opposite directions hold belt **50** taut with a flat top configuration in contact with bottom treadmill belt portion **26**A. Since pulleys **54** and **52** are low friction, and there is no relative movement between belt **50** and belt **26**, belt **50**

imposes very little drag on belt **26** while supporting lower belt portion **26**A vertically preventing it from drooping down.

The method shown in FIG. **3** shows the use of a timing belt **67** in achieving a similar result. Here end rollers **60** and **64** are attached to timing belt pulleys **62** and **66** respectively. Timing belt idlers **68** are simply used to configure timing belt geometrically to fit within the constraints of the side contours of treadmill **10**. If belt **26** is prevented from slipping relative to end rollers **60** and **64** by high friction coefficient (or by the use an integral timing belt on the inside of belt **26** and rollers with timing belt engagement grooves), once configured as shown, timing belt **67** will not permit drooping down of section **26**A since all motion is now synchronous.

In another method shown in FIG. **4**, one or more linear arrays of bearings **70** extending along opposite peripheral edges of said treadmill frame physically support lower section **26**A of treadmill belt **26** thereby preventing drooping. Bearings **70** may be ball bearings or straight ball bearing casters attached and located at respective side peripheral edges to the bottom surface of the frame of treadmill **10**.

In the v-belt treadmill embodiment **80** of FIG. **5**, side covers **82** enclose the underlying chassis. Running surface **81** comprises a concave surface of transverse slats. Optional handle bar assembly **83** helps users who are balance-challenged to use treadmill **80**; it is both optional and removable.

FIG. **6** shows the chassis of the treadmill of FIG. **5**. Robust cross beams **90** attach both outer frames **86** as well as inner frames **92** on each side to each other creating the roughly rectangular chassis. Bolts **108** attach the outer frames **86** to cross beams **90**. A few slats **100** are shown; they each have one or more downwardly extending reinforcing fins **101** attached on the inner side. Regardless of the material selected for the slats, they must exhibit the desired resiliency and strength along with sufficient weight to lie on and conform to the concave row of upper support ball bearings **104** at each side. The peripheral bearings are spaced apart from each other on respective left and right sides of the curved treadmill **80**, wherein the fins **101** of the transverse slats **100** extend cantilevered downward from each transverse slat **100** so that the transverse slats **100** are resilient to dip slightly under the weight of the user runner without any lower support directly below the transverse slats **100**.

The construction of the treadmill belt and its path around the chassis contour will be illustrated in FIGS. **7** and **8**. The v-belt (not shown in this FIG. **6**) rides in v-belt pulleys **94** at front and back. Since the treadmill belt formed from two v-belt loops with transverse slats **100** attached is itself a large heavy loop, adjusters **96** on the rear (and/or front) pulleys **94** are used during initial installation and to fine tune the distance between the front and back pulleys **94** for precise smooth operation that is not so tight as to bind, nor too loose as to be noisy. Bolts **106** (on both sides) attach a linear array of ball bearings **112** to support the bottom of treadmill belt **81** to prevent drooping. Level adjusters **88** are used to adjust the tilt of treadmill **80**.

FIG. **7** shows the two v-belts **114** in an inner end view near front end pulleys **94**. The two v-belt crossections **115** are plainly illustrated showing the short outer extension and the longer inner extension on each side of the "v". Top slat **100** with fin **101** facing downward is shown at the top. In this view, at each crossection **115**, two bolt heads are clearly shown; they fasten the longer inner flat belt extension to the end of slat **100**. At each side the belt "v" is clearly positioned within the top groove of pulley **94** with ball bearing **104** supporting the edge of treadmill belt **81** through the resilient smooth continuous inner extension of belt **114**. Similarly, at the bottom slat **100** fin **101** is now positioned facing up into the vacant midsection. Larger ball bearings **112** supporting the bottom belt **81** section are seen impinging on short outer v-belt **114** extensions at each side.

FIG. **8** is a side view of the chassis with outer vertical side **110** of outer frame **86** rendered invisible to reveal the relative position of the other components in the v-belt support pathway. Only two slats **100** are shown attached to v-belt **114** (on the right pulley **94**) for clarity. Note the taut, non-sagging position of the bottom section of belt **114** as supported by array of ball bearings **112**. On top, the drooping concave belt **114** is supported by the concave array of ball bearings **104**. The three centrally located v-belt idler pulleys **118** keep belt **114** from moving laterally far from large end v-belt pulleys **94**. The weight of treadmill belt **81** keeps it in contact with the concave contour of ball bearings **104** at any speed from stopped to full running.

In the foregoing description, certain terms and visual depictions are used to illustrate the preferred embodiment. However, no unnecessary limitations are to be construed by the terms used or illustrations depicted, beyond what is shown in the prior art, since the terms and illustrations are exemplary only, and are not meant to limit the scope of the present invention.

It is further known that other modifications may be made to the present invention, without departing the scope of the invention, as noted in the appended Claims.

I claim:

1. A motor-less, leg-powered curved treadmill comprising:

a treadmill frame;

a set of respective front and rear pulley end rollers for rotation, said front and rear pulleys supporting a closed loop treadmill belt;

said closed loop treadmill belt comprising a plurality of parallel slats oriented perpendicular to an axis of rotation of said belt, said parallel slats attached to each other in a resilient fashion;

said closed loop treadmill belt being of such a length as compared to the distance between the end rollers to permit it to assume a required concave upper contour;

a means for slackening an upper concave portion while simultaneously keeping a lower portion of the belt taut, preventing said lower portion from drooping down during rotation and exertion of walking or running force upon said upper concave portion of said closed loop treadmill belt;

wherein each said slat is made of a material with sufficient resiliency and strength and weight to lie on and conform to a concave row of upper support peripheral ball bearings located at each peripheral side of said upper portion of said motor-less, leg-powered curved treadmill.

2. The motor-less, leg-powered curved treadmill as in claim **1** wherein respective side covers enclose an underlying chassis.

3. The motor-less, leg-powered curved treadmill as in claim **2** wherein said chassis includes at least one robust cross beam attaching respective outer frames and respective inner frames on each side to each other, thereby providing a rectangular chassis.

4. The motor-less, leg-powered curved treadmill as in claim **1** wherein said motor-less, leg-powered curved treadmill is provided without a handle bar assembly.

5. The motor-less, leg-powered curved treadmill as in claim **1** wherein said motor-less, leg-powered curved treadmill is provided with a removable handle bar assembly, which when installed on said motor-less, leg-powered curved tread-

mill, said handle bar assembly help users who are balance-challenged to use said motor-less, leg-powered curved treadmill.

6. The motor-less, leg-powered curved treadmill as in claim 1 wherein each said slat includes at least one fin descending downward from each said slat.

7. The motor-less, leg-powered curved treadmill as in claim 6 wherein each said slat includes a plurality of fins descending downward from each said transverse slat.

8. The motor-less, leg-powered curved treadmill as in claim 6 wherein each said rows of peripheral bearings are spaced apart from each other on respective left and right sides of said curved treadmill, wherein further said fins of said slats extend cantilevered downward into a vacant mid-section of said treadmill from each said slat so that said slats are resilient to dip slightly under the weight of a user runner without any lower support below non-peripheral mid-sections of said slats.

9. The motor-less, leg-powered curved treadmill as in claim 1 wherein said transverse slats are made of a material selected from the group consisting of rubber, plastic and wood.

10. The motor-less, leg-powered curved treadmill as in claim 1 wherein respective adjusters are provided on at least one set of said pulleys to adjust the distance separating said pairs of front and rear pulleys to insure precise smooth movement of said belt over said pairs of front and rear pulleys.

11. The motor-less, leg-powered curved treadmill as in claim 1 further comprising level adjusters extending down from said frame to adjust the tilt of said motor-less, leg-powered curved treadmill.

12. The motor-less, leg-powered curved treadmill as in claim 1 wherein said means for slackening the upper portion while simultaneously keeping the lower portion taut, preventing said lower portion from drooping down during rotation and exertion of walking or running force upon said upper concave portion of said closed loop treadmill belt comprises at least a pair of linear arrays of bearings extending along and located at opposite peripheral edges of said treadmill frame, each said array of peripheral edge bearings physically supporting said lower portion of said closed loop treadmill belt in a taut non-drooping configuration.

13. The motor-less, leg-powered curved treadmill as in claim 12 wherein said linear array of lower peripheral bearings supporting said lower taut portion of said curved treadmill belt are each attached to respective right and left side frame members of said chassis to prevent drooping of said lower portion of said curved treadmill belt.

14. The motor-less, leg-powered curved treadmill as in claim 1 wherein said closed loop treadmill belt having an extension wing including a v-belt portion,

said slats of said closed loop treadmill belt joined to said closed loop treadmill belt having said v-belt portion, said v-belt portion insertable and riding within a corresponding v-shaped groove within each of said front and rear pulleys.

15. The motor-less, leg-powered curved treadmill as in claim 14 wherein each said v-belt portion of said curved treadmill belt includes a short outer extension and a longer inner extension on each side of a v-shaped portion of said v-belt portion, wherein further one or more bolts fasten said longer inner flat belt extension to a respective end of each said slat, wherein said v-shaped portion of said v-belt portion is positioned within said respective v-shaped groove of each said pulley, wherein further a respective ball bearing of said concave peripheral row of ball bearings support a respective edge of said curved treadmill belt.

16. The motor-less, leg powered curved treadmill as in claim 15 further comprising a plurality of centrally located v-belt idler pulleys keeping said extensions of said curved treadmill belt from moving laterally from said pulleys.

17. The motor-less, leg-powered curved treadmill as in claim 16 wherein the respective weight of said curved treadmill belt keeps respective peripheral edges of said treadmill belt in contact with the respective concave contours of said peripheral ball bearings at any speed from stopped to full running speed.

* * * * *

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/958,339	Filing Date 04/20/2018	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $230 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	10/18/2018	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 60	Minus	** 30	= 30		x $50 =	1500
	Independent (37 CFR 1.16(h))	* 8	Minus	*** 4	= 4		x $230 =	920
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	2420

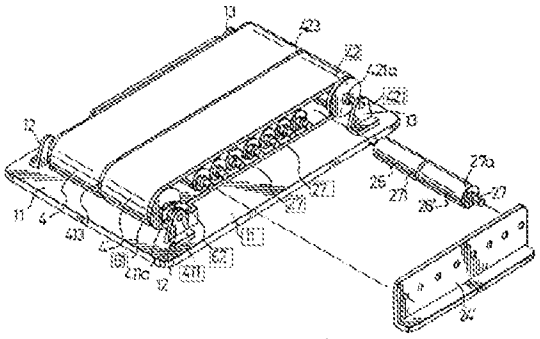
		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

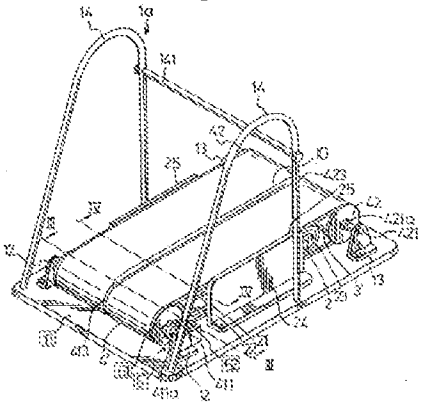
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	SLIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	KIMBERLY D WILLIAMS
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

1) Claim 1

Claim 1	US 5,538,489
a frame having a front end and a rear end positioned opposite the front end;	[Fig. 8] base (11) having a front end and a rear end
a front shaft -coupled to the frame proximate the front end; a rear shaft -coupled to the frame proximate the rear end;	[Fig. 8] a shaft (411) of a front roller (41) [Fig. 8] a shaft(421) of a rear roller (42)
a plurality of bearings -coupled to the frame;	[Fig. 8] rollers (27, 27) -coupled to the base (11)  FIG 8
a running belt -at least partially supported by the plurality of bearings, -wherein the running belt includes a curved running surface; and	[Fig. 2] foot belt (4, 4') -supported by the rollers (41, 42, 27)

a safety device -coupled to the running belt and to at least one of the front shaft and the rear shaft, so that a portion of the safety device, the running belt and the at least one of the front shaft and the rear shaft freely rotate when the portion of the safety device 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 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 the rear shaft.	[Figs. 2-3 / col 4 lines 46-59] unidirection control means (6) -coupled to the base and the belt (4, 4') -ratchet gears (61) and belt (4, 4') freely rotate when the ratchet gears (61) rotate in a first direction of rotation relative to the base, -in a second direction of rotation, opposite the first direction of rotation, the unidirection control means (6) substantially prevents rotation of the ratchet gears (61) and the belt by the pawls (62).  FIG. 2 A unidirectional control means **6, 6'** is installed to permit only unidirectional movement of the left and right foot belts **4, 4'**. In this embodiment, the control means **6, 6'** includes a pair of ratchet gears **61** attached to outer ends of the front rollers **41** and mounted rotatably on the first shaft **411**, and a pair of pawls **62** secured to the base **11** and engaging one of the ratchet gears **61** to permit only unidirectional rotation of the front rollers **41**, thereby preventing bidirectional movement of the foot belts **4, 4'**. A releasable means (not shown) may be provided to release selectively the pawls **62** from the ratchet gears **61** in a known manner to permit reciprocating movement of the foot belts **4, 4'** when desired. Of course, the ratchet gears may be attached to the rear rollers **42** to achieve the same result.

2) Claim 8

Claim 8	US 5,538,489
a frame;	[Fig. 8] base (11)
a first plurality of bearings coupled to the frame; a second plurality of bearings coupled to the frame a spaced distance from the first plurality of bearings;	[Fig. 8] left side of rollers (27, 27) -coupled to the base (11) [Fig. 8] right side of rollers (27, 27) -coupled to the base (11)
a front shaft assembly coupled to the frame; a rear shaft assembly coupled to the frame;	[Fig. 8] a shaft (411) of a front roller (41) [Fig. 8] a shaft(421) of a rear roller (42)

a running belt at least partially supported by the first plurality of bearings and the second plurality of bearings, the running belt being at least partially disposed about the front and rear shaft assemblies, and comprising a running surface, at least a portion of which is curved; and	[Fig. 2] foot belt (4, 4') -supported by the rollers (41, 42, 27) -disposed about the shafts (411, 412)
a safety device coupled to the frame and the running belt, so that a portion of the safety device and the running belt freely rotate when the portion of the safety device 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 safety device substantially prevents rotation of the portion of the safety device and the running belt.	[Figs. 2-3 / col 4 lines 46-59] unidirection control means (6) -coupled to the base and the belt (4, 4') -ratchet gears (61) and belt (4, 4') freely rotate when the ratchet gears (61) rotate in a first direction of rotation relative to the base, -in a second direction of rotation, opposite the first direction of rotation, the unidirection control means (6) substantially prevents rotation of the ratchet gears (61) and the belt by the pawls (62).

3) Claim 21

Claim 21	US 5,538,489
a frame;	[Fig. 8] base (11)
at least one front running belt pulley coupled to the frame;	[Fig. 8] a front roller (41) -coupled to the base
at least one rear running belt pulley coupled to the frame a spaced distance from the at least one front running belt pulley;	[Fig. 8] a rear roller (42) -coupled to the base
a plurality of bearings coupled to the frame;	[Fig. 8] rollers (27, 27) -coupled to the base (11)
a running belt -at least partially supported by the plurality of bearings and 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	[Fig. 2] foot belt (4, 4') -supported by the rollers (27,27) and rollers (41, 42)

a safety device coupled to the running belt so that a portion of the safety device and the running belt freely rotate when the portion of the safety device 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 safety device substantially prevents rotation of the portion of the safety device and the running belt.	[Figs. 2-3 / col 4 lines 46-59] unidirection control means (6) -coupled to the base and the belt (4, 4') -ratchet gears (61) and belt (4, 4') freely rotate when the ratchet gears (61) rotate in a first direction of rotation relative to the base, -in a second direction of rotation, opposite the first direction of rotation, the unidirection control means (6) substantially prevents rotation of the ratchet gears (61) and the belt by the pawls (62).

4) Claim 29

Claim 29	US 5,538,489
providing a manually powered treadmill, the manually powered treadmill having a frame with a front end and a rear end;	[Fig. 2] providng a walker apparatus comprising base (11)
providing a plurality of bearings coupled to the frame, wherein the plurality of bearings define at least a portion of a curved top profile;	[Fig. 8] providing a plurality of rollers (41, 42, 27) coupled to the base (11)
disposing a running belt on the plurality of bearings such that the curved top profile of plurality of bearings define at least a portion of a curved running surface of the running belt;	[Fig. 2] providing a foot belt (4, 4') on the rollers (41, 42, 27)
providing a safety device coupled to the frame and the running belt, the safety device having a first element;	[Figs. 2-3 / col 4 lines 46-59] providing a unidirection control means (6) coupled to the base (11) and the belt (4), the unidirection control means (6) having a ratchet gears (61)
permitting rotation of the running belt in a first direction by freewheeling of the first element of the safety device; and substantially preventing rotation of the running belt in a second direction, opposite the first direction by restricting rotation of the first element of the safety device.	[Figs. 2-3 / col 4 lines 46-59] permitting rotation of the belt (4, 4') in a first direction by freewheeling of the ratchet gears (61) ; and substantially preventing rotation of the belt (4, 4') in a second direction, opposite the first direction by restricting rotation of the ratchet gears (61) by the pawls (62).

4) Claim 31

Claim 31	US 5,538,489
a frame having a front end and a rear end positioned opposite the front end;	[Fig. 8] base (11) having a front end and a rear end
a front shaft coupled to the frame proximate the front end; a rear shaft coupled to the frame proximate the rear end;	[Fig. 8] a shaft (411) of a front roller (41) [Fig. 8] a shaft(421) of a rear roller (42)

a plurality of bearings -coupled to the frame;	[Fig. 8] rollers (27, 27) -coupled to the base (11)
a running belt -at least partially supported by the plurality of bearings, -wherein the running belt includes a curved running surface; and	[Fig. 2] foot belt (4, 4') -supported by the rollers (41, 42, 27)
-a safety device coupled to the frame and the running belt, -the safety device having a first element and a second element; -wherein the first element of the safety device and the running belt freely rotate relative to the second element of the safety device when the first element of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame.	[Figs. 2-3 / col 4 lines 46-59] unidirection control means (6) -coupled to the base and the belt (4, 4') -having ratchet gears (61) and pawls (62). -ratchet gears (61) and belt (4, 4') freely rotate when the ratchet gears (61) rotate in a first direction of rotation relative to the base, -in a second direction of rotation, opposite the first direction of rotation, the unidirection control means (6) substantially prevents rotation of the ratchet gears (61) and the belt by the pawls (62).

6) Claim 38

Claim 38	US 5,538,489
a frame;	[Fig. 8] base (11)
a first plurality of bearings coupled to the frame; a second plurality of bearings coupled to the frame a spaced distance from the first plurality of bearings;	[Fig. 8] left side of rollers (27, 27) -coupled to the base (11) [Fig. 8] right side of rollers (27, 27) -coupled to the base (11)
a front shaft assembly coupled to the frame; a rear shaft assembly coupled to the frame;	[Fig. 8] a shaft (411) of a front roller (41) [Fig. 8] a shaft(421) of a rear roller (42)

a running belt at least partially supported by the first plurality of bearings and the second plurality of bearings, the running belt being at least partially disposed about the front and rear shaft assemblies, and comprising a running surface, at least a portion of which is curved; and	[Fig. 2] foot belt (4, 4') -supported by the rollers (41, 42, 27) -disposed about the shafts (411, 412)
a safety device coupled to the frame and the running belt, the safety device having a first element and a second element; wherein the first element of the safety device and the running belt freely rotate relative to the second element of the safety device when the first element of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame.	[Figs. 2-3 / col 4 lines 46-59] unidirection control means (6) -coupled to the base and the belt (4, 4') -having ratchet gears (61) and pawls (62). -ratchet gears (61) and belt (4, 4') freely rotate when the ratchet gears (61) rotate in a first direction of rotation relative to the base, -in a second direction of rotation, opposite the first direction of rotation, the unidirection control means (6) substantially prevents rotation of the ratchet gears (61) and the belt by the pawls (62).

7) Claim 51

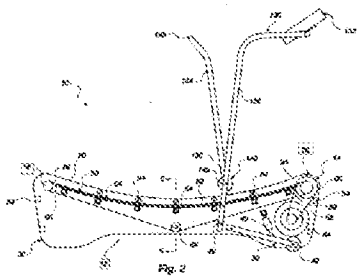
Claim 51	US 5,538,489
a frame;	[Fig. 8] base (11)
at least one front running belt pulley coupled to the frame;	[Fig. 8] a front roller (41) -coupled to the base
at least one rear running belt pulley coupled to the frame a spaced distance from the at least one front running belt pulley;	[Fig. 8] a rear roller (42) -coupled to the base
a plurality of bearings coupled to the frame;	[Fig. 8] rollers (27, 27) -coupled to the base (11)
a running belt -at least partially supported by the plurality of bearings and 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	[Fig. 2] foot belt (4, 4') -supported by the rollers (27,27) and rollers (41, 42)

a safety device coupled to the frame and the running belt, the safety device having a first element and a second element; wherein the first element of the safety device and the running belt freely rotate relative to the second element of the safety device when the first element of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame.	[Figs. 2-3 / col 4 lines 46-59] unidirection control means (6) -coupled to the base and the belt (4, 4') -having ratchet gears (61) and pawls (62). -ratchet gears (61) and belt (4, 4') freely rotate when the ratchet gears (61) rotate in a first direction of rotation relative to the base, -in a second direction of rotation, opposite the first direction of rotation, the unidirection control means (6) substantially prevents rotation of the ratchet gears (61) and the belt by the pawls (62).

8) Claim 58

Claim 58	US 5,538,489
providing a manually powered treadmill, the manually powered treadmill having a frame with a front end and a rear end;	[Fig. 2] providing a walker apparatus comprising base (11)
providing a plurality of bearings coupled to the frame, wherein the plurality of bearings define at least a portion of a curved top profile;	[Fig. 8] providing a plurality of rollers (41, 42, 27) coupled to the base (11)
disposing a running belt on the plurality of bearings such that the curved top profile of plurality of bearings define at least a portion of a curved running surface of the running belt;	[Fig. 2] providing a foot belt (4, 4') on the rollers (41, 42, 27)
providing a safety device coupled to the frame and the running belt, the safety device having a first element and a second element;	[Figs. 2-3 / col 4 lines 46-59] providing a unidirection control means (6) coupled to the base (11) and the belt (4), the unidirection control means (6) having ratchet gears (61) and pawls (62).
permitting rotation of the first element 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 first element of the safety device by interference between the first element and the second element of the safety device.	[Figs. 2-3 / col 4 lines 46-59] permitting rotation of the ratchet gears (61) and the belt (4, 4') in a first direction; and substantially preventing rotation in a second direction, opposite the first direction, of the belt (4, 4') and the ratchet gears (61) by interference between the ratchet gears (61) and the pawls (62).

1) Claim 1

Claim 1	US 5,709,632
a frame having a front end and a rear end positioned opposite the front end;	[Fig. 2] support frame (12) having a front end and a rear end
a front shaft -coupled to the frame proximate the front end; a rear shaft -coupled to the frame proximate the rear end;	[Fig. 2] a front shaft of a first roller (78) [Fig. 2] a rear shaft of a second roller (86)
a plurality of bearings -coupled to the frame;	[Fig. 2] a plurality of rollers(78, 86) -coupled to the frame
a running belt -at least partially supported by the plurality of bearings, -wherein the running belt includes a curved running surface; and	[Fig. 2] rotating belt (16) -supported by the rollers (78, 86) --having a running surface which is curved 
a safety device -coupled to the running belt and to at least one of the front shaft and the rear shaft, so that a portion of the safety device, the running belt and the at least one of the front shaft and the rear shaft freely rotate when the portion of the safety device 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 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 the rear shaft.	

2) Claim 8

Claim 8	US 5,709,632
a frame;	[Fig. 2] support frame (12)
a first plurality of bearings coupled to the frame; a second plurality of bearings coupled to the frame a spaced distance from the first plurality of bearings;	
a front shaft assembly coupled to the frame; a rear shaft assembly coupled to the frame;	[Fig. 2] a front shaft of a first roller (78) [Fig. 2] a rear shaft of a second roller (86)
a running belt at least partially supported by the first plurality of bearings and the second plurality of bearings, the running belt being at least partially disposed about the front and rear shaft assemblies, and comprising a running surface, at least a portion of which is curved; and	[Fig. 2] rotating belt (16) -supported by the rollers (78, 86) -disposed about the front and rear shafts --having a running surface which is curved
a safety device coupled to the frame and the running belt, so that a portion of the safety device and the running belt freely rotate when the portion of the safety device 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 safety device substantially prevents rotation of the portion of the safety device and the running belt.	

3) Claim 21

Claim 21	US 5,709,632
a frame;	[Fig. 2] support frame (12)
at least one front running belt pulley coupled to the frame;	[Fig. 2] a first roller (78) -coupled to the frame
at least one rear running belt pulley coupled to the frame a spaced distance from the at least one front running belt pulley;	[Fig. 2] a second roller (86) -coupled to the frame

a plurality of bearings coupled to the frame;	
a running belt -at least partially supported by the plurality of bearings and 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	[Fig. 2] rotating belt (16) -supported by the rollers (78, 86) --having a running surface which is curved
a safety device coupled to the running belt so that a portion of the safety device and the running belt freely rotate when the portion of the safety device 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 safety device substantially prevents rotation of the portion of the safety device and the running belt.	

4) Claim 29

Claim 29	US 5,709,632
providing a manually powered treadmill, the manually powered treadmill having a frame with a front end and a rear end;	[Fig. 2] providing a curved deck treadmill comprising a frame (35)
providing a plurality of bearings coupled to the frame, wherein the plurality of bearings define at least a portion of a curved top profile;	[Figs. 2, 5] providing a plurality of rollers (98) coupled to the frame, wherein the plurality of rollers (98) define at least a portion of a curved top profile;
disposing a running belt on the plurality of bearings such that the curved top profile of plurality of bearings define at least a portion of a curved running surface of the running belt;	[Fig. 2] providing a rotating belt (16) such that the curved top profile of plurality of rollers (98) define at least a portion of a curved surface of the rotating belt (16);
providing a safety device coupled to the frame and the running belt, the safety device having a first element;	
permitting rotation of the running belt in a first direction by freewheeling of the first element of the safety device; and substantially preventing rotation of the running belt in a second direction, opposite the first direction by restricting rotation of the first element of the safety device.	

4) Claim 31

Claim 31	US 5,709,632
a frame having a front end and a rear end positioned opposite the front end;	[Fig. 2] support frame (12) having a front end and a rear end
a front shaft coupled to the frame proximate the front end; a rear shaft coupled to the frame proximate the rear end;	[Fig. 2] a front shaft of a first roller (78) [Fig. 2] a rear shaft of a second roller (86)
a plurality of bearings -coupled to the frame;	[Fig. 2] a plurality of rollers(78, 86) -coupled to the frame
a running belt -at least partially supported by the plurality of bearings, -wherein the running belt includes a curved running surface; and	[Fig. 2] rotating belt (16) -supported by the rollers (78, 86) --having a running surface which is curved
-a safety device coupled to the frame and the running belt, -the safety device having a first element and a second element; -wherein the first element of the safety device and the running belt freely rotate relative to the second element of the safety device when the first element of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame.	

6) Claim 38

Claim 38	US 5,709,632
a frame;	[Fig. 2] support frame (12)
a first plurality of bearings coupled to the frame; a second plurality of bearings coupled to the frame a spaced distance from the first plurality of bearings;	

a front shaft assembly coupled to the frame; a rear shaft assembly coupled to the frame;	[Fig. 2] a front shaft of a first roller (78) [Fig. 2] a rear shaft of a second roller (86)
a running belt at least partially supported by the first plurality of bearings and the second plurality of bearings, the running belt being at least partially disposed about the front and rear shaft assemblies, and comprising a running surface, at least a portion of which is curved; and	[Fig. 2] rotating belt (16) -supported by the rollers (78, 86) -disposed about the front and rear shafts --having a running surface which is curved
a safety device coupled to the frame and the running belt, the safety device having a first element and a second element; wherein the first element of the safety device and the running belt freely rotate relative to the second element of the safety device when the first element of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame.	

7) Claim 51

Claim 51	US 5,709,632
a frame;	[Fig. 2] support frame (12)
at least one front running belt pulley coupled to the frame;	[Fig. 2] a first roller (78) -coupled to the frame
at least one rear running belt pulley coupled to the frame a spaced distance from the at least one front running belt pulley;	[Fig. 2] a second roller (86) -coupled to the frame
a plurality of bearings coupled to the frame;	

a running belt -at least partially supported by the plurality of bearings and 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	[Fig. 2] rotating belt (16) -supported by the rollers (78, 86) --having a running surface which is curved
a safety device coupled to the frame and the running belt, the safety device having a first element and a second element; wherein the first element of the safety device and the running belt freely rotate relative to the second element of the safety device when the first element of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame.	

8) Claim 58

Claim 58	US 5,709,632
providing a manually powered treadmill, the manually powered treadmill having a frame with a front end and a rear end;	[Fig. 2] providing a curved deck treadmill comprising a frame (35)
providing a plurality of bearings coupled to the frame, wherein the plurality of bearings define at least a portion of a curved top profile;	[Figs. 2, 5] providing a plurality of rollers (98) coupled to the frame, wherein the plurality of rollers (98) define at least a portion of a curved top profile;
disposing a running belt on the plurality of bearings such that the curved top profile of plurality of bearings define at least a portion of a curved running surface of the running belt;	[Fig. 2] providing a rotating belt (16) such that the curved top profile of plurality of rollers (98) define at least a portion of a curved surface of the rotating belt (16);
providing a safety device coupled to the frame and the running belt, the safety device having a first element and a second element;	

permitting rotation of the first element 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 first element of the safety device by interference between the first element and the second element of the safety device.	

THIRD-PARTY SUBMISSION UNDER 37 CFR 1.290
CONCISE DESCRIPTION OF RELEVANCE

Application Number	15958339

U.S. PATENTS

Cite No	Patent Number	Concise Description of Relevance
1	5538489	See Attached
2	5709632	See Attached

U.S. PATENT APPLICATION PUBLICATION

Cite No	Publication Number	Concise Description of Relevance

FOREIGN PATENT DOCUMENTS		
CiteNo	**Foreign Document Number**	**Concise Description of Relevance**

NON-PATENT PUBLICATIONS		
Cite No	**Reference**	**Concise Description of Relevance**

PTO/SB/429(08-12)
Approved for use through 07/31/2015. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

THIRD-PARTY SUBMISSION UNDER 37 CFR 1.290	Application Number	15958339

U.S. PATENTS				
Cite No	Patent Number	Kind Code[1]	Issue Date (YYYY-MM-DD)	First Named Inventor
1	5709632		1998-01-20	JEFF SOCWELL
2	5538489		1996-07-23	SIDNEY MAGID

U.S. PATENT APPLICATION PUBLICATIONS				
Cite No	Publication Number	Kind Code[1]	Publication Date (YYYY-MM-DD)	First Named Inventor

FOREIGN PATENTS AND PUBLISHED FOREIGN PATENT APPLICATIONS						
Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[1]	Publication Date (YYYY-MM-DD)	Applicant, Patentee or First Named Inventor	T[5]
						☐

NON-PATENT PUBLICATIONS (e.g., journal article, Office action)			
Cite No	Author (if any), title of the publication, page(s) being submitted, publication date, publisher (where available), place of publication (where available).	T[5]	E[6]

THIRD-PARTY SUBMISSION UNDER 37 CFR 1.290	Application Number	15958339

		☐	☐

STATEMENTS

The party making the submission is not an individual who has a duty to disclose information with respect to the above-identified application under 37 CFR 1.56.

This submission complies with the requirements of 35 U.S.C. 122(e) and 37 CFR 1.290.

☐ The fee set forth in 37 CFR 1.290(f) has been submitted herewith.

☒ The fee set forth in 37 CFR 1.290(f) is not required because this submission lists three or fewer total items and, to the knowledge of the person signing the statement after making reasonable inquiry, this submission is the first and the only submission under 35 U.S.C 122(e) filed in the above-identified application by the party making the submission or by a party in privity with the party.

☐ This resubmission is being made responsive to a notification of non-compliance issued for an earlier filed third-party submission. The corrections in this resubmission are limited to addressing the non-compliance. As such, the party making this resubmission: (1) requests that the Office apply the previously-paid fee set forth in 37 CFR 1.290(f), or (2) states that no fee is required to accompany this resubmission as the undersigned is again making the fee exemption statement set forth in 37 CFR 1.290(g).

Signature	/Richard J. Polley/		
Name/Print	Richard J. Polley	Registration Number (if applicable)	28107

Examiner Signature		Date Considered	

*EXAMINER: Signature indicates all documents listed above have been considered,except for citations through which a line is drawn. Draw line through citation if not considered. Include a copy of this form with next communication to applicant. 1. If known, enter kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16. See MPEP 901.04(a). 2. Enter the country or patent office that issued the document, by two-letter code under WIPO standard ST.3. See MPEP 1851. 3. For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 4. If known, enter the kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 . See MPEP 901.04(a). 5. Check mark indicates translation attached. 6. Check mark indicates evidence of publication attached.

Electronic Acknowledgement Receipt

EFS ID:	34338881
Application Number:	15958339
International Application Number:	
Confirmation Number:	4765
Title of Invention:	
First Named Inventor/Applicant Name:	
Correspondence Address:	-
Filer:	Richard J. Polley
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	16-NOV-2018
Filing Date:	
Time Stamp:	18:33:42
Application Type:	

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Concise Description of Relevance	US5538489_ConciseDescriptionOfRelevance.pdf	386929 73fa91849004ce4c249e902b5e33c4cb31cd3e2c	no	7
Warnings:					
Information:					
2	Concise Description of Relevance	US5709632_ConciseDescriptionOfRelevance.pdf	158205 0b3de01bde3455cee9e3c2bb6c57aa69b6794df5	no	7
Warnings:					
Information:					
3	Concise Description of Relevance	Concise-description-generated.pdf	28527 7ddff37e08e0e86aca8613538082a49cb037f49f	no	3
Warnings:					
Information:					
4	Third-Party Submission Under 37 CFR 1.290	Third-party-preissuance-submission.pdf	42160 f6d20364d5bcfd7ba73ae64a56d9dc3a07ee34b2	no	2
Warnings:					
Information:					
5	Request for Notification of Non-compliant Third-Party Submission	Third-party-notification-request.pdf	19635 adec9a325edf71d1888a9836b819ebb056434e7b	no	1
Warnings:					
Information:					
		Total Files Size (in bytes):	635456		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/958,339	04/20/2018	Douglas G. Bayerlein	097208-0226	4765

26371 7590 11/28/2018

FOLEY & LARDNER LLP
3000 K STREET N.W.
SUITE 600
WASHINGTON, DC 20007-5109

EXAMINER	
DEICHL, JENNIFER M	

ART UNIT	PAPER NUMBER
3784	

NOTIFICATION DATE	DELIVERY MODE
11/28/2018	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipdocketing@foley.com

UNITED STATES DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR/ PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
15/958,339	04/20/2018	Bayerlein et al.	097208-0226

FOLEY & LARDNER LLP
3000 K STREET N.W. SUITE 600
WASHINGTON, DC 20007-5109

EXAMINER	
Jennifer Deichl	
ART UNIT	PAPER
3784	20181119

DATE MAILED: _____

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

A third-party submission under 37 CFR 1.290 has been filed on November 16, 2018, and is being entered into the above-identified application. Please allow a few days for the submission to be visible in the Patent Application Information Retrieval (PAIR) system. Note that the submission will be identified using the "Information Disclosure Statement Filed" Document Description. This Document Description is being used for the internal purposes only. The Office does not consider the submission to be an Information Disclosure Statement under 37 CFR 1.97 and 1.98.

/Jay Trent Liddle/
QAS Detailee, TC3700

PTO-90C (Rev.04-03)

To: ipdocketing@foley.com,,
From: PAIR_eOfficeAction@uspto.gov
Cc: PAIR_eOfficeAction@uspto.gov
Subject: Private PAIR Correspondence Notification for Customer Number 26371

Nov 29, 2018 04:21:12 AM

Dear PAIR Customer:

FOLEY & LARDNER LLP
3000 K STREET N.W.
SUITE 600
WASHINGTON, DC 20007-5109
UNITED STATES

The following USPTO patent application(s) associated with your Customer Number, 26371 , have new outgoing correspondence. This correspondence is now available for viewing in Private PAIR.

The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

Disclaimer:
The list of documents shown below is provided as a courtesy and is not part of the official file wrapper. The content of the images shown in PAIR is the official record.

Application	Document	Mailroom Date	Attorney Docket No.
15958339	M327	11/28/2018	097208-0226

To view your correspondence online or update your email addresses, please visit us anytime at https://sportal.uspto.gov/secure/myportal/privatepair.

If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov with 'e-Office Action' on the subject line or call 1-866-217-9197 during the following hours:

Monday - Friday 6:00 a.m. to 12:00 a.m.

Thank you for prompt attention to this notice,

UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION INFORMATION RETRIEVAL SYSTEM

Substitute for form 1449/PTO **INFORMATION DISCLOSURE STATEMENT BY APPLICANT** Date Submitted: December 3, 2018 *(use as many sheets as necessary)*				***Complete if Known***	
				Application Number	15/958,339
				Filing Date	4/20/2018
				First Named Inventor	Douglas G. Bayerlein
				Art Unit	3784
				Examiner Name	Deichl, Jennifer M.
Sheet	1	of	1	Attorney Docket Number	097208-0226

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if nown*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	E1	2,399,915	05-07-1946	DRAKE	
	E2	10,010,748	07-03-2018	WEINSTEIN ET AL.	

Examiner Signature		Date Considered	

Electronic Patent Application Fee Transmittal

Application Number:	15958339
Filing Date:	20-Apr-2018
Title of Invention:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
First Named Inventor/Applicant Name:	Douglas G. Bayerlein
Filer:	Alexander J. Neuworth/Laura Buhs
Attorney Docket Number:	097208-0226

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	2806	1	120	120
		Total in USD ($)		**120**

Electronic Acknowledgement Receipt

EFS ID:	34470663
Application Number:	15958339
International Application Number:	
Confirmation Number:	4765
Title of Invention:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
First Named Inventor/Applicant Name:	Douglas G. Bayerlein
Customer Number:	26371
Filer:	Alexander J. Neuworth/Laura Buhs
Filer Authorized By:	Alexander J. Neuworth
Attorney Docket Number:	097208-0226
Receipt Date:	03-DEC-2018
Filing Date:	20-APR-2018
Time Stamp:	18:07:13
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$120
RAM confirmation Number	120418INTEFSW18075300
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	097208-0226_IDS.pdf	102224 a4c5f60d0c55597ec8fd12e1b5c4ea4f20749a47	no	2
Warnings:					
Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	097208-0226_SB08.pdf	87935 b79745c21c195b3eef104b07dad7e6c64969c922	no	1
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
3	Fee Worksheet (SB06)	fee-info.pdf	30613 d972ff14d884272a2d40fdc7d096ee55ab4d7356	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	220772		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor Name:	Douglas G. Bayerlein
Title:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
Application No.:	15/958,339
Filing Date:	4/20/2018
Examiner:	Deichl, Jennifer M.
Art Unit:	3784
Confirmation No.:	4765

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

Applicant submits herewith documents for the Examiner's consideration in accordance with 37 CFR §§1.56, 1.97 and 1.98.

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

Applicant requests that, in accordance with 37 CFR §1.98(d), the Examiner review all applications relied on for an earlier effective filing date under 35 U.S.C. 120, including application no. PCT/US10/27543, filed 3/16/2010; application no. 13/235,065, filed 9/16/2011; application no. 14/076912, filed 11/11/2013; application no. 14/832,708, filed 8/21/2015, for copies of references of record therein that are not being provided here; although Applicant would be pleased to provide copies of any such documents at the Examiner's request.

The submission of any document herewith is not an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document submitted herewith.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(c), before the mailing date of any of a final action under 37 CFR §1.113, a notice of allowance under 37 CFR §1.311, or an action that otherwise closes prosecution in the application.

FEE

Fees in the amount of $120.00 to cover the fee associated with an information disclosure statement are being paid by credit card via EFS-Web.

The Commissioner is hereby authorized to charge any additional fees which may be required for this application to Deposit Account Number 19-0741.

Respectfully submitted,

Date /12-3-2018/ By /Alexander J. Neuworth/

FOLEY & LARDNER LLP
Customer Number: 26371
Telephone: (414) 319-7029
Facsimile: (414) 297-4900

Attorneys for Applicant

Alexander J. Neuworth
Registration No. 72,021

Richard J. McKenna
Registration No. 35,610

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/958,339	04/20/2018	Douglas G. Bayerlein	097208-0226	4765

26371 7590 02/20/2019

FOLEY & LARDNER LLP
3000 K STREET N.W.
SUITE 600
WASHINGTON, DC 20007-5109

EXAMINER	
DEICHL, JENNIFER M	

ART UNIT	PAPER NUMBER
3784	

NOTIFICATION DATE	DELIVERY MODE
02/20/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipdocketing@foley.com

Office Action Summary	Application No. 15/958,339	Applicant(s) Bayerlein et al.	
	Examiner JENNIFER M DEICHL	Art Unit 3784	AIA Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 10/18/2018.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☑ This action is **FINAL.** 2b) ☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-60 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-60 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to the amendment filed 10/18/2018. Claims 1-60 are acknowledged as pending in this application with claims 1, 8, 11, 16, 19, 21, and 28 being currently amended and claims 31-60 being new. The 103 rejections of the previous Office Action are withdrawn as having been overcome by the amendment. The Double Patenting rejection is maintained. New rejections are presented below.

Claim Rejections - 35 USC § 103

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4,6-14, 17-21, 23-29, 31-34, 36-44, 47-51, and 53-59 is/are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Bostic (US 5,492,517) in view of Cutter (US 3,642,279), Schonenberger (4,334,676), and Magid (US 5,538,489).

Regarding claim 1, Bostic teaches a manually powered treadmill, comprising: a frame (15) having a front end and a rear end positioned opposite the front end; a front shaft (55) coupled to the frame proximate the front end; a rear shaft (20) coupled to the frame proximate the rear end; a running belt; and a safety device coupled to at least one of the front shaft and the rear shaft (one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify

the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose a portion of the safety device, the running belt and the at least one of the front shaft and the rear shaft freely rotate when the portion of the safety device 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 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 the rear shaft. Magid teaches a manually powered treadmill including a running belt and safety device (6, 6') coupled to at least one of a front shaft and a rear shaft, so that a portion of the safety device, the running belt and the at least one of the front shaft and the rear shaft freely rotate when the portion of the safety device 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 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 the rear shaft (column 4 lines 46-59). It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by providing the safety mechanism taught by Magid in order to prevent accidental reverse movement of the belt.

Regarding claim 2, Bostic teaches the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member (see Fig. 14). The combination of Bostic and Schonenberger yields a treadmill wherein the plurality of bearings includes a first plurality of bearings coupled to a left-side of the frame and a second plurality of bearings coupled to a right-side of the frame.

Regarding claim 3, the combination of Bostic, Cutter, and Schonenberger yields a treadmill wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile, wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

Regarding claim 4, modified Bostic teaches the safety device comprises a one-way bearing (Magid column 4 lines 46-59).

Regarding claim 6, Bostic teaches a braking system (40) coupled to the frame and configured to selectively resist the rotational movement of the running belt.

Regarding claim 7, Bostic teaches the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt (column 3 lines 27-33).

Regarding claim 8, Bostic teaches a manually powered treadmill, comprising: a frame (15); a front shaft assembly (25, 55) coupled to the frame; a rear shaft assembly (19, 20) coupled to the frame; a running belt (10) at least partially disposed about the front and rear shaft assemblies, and including a running surface; and a safety device (one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a first plurality of bearings and a second plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose the safety device coupled to the frame and the running belt, so that a portion of the safety device and the running belt freely rotate when the portion of the safety device 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 safety device substantially prevents rotation of the portion of the safety device and the running belt. Magid teaches a manually powered treadmill including a safety device (6, 6') coupled to the frame and the running belt, so that a portion of the safety device and the running belt freely rotate when the portion of the safety device 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 safety device substantially prevents rotation of the portion of the safety device and the running belt (column 4 lines 46-59). It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by providing the safety mechanism taught by Magid in order to prevent accidental reverse movement of the belt.

Regarding claim 9, modified Bostic teaches the safety device comprises a one-way bearing (Magid column 4 lines 46-59)

Regarding claim 10, Bostic teaches the front shaft assembly comprises a front shaft (55) coupled to frame.

Regarding claim 11, Bostic teaches the front shaft assembly comprises and at least one front running belt pulley (25) coupled to the front shaft.

Regarding claim 12, Bostic teaches the rear shaft assembly comprises a rear shaft (20) coupled to the frame.

Regarding claim 13, Bostic teaches the rear shaft assembly comprises at least one rear running belt pulley (19) coupled to the rear shaft.

Regarding claim 14, Bostic teaches the rear shaft assembly comprises at least one rear running belt pulley (19) and the front shaft assembly comprises at least one front running belt pulley (25).

Regarding claim 17, the combination of Bostic and Schonenberger yields a treadmill wherein the running belt is at least partially supported by the first plurality of bearings and the second plurality of bearings.

Regarding claim 18, the combination of Bostic, Cutter, and Schonenberger yields a treadmill wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile, wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

Regarding claim 19, Bostic teaches the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member (see Fig. 14).

Regarding claim 20, Bostic teaches the combination of Bostic and Schonenberger yields a treadmill wherein the first plurality of bearings are coupled the left side member and the second plurality of bearings are coupled to the right side member.

Regarding claim 21, Bostic teaches a manually powered treadmill, comprising: a frame (15); at least one front running belt pulley (25) coupled to the frame; at least one rear running belt pulley (19) coupled to the frame a spaced distance from the at least one front running belt pulley; a running belt

(10) 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: and a safety device coupled to the running belt (one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a first plurality of bearings and a second plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose the safety device coupled to the running belt, so that a portion of the safety device and the running belt freely rotate when the portion of the safety device 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 safety device substantially prevents rotation of the portion of the safety device and the running belt. Magid teaches a manually powered treadmill including a safety device (6, 6') coupled to the frame and the running belt, so that a portion of the safety device and the running belt freely rotate when the portion of the safety device 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 safety device substantially prevents rotation of the portion of the safety device and the running belt

(column 4 lines 46-59). It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by providing the safety mechanism taught by Magid in order to prevent accidental reverse movement of the belt.

Regarding claim 23, Bostic teaches a front shaft (55) coupled to frame, the front shaft being adapted to support the at least one front running belt pulley.

Regarding claim 24, Bostic teaches a rear shaft (20) coupled to frame, the rear shaft being adapted to support the at least one rear running belt pulley.

Regarding claim 25, modified Bostic teaches the safety device comprises a one-way bearing (Magid column 4 lines 46-59).

Regarding claim 26, Bostic teaches a braking system (40) coupled to the frame and configured to selectively resist the rotational movement of the running belt.

Regarding claim 27, Bostic teaches the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt (column 3 lines 27-33).

Regarding claim 28, Bostic teaches a method, comprising: providing a manually powered treadmill, the manually powered treadmill having a frame (15) with a front end and a rear end; disposing a running belt (10) on the frame; permitting movement of the running belt in a first direction; and providing a safety device coupled to the frame (via a one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a plurality of

bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose the safety device having a first element; permitting rotation of the running belt in a first direction by freewheeling of the first element of the safety device; and resisting rotation of the running belt in a second direction opposite the first direction by restricting rotation of the first element of the safety device. Magid teaches a manually powered treadmill including a safety device (6, 6') coupled to the frame which permits rotation of the running belt in a first direction by freewheeling of the first element of the safety device; and resists rotation of the running belt in a second direction opposite the first direction by restricting rotation of the first element of the safety device (column 4 lines 46-59). It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by providing the safety mechanism taught by Magid in order to prevent accidental reverse movement of the belt.

Regarding claim 29, Bostic teaches providing for the selective application of a braking force to resist the rotational movement of the running belt in the first direction (column 3 lines 27-33).

Regarding claim 31, Bostic teaches a manually powered treadmill, comprising: a frame (15) having a front end and a rear end positioned opposite the front end; a front shaft (55) coupled to the frame proximate the front end; a rear shaft (20) coupled to the frame proximate the rear end; a running belt; and a safety device coupled to at least one of the front shaft and the rear shaft (one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify

the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose the safety device having a first element and a second element; wherein the first element of the safety device and the running belt freely rotate relative to the second element of the safety device when the first element of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame. Magid teaches a manually powered treadmill including a safety device (6, 6') coupled to the frame and the running belt, the safety device having a first element (61) and a second element (62); wherein the first element of the safety device and the running belt freely rotate relative to the second element of the safety device when the first element of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame (column 4 lines 46-59). It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by

providing the safety mechanism taught by Magid in order to prevent accidental reverse movement of the belt.

Regarding claim 32, Bostic teaches the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member (see Fig. 14). The combination of Bostic and Schonenberger yields a treadmill wherein the plurality of bearings includes a first plurality of bearings coupled to a left-side of the frame and a second plurality of bearings coupled to a right-side of the frame.

Regarding claim 33, the combination of Bostic, Cutter, and Schonenberger yields a treadmill wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile, wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

Regarding claim 34, modified Bostic teaches the safety device comprises a one-way bearing (Magid column 4 lines 46-59).

Regarding claim 36, Bostic teaches a braking system (40) coupled to the frame and configured to selectively resist the rotational movement of the running belt.

Regarding claim 37, Bostic teaches the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt (column 3 lines 27-33).

Regarding claim 38, Bostic teaches a manually powered treadmill, comprising: a frame (15); a front shaft assembly (25, 55) coupled to the frame; a rear shaft assembly (19, 20) coupled to the frame; a running belt (10) at least partially disposed about the front and rear shaft assemblies, and including a running surface; and a safety device (one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify

the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a first plurality of bearings and a second plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose the safety device having a first element and a second element; wherein the first element of the safety device and the running belt freely rotate relative to the second element of the safety device when the first element of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame. Magid teaches a manually powered treadmill including a safety device (6, 6') coupled to the frame and the running belt, the safety device having a first element (61) and a second element (62); wherein the first element of the safety device and the running belt freely rotate relative to the second element of the safety device when the first element of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame (column 4 lines 46-59). It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by

providing the safety mechanism taught by Magid in order to prevent accidental reverse movement of the belt.

Regarding claim 39, modified Bostic teaches the safety device comprises a one-way bearing (Magid column 4 lines 46-59)

Regarding claim 40, Bostic teaches the front shaft assembly comprises a front shaft (55) coupled to frame.

Regarding claim 41, Bostic teaches the front shaft assembly comprises and at least one front running belt pulley (25) coupled to the front shaft.

Regarding claim 42, Bostic teaches the rear shaft assembly comprises a rear shaft (20) coupled to the frame.

Regarding claim 43, Bostic teaches the rear shaft assembly comprises at least one rear running belt pulley (19) coupled to the rear shaft.

Regarding claim 44, Bostic teaches the rear shaft assembly comprises at least one rear running belt pulley (19) and the front shaft assembly comprises at least one front running belt pulley (25).

Regarding claim 47, the combination of Bostic and Schonenberger yields a treadmill wherein the running belt is at least partially supported by the first plurality of bearings and the second plurality of bearings.

Regarding claim 48, the combination of Bostic, Cutter, and Schonenberger yields a treadmill wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile, wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

Regarding claim 49, Bostic teaches the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member (see Fig. 14).

Regarding claim 50, Bostic teaches the combination of Bostic and Schonenberger yields a treadmill wherein the first plurality of bearings are coupled the left side member and the second plurality of bearings are coupled to the right side member.

Regarding claim 51, Bostic teaches a manually powered treadmill, comprising: a frame (15); at least one front running belt pulley (25) coupled to the frame; at least one rear running belt pulley (19) coupled to the frame a spaced distance from the at least one front running belt pulley; a running belt (10) 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: and a safety device coupled to the running belt (one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a first plurality of bearings and a second plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose the safety device having a first element and a second element; wherein the first element of the safety device and the running belt freely rotate relative to the second element of the safety device when the first element of the safety device rotates in a first

direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame. Magid teaches a manually powered treadmill including a safety device (6, 6') coupled to the frame and the running belt, the safety device having a first element (61) and a second element (62); wherein the first element of the safety device and the running belt freely rotate relative to the second element of the safety device when the first element of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame (column 4 lines 46-59). It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by providing the safety mechanism taught by Magid in order to prevent accidental reverse movement of the belt.

Regarding claim 53, Bostic teaches a front shaft (55) coupled to frame, the front shaft being adapted to support the at least one front running belt pulley.

Regarding claim 54, Bostic teaches a rear shaft (20) coupled to frame, the rear shaft being adapted to support the at least one rear running belt pulley.

Regarding claim 55, modified Bostic teaches the safety device comprises a one-way bearing (Magid column 4 lines 46-59).

Regarding claim 56, Bostic teaches a braking system (40) coupled to the frame and configured to selectively resist the rotational movement of the running belt.

Regarding claim 57, Bostic teaches the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt (column 3 lines 27-33).

Regarding claim 58, Bostic teaches a method, comprising: providing a manually powered treadmill, the manually powered treadmill having a frame (15) with a front end and a rear end; disposing a running belt (10) on the frame; permitting movement of the running belt in a first direction; and providing a safety device coupled to the frame (via a one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose the safety device having a first element and a second element; wherein the first element of the safety device and the running belt freely rotate relative to the second element of the safety device when the first element of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame. Magid teaches a manually powered treadmill including a safety device (6, 6') coupled to the frame and the running belt, the safety device having a first element (61) and a second element (62); wherein the first element of the safety device and the running belt freely rotate relative to

the second element of the safety device when the first element of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the first element and the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame. (column 4 lines 46-59). It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by providing the safety mechanism taught by Magid in order to prevent accidental reverse movement of the belt.

Regarding claim 59, Bostic teaches providing for the selective application of a braking force to resist the rotational movement of the running belt in the first direction (column 3 lines 27-33).

Claims 5, 16, 30, 35, 46, and 60 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Bostic (US 5,492,517) in view of Cutter (US 3,642,279), Schonenberger (4,334,676), and Magid (US 5,538,489) as applied to claims 1, 8, 28, 31, 38, and 58 above, and further in view of Gaetano (US 4,406,451).

Bostic teaches a support foot (35) coupled to the frame, but fails to teach the at least one support foot is adjustable to enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill. Gaetano (US 4,406,451) teaches a manual treadmill comprising a support foot (84) which enables an adjustment of a vertical incline of the treadmill. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the incline adjustment taught by Gaetano in order to allow the user to simulate running on hills.

Claims 15, 22, 45 and 52 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Bostic (US 5,492,517) in view of Cutter (US 3,642,279), Schonenberger (4,334,676), and Magid (US 5,538,489) as applied to claims 14, 21, 44, and 51, and further in view of Skowronski (US 6,923,746).

Bostic does not specifically disclose at least one of the at least one front running belt pulley and the at least one rear running belt pulley is formed of an electrically insulating material. Skowronski teaches a treadmill comprising front and rear pulleys formed of an electrically insulating material (column 3 lines 63-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Bostic's pulleys as formed from a plastic material, as taught by Skowronski, in order to provide easily produced and durable pulleys. Such a modification involves the mere selection of a known material based on its suitability for its intended use and therefore fails to distinguish the invention over the prior art.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP §§ 706.02(l)(1) - 706.02(l)(3) for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The filing date of the application in which the form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp.

Claims 1-60 are provisionally rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-12, 15-26, and 28-57 of copending Application No. 15/957,721 (reference application). Although the claims at issue are not identical, they are not patentably distinct from each other because all of the limitations of the present application are either recited by, or obvious over the claims of the reference application.

This is a provisional nonstatutory double patenting rejection because the patentably indistinct claims have not in fact been patented.

Response to Arguments

Applicant's arguments with respect to the rejections under 35 U.S.C. 103 have been considered but are moot in view of the new grounds of rejection.

Applicant's arguments with respect to the provisional double patenting rejection have been fully considered but they are not persuasive. Applicant argues that the '721 application claims features not claimed by present claim set. This is immaterial to the present rejection. As stated above, a nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). Applicant further argues that the present claims recite bearings defining a curved top profile, a feature not present in the reference claims. This is an obvious feature, as curved profiles supported by bearings are well-known in the art (see for example Cutter US 3,642,279 and Schonenberger US 4,334,676).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing

date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER M DEICHL whose telephone number is (571)272-5001. The examiner can normally be reached on Monday-Friday, 8:30 am to 6:00 pm PST.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LoAn Thanh can be reached on 571-272-4966. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JENNIFER M. DEICHL
Primary Examiner
Art Unit 3784

/JENNIFER M DEICHL/
Primary Examiner, Art Unit 3784

Notice of References Cited	Application/Control No. 15/958,339	Applicant(s)/Patent Under Reexamination Bayerlein et al.	
	Examiner JENNIFER M DEICHL	Art Unit 3784	Page 1 of 1

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-5538489-A	07-1996	Magid; Sidney H.	A47D13/04	482/54
	B					
	C					
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/958,339	Bayerlein et al.
	Examiner	Art Unit
	JENNIFER M DEICHL	3784

CPC - Searched*		
Symbol	Date	Examiner
A63B22/02-0228	07/11/2018	JD

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
reviewed family applicaiton history	07/11/2018	JD
EAST text search	07/11/2018	JD
updated	02/14/2019	JD

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

	/JENNIFER M DEICHL/ Examiner.Art Unit 3764

PTO/SB/08 (modified)

Substitute for form 1449/PTO **INFORMATION DISCLOSURE STATEMENT BY APPLICANT** Date Submitted: October 18, 2018 *(use as many sheets as necessary)* Sheet 1 of 3	***Complete if Known***	
	Application Number	15/958,339
	Filing Date	4/20/2018
	First Named Inventor	Douglas G. Bayerlein
	Art Unit	3784
	Examiner Name	Deichl, Jennifer M.
	Attorney Docket Number	097208-0226

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[6]
	D1	Minute Entry and Order for Markman Hearing, dated June 13, 2018, 2 pps.	
	D2	Order Denying Motion for Reconsideration (Doc. No. 248), dated June 20, 2018, 12 pps.	
	D3	Supplemental Expert Report of Kim B. Blair, PhD., Case 3:15-CV-01665-JCH, Document 184-8, filed 3/16/2018, 19 pps., marked on its face as Exhibit AA.	
	D4	Second Supplemental Expert Report of Kim B. Blair, PhD., Case 3:15-CV-01665-JCH, Document 254-3, 41 pps., marked on its face as Exhibit 3.	
	D5	Expert Report of Kim B. Blair, Ph.D., Case 3:15-CV-01665-JCH, Document 254-7, filed 6/8, 2018, 135 pps., marked on its face as Exhibit 7.	
	D6	Rebuttal Expert Report of Kim B. Blair, Ph.D., Case 3:15-CV-01665-JCH, Document 254-15, 184 pps., marked on its face as Exhibit 15.	
	D7	Woodway USA, Inc.'s opposition to plaintiffs' motion for partial reconsideration, Case 3:15-CV-01665-JCH, Document 250, filed 5/14/2018, 19 pps.	
	D8	Defendant Woodway USA, Inc.'s responses and objections to plaintiffs' first set of interrogatories, Case 3:15-CV-01665-JCH, Document 254-22, 17 pps., marked on its face as Exhibit 22.	
	D9	Woodway USA, Inc.'s motion for summary judgment of infringement of U.S. Patent No. 9,039,580, Case 3:15-CV-01665-JCH, Document 255, filed 6/8/2018, 3 pps.	
	D10	Woodway USA, Inc.'s Memorandum of Law in support of its motion for summary judgment of infringement of U.S. Patent No. 9,039,580, Case 3:15-CV-01665-JCH, Document 256, 38 pps.	
	D11	Woodway USA, Inc.'s local rule 56(a)1 statement of undisputed material facts in support of its motion summary judgment of infringement of U.S. Patent No. 9,039,580, Case 3:15-CV-01665-JCH, Document 257, 8 pps.	
	D12	Woodway USA, Inc.'s memorandum of law in opposition to plaintiffs' motion for summary judgment of non-infringement and invalidity of Claim 25 of U.S. Patent No. 9,039,580, Case 3:15-CV-01665-JCH, Document 266, filed 6/29/2018, 42 pps.	
	D13	Woodway USA, Inc.'s local rule 56(a)2 statement of facts in opposition to plaintiffs' motion for summary judgment, Case 3:15-CV-01665-JCH, Document 267, filed 6/29/2018, 34 pps.	
	D14	Woodway USA, Inc.'s Amended Supplemental Counterclaims, Case 3:15-CV-01665-JCH, Document 309, filed 9/14/2018, 28 pps.	
	D15	Plaintiffs' motion for partial reconsideration, Case 3:15-CV-01665-JCH, Document 248, filed 5/7/2018, 3 pps.	
	D16	Plaintiffs' memorandum of law in support of their motion for partial reconsideration, Case 3:15-CV-01665-JCH, Document 249, filed 5/8/2018, 9 pps.	

Examiner Signature		Date Considered	

4828-6309-7465.1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.M.D/

PTO/SB/08 (modified)

Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	15/958,339
				Filing Date	4/20/2018
Date Submitted: October 18, 2018				**First Named Inventor**	Douglas G. Bayerlein
				Art Unit	3784
(use as many sheets as necessary)				Examiner Name	Deichl, Jennifer M.
Sheet	2	of	3	Attorney Docket Number	097208-0226

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[6]
	D17	Plaintiffs' Reply in Support of motion for partial reconsideration, Case 3:15-CV-01665-JCH, Document 251, filed 5/29, 2018, 4 pps.	
	D18	Plaintiffs' motion for summary judgment of non-infringement and invalidity on Claim 25 of U.S. Patent No. 9,039,580, Case 3:15-CV-01665-JCH, Document 252, 2 pps.	
	D19	Plaintiff's memorandum in support of motion for summary judgment of non-infringement and invalidity on Claim 25 of U.S. Patent No. 9,039,580, Case 3:15-CV-01665-JCH, Document 253, filed 6/8/2018, 45 pps.	
	D20	Plaintiffs' Local Rule 56(a)1 statement of undisputed material facts, Case 3:15-CV-01665-JCH, Document 254, filed 6/8/2018, 14 pps.	
	D21	Plaintiffs' Opposition to Woodway USA, Inc.'s motion for summary judgment of infringement on Claim 25 of U.S. Patent No. 9,039,580, Case 3:15-CV-01665-JCH, Document 264, filed 6/29/2018, 35 pps.	
	D22	Plaintiffs' Local Rule 56(a)2 statement of facts in opposition to summary judgment, Case 3:15-CV-01665-JCH, Document 265, filed 6/29/2018, 17 pps.	
	D23	Chapco, Inc. and Samsara Fitness LLC's notice pursuant to 34 U.S.C. §282, Case 3:15-CV-01665-JCH, Document 310, filed 9/14/2018, 4 pps.	
	D24	Plaintiffs' preliminary non-infringement contentions, Case 3:15-cv-01165-JCH, Document 96-3, filed May 2, 2017, 56 pps.	
	D25	Plaintiffs' supplemental non-infringement contentions, Case 3:15-CV-01665-JCH, Document 98-8, filed May 2, 2017, 60 pps.	
	D26	Plaintiffs' preliminary invalidity contentions, Case 3:15-CV-01665-JCH, Document 254-16, filed 6/8/2018, 205 pps., marked on its face as Exhibit 16.	
	D27	Declaration of Robert Giachetti, Case 3:15-CV-01665-JCH, Document 88-2, filed May 1, 2017, 20 pps., marked on its face as Exhibit 1.	
	D28	Opening expert report of Dr. Robert Giachetti re: invalidity of United States Patent No. 8,986,169 and United States Patent No. 9,039,580, Case 3:15-CV-01665-JCH, Document 216-1, filed 4/5/2018, 67 pps., marked on its face as Exhibit 1.	
	D29	Expert report of Dr. Robert Giachetti, Case 3:15-CV-01665-JCH, Document 216-2, filed 4/5/2018, 31 pps., marked on its face as Exhibit 2.	
	D30	Supplemental rebuttal expert report of Dr. Robert Giachetti responsive to supplemental expert report of Dr. Kim Blair dated March 15, 2018, dated May 14, 2018, 12 pps.	
	D31	Supplemental rebuttal expert report of Dr. Robert Giachetti responsive to second supplemental expert report of Dr. Kim Blair dated April 13, 2018, Case 3:15-CV-01665-JCH, Document 254-4, filed 6/8/2018, 18 pps., marked on its face as Exhibit 4.	
	D32	Woodway USA, Inc.'s first supplemental responses and objections to plaintiff's first set of interrogatories (Nos. 1-7), Case 2:17-cv-00768-KAM-AKT, Document 38-1, filed 3/14/2018, 18 pps., marked on its face as Exhibit A.	
	D33	Transcript of videotaped deposition of Alex Astilean taken July 10, 2018 for Case 2:17-cv-00768-KAM-AKT, 75 pps.	

Examiner Signature		Date Considered	

4828-6309-7465.1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.M.D/

PTO/SB/08 (modified)

Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	15/958,339
				Filing Date	4/20/2018
Date Submitted: October 18, 2018				**First Named Inventor**	Douglas G. Bayerlein
				Art Unit	3784
(use as many sheets as necessary)				Examiner Name	Deichl, Jennifer M.
Sheet	3	of	3	Attorney Docket Number	097208-0226

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[6]
	D34	Transcript of videotaped deposition of Speedfit LLC by Alex Astilean taken July 10, 2018 for Case 2:17-cv-00768-KAM-AKT, 38 pps.	
	D35	Notice of Woodway USA, Inc.'s motion to preclude the testimony of plaintiffs' technical expert James Whelan, Case 2:13-cv-01276-KAM-AKT, Document 211, filed 8/8/2018, 3 pps.	
	D36	Woodway USA, Inc.'s memorandum in support of its motion to preclude the testimony of plaintiffs' technical expert James Whelan, Case 2:13-cv-01276-KAM-AKT, Document 212, filed 8/8/2018, 37 pps.	
	D37	Declaration of Matthew W. Peters, Case 2:13-cv-01276-KAM-AKT, Document 213, filed 8/8/2018, 2 pps.	
	D38	Video deposition transcript of James D. Whelan taken on September 28, 2015, Case 2:13-cv-01276-KAM-AKT, Document 213-1, filed 8/8/2018, 23 pps., marked on its face as Exhibit A.	
	D39	Rebuttal expert report of Kim B. Blair, Ph.D., Case 2:13-cv-01276-KAM-AKT, Document 213-3, filed 8/8/2018, 24 pps., marked on its face as Exhibit C.	
	D40	Transcript of civil cause for evidentiary hearing before the Honorable Kiyo A. Matsumoto, United States District Judge, Case 2:13-cv-01276-KAM-AKT, Document 213-4, filed 8/8/2018, 10 pps., marked on its face as Exhibit D.	
	D41	Woodway USA, Inc.'s reply memorandum in further support of its motion to preclude the testimony of Plaintiffs' technical expert James Whelan, Case 2:13-cv-01276-KAM-AKT, Document 226, filed 8/8/2018, 16 pps.	
	D42	Supplemental declaration of Matthew W. Peters, Case 2:13-cv-01276-KAM-AKT, Document 227, filed 8/8/2018, 1 pg.	
	D43	Transcript of videotaped deposition of Dan Bostan, Case 2:13-cv-01276-KAM-AKT, Document 227-2, filed 8/8/2018, 4 pps., marked on its face as Exhibit F.	
	D44	Transcript of civil cause for evidentiary hearing before the Honorable Kiyo A. Matsumoto, United States District Judge, Case 2:13-cv-01276-KAM-AKT, Document 227-3, filed 8/8/2018, 5 pps., marked on its face as Exhibit G.	
	D45	Plaintiff's supplemental responses and objections to defendant's first set of interrogatories, Case 2:17-cv-00768-KAM-AKT, Document 38-3, filed 3/14/2018, 22 pps., marked on its face as Exhibit C.	
	D46	Expert report of James D. Whelan, P.E., report dated June 12, 2018, 30 pps.	
	D47	Expert report of James D. Whelan, P.E., report dated July 27, 2015, Case 2:13,cv-01276-KAM-AKT, Document 212-1, filed 8/8/2018, 62 pps., marked on its face as Exhibit 1.	
	D48	Expert report of James D. Whelan, P.E., report dated August 26, 2015, Case 2:13-cv-01276-KAM-AKT, Document 212-2, filed 8/8/2018, 19 pps., marked on its face as Exhibit 2.	
	D49	Expert report of James D. Whelan, P.E., report dated September 28, 2018, 10 pps.	

Examiner Signature	/JENNIFER M DEICHL/	Date Considered	02/14/2019

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Doc Code:IDS.3P
Document Description: Third-Party Submission Under 37 CFR 1.290

PTO/SB/429(08-12)
Approved for use through 07/31/2015. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

THIRD-PARTY SUBMISSION UNDER 37 CFR 1.290	Application Number	15958339

U.S. PATENTS

Cite No	Patent Number	Kind Code[1]	Issue Date (YYYY-MM-DD)	First Named Inventor
1	5709632		1998-01-20	JEFF SOCWELL
2	5538489		1996-07-23	SIDNEY MAGID

U.S. PATENT APPLICATION PUBLICATIONS

Cite No	Publication Number	Kind Code[1]	Publication Date (YYYY-MM-DD)	First Named Inventor

FOREIGN PATENTS AND PUBLISHED FOREIGN PATENT APPLICATIONS

Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[1]	Publication Date (YYYY-MM-DD)	Applicant, Patentee or First Named Inventor	T[5]
						☐

NON-PATENT PUBLICATIONS (e.g., journal article, Office action)

Cite No	Author (if any), title of the publication, page(s) being submitted, publication date, publisher (where available), place of publication (where available).	T[5]	E[6]

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.M.D/

THIRD-PARTY SUBMISSION UNDER 37 CFR 1.290	Application Number	15958339

		☐	☐

STATEMENTS

The party making the submission is not an individual who has a duty to disclose information with respect to the above-identified application under 37 CFR 1.56.

This submission complies with the requirements of 35 U.S.C. 122(e) and 37 CFR 1.290.

☐ The fee set forth in 37 CFR 1.290(f) has been submitted herewith.

☒ The fee set forth in 37 CFR 1.290(f) is not required because this submission lists three or fewer total items and, to the knowledge of the person signing the statement after making reasonable inquiry, this submission is the first and the only submission under 35 U.S.C 122(e) filed in the above-identified application by the party making the submission or by a party in privity with the party.

☐ This resubmission is being made responsive to a notification of non-compliance issued for an earlier filed third-party submission. The corrections in this resubmission are limited to addressing the non-compliance. As such, the party making this resubmission: (1) requests that the Office apply the previously-paid fee set forth in 37 CFR 1.290(f), or (2) states that no fee is required to accompany this resubmission as the undersigned is again making the fee exemption statement set forth in 37 CFR 1.290(g).

Signature	/Richard J. Polley/		
Name/Print	Richard J. Polley	Registration Number (if applicable)	28107

Examiner Signature	/JENNIFER M DEICHL/	Date Considered	02/14/2019

*EXAMINER: Signature indicates all documents listed above have been considered,except for citations through which a line is drawn. Draw line through citation if not considered. Include a copy of this form with next communication to applicant. 1. If known, enter kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16. See MPEP 901.04(a). 2. Enter the country or patent office that issued the document, by two-letter code under WIPO standard ST.3. See MPEP 1851. 3. For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 4. If known, enter the kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 . See MPEP 901.04(a). 5. Check mark indicates translation attached. 6. Check mark indicates evidence of publication attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.M.D/

PTO/SB/08 (modified)

Substitute for form 1449/PTO **INFORMATION DISCLOSURE STATEMENT BY APPLICANT** Date Submitted: December 3, 2018 *(use as many sheets as necessary)*				***Complete if Known***	
				Application Number	15/958,339
				Filing Date	4/20/2018
				First Named Inventor	Douglas G. Bayerlein
				Art Unit	3784
				Examiner Name	Deichl, Jennifer M.
Sheet	1	of	1	Attorney Docket Number	097208-0226

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if nown*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	E1	2,399,915	05-07-1946	DRAKE	
	E2	10,010,748	07-03-2018	WEINSTEIN ET AL.	

Examiner Signature	/JENNIFER M DEICHL/	Date Considered	02/14/2019

4837-2658-4705.1 ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.M.D/

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	54	("20040018917" | "20060287165" | "20090170666" | "3968543" | "4614337" | "7717828" | "D736866" | "20060003871" | "5897461" | "20090280960" | "20120231934" | "5887579" | "7090620" | "8308619" | "8690738" | "5411455" | "20090215589" | "5538489" | "5709632" | "6095952" | "20030045403" | "6923746" | "20120157267" | "5470293" | "6053848" | "6740009" | "8734300" | "1211765" | "20080287266" | "20140011642" | "0219439" | "4334676" | "5411279" | "6042514" | "6146315" | "6348025" | "6500097" | "3642279" | "20020147079" | "20060003872" | "20110266091" | "3637206" | "5162988" | "5577598" | "6642279" | "8343016" | "20120270705" | "4635928" | "4726581" | "5548405" | "7560822" | "9005085").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/10/23 17:36
S2	2189	A63B22/02-0292.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/10/23 17:44
S3	27	S2 and height with threaded	US-PGPUB; USPAT; USOCR	OR	OFF	2016/10/23 17:45
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S5	11	treadmill and deichl.xa.	US-PGPUB; USPAT	OR	OFF	2017/05/01 20:22
S6	7	("20060052728" | "5089960" | "5913684" | "5980256" | "6152854" | "7166064" | "7980856").PN. OR ("8968161").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/01 20:24
S7	80	("3451526" | "3550756" | "4868682" | "5186270" | "5229756" | "5238099" | "5314391" | "5385519" | "5490784" | "5495576" | "5562572" | "D340342").PN. OR ("6152854").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/01 20:25
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S10	23	(US-0009668-$ | US-0020907-$ | US-	US-PGPUB;	OR	OFF	2017/05/01

		0123396-$ | US-0216607-$ | US-2117957-$ | US-2842365-$ | US-20050009668-$ | US-20070123396-$ | US-20080020907-$ | US-20100216607-$ | US-2223685-$ | US-4389047-$ | US-4544152-$ | US-5575740-$ | US-5669856-$ | US-6893382-$).DID.	USPAT; USOCR			20:39
S11	1	("9352188").PN.	US-PGPUB; USPAT	OR	OFF	2017/05/01 20:43
S12	2319	A63B22/02-0292.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/02 09:42
S13	105	S12 and @pd>="20161015"	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/02 09:42
S14	25	("1211765" | "20040082890" | "2820454" | "2842365" | "3711090" | "4204673" | "4509510" | "4603851" | "5108094" | "5383828" | "5470293" | "5951441" | "6071354" | "6152854" | "6180210" | "6455123" | "8002674" | "8033387" | "8162769" | "8206801" | "8308592" | "8439807").PN. OR ("8714346").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/02 09:46
S15	17	("3641601" | "3659845" | "3689066" | "3711090" | "4509510" | "5018722").PN. OR ("6180210").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/02 09:47
S16	8	(US-20040077465-$ | US-4659074-$ | US-5290205-$ | US-5431612-$ | US-5856736-$ | US-7179205-$ | US-7618345-$ | US-7789800-$).DID.	US-PGPUB; USPAT; USOCR	OR	ON	2017/07/11 13:28
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S18	21	(("20050209059~") or ("20140087922") or ("20160263429") or ("20170182356") or ("4,886,266") or ("4,938,469") or ("5,242,339") or ("5,368,532") or ("5,643,144") or ("5,683,332") or ("6,152,854") or ("6,334,839") or ("6,824,502") or ("6,837,830") or ("7,410,449") or ("7,780,573") or ("7,806,805") or ("8,241,187") or ("8,864,627") or ("8,920,347") or ("9,429,511")).PN. or (2006/0122035).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/12/08 11:01
S19	2	(("8308619") or ("8343016")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/05/03 10:07
S20	35	("1211765" | "20120010048" | "20120010053" | "20120157267" | "3489408" | "3637206" | "3642279" | "3669238" | "4614337" | "5470293" | "5577598" | "5709632" | "6053848" | "6146315" | "6348025").PN. OR ("8343016").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/05/03 10:11
S21	5	("3489408").URPN.	USPAT	OR	ON	2018/05/03 10:32
S22	13	("0219439" | "1895285" | "3489408" | "3536324" | "4423864" | "5387159").PN. OR ("7513832").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/05/03 10:32

S23	3	(("20030186787") or ("20120019973") or ("20140080679")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/05/03 10:36
S24	12	(("5,031,901") or ("5,094,447") or ("5,145,480") or ("5,310,392") or ("7,862,483") or ("8,585,561") or ("8,876,668") or ("9,044,635") or ("9,233,272") or ("9,254,409") or ("9,314,667") or ("9,974,997")).PN. or ((2007/0021278) or (2007/0298935) or (2008/0119332) or (2009/0156363) or (2012/0264569) or (2014/0171272) or (2015/0119202) or (2017/0113093)).CCLS.	USPAT; USOCR	OR	OFF	2018/07/06 13:17
S25	108	(US-20160150084-$ | US-0003871-$ | US-0003872-$ | US-0007886-$ | US-0009668-$ | US-0011642-$ | US-0018917-$ | US-0019973-$ | US-0020907-$ | US-0023039-$ | US-0077465-$ | US-0080679-$ | US-0087922-$ | US-0096064-$ | US-0122035-$ | US-0123396-$ | US-0147079-$ | US-0150084-$ | US-0157267-$ | US-0166877-$ | US-0170666-$ | US-0182356-$ | US-0186787-$ | US-0209059-$ | US-0215589-$ | US-0216607-$ | US-0231934-$ | US-0263429-$ | US-0266091-$ | US-0270705-$ | US-0280960-$ | US-0287165-$ | US-0287266-$ | US-0296789-$ | US-0306456-$ | US-0367175-$ | US-0367851-$ | US-1211765-$ | US-2117957-$ | US-2842365-$ | US-20020147079-$ | US-20030186787-$ | US-20040018917-$ | US-20040077465-$ | US-20050009668-$ | US-20050209059-$ | US-20060003871-$ | US-20060003872-$ | US-20060122035-$ | US-20060287165-$ | US-20070123396-$ | US-20080020907-$ | US-20080287266-$ | US-20090170666-$ | US-20090215589-$ | US-20090280960-$ | US-20100216607-$ | US-20110266091-$ | US-20120019973-$ | US-20120157267-$ | US-20120231934-$ | US-20120270705-$ | US-20140011642-$ | US-20140080679-$ | US-20140087922-$ | US-20150306456-$ | US-20150367175-$ | US-20160023039-$ | US-20160096064-$ | US-20160166877-$ | US-20160263429-$ | US-20160296789-$ | US-20160367851-$ | US-20170007886-$ | US-20170182356-$ | US-2860541-$ | US-3637206-$ | US-3642279-$ | US-3968543-$ | US-3148743-$ | US-3201120-$ | US-4334676-$ | US-4389047-$ | US-4544152-$ | US-4548405-$ | US-4576352-$ | US-4614337-$ | US-4635928-$ | US-4659074-$ | US-4726581-$ | US-4886266-$ | US-4938469-$ | US-5162988-$ | US-5242339-$ | US-5290205-$ | US-5368532-$ | US-5411279-$ | US-5411455-$ | US-5431612-$ | US-5470293-$ | US-5538489-$ | US-5575740-$ | US-5577598-$ | US-5643144-$ | US-5669856-$ | US-5683332-$ | US-5709632-$ | US-5856736-$ | US-5887579-$ | US-5897461-$ | US-6042514-$ | US-6053848-$ | US-6095952-$ | US-6146315-$	USPAT	OR	OFF	2018/07/06 13:19

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S26	1	("3642279").PN.	USPAT; USOCR	OR	OFF	2018/07/06 13:30
S27	0	("20060278165").PN.	USPAT; USOCR	OR	OFF	2018/07/06 13:31
S28	0	("20060287165").PN.	USPAT; USOCR	OR	OFF	2018/07/06 13:32
S29	0	("200600287165").PN.	USPAT; USOCR	OR	OFF	2018/07/06 13:32
S30	1	("20060287165").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 13:33
S31	1	("6095952").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 13:35
S32	33	(US-20140011642-$ or US-20120270705-$ or US-20080287266-$ or US-20060287165-$ or US-20100216607-$ or US-20170182356-$).did. or (US-8343016-$ or US-8308619-$ or US-6053848-$ or US-5709632-$ or US-3637206-$ or US-1211765-$ or US-5833577-$ or US-4406451-$ or US-4635928-$ or US-5897461-$ or US-5538489-$ or US-5411455-$ or US-8968161-$ or US-6152854-$ or US-8714346-$ or US-9352188-$ or US-6180210-$ or US-3669238-$ or US-3642279-$ or US-7513832-$ or US-9486681-$ or US-0219439-$ or US-9005085-$ or US-8864627-$ or US-6923746-$ or US-5577598-$).did. or (US-3489408-$).did.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 13:36
S33	19	S32 and (resistance brak$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 13:36
S34	2765	A63B22/02-0292.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 13:39
S35	644	S34 and manual	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 13:39
S36	451	S35 and (resistance brak$3)	US-PGPUB; USPAT; USOCR;	OR	OFF	2018/07/06 13:39

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S37	1956	A63B22/02-0228.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 13:45
S38	324	S37 and manual and (resistance brak$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 13:46
S39	888	S37 not motor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 13:46
S40	383	S37 and resistance not motor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 13:46
S41	264	S37 and "one way"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 13:54
S42	40	S37 and slat	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 13:56
S43	43	(US-20140011642-$ or US-20120270705-$ or US-20080287266-$ or US-20060287165-$ or US-20100216607-$ or US-20170182356-$ or US-20160263429-$).did. or (US-8343016-$ or US-8308619-$ or US-6053848-$ or US-5709632-$ or US-3637206-$ or US-1211765-$ or US-5833577-$ or US-4406451-$ or US-4635928-$ or US-5897461-$ or US-5538489-$ or US-5411455-$ or US-8968161-$ or US-6152854-$ or US-8714346-$ or US-9352188-$ or US-6180210-$ or US-3669238-$ or US-3642279-$ or US-7513832-$ or US-9486681-$ or US-0219439-$ or US-9005085-$ or US-8864627-$ or US-6923746-$ or US-5577598-$).did. or (US-5104120-$ or US-3554541-$ or US-4363480-$ or US-4625962-$ or US-5110117-$ or US-	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 13:59

		5429563-$ or US-4334676-$).did. or (US-3489408-$ or US-3332683-$).did.				
S44	12	S43 and plastic	USPAT	OR	OFF	2018/07/06 14:00
S45	119	S37 and resistance with rear	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 14:02
S46	34	S37 and resistance with rear with (pulley roller)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 14:02
S47	21	S37 and resistance same (flywheel friction$4) with rear with (pulley roller)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 14:03
S48	54	S37 and flywheel with rear	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 14:09
S49	68	("1211765" | "3554541" | "3642279" | "4389047" | "4616822" | "4938473" | "5100127" | "5125361" | "5391129" | "5431612" | "5575740").PN. OR ("5709632").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 14:17
S50	38	("1211765" | "20120010048" | "20120010053" | "20120157267" | "3489408" | "3637206" | "3642279" | "3669238" | "4614337" | "5470293" | "5577598" | "5709632" | "6053848" | "6146315" | "6348025").PN. OR ("8343016").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 14:24
S51	11	S43 and height with adjust$4	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 14:29
S52	1	("4023795").PN.	USPAT; USOCR	OR	OFF	2018/07/07 15:24
S53	1	("4023795").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/09/19 09:05
S54	2	(("5709632") or ("5538489")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/14 13:16

EAST Search History (Interference)

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2/ 14/ 2019 2:41:22 PM
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PTO/SB/08 (modified)

Substitute for form 1449/PTO				*Complete if Known*	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	15/958,339
				Filing Date	4/20/2018
Date Submitted: September 27, 2018				**First Named Inventor**	Douglas G. Bayerlein
				Art Unit	3764
(use as many sheets as necessary)				Examiner Name	Deichl, Jennifer M.
Sheet	1	of	2	Attorney Docket Number	097208-0226

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Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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	C2	5,492,517-A	02-20-1996	BOSTIC ET AL.	
	C3	5,688,209-A	11-18-1997	TRULASKE ET AL.	
	C4	6,328,676-B1	12-11-2001	ALESSANDRI, NERIO	
	C5	6,454,679	09-24-2002	RADOW, SCOTT BRIAN	
	C6	8,075,450-B2	12-13-2011	FABBRI ET AL.	
	C7	8,206,269-B2	06-26-2012	FABBRI ET AL.	
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	C9	9,192,810-B2	11-24-2015	BEARD ET AL.	
	C10	9,305,141-B2	04-05-2016	FABRIZIO, GIUDICI	
	C11	9,824,110-B2	11-21-2017	GIUDICI ET AL.	
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	C14	D 788,792-S	06-06-2017	ALESSANDRI ET AL.	
	C15	D 827,058-S	08-28-2018	LISI ET AL.	
	C16	2004/0097341-A1	05-20-2004	ALESSANDRI ET AL.	
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	C22	2018/0229065-A1	08-16-2018	LEONARDI ET AL.	

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	C23	WO-2009/014330-A1	01-29-2009	KIM, JAE-CHUL		

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[6]
	C24	BIODEX MEDICAL SYSTEMS, INC., "THE BIODEX RTM REHABILITATION TREADMILL OPERATION MANUAL", believed to have published 2002, 48 pages.	
	C25	BUCHHEIT ET AL., "Assessing Stride Variables and Vertical Stiffness with GPS-Embedded Accelerometers: Preliminary Insights for Monitoring of Neuromuscular Fatigue on the Field", December 2015,	
	C26	COOLTHINGS, "Woodway EcoMill: A Non-Motorized Treadmill with Electronic Displays", June 4, 2009, https://www.coolthings.com/woodway-ecomill-a-non-motorized-treadmill-with-electronic-displays/, 1 page.	
	C27	HDT EXPEDITIONARY SYSTEMS, INC., "KineAssist-MX Owner's Manual vG", 2015, 73 pages.	

Examiner Signature		Date Considered	

4852-7743-5509.1 ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.M.D/

PTO/SB/08 (modified)

Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	15/958,339
				Filing Date	4/20/2018
Date Submitted: September 27, 2018				**First Named Inventor**	Douglas G. Bayerlein
				Art Unit	3764
(use as many sheets as necessary)				Examiner Name	Deichl, Jennifer M.
Sheet	2	of	2	Attorney Docket Number	097208-0226

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[6]
	C28	LISZEWSKI, ANDREW, "EcoMill Treadmill Generates Its Own Power", June 1, 2009, http://www.ohgizmo.com/2009/06/04/ecomill-treadmill-generates-its-own-power/, 1 page.	
	C29	NASA, "Combined Operational Load Bearing External Resistance Treadmill (COLBERT)", August 2009, 3 pages.	
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	C31	NASA, "International Space Station: Do Tread on Me", August 19, 2009, https://www.nasa.gov/mission_pages/station/behindscenes/colbert_feature.html, 2 pages.	
	C32	NASA, "International Space Station: Treadmill with Vibration Isolation and Stabilization System (TVIS)", May 17, 2018, https://www.nasa.gov/mission_pages/station/research/experiments/976.html, 5 pages.	
	C33	NASA, "Space Shuttle Mission STS-128: Racking Up New Science", Press Kit, August 2009, 116 pages.	
	C34	Ruling Re: Plaintiffs' Motion for Summary Judgment of Non-Infringement and Invalidity (Doc. No. 252) and Woodway's Motion for Summary Judgment of Infringement (Doc. No. 255), Chapco, Inc. and Samsara Fitness, LLC v. Woodway USA, Inc., Docket No. 3:15-cv-01665-JCH, July 24, 2018, 26 pages.	
	C35	SOUTHERN RESEARCH ET AL., "AIMTech Project Brief", October 20, 2015, 2 pages.	
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	C37	TECMACHINE, "Sprint Club: User's Guide", believed to have published 2002, 33 pages.	
	C38	WOODWAY, "Introducing the All New EcoMill Self Powered", published to YouTube on March 25, 2010, https://www.youtube.com/watch?v=NcPH92DAArc.	

Examiner Signature	/JENNIFER M DEICHL/	Date Considered	02/14/2019

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Application	Document	Mailroom Date	Attorney Docket No.
15958339	CTFR	02/20/2019	097208-0226
	892	02/20/2019	097208-0226
	1449	02/20/2019	097208-0226
	1449	02/20/2019	097208-0226
	1449	02/20/2019	097208-0226
	1449	02/20/2019	097208-0226

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UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION INFORMATION RETRIEVAL SYSTEM

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor Name:	Douglas G. Bayerlein
Title:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
Appl. No.:	15/958,339
Filing Date:	4/20/2018
Examiner:	Deichl, Jennifer M.
Art Unit:	3784
Confirmation Number:	4765

AMENDMENT AND REPLY UNDER 37 C.F.R. § 1.116

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

This communication is responsive to the Final Office Action mailed February 20, 2019, concerning the above-referenced patent application. A request for consideration of the amendments after final rejection under the After Final Consideration Pilot 2.0 (AFCP 2.0) is submitted herewith.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this document.

Remarks begin on page 14 of this document.

Please amend the application as follows:

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A manually powered treadmill, comprising:

a frame having a front end and a rear end positioned opposite the front end;

a front shaft coupled to the frame proximate the front end;

a rear shaft coupled to the frame proximate the rear end;

a plurality of bearings coupled to the frame;

a running belt at least partially supported by the plurality of bearings, wherein the running belt includes a curved running surface; and

a safety device coupled to the running belt and to at least one of the front shaft and the rear shaft, wherein ~~so that~~ a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device, the running belt and the at least one of the front shaft and the rear shaft freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the housing~~frame~~, however, in a second direction of rotation, opposite the first direction of rotation, ~~the safety device~~ interference between the housing and the portion of 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 the rear shaft.

2. (Original) The manually powered treadmill of claim 1, wherein the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member, wherein the plurality of bearings includes a first plurality of bearings coupled to a left-side of the frame and a second plurality of bearings coupled to a right-side of the frame.

3. (Original) The manually powered treadmill of claim 2, wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile,

wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

4. (Currently Amended) The manually powered treadmill of claim 1, wherein the portion of the safety device is a one-way bearing.

5. (Original) The manually powered treadmill of claim 1, further comprising at least one support foot coupled to the frame, wherein the at least one support foot is adjustable to enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill.

6. (Original) The manually powered treadmill of claim 1, further comprising a braking system coupled to the frame and configured to selectively resist the rotational movement of the running belt.

7. (Original) The manually powered treadmill of claim 6, wherein the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt.

8. (Currently Amended) A manually powered treadmill, comprising:

a frame;

a first plurality of bearings coupled to the frame;

a second plurality of bearings coupled to the frame and spaced a distance from the first plurality of bearings;

a front shaft assembly coupled to the frame;

a rear shaft assembly coupled to the frame;

a running belt at least partially supported by the first plurality of bearings and the second plurality of bearings, the running belt being at least partially disposed about the front and rear shaft assemblies, and comprising a running surface, at least a portion of which is curved; and

a safety device coupled to the frame and the running belt, ~~so that~~ wherein a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of

the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the housing~~frame~~, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device ~~safety device~~ substantially prevents rotation of the portion of the safety device and the running belt.

9. (Currently Amended) The manually powered treadmill of claim 8, wherein the portion of the safety device is a one-way bearing.

10. (Original) The manually powered treadmill of claim 8, wherein the front shaft assembly comprises a front shaft coupled to frame.

11. (Previously Presented) The manually powered treadmill of claim 10, wherein the front shaft assembly comprises at least one front running belt pulley coupled to the front shaft.

12. (Original) The manually powered treadmill of claim 8, wherein the rear shaft assembly comprises a rear shaft coupled to the frame.

13. (Original) The manually powered treadmill of claim 12, wherein the rear shaft assembly comprises at least one rear running belt pulley coupled to the rear shaft.

14. (Original) The manually powered treadmill of claim 8, wherein the rear shaft assembly comprises at least one rear running belt pulley and the front shaft assembly comprises at least one front running belt pulley.

15. (Currently Amended) The manually powered treadmill of claim 14, wherein at least one of the at least one rear running belt pulley and the at least one front running belt pulley are formed from an electrically insulating material.

16. (Previously Presented) The manually powered treadmill of claim 8, further comprising at least one support foot coupled to the frame, wherein the at least one support foot is adjustable to

enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill.

17. (Cancelled)

18. (Currently Amended) The manually powered treadmill of claim [[17]]8, wherein each of the first and second pluralities of bearings define a curved top profile and wherein the curved top profile substantially corresponds to at least a portion of the curved portion of the running surface.

19. (Previously Presented) The manually powered treadmill of claim 8, wherein the frame includes a left side member, a right side member spaced a distance from the left side member, and at least one cross-member extending between the left side member and the right side member.

20. (Original) The manually powered treadmill of claim 19 wherein the first plurality of bearings are coupled the left side member and the second plurality of bearings are coupled to the right side member.

21. (Currently Amended) A manually powered treadmill, comprising:

a frame;

at least one front running belt pulley coupled to the frame;

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 plurality of bearings coupled to the frame;

a running belt at least partially supported by the plurality of bearings and 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

a safety device coupled to the running belt, ~~so that~~ wherein a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first

direction of rotation relative to the housing~~frame~~, however, in a second direction of rotation, opposite the first direction of rotation, ~~the safety device~~ interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device and the running belt.

22. (Currently Amended) The manually powered treadmill of claim 21, wherein at least one of the at least one rear running belt pulley and the at least one front running belt pulley are formed from an electrically insulating material.

23. (Currently Amended) The manually powered treadmill of claim 21, further comprising a front shaft coupled to frame, the front shaft being adapted to support the at least one front running belt pulley.

24. (Currently Amended) The manually powered treadmill of claim 21, further comprising a rear shaft coupled to frame, the rear shaft being adapted to support the at least one rear running belt pulley.

25. (Currently Amended) The manually powered treadmill of claim 21, wherein the portion of the safety device is a one-way bearing.

26. (Original) The manually powered treadmill of claim 21, further comprising a braking system coupled to the frame and configured to selectively resist the rotational movement of the running belt.

27. (Original) The manually powered treadmill of claim 26, wherein the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt.

28. (Currently Amended) A method, comprising:

providing a manually powered treadmill, the manually powered treadmill having a frame with a front end and a rear end;

providing a plurality of bearings coupled to the frame, wherein the plurality of bearings define at least a portion of a curved top profile;

disposing a running belt on the plurality of bearings such that the curved top profile of plurality of bearings define at least a portion of a curved running surface of the running belt;

providing a safety device coupled to the frame and the running belt, the safety device having a first element at least partially supported by a housing of the safety device;

permitting rotation of the running belt in a first direction by freewheeling of the first element of the safety device relative to the housing; and

resisting rotation of the running belt in a second direction opposite the first direction by restricting rotation of the first element via interference between the housing and the first element of the safety device.

29. (Currently Amended) A method according to claim 28, further comprising providing for a selective application of a braking force to resist the rotational movement of the running belt in the first direction.

30. (Currently Amended) A method according to claim 28, further comprising providing for the adjustment of the vertical incline of at least a portion of the running surface.

31. (Currently Amended) A manually powered treadmill, comprising:

a frame having a front end and a rear end positioned opposite the front end;

a front shaft coupled to the frame proximate the front end;

a rear shaft coupled to the frame proximate the rear end;

a plurality of bearings coupled to the frame;

a running belt at least partially supported by the plurality of bearings, wherein the running belt comprises a curved running surface; and

a safety device coupled to the frame and the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

wherein the running belt and one of the first and second rotatable elements of the safety device ~~and the running belt~~ freely rotate in a first direction of rotation relative to the other of the first and second rotatable elements of the safety device, but interference between ~~when the first element of~~ the safety device and at least one of the first and second rotatable elements substantially prevents rotation ~~rotates in a first direction of rotation relative to the frame, however,~~ in a second direction of rotation, opposite the first direction of rotation, ~~interference between the first element and~~ 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~~the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame~~.

32. (Previously Presented) The manually powered treadmill of claim 31, wherein the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member, wherein the plurality of bearings includes a first plurality of bearings coupled to a left-side of the frame and a second plurality of bearings coupled to a right-side of the frame.

33. (Previously Presented) The manually powered treadmill of claim 32, wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile, wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

34. (Currently Amended) The manually powered treadmill of claim 31, wherein the first and second rotatable elements of the safety device at least partly form [[is]] a one-way bearing.

35. (Previously Presented) The manually powered treadmill of claim 31, further comprising at least one support foot coupled to the frame, wherein the at least one support foot is adjustable

to enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill.

36. (Previously Presented) The manually powered treadmill of claim 31, further comprising a braking system coupled to the frame and configured to selectively resist the rotational movement of the running belt.

37. (Previously Presented) The manually powered treadmill of claim 36, wherein the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt.

38. (Currently Amended) A manually powered treadmill, comprising:

a frame;

a first plurality of bearings coupled to the frame;

a second plurality of bearings coupled to the frame and spaced a distance from the first plurality of bearings;

a front shaft assembly coupled to the frame;

a rear shaft assembly coupled to the frame;

a running belt at least partially supported by the first plurality of bearings and the second plurality of bearings, the running belt being at least partially disposed about the front and rear shaft assemblies, and comprising a running surface, at least a portion of which is curved; and

a safety device coupled to the frame and the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

wherein one of the first and second rotatable elements of the safety device and the running belt freely rotate relative to the other of the one of the first and second rotatable elements of the safety device ~~when the first element of the safety device rotates~~ in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the safety device and at least one of the first rotatable element and the second rotatable element ~~of the safety device~~ 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 ~~of the safety device and the running belt relative to the frame~~.

39. (Currently Amended) The manually powered treadmill of claim 38, wherein the first and second rotatable elements of the safety device [[is]] at least partly form a one-way bearing.

40. (Previously Presented) The manually powered treadmill of claim 38, wherein the front shaft assembly comprises a front shaft coupled to frame.

41. (Previously Presented) The manually powered treadmill of claim 40, wherein the front shaft assembly comprises at least one front running belt pulley coupled to the front shaft.

42. (Previously Presented) The manually powered treadmill of claim 38, wherein the rear shaft assembly comprises a rear shaft coupled to the frame.

43. (Previously Presented) The manually powered treadmill of claim 42, wherein the rear shaft assembly comprises at least one rear running belt pulley coupled to the rear shaft.

44. (Previously Presented) The manually powered treadmill of claim 38, wherein the rear shaft assembly comprises at least one rear running belt pulley and the front shaft assembly comprises at least one front running belt pulley.

45. (Previously Presented) The manually powered treadmill of claim 44, wherein at least one of the at least one rear running belt pulley and the at least one front running belt pulley are formed from an electrically insulating material.

46. (Previously Presented) The manually powered treadmill of claim 38, further comprising at least one support foot coupled to the frame, wherein the at least one support foot is adjustable to enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill.

47. (Previously Presented) The manually powered treadmill of claim 38, wherein the running belt is at least partially supported by the first plurality of bearings and the second plurality of bearings.

48. (Previously Presented) The manually powered treadmill of claim 47, wherein each of the first and second pluralities of bearings define a curved top profile and wherein the curved top profile substantially corresponds to at least a portion of the curved portion of the running surface.

49. (Previously Presented) The manually powered treadmill of claim 38, wherein the frame includes a left side member, a right side member spaced a distance from the left side member, and at least one cross-member extending between the left side member and the right side member.

50. (Previously Presented) The manually powered treadmill of claim 49, wherein the first plurality of bearings are coupled the left side member and the second plurality of bearings are coupled to the right side member.

51. (Currently Amended) A manually powered treadmill, comprising:

a frame;

at least one front running belt pulley coupled to the frame;

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 plurality of bearings coupled to the frame;

a running belt at least partially supported by the plurality of bearings and 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 safety device coupled to the frame and the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

wherein one of the first and second rotatable elements of the safety device and the running belt freely rotate ~~relative to the second element of the safety device when the first element of the safety device rotates~~ in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the safety device and at least one of the first rotatable element and the second rotatable element ~~of the safety device~~ 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.

52. (Previously Presented) The manually powered treadmill of claim 51, wherein at least one of the at least one rear running belt pulley and the at least one front running belt pulley are formed from an electrically insulating material.

53. (Currently Amended) The manually powered treadmill of claim 51, further comprising a front shaft coupled to frame, the front shaft being adapted to support the at least one front running belt pulley.

54. (Currently Amended) The manually powered treadmill of claim 51, further comprising a rear shaft coupled to frame, the rear shaft being adapted to support the at least one rear running belt pulley.

55. (Currently Amended) The manually powered treadmill of claim 51, wherein the first and second rotatable elements of the safety device at least partly form [[is]] a one-way bearing.

56. (Previously Presented) The manually powered treadmill of claim 51, further comprising a braking system coupled to the frame and configured to selectively resist the rotational movement of the running belt.

57. (Previously Presented) The manually powered treadmill of claim 56, wherein the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt.

58. (Currently Amended) A method, comprising:

providing a manually powered treadmill, the manually powered treadmill having a frame with a front end and a rear end;

providing a plurality of bearings coupled to the frame, wherein the plurality of bearings define at least a portion of a curved top profile;

disposing a running belt on the plurality of bearings such that the curved top profile of plurality of bearings define at least a portion of a curved running surface of the running belt;

providing a safety device coupled to the frame and to the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

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 ~~of the safety device~~ by interference between the safety device and at least one of the first rotatable element and the second rotatable element ~~of the safety device~~.

59. (Currently Amended) A method according to claim 58, further comprising providing for selective application of a braking force to resist the rotational movement of the running belt in the first direction.

60. (Currently Amended) A method according to claim 58, further comprising providing for the adjustment of the vertical incline of at least a portion of the running surface.

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and the reasons that follow.

Status of Claims

Claims 1, 4, 8, 9, 15, 18, 21-25, 28-31, 34, 38-39, 51, 53-55, and 58-60 are currently amended. Support for the amendments may be found at least at paragraphs [0147]-[0156] and at Figures 36 and 38 of the present application. Claim 17 is cancelled. No claims are new. These amendments are made without prejudice or disclaimer. No new matter has been added.

After amending the claims as set forth above, claims 1-16 and 18-60 are pending in this application for examination. Applicant respectfully requests favorable consideration of these claims.

After Final Consideration Pilot Program 2.0

Applicant respectfully requests entry of the Amendment and Reply under the AFCP 2.0. Submitted herewith is a request for consideration under the AFCP 2.0 (Form PTO/SB/434). This Amendment and Reply includes amendments to independent claim 1 that does not broaden the scope of independent claim 1 in any aspect.

Claim Rejections Under 35 U.S.C. § 103

On page 2 of the Office Action, the Examiner rejected claims 1-4, 6-14, 17-21, 23-29, 31-34, 36-44, 47-51, and 53-59 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,492,517 ("Bostic") in view of U.S. Patent No. 3,642,279 ("Cutter"), U.S. Patent No. 4,334,676 ("Schonenberger"), and U.S. Patent No. 5,538,489 ("Magid"). On page 17 of the Office Action, the Examiner rejected claims 5, 16, 30, 35, 46, and 60 under 35 U.S.C. § 103 as being unpatentable over Bostic in view of Cutter, Schonenberger, and Magid and further in view of

U.S. Patent No. 4,406,451 ("Gaetano"). On page 18 of the Office Action, the Examiner rejected claims 15, 22, 45, and 52 under 35 U.S.C. § 103 as being unpatentable over Bostic in view of Cutter, Schonenberger, and Magid and further in view of U.S. Patent No. 6,923,746 ("Skowronski"). These rejections and the combinations of references on which the rejections are based are respectfully traversed. In addition, Applicants have previously presented arguments regarding the scope of teaching of the cited references and rejections based thereon and Applicants reassert those arguments in this Response.

I. Claims 1-30

Claims 1-30 include independent claims 1, 8, 21, and 28. The remaining claims depend directly or indirectly from one of these independent claims.

Without acquiescing to the rejections, Applicant has amended independent claim 1 to recite, in part:

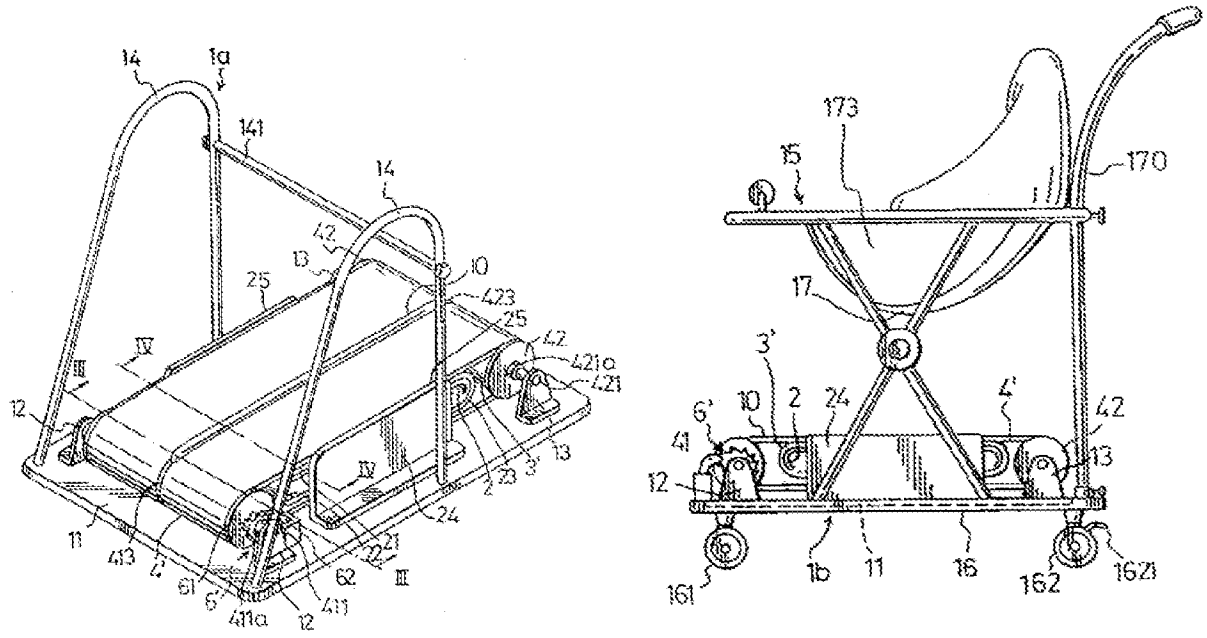
> 1. A manually powered treadmill, comprising:
> ...
> a safety device coupled to the running belt and to at least one of the front shaft and the rear shaft, wherein a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device, the running belt and the at least one of the front shaft and the rear shaft freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the housing, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of 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 the rear shaft.

None of the cited references disclose, teach, or suggest "a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device ... freely rotate[s] ... in a first direction of rotation" and "in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety

device substantially prevents rotation of the portion of the safety device" as in amended independent claim 1.

In the Office Action, the Examiner cited Magid and Bostic as teaching the "safety device" element of the claims. (*See* Office Action at pp. 2 and 3). Applicant respectfully submits that neither Magid alone nor in combination with Bostic disclose, teach, or suggest the aforementioned features of amended independent claim 1.

Magid relates to a walker apparatus. (Magid at Title). Figures 2 and 5 (right) of Magid are copied below. Figure 5 shows a unidirectional control means 6, 6' more clearly.



According to Magid, "[a] unidirectional control means 6, 6' is installed to permit only unidirectional movement of the left and right foot belts 4, 4'. … the control means 6, 6' includes a pair of ratchet gears 61 attached to outer ends of the front rollers 41 and mounted rotatably on the first shaft 411, and a pair of pawls 62 secured to the base 11 and engaging one of the ratchet gears 61 to permit only unidirectional rotation of the front rollers 41, thereby preventing

bidirectional movement of the foot belts 4, 4'." (Magid at Col. 4, ll. 46-54). A bracket 12 is shown connected to the ratchet gear 61 of the unidirectional control means.

Even for the sake of argument analogizing the unidirectional control means 6, 6' (shown as a ratchet and pawl) of Magid to the "safety device," simply, Magid does not disclose, teach, or suggest that "interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device" as in amended independent claim 1. In this regard and even for the sake of argument analogizing the bracket 12 of Magid to the "housing," the bracket 12 of Magid does **not** "interfere" with the ratchet to "substantially prevent[] rotation" of the ratchet like the "housing" of claim 1. Thus, Magid does not disclose, teach, or suggest a structure that could be considered analogous to the "housing" of claim 1. Therefore, it follows, Magid fails to disclose, teach, or suggest "a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device … freely rotate[s] … in a first direction of rotation" and "in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device" as in amended independent claim 1.

For at least these reasons, amended independent claim 1 is patentable over Magid. Bostic does not cure the aforementioned deficiencies of Magid. Bostic relates to an "an exercise apparatus including [a] structure for exercising the legs as well as [a] structure for exercising the arms." (Col. 1, lines 11-13). The apparatus includes a "flywheel 45 [that] incorporates a one-way clutch which allows free movement of the flywheel in one direction but precludes movement in the opposite direction." (*Id.* at Col. 2, lines 54-56). Even for the sake of argument analogizing the flywheel and one-way clutch of Bostic to the "housing" and "safety device," of claim 1, respectively, the flywheel of Bostic does not "interfere" with the one-way clutch to "substantially prevent[] rotation of the" one-way clutch. In this regard, Bostic fails to disclose, teach, or suggest "a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device … freely rotate[s] … in a first direction of rotation" and "in a second direction of rotation, opposite the first direction of rotation,

interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device" as in amended independent claim 1.

Therefore, amended independent claim 1 is patentable over Magid and Bostic. None of the other references of record are cited as disclosing the "safety device" and, indeed, do not appear to disclose such a feature. Accordingly, it follows, the cited prior art references also fail to disclose, teach, or suggest "a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device ... freely rotate[s] ... in a first direction of rotation" and "in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device" as in amended independent claim 1.

Accordingly, amended independent claim 1 is patentable over the cited references. Claims 2-7 depend from claim 1 and are patentable for similar reasons. *See* pre-AIA 35 U.S.C. § 112 ¶ 4 or post-AIA 35 U.S.C. § 112(d).

Though different in scope, independent claims 8, 21, and 28 have been amended to recite similar subject matter as amended independent claim 1. In particular, claims 8, 21, and 28 have been amended to recite, in part:

> 8. A manually powered, comprising:
>
> ...
>
> a safety device coupled to the frame and the running belt, wherein a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the housing, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device and the running belt.
>
> 21. A manually powered treadmill, comprising:
>
> ...
>
> a safety device coupled to the running belt, wherein a portion of the safety device is at least partially supported by a

> housing of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the housing, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device and the running belt.
>
> 28. A method, comprising:
>
> ...
>
> providing a safety device coupled to the frame and the running belt, the safety device having a first element at least partially supported by a housing of the safety device;
>
> permitting rotation of the running belt in a first direction by freewheeling of the first element of the safety device relative to the housing; and
>
> resisting rotation of the running belt in a second direction opposite the first direction by restricting rotation of the first element via interference between the housing and the first element of the safety device.

Therefore, amended independent claims 8, 21, and 28 are also patentable over the cited references. Claims 9-16 and 18-20 depend from claim 8, claims 22-27 depend from claim 21, and claims 29-30 depend from claim 28. All of these claims are patentable for similar reasons. *See* pre-AIA 35 U.S.C. § 112 ¶ 4 or post-AIA 35 U.S.C. § 112(d).

II. Claims 31-60

Claims 31-60 include independent claims 31, 38, 51, and 58. The remaining claims depend directly or indirectly from one of these independent claims.

Without acquiescing to the rejections, Applicant has amended independent claim 31 to recite, in part:

> 31. A manually powered treadmill, comprising:
>
> ...
>
> a safety device coupled to the frame and the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

> wherein the running belt and one of the first and second rotatable elements of the safety device freely rotate in a first direction of rotation relative to the other of the first and second rotatable elements of the safety device, but 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.

None of the cited references disclose, teach, or suggest a "safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame" and that "one of the first and second rotatable elements of the safety device freely rotate in a first direction of rotation relative to the other of the first and second rotatable elements of the safety device, but 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" as in amended independent claim 31.

As mentioned above, in the Office Action, the Examiner cited Magid and Bostic as teaching the "safety device" element of the claims. (*See* Office Action pp. 2 and 3). Applicant respectfully submits that neither Magid alone nor in combination with Bostic disclose, teach, or suggest the aforementioned features of amended independent claim 31.

Even for the sake of argument analogizing the unidirectional control means 6, 6' and particularly the ratchet and pawl of Magid to either the "first rotatable element" and/or the "second rotatable element" of the "safety device" claim 31, simply, Magid does not disclose, teach, or suggest a structure or feature analogous to "interference between the safety device and at least one of the first and second rotatable elements 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" as in amended independent claim 31.

Bostic does not cure the deficiencies of Magid. Simply, Bostic does not disclose, teach, or suggest "interference between the safety device and at least one of the first and second rotatable elements 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" as in amended independent claim 31.

Therefore, amended independent claim 31 is patentable over Magid and Bostic. None of the other references of record are cited as disclosing the "safety device" and, indeed, do not appear to disclose such a feature. Accordingly, it follows, the cited prior art references also fail to disclose, teach, or suggest a "safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame" and that "one of the first and second rotatable elements of the safety device freely rotate in a first direction of rotation relative to the other of the first and second rotatable elements of the safety device, but 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" as in amended independent claim 31.

Accordingly, amended independent claim 31 is patentable over the cited references. Claims 32-37 depend from claim 31 and are patentable for similar reasons. *See* pre-AIA 35 U.S.C. § 112 ¶ 4 or post-AIA 35 U.S.C. § 112(d).

Though different in scope, independent claims 38, 51, and 58 have been amended to recite similar subject matter as amended independent claim 1. In particular, claims 38, 51, and 58 have been amended to recite, in part:

> 38. A manually powered treadmill, comprising:
> …
> a safety device coupled to the frame and the running belt, the safety device having a first rotatable element and a second

rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

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

51. A manually powered treadmill, comprising:

...

a safety device coupled to the frame and the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

wherein one of the first and second rotatable 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, 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.

58. A method, comprising:

...

providing a safety device coupled to the frame and to the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

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.

Therefore, amended independent claims 38, 51, and 58 are also patentable over the cited references. Claims 39-50 depend from claim 38, claims 52-57 depend from claim 51, and claims 59-60 depend from claim 58. All of these claims are patentable for similar reasons. *See* pre-AIA 35 U.S.C. § 112 ¶ 4 or post-AIA 35 U.S.C. § 112(d).

III. Conclusion

Based on the foregoing, Applicant respectfully submits that the claim rejections under Section 103 are overcome. Withdrawal of same is respectfully requested.

Double Patenting

On page 19 of the Office Action, the Examiner stated that "Claims 1-60 [are] provisionally rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-12, 15-26, and 28-57 of copending Application No. 15/957,721." This provisional rejection is respectfully traversed.

Notwithstanding and in the interest of furthering prosecution on the merits, Applicant is submitting a terminal disclaimer herewith to overcome the double patenting rejections. Accordingly, withdrawal of the double patenting rejections is respectfully requested.

Conclusion

It is submitted that each outstanding objection and rejection to the present application has been overcome, and that the present application is in condition for allowance. Applicant requests consideration and allowance of all pending claims.

It should also be noted that although Applicant has only addressed certain claims or claimed features herein, other claims, features, or combinations of features may also be patentable for additional reasons. Further, the failure to address any statement by the Examiner should not be interpreted as acquiescence or agreement with such statement. Applicant expressly

reserves the right to rebut any statement presented by the Examiner and to set forth additional and/or alternative reasons for patentability during prosecution of the present application or in any other future proceeding.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance prosecution.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application, or credit any overpayment, to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date /4-22-2019/ By /Alexander J. Neuworth/

FOLEY & LARDNER LLP
Customer Number: 26371
Telephone: (414) 319-7029
Facsimile: (414) 297-4900

Attorneys for Applicant

Richard J. McKenna
Registration No. 35,610

Alexander J. Neuworth
Registration No. 72,021

PTO/AIA/25 (04-13)
Approved for use through 04/30/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TERMINAL DISCLAIMER TO OBVIATE A PROVISIONAL DOUBLE PATENTING REJECTION OVER A PENDING "REFERENCE" APPLICATION	Docket Number (Optional) 097208-0226

In re Application of: Douglas G. Bayerlein

Application No.: 15/958,339

Filed: 4/20/2018

For: MANUAL TREADMILL AND METHODS OF OPERATING THE SAME

The applicant, Woodway USA, Inc., owner of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending **reference** Application Number 15/957,721, filed, 4/19/2018, as the term of any patent granted on said **reference** application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending **reference** application. The applicant hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the **reference** application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the applicant does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term of any patent granted on said **reference** application, "as the term of any patent granted on said **reference** application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending **reference** application," in the event that: any such patent granted on the pending **reference** application expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

Check either box 1 or 2 below, if appropriate.

1. ☐ The undersigned is the applicant. If the applicant is an assignee, the undersigned is authorized to act on behalf of the assignee.

I hereby acknowledge that any willful false statements made are punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

2. ☑ The undersigned is an attorney or agent of record. Reg. No. 35,610

/R.J. McKenna/	04-22-2019
Signature	Date
Richard J. McKenna	
Typed or printed name	
Attorney	(414) 297-5723
Title	Telephone Number

☑ Terminal disclaimer fee under 37 CFR 1.20(d) is included.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.321. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Doc Code: A.NE.AFCP
Document Description: After Final Consideration Pilot Program Request

PTO/SB/434 (05-13)

CERTIFICATION AND REQUEST FOR CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0

Practitioner Docket No.:	Application No.:	Filing Date:
097208-0226	15/958,339	4/20/2018
First Named Inventor:	**Title:**	
Douglas G. Bayerlein	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME	

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0 (AFCP 2.0) OF THE ACCOMPANYING RESPONSE UNDER 37 CFR 1.116.

1. The above-identified application is (i) an original utility, plant, or design nonprovisional application filed under 35 U.S.C. 111(a) [a continuing application (*e.g.*, a continuation or divisional application) is filed under 35 U.S.C. 111(a) and is eligible under (i)], or (ii) an international application that has entered the national stage in compliance with 35 U.S.C. 371(c).
2. The above-identified application contains an outstanding final rejection.
3. Submitted herewith is a response under 37 CFR 1.116 to the outstanding final rejection. The response includes an amendment to at least one independent claim, and the amendment does not broaden the scope of the independent claim in any aspect.
4. This certification and request for consideration under AFCP 2.0 is the only AFCP 2.0 certification and request filed in response to the outstanding final rejection.
5. Applicant is willing and available to participate in any interview requested by the examiner concerning the present response.
6. This certification and request is being filed electronically using the Office's electronic filing system (EFS-Web).
7. Any fees that would be necessary consistent with current practice concerning responses after final rejection under 37 CFR 1.116, *e.g.*, extension of time fees, are being concurrently filed herewith. [There is no additional fee required to request consideration under AFCP 2.0.]
8. By filing this certification and request, applicant acknowledges the following:
    - Reissue applications and reexamination proceedings are not eligible to participate in AFCP 2.0.
    - The examiner will verify that the AFCP 2.0 submission is compliant, *i.e.*, that the requirements of the program have been met (see items 1 to 7 above). For compliant submissions:
        - The examiner will review the response under 37 CFR 1.116 to determine if additional search and/or consideration (i) is necessitated by the amendment and (ii) could be completed within the time allotted under AFCP 2.0. If additional search and/or consideration is required but cannot be completed within the allotted time, the examiner will process the submission consistent with current practice concerning responses after final rejection under 37 CFR 1.116, *e.g.*, by mailing an advisory action.
        - If the examiner determines that the amendment does not necessitate additional search and/or consideration, or if the examiner determines that additional search and/or consideration is required and could be completed within the allotted time, then the examiner will consider whether the amendment places the application in condition for allowance (after completing the additional search and/or consideration, if required). If the examiner determines that the amendment does not place the application in condition for allowance, then the examiner will contact the applicant and request an interview.
            - The interview will be conducted by the examiner, and if the examiner does not have negotiation authority, a primary examiner and/or supervisory patent examiner will also participate.
            - If the applicant declines the interview, or if the interview cannot be scheduled within ten (10) calendar days from the date that the examiner first contacts the applicant, then the examiner will proceed consistent with current practice concerning responses after final rejection under 37 CFR 1.116.

Signature	Date
/Alexander J. Neuworth/	04-22-2019
Name (Print/Typed) Alexander J. Neuworth	Practitioner Registration No. 72,021

***Note**: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.*

[✓] * Total of 1 forms are submitted.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	15958339
Filing Date:	20-Apr-2018
Title of Invention:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
First Named Inventor/Applicant Name:	Douglas G. Bayerlein
Filer:	Alexander J. Neuworth/Laura Buhs
Attorney Docket Number:	097208-0226

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	2806	1	120	120
STATUTORY OR TERMINAL DISCLAIMER	2814	1	160	160
		Total in USD ($)		**280**

Electronic Acknowledgement Receipt

EFS ID:	35794832
Application Number:	15958339
International Application Number:	
Confirmation Number:	4765
Title of Invention:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
First Named Inventor/Applicant Name:	Douglas G. Bayerlein
Customer Number:	26371
Filer:	Alexander J. Neuworth/Laura Buhs
Filer Authorized By:	Alexander J. Neuworth
Attorney Docket Number:	097208-0226
Receipt Date:	22-APR-2019
Filing Date:	20-APR-2018
Time Stamp:	18:07:57
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$280
RAM confirmation Number	042319INTEFSW18083500
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	General_POA_for_Woodway.pdf	334104 b3661cd5aedf7fc7c9707edb0d1fad4d41a927ed	no	1
Warnings:					
Information:					
2	Assignee showing of ownership per 37 CFR 3.73	097208-0226_Statement.pdf	82785 9cfe6ec3e5235b56b7b5cd1b80ff29fabd297d6c	no	3
Warnings:					
Information:					
3	Transmittal Letter	097208-0226_IDS.pdf	121333 8167af7c66965a8f1ce58ba82be8d717fd1d0db0	no	3
Warnings:					
Information:					
4	Information Disclosure Statement (IDS) Form (SB08)	097208-0226_SB08.pdf	103535 988e85c0ef74068a19cb75dff4a39ffa77bcc023	no	1
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
5		097208-0226_Response.pdf	325653 24c0ec525d3f423a6276a21b49e9f074ef20b238	yes	24

Multipart Description/PDF files in .zip description

Document Description	Start	End
Response After Final Action	1	1
Claims	2	13

	Applicant Arguments/Remarks Made in an Amendment		14	24	
Warnings:					
Information:					
6	Terminal Disclaimer Filed	097208-0226_TD.pdf	249785 fc4eb55beae0f78f3d2c99a4b18c4d86105e09d7	no	2
Warnings:					
Information:					
7	After Final Consideration Program Request	097208-0226_AFCP.pdf	213209 9d913a08c5e3b69733e5e89568e1a56928121e04	no	2
Warnings:					
Information:					
8	Fee Worksheet (SB06)	fee-info.pdf	32349 7af03fd7b01562c99721566f50e2c4c4dad7dc2c	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1462753		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/AIA/80 (07-12)
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POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:

☑ Practitioners associated with Customer Number: 26371

OR

☐ Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:

☑ The address associated with Customer Number: 26371

OR

☐	Firm or Individual Name		
	Address		
	City		
	Country		
	Telephone		Email

Assignee Name and Address: Woodway USA, Inc.
W229 N591 Foster Court
Waukesha, WI 53186

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/SB/96 or equivalent) is required to be Filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of The practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature	Douglas B. Bylsma	Date	9-12-12
Name	Douglas G. Bylsma	Telephone	262-548-6235 ext. 107
Title	President		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/96 (08-12)
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: Woodway USA, Inc.

Application No./Patent No.: 15/958,339 Filed/Issue Date: 4/20/2018

Titled: MANUAL TREADMILL AND METHODS OF OPERATING THE SAME

Woodway USA, Inc., a Corporation

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☑ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

   ☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

   ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☑ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 036476, Frame 0693, or for which a copy thereof is attached.

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

   1. From: _____ To: _____

      The document was recorded in the United States Patent and Trademark Office at

      Reel _____, Frame _____, or for which a copy thereof is attached.

   2. From: _____ To: _____

      The document was recorded in the United States Patent and Trademark Office at

      Reel _____, Frame _____, or for which a copy thereof is attached.

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☑ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/R.J. McKenna/	April 22, 2019
Signature	Date
Richard J. McKenna	35,610
Printed or Typed Name	Title or Registration Number

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor Name:	Douglas G. Bayerlein
Title:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
Application No.:	15/958,339
Filing Date:	4/20/2018
Examiner:	Deichl, Jennifer M.
Art Unit:	3784
Confirmation No.:	4765

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

Applicant submits herewith documents for the Examiner's consideration in accordance with 37 CFR §§1.56, 1.97 and 1.98.

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

Applicant requests that, in accordance with 37 CFR §1.98(d), the Examiner review all applications relied on for an earlier effective filing date under 35 U.S.C. 120, including application no. 13/235,065, filed 9/16/2011; application no. 14/076912, filed 11/11/2013; application no. 14/832,708, filed 8/21/2015, for copies of references of record therein that are not

being provided here; although Applicant would be pleased to provide copies of any such documents at the Examiner's request.

The submission of any document herewith is not an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document submitted herewith.

TIMING OF THE DISCLOSURE

The listed document is being submitted in compliance with 37 CFR §1.97(d).

STATEMENT UNDER 37 CFR §1.97(e)

The undersigned hereby states in accordance with 37 CFR §1.97(e)(2) that no item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of the information disclosure statement.

FEE

Fees in the amount of $120.00 to cover the fee associated with an information disclosure statement are being paid by credit card via EFS-Web.

The Commissioner is hereby authorized to charge any additional fees which may be required for this application to Deposit Account Number 19-0741.

Respectfully submitted,

Date: April 22, 2019

By: /R.J. McKenna/

FOLEY & LARDNER LLP
Customer Number: 26371
Telephone: (414) 319-7029
Facsimile: (414) 297-4900

Richard J. McKenna
Attorney for Applicant
Registration No. 35,610

Alexander J. Neuworth
Attorney for Applicant
Registration No. 72,021

Substitute for form 1449/PTO				***Complete if Known***	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	15/958,339
Date Submitted: April 22, 2019				**Filing Date**	4/20/2018
				First Named Inventor	Douglas G. Bayerlein
				Art Unit	3784
(use as many sheets as necessary)				Examiner Name	Deichl, Jennifer M.
Sheet	1	of	1	Attorney Docket Number	097208-0226

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	F1	2019/0054344-A1	02-21-2019	ATHEY ET AL.	

Examiner Signature		Date Considered	

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
* 15/958,339 *	15/958,339	Bayerlein et al.	
	Examiner	Art Unit	
	DEICHL, JENNIFER M	3784	

Document Code - DISQ	Internal Document - DO NOT MAIL

TERMINAL DISCLAIMER	☑ APPROVED	☐ DISAPPROVED
Date Filed: 22 April 2019	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:

/PAMELA A YOUNG/

Technology Center: PLRC

Telephone:

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/958,339	04/20/2018	Douglas G. Bayerlein	097208-0226

CONFIRMATION NO. 4765

POA ACCEPTANCE LETTER

26371
FOLEY & LARDNER LLP
3000 K STREET N.W.
SUITE 600
WASHINGTON, DC 20007-5109

OC000000107648863

Date Mailed: 04/25/2019

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 04/22/2019.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/ytdemisse/

To: ipdocketing@foley.com,,
From: PAIR_eOfficeAction@uspto.gov
Cc: PAIR_eOfficeAction@uspto.gov
Subject: Private PAIR Correspondence Notification for Customer Number 26371

Apr 25, 2019 04:19:56 AM

Dear PAIR Customer:

FOLEY & LARDNER LLP
3000 K STREET N.W.
SUITE 600
WASHINGTON, DC 20007-5109
UNITED STATES

The following USPTO patent application(s) associated with your Customer Number, 26371 , have new outgoing correspondence. This correspondence is now available for viewing in Private PAIR.

The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

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Application	Document	Mailroom Date	Attorney Docket No.
15958339	N570	04/25/2019	097208-0226

To view your correspondence online or update your email addresses, please visit us anytime at https://sportal.uspto.gov/secure/myportal/privatepair.

If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov with 'e-Office Action' on the subject line or call 1-866-217-9197 during the following hours:

Monday - Friday 6:00 a.m. to 12:00 a.m.

Thank you for prompt attention to this notice,

UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION INFORMATION RETRIEVAL SYSTEM

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/958,339	Filing Date 04/20/2018	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $230 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	04/22/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 60	Minus	** 30	= 30		x $50 =	1500
	Independent (37 CFR 1.16(h))	* 8	Minus	*** 4	= 4		x $230 =	920
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	2420

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/POLIN ANG/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/958,339	04/20/2018	Douglas G. Bayerlein	097208-0226	4765

26371 7590 05/13/2019

FOLEY & LARDNER LLP
3000 K STREET N.W.
SUITE 600
WASHINGTON, DC 20007-5109

EXAMINER	
DEICHL, JENNIFER M	

ART UNIT	PAPER NUMBER
3784	

NOTIFICATION DATE	DELIVERY MODE
05/13/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipdocketing@foley.com

Advisory Action Before the Filing of an Appeal Brief	Application No. 15/958,339	Applicant(s) Bayerlein et al.	
	Examiner JENNIFER M DEICHL	Art Unit 3784	AIA (FITF) Status No

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 22 April 2019 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☑ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires ____ months from the mailing date of the final rejection.
   b) ☑ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection.The current period for reply expires ____ months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.
   Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANTS FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37CFR 41.37(a).

AMENDMENTS

3. ☑ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☑ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.
   NOTE: See Continuation Sheet (See 37CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicants reply has overcome the following rejection(s): _____
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s):(a) ☐ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____
9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
14. ☑ Other: PTO 2323 attached.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:
    Claim(s) allowed:_____.
    Claim(s) objected to:_____.
    Claim(s) rejected:1-60.
    Claim(s) withdrawn from consideration:_____.

/JENNIFER M DEICHL/ Primary Examiner, Art Unit 3784	

Continuation of 3. NOTE: The claims include limitations not previously considered. Further search and consideration is therefore required.

AFCP 2.0 Decision

Application No.	Applicant(s)	
15/958,339	Bayerlein et al.	
Examiner	**Art Unit**	**AIA (FITF) Status**
JENNIFER M DEICHL	3784	No

This is in response to the After Final Consideration Pilot request filed 22 April 2019.

1. **Improper Request** – The AFCP 2.0 request is improper for the following reason(s) and the after final amendment submitted with the request will be treated under pre-pilot procedure.

   ☐ An AFCP 2.0 request form PTO/SB/434 (or equivalent document) was not submitted.

   ☐ A non-broadening amendment to at least one independent claim was not submitted.

   ☐ A proper AFCP 2.0 request was submitted in response to the most recent final rejection.

   ☐ Other: _____

2. **Proper Request**

   A. After final amendment submitted with the request will not be treated under AFCP 2.0.
   The after final amendment cannot be reviewed and a search conducted within the guidelines of the pilot program.

   ☑ The after final amendment will be treated under pre-pilot procedure.

   B. Updated search and/or completed additional consideration.
   The examiner performed an updated search and/or completed additional consideration of the after final amendment within the time authorized for the pilot program. The result(s) of the updated search and/or completed additional consideration are:

   ☐ 1. All of the rejections in the most recent final Office action are overcome and a Notice of Allowance is issued herewith.

   ☐ 2. The after final amendment would not overcome all of the rejections in the most recent final Office action . See attached interview summary for further details.

   ☐ 3. The after final amendment was reviewed, and it raises a new issue(s). See attached interview summary for further details.

   ☐ 4. The after final amendment raises new issues, but would overcome all of the rejections in the most recent final Office action. A decision on determining allowability could not be made within the guidelines of the pilot. See attached interview summary for further details, including any newly discovered prior art.

   ☐ 5. Other: _____

   Examiner Note: Please attach an interview summary when necessary as described above.

DO NOT ENTER: /J.M.D/

Atty. Dkt. No. 097208-0226

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor Name:	Douglas G. Bayerlein
Title:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
Appl. No.:	15/958,339
Filing Date:	4/20/2018
Examiner:	Deichl, Jennifer M.
Art Unit:	3784
Confirmation Number:	4765

AMENDMENT AND REPLY UNDER 37 C.F.R. § 1.116

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

This communication is responsive to the Final Office Action mailed February 20, 2019, concerning the above-referenced patent application. A request for consideration of the amendments after final rejection under the After Final Consideration Pilot 2.0 (AFCP 2.0) is submitted herewith.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this document.

Remarks begin on page 14 of this document.

Please amend the application as follows:

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A manually powered treadmill, comprising:

a frame having a front end and a rear end positioned opposite the front end;

a front shaft coupled to the frame proximate the front end;

a rear shaft coupled to the frame proximate the rear end;

a plurality of bearings coupled to the frame;

a running belt at least partially supported by the plurality of bearings, wherein the running belt includes a curved running surface; and

a safety device coupled to the running belt and to at least one of the front shaft and the rear shaft, wherein ~~so that~~ a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device, the running belt and the at least one of the front shaft and the rear shaft freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the housing~~frame~~, however, in a second direction of rotation, opposite the first direction of rotation, ~~the safety device~~ interference between the housing and the portion of 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 the rear shaft.

2. (Original) The manually powered treadmill of claim 1, wherein the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member, wherein the plurality of bearings includes a first plurality of bearings coupled to a left-side of the frame and a second plurality of bearings coupled to a right-side of the frame.

3. (Original) The manually powered treadmill of claim 2, wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile,

wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

4. (Currently Amended) The manually powered treadmill of claim 1, wherein the portion of the safety device is a one-way bearing.

5. (Original) The manually powered treadmill of claim 1, further comprising at least one support foot coupled to the frame, wherein the at least one support foot is adjustable to enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill.

6. (Original) The manually powered treadmill of claim 1, further comprising a braking system coupled to the frame and configured to selectively resist the rotational movement of the running belt.

7. (Original) The manually powered treadmill of claim 6, wherein the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt.

8. (Currently Amended) A manually powered treadmill, comprising:

a frame;

a first plurality of bearings coupled to the frame;

a second plurality of bearings coupled to the frame and spaced a distance from the first plurality of bearings;

a front shaft assembly coupled to the frame;

a rear shaft assembly coupled to the frame;

a running belt at least partially supported by the first plurality of bearings and the second plurality of bearings, the running belt being at least partially disposed about the front and rear shaft assemblies, and comprising a running surface, at least a portion of which is curved; and

a safety device coupled to the frame and the running belt, ~~so that~~ wherein a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of

the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the housing~~frame~~, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device ~~safety device~~ substantially prevents rotation of the portion of the safety device and the running belt.

9. (Currently Amended) The manually powered treadmill of claim 8, wherein the portion of the safety device is a one-way bearing.

10. (Original) The manually powered treadmill of claim 8, wherein the front shaft assembly comprises a front shaft coupled to frame.

11. (Previously Presented) The manually powered treadmill of claim 10, wherein the front shaft assembly comprises at least one front running belt pulley coupled to the front shaft.

12. (Original) The manually powered treadmill of claim 8, wherein the rear shaft assembly comprises a rear shaft coupled to the frame.

13. (Original) The manually powered treadmill of claim 12, wherein the rear shaft assembly comprises at least one rear running belt pulley coupled to the rear shaft.

14. (Original) The manually powered treadmill of claim 8, wherein the rear shaft assembly comprises at least one rear running belt pulley and the front shaft assembly comprises at least one front running belt pulley.

15. (Currently Amended) The manually powered treadmill of claim 14, wherein at least one of the at least one rear running belt pulley and the at least one front running belt pulley are formed from an electrically insulating material.

16. (Previously Presented) The manually powered treadmill of claim 8, further comprising at least one support foot coupled to the frame, wherein the at least one support foot is adjustable to

enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill.

17. (Cancelled)

18. (Currently Amended) The manually powered treadmill of claim [[17]]8, wherein each of the first and second pluralities of bearings define a curved top profile and wherein the curved top profile substantially corresponds to at least a portion of the curved portion of the running surface.

19. (Previously Presented) The manually powered treadmill of claim 8, wherein the frame includes a left side member, a right side member spaced a distance from the left side member, and at least one cross-member extending between the left side member and the right side member.

20. (Original) The manually powered treadmill of claim 19 wherein the first plurality of bearings are coupled the left side member and the second plurality of bearings are coupled to the right side member.

21. (Currently Amended) A manually powered treadmill, comprising:

a frame;

at least one front running belt pulley coupled to the frame;

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 plurality of bearings coupled to the frame;

a running belt at least partially supported by the plurality of bearings and 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

a safety device coupled to the running belt, ~~so that~~ wherein a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first

direction of rotation relative to the housing~~frame~~, however, in a second direction of rotation, opposite the first direction of rotation, ~~the safety device~~ interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device and the running belt.

22. (Currently Amended) The manually powered treadmill of claim 21, wherein at least one of the at least one rear running belt pulley and the at least one front running belt pulley are formed from an electrically insulating material.

23. (Currently Amended) The manually powered treadmill of claim 21, further comprising a front shaft coupled to frame, the front shaft being adapted to support the at least one front running belt pulley.

24. (Currently Amended) The manually powered treadmill of claim 21, further comprising a rear shaft coupled to frame, the rear shaft being adapted to support the at least one rear running belt pulley.

25. (Currently Amended) The manually powered treadmill of claim 21, wherein the portion of the safety device is a one-way bearing.

26. (Original) The manually powered treadmill of claim 21, further comprising a braking system coupled to the frame and configured to selectively resist the rotational movement of the running belt.

27. (Original) The manually powered treadmill of claim 26, wherein the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt.

28. (Currently Amended) A method, comprising:

providing a manually powered treadmill, the manually powered treadmill having a frame with a front end and a rear end;

providing a plurality of bearings coupled to the frame, wherein the plurality of bearings define at least a portion of a curved top profile;

disposing a running belt on the plurality of bearings such that the curved top profile of plurality of bearings define at least a portion of a curved running surface of the running belt;

providing a safety device coupled to the frame and the running belt, the safety device having a first element at least partially supported by a housing of the safety device;

permitting rotation of the running belt in a first direction by freewheeling of the first element of the safety device relative to the housing; and

resisting rotation of the running belt in a second direction opposite the first direction by restricting rotation of the first element via interference between the housing and the first element of the safety device.

29. (Currently Amended) A method according to claim 28, further comprising providing for a selective application of a braking force to resist the rotational movement of the running belt in the first direction.

30. (Currently Amended) A method according to claim 28, further comprising providing for the adjustment of the vertical incline of at least a portion of the running surface.

31. (Currently Amended) A manually powered treadmill, comprising:

a frame having a front end and a rear end positioned opposite the front end;

a front shaft coupled to the frame proximate the front end;

a rear shaft coupled to the frame proximate the rear end;

a plurality of bearings coupled to the frame;

a running belt at least partially supported by the plurality of bearings, wherein the running belt comprises a curved running surface; and

a safety device coupled to the frame and the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

wherein the running belt and one of the first and second rotatable elements of the safety device ~~and the running belt~~ freely rotate in a first direction of rotation relative to the other of the first and second rotatable elements of the safety device, but interference between ~~when the first element of~~ the safety device and at least one of the first and second rotatable elements substantially prevents rotation ~~rotates in a first direction of rotation relative to the frame, however,~~ in a second direction of rotation, opposite the first direction of rotation, ~~interference between the first element and~~ 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~~the second element of the safety device substantially prevents rotation of the first element of the safety device and the running belt relative to the frame~~.

32. (Previously Presented) The manually powered treadmill of claim 31, wherein the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member, wherein the plurality of bearings includes a first plurality of bearings coupled to a left-side of the frame and a second plurality of bearings coupled to a right-side of the frame.

33. (Previously Presented) The manually powered treadmill of claim 32, wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile, wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

34. (Currently Amended) The manually powered treadmill of claim 31, wherein the first and second rotatable elements of the safety device at least partly form [[is]] a one-way bearing.

35. (Previously Presented) The manually powered treadmill of claim 31, further comprising at least one support foot coupled to the frame, wherein the at least one support foot is adjustable

to enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill.

36. (Previously Presented) The manually powered treadmill of claim 31, further comprising a braking system coupled to the frame and configured to selectively resist the rotational movement of the running belt.

37. (Previously Presented) The manually powered treadmill of claim 36, wherein the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt.

38. (Currently Amended) A manually powered treadmill, comprising:

a frame;

a first plurality of bearings coupled to the frame;

a second plurality of bearings coupled to the frame and spaced a distance from the first plurality of bearings;

a front shaft assembly coupled to the frame;

a rear shaft assembly coupled to the frame;

a running belt at least partially supported by the first plurality of bearings and the second plurality of bearings, the running belt being at least partially disposed about the front and rear shaft assemblies, and comprising a running surface, at least a portion of which is curved; and

a safety device coupled to the frame and the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

wherein one of the first and second rotatable elements of the safety device and the running belt freely rotate relative to the other of the one of the first and second rotatable elements of the safety device ~~when the first element of the safety device rotates~~ in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the safety device and at least one of the first rotatable element and the second rotatable element ~~of the safety device~~ 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 ~~of the safety device and the running belt relative to the frame~~.

39. (Currently Amended) The manually powered treadmill of claim 38, wherein the first and second rotatable elements of the safety device [[is]] at least partly form a one-way bearing.

40. (Previously Presented) The manually powered treadmill of claim 38, wherein the front shaft assembly comprises a front shaft coupled to frame.

41. (Previously Presented) The manually powered treadmill of claim 40, wherein the front shaft assembly comprises at least one front running belt pulley coupled to the front shaft.

42. (Previously Presented) The manually powered treadmill of claim 38, wherein the rear shaft assembly comprises a rear shaft coupled to the frame.

43. (Previously Presented) The manually powered treadmill of claim 42, wherein the rear shaft assembly comprises at least one rear running belt pulley coupled to the rear shaft.

44. (Previously Presented) The manually powered treadmill of claim 38, wherein the rear shaft assembly comprises at least one rear running belt pulley and the front shaft assembly comprises at least one front running belt pulley.

45. (Previously Presented) The manually powered treadmill of claim 44, wherein at least one of the at least one rear running belt pulley and the at least one front running belt pulley are formed from an electrically insulating material.

46. (Previously Presented) The manually powered treadmill of claim 38, further comprising at least one support foot coupled to the frame, wherein the at least one support foot is adjustable to enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill.

47. (Previously Presented) The manually powered treadmill of claim 38, wherein the running belt is at least partially supported by the first plurality of bearings and the second plurality of bearings.

48. (Previously Presented) The manually powered treadmill of claim 47, wherein each of the first and second pluralities of bearings define a curved top profile and wherein the curved top profile substantially corresponds to at least a portion of the curved portion of the running surface.

49. (Previously Presented) The manually powered treadmill of claim 38, wherein the frame includes a left side member, a right side member spaced a distance from the left side member, and at least one cross-member extending between the left side member and the right side member.

50. (Previously Presented) The manually powered treadmill of claim 49, wherein the first plurality of bearings are coupled the left side member and the second plurality of bearings are coupled to the right side member.

51. (Currently Amended) A manually powered treadmill, comprising:

a frame;

at least one front running belt pulley coupled to the frame;

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 plurality of bearings coupled to the frame;

a running belt at least partially supported by the plurality of bearings and 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 safety device coupled to the frame and the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

wherein one of the first and second rotatable elements of the safety device and the running belt freely rotate ~~relative to the second element of the safety device when the first element of the safety device rotates~~ in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the safety device and at least one of the first rotatable element and the second rotatable element ~~of the safety device~~ 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.

52. (Previously Presented) The manually powered treadmill of claim 51, wherein at least one of the at least one rear running belt pulley and the at least one front running belt pulley are formed from an electrically insulating material.

53. (Currently Amended) The manually powered treadmill of claim 51, further comprising a front shaft coupled to frame, the front shaft being adapted to support the at least one front running belt pulley.

54. (Currently Amended) The manually powered treadmill of claim 51, further comprising a rear shaft coupled to frame, the rear shaft being adapted to support the at least one rear running belt pulley.

55. (Currently Amended) The manually powered treadmill of claim 51, wherein the first and second rotatable elements of the safety device at least partly form [[is]] a one-way bearing.

56. (Previously Presented) The manually powered treadmill of claim 51, further comprising a braking system coupled to the frame and configured to selectively resist the rotational movement of the running belt.

57. (Previously Presented) The manually powered treadmill of claim 56, wherein the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt.

58. (Currently Amended) A method, comprising:

providing a manually powered treadmill, the manually powered treadmill having a frame with a front end and a rear end;

providing a plurality of bearings coupled to the frame, wherein the plurality of bearings define at least a portion of a curved top profile;

disposing a running belt on the plurality of bearings such that the curved top profile of plurality of bearings define at least a portion of a curved running surface of the running belt;

providing a safety device coupled to the frame and to the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

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 ~~of the safety device~~ by interference between the safety device and at least one of the first rotatable element and the second rotatable element ~~of the safety device~~.

59. (Currently Amended) A method according to claim 58, further comprising providing for selective application of a braking force to resist the rotational movement of the running belt in the first direction.

60. (Currently Amended) A method according to claim 58, further comprising providing for the adjustment of the vertical incline of at least a portion of the running surface.

To: ipdocketing@foley.com,,
From: PAIR_eOfficeAction@uspto.gov
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May 13, 2019 03:29:59 AM

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FOLEY & LARDNER LLP
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WASHINGTON, DC 20007-5109
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Application	Document	Mailroom Date	Attorney Docket No.
15958339	CTAV	05/13/2019	097208-0226
	A.NE.AFCP.D	05/13/2019	097208-0226

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PATENT APPLICATION INFORMATION RETRIEVAL SYSTEM

Doc code: RCEX
Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (02-18)
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REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	15/958339	Filing Date	2018-04-20	Docket Number (if applicable)	097208-0226	Art Unit	3784
First Named Inventor	Douglas G. Bayerlein			Examiner Name	Deichl, Jennifer M.		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☒ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

☒ Other Amendment and Reply Filed April 22, 2019

☐ Enclosed

☐ Amendment/Reply

☐ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____ (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

☒ **The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**
The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 190741

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

X Patent Practitioner Signature

Applicant Signature

PTO/SB/30EFS (02-18)
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Signature of Registered U.S. Patent Practitioner			
Signature	/Alexander J. Neuworth/	Date (YYYY-MM-DD)	2019-06-19
Name	Alexander J. Neuworth	Registration Number	72021

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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Electronic Patent Application Fee Transmittal

Application Number:	15958339
Filing Date:	20-Apr-2018
Title of Invention:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
First Named Inventor/Applicant Name:	Douglas G. Bayerlein
Filer:	Alexander J. Neuworth/Laura Buhs
Attorney Docket Number:	097208-0226

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 1 month with $0 paid	2251	1	100	100
Miscellaneous:				
RCE- 1ST REQUEST	2801	1	650	650
		Total in USD ($)		**750**

Electronic Acknowledgement Receipt

EFS ID:	36346327
Application Number:	15958339
International Application Number:	
Confirmation Number:	4765
Title of Invention:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
First Named Inventor/Applicant Name:	Douglas G. Bayerlein
Customer Number:	26371
Filer:	Alexander J. Neuworth/Laura Buhs
Filer Authorized By:	Alexander J. Neuworth
Attorney Docket Number:	097208-0226
Receipt Date:	19-JUN-2019
Filing Date:	20-APR-2018
Time Stamp:	14:50:41
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$750
RAM confirmation Number	062019INTEFSW14511801
Deposit Account	
Authorized User	

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Continued Examination (RCE)	097208-0226_RCE.pdf	1349920 0b56e9a6835e4e8f714e7ee6bcbd78b7aa01b00a	no	3
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	32389 0890f31eb7cbdc725ab5f7025ec0a9bd9a6b101b	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1382309		

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

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PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/958,339	Filing Date 04/20/2018	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $230 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	06/19/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 59	Minus	** 60	= 0		x $50 =	0
	Independent (37 CFR 1.16(h))	* 8	Minus	*** 8	= 0		x $230 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/THUY T TA/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
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EXAMINER	
DEICHL, JENNIFER M	

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3784	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 15/958,339	Applicant(s) Bayerlein et al.	
	Examiner JENNIFER M DEICHL	Art Unit 3784	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 06/19/2019.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-60 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-60 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to the RCE filed 06/19/2019. Claims 1-60 are acknowledged as pending in this application with claims 1, 4, 8, 9, 21, 25, 28, 29, 30, 31, 34, 38, 39, 51, 52, 53, 54, 55, 58, 59, and 60 being currently amended. The 103 rejections of the previous Office Action are withdrawn as having been overcome by the amendment. The Double Patenting rejection is withdrawn as having been overcome by the filing of a terminal disclaimer. New rejections are presented below.

Claim Rejections - 35 USC § 103

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4,6-14, 17-21, 23-29, 31-34, 36-44, 47-51, and 53-59 is/are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Bostic (US 5,492,517) in view of Cutter (US 3,642,279), Schonenberger (4,334,676), and Savettiere (US 2005/0009668).

Regarding claim 1, Bostic teaches a manually powered treadmill, comprising: a frame (15) having a front end and a rear end positioned opposite the front end; a front shaft (55) coupled to the frame proximate the front end; a rear shaft (20) coupled to the frame proximate the rear end; a running belt; and a safety device coupled to at least one of the front shaft and the rear shaft (one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify

the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the housing, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device and the running belt. Savettiere teaches a treadmill including a safety device (360) coupled to a frame and running belt such that a portion (364, 370) of the safety device is at least partially supported by a housing (362, 368) of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device and the running belt [0136]. It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by providing the safety mechanism taught by Savettiere in order to prevent accidental reverse movement of the belt.

Regarding claim 2, Bostic teaches the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member (see Fig. 14). The combination of Bostic and Schonenberger yields a treadmill wherein the plurality of bearings includes a first plurality of bearings coupled to a left-side of the frame and a second plurality of bearings coupled to a right-side of the frame.

Regarding claim 3, the combination of Bostic, Cutter, and Schonenberger yields a treadmill wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile, wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

Regarding claim 4, modified Bostic teaches the portion of the safety device comprises a portion of a one-way bearing (Savettiere [0132]).

Regarding claim 6, Bostic teaches a braking system (40) coupled to the frame and configured to selectively resist the rotational movement of the running belt.

Regarding claim 7, Bostic teaches the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt (column 3 lines 27-33).

Regarding claim 8, Bostic teaches a manually powered treadmill, comprising: a frame (15); a front shaft assembly (25, 55) coupled to the frame; a rear shaft assembly (19, 20) coupled to the frame; a running belt (10) at least partially disposed about the front and rear shaft assemblies, and including a running surface; and a safety device (one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a first plurality of bearings and a second plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the housing, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device and the running belt. Savettiere teaches a treadmill including a safety device (360) coupled to a frame and running belt such that a portion (364, 370) of the safety device is at least partially supported by a housing (362, 368) of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device and the running belt [0136]. It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by providing the safety mechanism taught by Savettiere in order to prevent accidental reverse movement of the belt.

Regarding claim 9, modified Bostic teaches the portion of the safety device comprises a portion of a one-way bearing (Savettiere [0132]).

Regarding claim 10, Bostic teaches the front shaft assembly comprises a front shaft (55) coupled to frame.

Regarding claim 11, Bostic teaches the front shaft assembly comprises and at least one front running belt pulley (25) coupled to the front shaft.

Regarding claim 12, Bostic teaches the rear shaft assembly comprises a rear shaft (20) coupled to the frame.

Regarding claim 13, Bostic teaches the rear shaft assembly comprises at least one rear running belt pulley (19) coupled to the rear shaft.

Regarding claim 14, Bostic teaches the rear shaft assembly comprises at least one rear running belt pulley (19) and the front shaft assembly comprises at least one front running belt pulley (25).

Regarding claim 17, the combination of Bostic and Schonenberger yields a treadmill wherein the running belt is at least partially supported by the first plurality of bearings and the second plurality of bearings.

Regarding claim 18, the combination of Bostic, Cutter, and Schonenberger yields a treadmill wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile, wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

Regarding claim 19, Bostic teaches the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member (see Fig. 14).

Regarding claim 20, Bostic teaches the combination of Bostic and Schonenberger yields a treadmill wherein the first plurality of bearings are coupled the left side member and the second plurality of bearings are coupled to the right side member.

Regarding claim 21, Bostic teaches a manually powered treadmill, comprising: a frame (15); at least one front running belt pulley (25) coupled to the frame; at least one rear running belt pulley (19) coupled to the frame a spaced distance from the at least one front running belt pulley; a running belt (10) 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: and a safety device coupled to the running belt (one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a first plurality of bearings and a second plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the

housing, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device and the running belt. Savettiere teaches a treadmill including a safety device (360) coupled to a frame and running belt such that a portion (364, 370) of the safety device is at least partially supported by a housing (362, 368) of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device and the running belt [0136]. It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by providing the safety mechanism taught by Savettiere in order to prevent accidental reverse movement of the belt.

Regarding claim 23, Bostic teaches a front shaft (55) coupled to frame, the front shaft being adapted to support the at least one front running belt pulley.

Regarding claim 24, Bostic teaches a rear shaft (20) coupled to frame, the rear shaft being adapted to support the at least one rear running belt pulley.

Regarding claim 25, modified Bostic teaches the portion of the safety device comprises a portion of a one-way bearing (Savettiere [0132]).

Regarding claim 26, Bostic teaches a braking system (40) coupled to the frame and configured to selectively resist the rotational movement of the running belt.

Regarding claim 27, Bostic teaches the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt (column 3 lines 27-33).

Regarding claim 28, Bostic teaches a method, comprising: providing a manually powered treadmill, the manually powered treadmill having a frame (15) with a front end and a rear end;

disposing a running belt (10) on the frame; permitting movement of the running belt in a first direction; and providing a safety device coupled to the frame (via a one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the housing, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device and the running belt. Savettiere teaches a treadmill including a safety device (360) coupled to a frame and running belt such that a portion (364, 370) of the safety device is at least partially supported by a housing (362, 368) of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents

rotation of the portion of the safety device and the running belt [0136]. It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by providing the safety mechanism taught by Savettiere in order to prevent accidental reverse movement of the belt.

Regarding claim 29, Bostic teaches providing for the selective application of a braking force to resist the rotational movement of the running belt in the first direction (column 3 lines 27-33).

Regarding claim 31, Bostic teaches a manually powered treadmill, comprising: a frame (15) having a front end and a rear end positioned opposite the front end; a front shaft (55) coupled to the frame proximate the front end; a rear shaft (20) coupled to the frame proximate the rear end; a running belt; and a safety device coupled to at least one of the front shaft and the rear shaft (one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted

for rotation relative to the frame; wherein the running belt and one of the first and second rotatable elements of the safety device freely rotate relative to the other of the one of the first and second rotatable elements of the safety device in a first direction of rotation, however, in a second direction of rotation, opposite the first direction of rotation, interference between the safety device and at least one of the first rotatable element and the second rotatable element of the safety device substantially prevents rotation of the one of the first and second rotatable elements of the safety device relative to the other of the one of the first and second rotatable elements of the safety device and the running belt. Savettiere teaches a treadmill including a safety device (360) coupled to a frame, the safety device having a first rotatable element (362, 368) and a second rotatable element (364, 370), wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame; wherein the running belt and one of the first and second rotatable elements of the safety device freely rotate relative to the other of the one of the first and second rotatable elements of the safety device in a first direction of rotation, however, in a second direction of rotation, opposite the first direction of rotation, interference between the safety device and at least one of the first rotatable element and the second rotatable element of the safety device substantially prevents rotation of the one of the first and second rotatable elements of the safety device relative to the other of the one of the first and second rotatable elements of the safety device and the running belt [0132]. It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by providing the safety mechanism taught by Savettiere in order to prevent accidental reverse movement of the belt.

Regarding claim 32, Bostic teaches the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member (see Fig. 14). The combination of Bostic and Schonenberger yields a treadmill wherein the plurality of

bearings includes a first plurality of bearings coupled to a left-side of the frame and a second plurality of bearings coupled to a right-side of the frame.

Regarding claim 33, the combination of Bostic, Cutter, and Schonenberger yields a treadmill wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile, wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

Regarding claim 34, modified Bostic teaches the first and second rotatable elements of the safety device at least partly form a one-way bearing (Savettiere [0132]).

Regarding claim 36, Bostic teaches a braking system (40) coupled to the frame and configured to selectively resist the rotational movement of the running belt.

Regarding claim 37, Bostic teaches the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt (column 3 lines 27-33).

Regarding claim 38, Bostic teaches a manually powered treadmill, comprising: a frame (15); a front shaft assembly (25, 55) coupled to the frame; a rear shaft assembly (19, 20) coupled to the frame; a running belt (10) at least partially disposed about the front and rear shaft assemblies, and including a running surface; and a safety device (one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a first plurality of bearings and a second plurality of bearings (12) for the purpose of supporting the belt along the length

of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame; wherein the running belt and one of the first and second rotatable elements of the safety device freely rotate relative to the other of the one of the first and second rotatable elements of the safety device in a first direction of rotation, however, in a second direction of rotation, opposite the first direction of rotation, interference between the safety device and at least one of the first rotatable element and the second rotatable element of the safety device substantially prevents rotation of the one of the first and second rotatable elements of the safety device relative to the other of the one of the first and second rotatable elements of the safety device and the running belt. Savettiere teaches a treadmill including a safety device (360) coupled to a frame, the safety device having a first rotatable element (362, 368) and a second rotatable element (364, 370), wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame; wherein the running belt and one of the first and second rotatable elements of the safety device freely rotate relative to the other of the one of the first and second rotatable elements of the safety device in a first direction of rotation, however, in a second direction of rotation, opposite the first direction of rotation, interference between the safety device and at least one of the first rotatable element and the second rotatable element of the safety device substantially prevents rotation of the one of the first and second rotatable elements of the safety device relative to the other of the one of the first and second rotatable elements of the safety device and the running belt [0132]. It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device

taught by Bostic by providing the safety mechanism taught by Savettiere in order to prevent accidental reverse movement of the belt.

Regarding claim 39, modified Bostic teaches the first and second rotatable elements of the safety device at least partly form a one-way bearing (Savettiere [0132]).

Regarding claim 40, Bostic teaches the front shaft assembly comprises a front shaft (55) coupled to frame.

Regarding claim 41, Bostic teaches the front shaft assembly comprises and at least one front running belt pulley (25) coupled to the front shaft.

Regarding claim 42, Bostic teaches the rear shaft assembly comprises a rear shaft (20) coupled to the frame.

Regarding claim 43, Bostic teaches the rear shaft assembly comprises at least one rear running belt pulley (19) coupled to the rear shaft.

Regarding claim 44, Bostic teaches the rear shaft assembly comprises at least one rear running belt pulley (19) and the front shaft assembly comprises at least one front running belt pulley (25).

Regarding claim 47, the combination of Bostic and Schonenberger yields a treadmill wherein the running belt is at least partially supported by the first plurality of bearings and the second plurality of bearings.

Regarding claim 48, the combination of Bostic, Cutter, and Schonenberger yields a treadmill wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile, wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

Regarding claim 49, Bostic teaches the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member (see Fig. 14).

Regarding claim 50, Bostic teaches the combination of Bostic and Schonenberger yields a treadmill wherein the first plurality of bearings are coupled the left side member and the second plurality of bearings are coupled to the right side member.

Regarding claim 51, Bostic teaches a manually powered treadmill, comprising: a frame (15); at least one front running belt pulley (25) coupled to the frame; at least one rear running belt pulley (19) coupled to the frame a spaced distance from the at least one front running belt pulley; a running belt (10) 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: and a safety device coupled to the running belt (one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a first plurality of bearings and a second plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame; wherein the running belt and one of the first and second rotatable

elements of the safety device freely rotate relative to the other of the one of the first and second rotatable elements of the safety device in a first direction of rotation, however, in a second direction of rotation, opposite the first direction of rotation, interference between the safety device and at least one of the first rotatable element and the second rotatable element of the safety device substantially prevents rotation of the one of the first and second rotatable elements of the safety device relative to the other of the one of the first and second rotatable elements of the safety device and the running belt. Savettiere teaches a treadmill including a safety device (360) coupled to a frame, the safety device having a first rotatable element (362, 368) and a second rotatable element (364, 370), wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame; wherein the running belt and one of the first and second rotatable elements of the safety device freely rotate relative to the other of the one of the first and second rotatable elements of the safety device in a first direction of rotation, however, in a second direction of rotation, opposite the first direction of rotation, interference between the safety device and at least one of the first rotatable element and the second rotatable element of the safety device substantially prevents rotation of the one of the first and second rotatable elements of the safety device relative to the other of the one of the first and second rotatable elements of the safety device and the running belt [0132]. It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by providing the safety mechanism taught by Savettiere in order to prevent accidental reverse movement of the belt.

Regarding claim 53, Bostic teaches a front shaft (55) coupled to frame, the front shaft being adapted to support the at least one front running belt pulley.

Regarding claim 54, Bostic teaches a rear shaft (20) coupled to frame, the rear shaft being adapted to support the at least one rear running belt pulley.

Regarding claim 55, modified Bostic teaches the first and second rotatable elements of the safety device at least partly form a one-way bearing (Savettiere [0132]).

Regarding claim 56, Bostic teaches a braking system (40) coupled to the frame and configured to selectively resist the rotational movement of the running belt.

Regarding claim 57, Bostic teaches the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt (column 3 lines 27-33).

Regarding claim 58, Bostic teaches a method, comprising: providing a manually powered treadmill, the manually powered treadmill having a frame (15) with a front end and a rear end; disposing a running belt (10) on the frame; permitting movement of the running belt in a first direction; and providing a safety device coupled to the frame (via a one-way clutch; column 2 lines 54-56).

Bostic fails to teach the running belt having a curved running surface. Cutter teaches a manually powered treadmill comprising a running belt (30) having bearings supporting a curved running surface. It would have been obvious to one of ordinary skill in the art before the invention was made to modify the device taught by Bostic by providing the running belt in a curved orientation in order to provide for a more natural running experience (see Cutter, column 1 lines 24-70).

Bostic further fails to teach the running belt being supported by a plurality of bearings coupled to the frame. Schonenberger teaches a treadmill having a running belt supported by a plurality of bearings (12) for the purpose of supporting the belt along the length of the treadmill while providing a slightly resilient running surface (column 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the bearings taught by Schonenberger in order to provide a supported, yet cushioned running surface to the user.

Bostic does not specifically disclose the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame; wherein the running belt and one of the first and second rotatable

elements of the safety device freely rotate relative to the other of the one of the first and second rotatable elements of the safety device in a first direction of rotation, however, in a second direction of rotation, opposite the first direction of rotation, interference between the safety device and at least one of the first rotatable element and the second rotatable element of the safety device substantially prevents rotation of the one of the first and second rotatable elements of the safety device relative to the other of the one of the first and second rotatable elements of the safety device and the running belt. Savettiere teaches a treadmill including a safety device (360) coupled to a frame, the safety device having a first rotatable element (362, 368) and a second rotatable element (364, 370), wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame; wherein the running belt and one of the first and second rotatable elements of the safety device freely rotate relative to the other of the one of the first and second rotatable elements of the safety device in a first direction of rotation, however, in a second direction of rotation, opposite the first direction of rotation, interference between the safety device and at least one of the first rotatable element and the second rotatable element of the safety device substantially prevents rotation of the one of the first and second rotatable elements of the safety device relative to the other of the one of the first and second rotatable elements of the safety device and the running belt [0132]. It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the device taught by Bostic by providing the safety mechanism taught by Savettiere in order to prevent accidental reverse movement of the belt.

Regarding claim 59, Bostic teaches providing for the selective application of a braking force to resist the rotational movement of the running belt in the first direction (column 3 lines 27-33).

Claims 5, 16, 30, 35, 46, and 60 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Bostic (US 5,492,517) in view of Cutter (US 3,642,279), Schonenberger (4,334,676),

and Savettiere (US 2005/0009668) as applied to claims 1, 8, 28, 31, 38, and 58 above, and further in view of Gaetano (US 4,406,451).

Bostic teaches a support foot (35) coupled to the frame, but fails to teach the at least one support foot is adjustable to enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill. Gaetano (US 4,406,451) teaches a manual treadmill comprising a support foot (84) which enables an adjustment of a vertical incline of the treadmill. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device taught by Bostic by providing the incline adjustment taught by Gaetano in order to allow the user to simulate running on hills.

Claims 15, 22, 45 and 52 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Bostic (US 5,492,517) in view of Cutter (US 3,642,279), Schonenberger (4,334,676), and Savettiere (US 2005/0009668 as applied to claims 14, 21, 44, and 51, and further in view of Skowronski (US 6,923,746).

Bostic does not specifically disclose at least one of the at least one front running belt pulley and the at least one rear running belt pulley is formed of an electrically insulating material. Skowronski teaches a treadmill comprising front and rear pulleys formed of an electrically insulating material (column 3 lines 63-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Bostic's pulleys as formed from a plastic material, as taught by Skowronski, in order to provide easily produced and durable pulleys. Such a modification involves the mere selection of a known material based on its suitability for its intended use and therefore fails to distinguish the invention over the prior art.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER M DEICHL whose telephone number is (571)272-5001. The examiner can normally be reached on Monday-Friday, 8:30 am to 6:00 pm PST.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LoAn Thanh can be reached on 571-272-4966. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JENNIFER M. DEICHL

Primary Examiner
Art Unit 3784

/JENNIFER M DEICHL/
Primary Examiner, Art Unit 3784

Notice of References Cited	Application/Control No. 15/958,339	Applicant(s)/Patent Under Reexamination Bayerlein et al.	
	Examiner JENNIFER M DEICHL	Art Unit 3784	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20050009668-A1	01-2005	Savettiere, Greg	A63B22/0023	482/66
	B					
	C					
	D					
	E					
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	I					
	J					
	K					
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/958,339	Bayerlein et al.
	Examiner	Art Unit
	JENNIFER M DEICHL	3784

CPC - Searched*		
Symbol	Date	Examiner
A63B22/02-0228	07/11/2018	JD

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
reviewed family applicaiton history	07/11/2018	JD
EAST text search	07/11/2018	JD
updated	02/14/2019	JD
updated	07/31/2019	JD

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

	/JENNIFER M DEICHL/ Examiner.Art Unit 3764

PTO/SB/08 (modified)

Substitute for form 1449/PTO				*Complete if Known*	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	15/958,339
				Filing Date	4/20/2018
Date Submitted: April 22, 2019				**First Named Inventor**	Douglas G. Bayerlein
				Art Unit	3784
(use as many sheets as necessary)				Examiner Name	Deichl, Jennifer M.
Sheet	1	of	1	Attorney Docket Number	097208-0226

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	F1	2019/0054344-A1	02-21-2019	ATHEY ET AL.	

Examiner Signature	/JENNIFER M DEICHL/	Date Considered	07/31/2019

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.M.D/

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	3066	A63B22/02-0292.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/07/31 10:45
L2	0	L1 and clutch with interference	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 10:45
L3	0	L1 and clutch same interference	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 10:50
L4	88	L1 and "one way" with interference	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 10:50
L5	45	(US-20140011642-$ or US-20120270705-$ or US-20080287266-$ or US-20060287165-$ or US-20100216607-$ or US-20170182356-$ or US-20160263429-$ or US-20050009668-$).did. or (US-8343016-$ or US-8308619-$ or US-6053848-$ or US-5709632-$ or US-3637206-$ or US-1211765-$ or US-5833577-$ or US-4406451-$ or US-4635928-$ or US-5897461-$ or US-5538489-$ or US-5411455-$ or US-8968161-$ or US-6152854-$ or US-8714346-$ or US-9352188-$ or US-6180210-$ or US-3669238-$ or US-3642279-$ or US-7513832-$ or US-9486681-$ or US-0219439-$ or US-9005085-$ or US-8864627-$ or US-6923746-$ or US-5577598-$).did. or (US-5104120-$ or US-3554541-$ or US-4363480-$ or US-4625962-$ or US-5110117-$ or US-5492517-$ or US-5429563-$ or US-4334676-$ or US-5688209-$).did. or (US-3489408-$ or US-3332683-$).did.	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 10:56
L6	5	5 and clutch	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 10:56
L7	2	treadmill same clutch same sprag	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 10:57
L9	10	5 and "one way"	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 11:02
L11	5	9 not 6	US-PGPUB;	OR	ON	2019/07/31 11:03

			USPAT; USOCR			
L12	0	treadmill same clutch same interference	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 11:05
L13	90	treadmill same clutch	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 11:05
L14	11	("4960276").PN. OR ("5411455").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 11:07
L15	44	treadmill same "one way" with bearing	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 11:16
L16	36	15 not 13	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 11:16
L17	327	A63B$/$.cpc. and flywheel with clutch	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 11:22
L18	17	A63B$/$.cpc. and flywheel with clutch same interference	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 11:24
L19	24	A63B$/$.cpc. and flywheel with clutch same lock$4	US-PGPUB; USPAT; USOCR	OR	ON	2019/07/31 11:26
L20	1	("20190054344").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/07/31 12:03

EAST Search History (Interference)

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7/ 31/ 2019 12:17:19 PM
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Application	Document	Mailroom Date	Attorney Docket No.
15958339	CTNF	08/05/2019	097208-0226
	892	08/05/2019	097208-0226
	1449	08/05/2019	097208-0226

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UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION INFORMATION RETRIEVAL SYSTEM

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor Name:	Douglas G. Bayerlein
Title:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
Appl. No.:	15/958,339
Filing Date:	4/20/2018
Examiner:	Deichl, Jennifer M.
Art Unit:	3784
Confirmation Number:	4765

AMENDMENT AND REPLY UNDER 37 C.F.R. § 1.111

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

This communication is responsive to the Non-Final Office Action mailed August 5, 2019, concerning the above-referenced patent application.

A Listing of the Claims begins on page 2 of this document.

Remarks begin on page 14 of this document.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor Name:	Douglas G. Bayerlein
Title:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
Application No.:	15/958,339
Filing Date:	4/20/2018
Examiner:	Deichl, Jennifer M.
Art Unit:	3784
Confirmation No.:	4765

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

Applicant submits herewith documents for the Examiner's consideration in accordance with 37 CFR §§1.56, 1.97 and 1.98.

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

Applicant requests that, in accordance with 37 CFR §1.98(d), the Examiner review all applications relied on for an earlier effective filing date under 35 U.S.C. 120, including application no. 13/235,065, filed 9/16/2011; application no. 14/076912, filed 11/11/2013; application no. 14/832,708, filed 8/21/2015, for copies of references of record therein that are not being provided here; although Applicant would be pleased to provide copies of any such documents at the Examiner's request.

The submission of any document herewith is not an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document submitted herewith.

TIMING OF THE DISCLOSURE

The listed document is being submitted in compliance with 37 CFR §1.97(c), before the mailing date of any of a final action under 37 CFR §1.113, a notice of allowance under 37 CFR §1.311, or an action that otherwise closes prosecution in the application.

FEE

Fees in the amount of $120.00 to cover the fee associated with an information disclosure statement are being paid by credit card via EFS-Web.

The Commissioner is hereby authorized to charge any additional fees which may be required for this application to Deposit Account Number 19-0741.

Respectfully submitted,

Date /10-16-2019/ By /Alexander J. Neuworth/

FOLEY & LARDNER LLP
Customer Number: 26371
Telephone: (414) 319-7029
Facsimile: (414) 297-4900

Alexander J. Neuworth
Attorney for Applicant
Registration No. 72,021

Substitute for form 1449/PTO				***Complete if Known***	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	15/958,339
Date Submitted: October 16, 2019				**Filing Date**	4/20/2018
				First Named Inventor	Douglas G. Bayerlein
				Art Unit	3784
(use as many sheets as necessary)				Examiner Name	Deichl, Jennifer M.
Sheet	1	of	1	Attorney Docket Number	097208-0226

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	G1	6,652,424-B2	11-25-2003	DALEBOUT, WILLIAM T.	
	G2	2012/0010048-A1	01-12-2012	BAYERLEIN ET AL.	

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[6]
	G3	WOODWAY USA, INC., "Treadmill Owner's Manual", October 2001, 56 pages.	
	G4	WOODWAY USA, INC., EcoMill Promotional Flyer, October 18, 2011, 1 page.	
	G5	WOODWAY USA, INC., Owner's Manual: EcoMill Non-Motorized, June 4, 2010, 35 pages.	

Examiner Signature		Date Considered	

WOODWAY® USA

TREADMILL OWNER'S MANUAL

1-800-WOODWAY

INCLUDES THE FOLLOWING MODELS:

PATH	MERCURY S
WIDE PATH	MERCURY M
DESMO S	DESMO ELITE
DESMO M	DESMO PRO

WOODWAY® USA

For The Long Run®

How to Contact Us:
By Mail: W229 N591 Foster Court, Waukesha, Wisconsin 53186
Local Phone: 262.548.6235 **Local Fax:** 262.548.6239
Email: info@woodway.com **Website:** www.woodway.com

WE HAVE YOUR SAFETY IN MIND.

When using any piece of fitness equipment, basic precautions must be followed. Read, understand and carefully follow the instructions in this manual. Familiarize yourself with all warnings, instructions and procedures concerning proper care and maintenance of a Woodway treadmill. Instructions are found in this Owner's Manual and some also appear on labels and instructions on the treadmill itself.

IMPORTANT SAFETY INSTRUCTIONS

DANGER – *To reduce the risk of electrical shock:*

- Do not modify the plug provided with the treadmill. It is equipped with a power cord with a grounding plug. If it will not fit in the outlet, have a proper outlet installed by a qualified electrician.
- Do not use any adapters, especially ones without grounding provisions. To do so could result in electrical shock hazard.
- Do not operate electrically powered treadmills in damp or wet locations.
- Do not operate the heart rate monitor transmitter in conjunction with an electrical heart pacemaker. The transmitter may cause electrical disturbances.
- Always unplug the treadmill before cleaning or servicing.
- Do not soak the treadmill surfaces with any liquid; use a sprayer or damp cloth. Keep all electric components, such as the motor, power cord, and power switch away from water.
- Do not attempt to service your treadmill yourself.
- Do not place any liquids on any part of the treadmill, including the treadmill running surface.
- Always keep the running surface clean.

CAUTION

- **CONSULT WITH YOUR PHYSICIAN BEFORE BEGINNING ANY EXERCISE PROGRAM**, especially if you have any of the following: history of heart disease, high blood pressure, diabetes, chronic respiratory disease, elevated cholesterol, smoke cigarettes, or experience any other chronic disease or physical impairments.
- Pregnant women should consult their physician before beginning an exercise program.
- If you experience dizziness, chest pains, nausea or any other abnormal symptoms while utilizing the treadmill stop immediately. Consult a physician before continuing.
- A qualified technician should perform Service or repair work. It is preferable that technicians have successfully completed our factory-authorized service school or equivalent.

WARNING – *To reduce the risk of injury to you and to others*:

- Set up and operate treadmills on a solid, level surface.
- Keep all loose clothing and towels away from the treadmill running surface.
- Keep the area behind the treadmill clear and at least **FOUR FEET** from walls or furniture.
- Keep hands away from all moving parts.
- Never leave children unsupervised around a treadmill.
- Inspect the treadmill for worn or loose components prior to use. Tighten/replace any worn or loose components prior to use.
- Read, understand and test the emergency stop procedures.
- ALWAYS USE THE EMERGENCY SAFETY LANYARD SUPPLIED WITH THE TREADMILL! It can be clipped to an article of clothing while exercising. This feature was designed to enhance the safe operation of the treadmill. Failure to utilize the safety lanyard is done so at the risk of the user.
- Woodway treadmills are built to handle runners weighing up to 450 pounds at speeds up to 15 MPH. A treadmill running belt might not stop immediately if any object becomes caught in the belt or rollers.
- Care should be taken when mounting and dismounting the treadmill. Never mount or dismount the treadmill while the running belt is moving. Use the handlebar or handrails whenever practical.
- Wear proper athletic shoes, such as those with rubber or high-traction soles. Do not use shoes with heels or leather soles. Make sure no stones are embedded in the soles.
- Allow several minutes to bring your heart rate into the training zone shown elsewhere in this manual. Walk slowly after your workout to allow your body time to cool down and your pulse rate to decrease.
- The safety and integrity designed into the machine can only be properly maintained when inspected regularly by a qualified Woodway USA service technician. It is the sole responsibility of the user/owner or facility operator to ensure that regular maintenance is performed. Worn or damaged components that do not meet the standards of performance specified by Woodway USA shall be replaced immediately or the treadmill removed from service until the repair is made. Only components supplied or approved by Woodway USA shall be used to maintain and repair any Woodway USA products.

WELCOME TO THE WOODWAY EXPERIENCE

MY WOODWAY _____ ARRIVED _____

Model Name *Date*

Woodway's history began in Germany in 1974. Willi Schoenberger, a technical director in charge of planning a fitness center, noticed that the most important piece of equipment, the treadmill, didn't meet the most important requirements: a mechanically sound machine that is designed to meet human needs.

He envisioned a comfortable surface that didn't interfere with the natural biomechanics of running or walking. Also, he wanted to design a transportation system that eliminated the friction associated with the conventional (conveyor belt) treadmills. After intensive research, and trial and error (and in cooperation with the Deutsche Sporthochschule in Koln, Germany), Willi developed and patented a very unique and revolutionary treadmill design.

In 1975, Woodway GMBH was founded in Weil am Rhein, Germany. The name "Woodway" is derived from the German "*wald weg*" or "way of the woods" –the feel of running on a soft pine needle covered path in the forest.

In 1983, a manufacturing license was awarded to Sakai Medical, for the use of Woodway technology in the Japanese marketplace.

In 1988, a U.S. license was granted to a small, but well-established manufacturing company in Waukesha, Wisconsin. Woodway USA was formed when the U.S. incarnation of the Woodway was developed and completed in 1990. Woodway USA is very proud to be the primary manufacturer of Woodway Treadmills worldwide, exporting treadmills each month to Germany and Japan for international distribution, in addition to serving our domestic customers and clients.

Today, Woodway's design and manufacturing facilities in the United States, Germany and Japan make Woodway the largest specialized treadmill manufacturer in the world. Constant enhancements in quality, design and function are shared and implemented by all three Woodway manufacturers.

ITEMS & SERVICES AVAILABLE FROM WOODWAY

Replacement Safety Magnet & Lanyard $15.00

Service & Maintenance Manual $39.99
A comprehensive guide to maintenance procedures for Woodway brand treadmills.

Protective Treadmill Floor Mat $79.00
Designed to protect the flooring or carpeting below your Woodway and to keep your treadmill clear of obstructions such as thick carpeting.

Preventative Maintenance Kits:
(Consult the factory for the appropriate kit for your treadmill)

MKIT – 1 $99.00
This kit includes:
1) Staticide; 2) Dry Graphite Lube; 3) Tube of black grease; 4) Canned Air;
5) Extension tool with TORX – 20 bit; 6) Set of 4 **GLEN-TEK** motor brushes

MKIT – 2 $99.00
This kit includes:
1) Staticide; 2) Dry Graphite Lube; 3) Tube of black grease; 4) Canned Air;
5) Extension tool with TORX – 20 bit; 6) Set of 2 **PAC/ SCI** motor brushes

MKIT – 3 $59.00
This kit includes:
1) Staticide; 2) Dry Graphite Lube; 3) Tube of black grease; 4) Canned Air;
5) Set of 2 **PAC/ SCI** motor brushes

Woodway Renewal Program *call for quotation*
Entails shipping your treadmill back to the Woodway factory via Van Line (Woodway will assist coordinate these details; cost is additional).
Treadmill will then be thoroughly renovated by a qualified Woodway Service Technician.
Any worn or outdated features may be replaced, such as: the running belt and slats, side covers and trim plates, drive motor and encoder, IPC drive, drive belt, latest display board comparable to the board currently on the treadmill, HTD drive shaft, elevation potentiometer, fuse holder, interface board, tracking rollers, any worn bearings, re-powder coating of handrails and exterior hardware.
The treadmill may then carry up to a 1-year parts and labor warranty.
The Woodway Renewal Program offers an economical way to bring your Woodway back to "brand new" condition.

* *Prices above may not include shipping & handling.*
* *Contact the Woodway Service Department or your Sales Representative to order at 1-800-966-3929.*

TABLE OF CONTENTS

pgs 6 - 8

		PAGE
PREFACE:	**Treadmill Safety Guidelines**	2 & 3
	Woodway *USA* History	4
	Items & Services Available From Woodway	5
CHAPTER 1	**INTRODUCTION**	9
	1.1 THINGS TO CONSIDER BEFORE STARTING AN EXERCISE PROGRAM	9
	1.1.1 Heart Rate Chart	10
	1.2 THEORY OF FITNESS PROGRAMS	11
	1.3 TREADMILL SPECIFICATIONS	11
	1.3.1 Path	12
	1.3.2 Wide Path	13
	1.3.3 Mercury S	14
	1.3.4 Mercury M	15
	1.3.5 Desmo S	16
	1.3.6 Desmo M	17
	1.3.7 Desmo Pro	18
	1.3.8 Desmo Elite	19
	1.4 ELECTRICAL SPECIFICATIONS	20
	1.5 RUNNING BELT SPECIFICATIONS	20
	1.6 ENVIRONMENTAL SPECIFICATIONS	20
CHAPTER 2	**INSTALLATION OF YOUR TREADMILL**	21
	2.1 GROUNDING INSTRUCTIONS	21
	2.2 LOCATION REQUIREMENTS	21
	2.3 TRANSPORTING YOUR TREADMILL	21
	2.4 ELECTRICAL REQUIREMENTS	21
	2.5 OUTLET COMPATIBILITY	22
CHAPTER 3	**TREADMILL FUNDAMENTALS**	23
	3.1 RUNNING BELT AND SUPPORT	23
	3.1.1 Belt Surface	23
	3.1.2 Transportation System	23
	3.2 SERIAL NUMBER PLACEMENT	24
	3.3 INCLINE SYSTEM	24
	3.4 CONTACT HEART RATE	24
	3.5 POLAR HEART RATE MONITOR	25
CHAPTER 4	**SAFETY FEATURES**	26
	4.1 EMERGENCY STOP SWITCH & SAFETY LANYARD	26
	4.2 HANDRAIL STOP SWITCH	26
	4.3 BELT DRIVE CURRENT LIMIT	26
	4.4 HOSPITAL GRADE (M MODELS)	26
CHAPTER 5	**STANDARD DISPLAY BOARD**	27
	5.1 DISPLAY OVERVIEW	27
	5.2 DISPLAY PARAMETERS	27
	5.3 STARING THE TREADMILL	27
	5.4 WORKOUT PARAMETERS	28

TABLE OF CONTENTS

5.4.1 To Begin Workout 28
5.4.2 Active Controls 28
5.4.3 Pausing the Workout 28
5.4.4 Statistics Displayed 28
5.4.5 Ending a Workout 28
5.5 Description of Statistics 28

CHAPTER 6 PERSONAL TRAINER DISPLAY 30

6.1 DISPLAY OVERVIEW 30
6.2 DESCRIPTION OF STATISTICS 31
6.3 "QUICK STARTING" THE TREADMILL 31
6.4 "QUICK START" DISPLAY PARAMETERS 32
6.5 STARTING A PROGRAMMED WORKOUT 33
6.5.1 Entering Workout Level 33
6.5.2 Entering Weight 33
6.5.3 Entering Time 33
6.5.4 Start of Program 33
6.5.5 Variables 33
6.5.6 Pausing a Workout 34
6.5.7 Viewing Statistics 34
6.5.8 End of Workout 34
6.6 PROGRAM PROFILES 34
6.6.1 Goal 34
6.6.2 Test 35
6.6.3 Weight Loss 36
6.6.4 Aerobic 36
6.6.5 Interval 37
6.6.7 Random 38
6.6.8 Stamina 39
6.6.9 5K 40
6.6.10 10K 40
6.6.11 Ramp 41
6.7 RUNNING A HEART RATE CONTROL PROGRAM 42
6.7.1 Heart Rate Control Algorithms 42
6.7.1.1 Incline Only 42
6.7.1.2 Speed Only 43
8.3.1.3 Incline & Speed 43
6.8 CHANGING A PROGRAM DURING A WORKOUT 44
6.9 PROGRAMMING USER PROGRAMS 44

CHAPTER 7 TREADMILL OPTIONS 46

7.1 208/220 V AC INPUT POWER 46
7.2 DOUBLE HANDRAIL 46
7.3 HANDRAIL CONTROLS 46
7.4 BI-DIRECTIONAL BELT CONTROL (REVERSE MODE) 46
7.5 16.5 & 18 MPH7TOP SPEEDS 47
7.6 STANDARD & SPECIALTY COLORS 47
7.7 RS-232 REMOTE COMPUTER CONTROL 47
7.8 DYNAMIC MODE 47
7.8.1 How to disengage Dynamic Mode 48

TABLE OF CONTENTS

CHAPTER 8 PREVENTATIVE MAINTENANCE 49

8.1 CLEANING & INSPECTION 49
8.2 LUBRICATION 49
8.2.1 Bearings 49
8.2.2 Running Belt 49
8.2.3 Drive Belt 50
8.2.4 Incline System 50
8.3 ADJUSTMENTS & CALIBRATION 50
8.3.1 Incline System 50
8.3.2 Running Belt 50
8.3.3 Treadmill Mounting Feet 50

CHAPTER 9 WARRANTY INFORMATION 51

CHAPTER 10 OUR GUARANTEE 51

CHAPTER 11 TROUBLESHOOTING 52

11.1 GENERAL REPAIRS 52
11.2 NO DISPLAY 52
11.3 BELT MOVEMENT 52
11.3.1 Belt Loose 52
11.3.2 Belt Tight 52
11.3.3 Belt Binding 53
11.4 INCLINE DOES NOT WORK 53
11.5 ERRATIC OR BLINKING DISPLAYS 53
11.6 SQUEAKING SOUND (S) 53
11.7 HANDRAILS 53
11.7.1 Front Handrail 53

PREVENTATIVE MAINTENANCE LOG 54
NUMBERS TO KNOW 55
NOTES 56

CHAPTER ONE INTRODUCTION

1.1. THINGS TO CONSIDER BEFORE STARTING AN EXERCISE PROGRAM

CONSULT A PHYSICIAN

Consult with your physician before beginning any exercise program, especially if you have any of the following: history of heart disease, high blood pressure, diabetes, chronic respiratory disease, elevated cholesterol, smoke cigarettes, or experience any other chronic disease or physical impairments.

CONSULT A PROFESSIONAL FITNESS TRAINER

It is advisable for all exercise beginners to consult a professional fitness instructor or personal trainer to develop an overall fitness evaluation/ wellness program before starting an exercise routine.

UNDERSTAND THE IMPORTANCE OF WARMING UP AND COOLING DOWN

It is important to warm up and cool down prior to and at the end of each work out, respectively. Always try to incorporate a series of basic leg stretches before and after each workout. Stretching provides the necessary flexibility to prevent sore muscles and injury during daily activities.

KNOW YOUR MAXIMUM HEART RATE

It is important to utilize a high quality Heart Rate monitor in your exercise activities. Utilizing formulas by the American Heart Association or The American College of Sports Medicine help to determine your maximum heart rate. Following is a chart that approximates Maximum attainable heart rate based on AHA and ACSM standards. The most accurate way to determine your true maximum heart rate is to have a sub-maximal test administered by your physician. The American Heart Association recommends that you have a stress test done if you have any history of heart disease or if you are over the age of 40 and beginning an exercise program.

During exercise, it is recommended that you not exceed 85%of your maximum heart rate. Our programs are designed to keep your heart rate within your Target Zone. Your Target Zone is an area between 60 %and 75%of your maximum heart rate. Should you find your heart rate above the 75%level, you've probably selected a Fitness Level that is too high in that particular Fitness Program. You should either drop to a lower intensity level in the same Fitness Program, or use a less stressful Fitness Program.

1.1.1 HEART RATE CHART

AGE	THEORETICAL MAXIMUM HEARTRATE	60% OF MAXIMUM HEART RATE	75% OF MAXIMUM HEART RATE	85% OF MAXIMUM HEART RATE
20	200 BPM	120 BPM	150 BPM	170 BPM
25	195	117	146	166
30	190	114	142	162
35	185	111	138	157
40	180	108	135	153
45	175	105	131	149
50	170	102	127	145
55	165	99	123	140
60	160	96	120	136
65	155	93	116	132
70	150	90	112	128
75	145	87	108	123
80	140	84	105	119

HOW OFTEN YOU SHOULD EXERCISE?

The biggest mistake made by people when starting an exercise program is that they try to do too much too fast. Give yourself time to get into shape. Becoming de-conditioned also takes time. Either was, it won't happen overnight. Remember: the key to a successful exercise program is consistency and duration of exercise, not intensity. Some Experts recommend that you start by exercising three to four days a week within your target heart rate for at least 20 minutes per session. Your ultimate goal should be to get yourself gradually to a level of fitness where you can comfortably keep your heart rate in the Target Zone for 50 to 60 minutes four to five times a week.

WEAR PROPER WALKING/ JOGGING SHOES

To help avoid getting sore feet and muscles, it is suggested that you invest in a good pair of walking/ jogging shoes. It is important to purchase a comfortable pair of shoes with good heel and arch support. Also, remember to regularly replace old or worn out shoes with new shoes.

STAY ACTIVE

Between workouts it is suggested that you simply stay active, eat well-balanced meals, and drink plenty of water. The combination of these activities should enhance your chances for a future of good health.



1.2 THEORY OF WOODWAY'S FITNESS PROGRAMS

Today's research shows that we have underestimated the value of walking as an effective method of achieving good cardiovascular and aerobic conditioning.

Jogging was thought to be the best way to achieve these goals. Research now tells us that brisk walking actually can burn more calories than jogging and provide the fitness level needed to live a healthy life. Even well known authorities in the field of aerobics are reversing their ideas on the benefits of running over walking. In the January 1990 issue of Prevention magazine, Charlotte A. Tate, a board of trustee member of the American College of Sports Medicine stated, "The fact is, running a marathon doesn't make you any healthier than walking three miles three times a week at a fairly fast pace".

The key to a successful exercise program is consistency. It is the small advances over a long period of time that will give you the big benefits of fitness. Just as you cannot wake up one morning and be a professional baseball player, you cannot achieve fitness overnight. Any professional must learn his/her trade to become successful; so must you learn to give yourself time to achieve fitness. Take your time and give yourself a chance.

Woodway USA, Inc. has looked hard at today's research to form the philosophy behind our Fitness Programs. Consistency is the key. It is the TIME you dedicate to your exercise program, not the intensity level that is important.

Because walking is something that can easily be done by the unconditioned person as well as by the highly conditioned person, Woodway has dedicated many of our programs to walking and slow jogging. These programs are designed to GRADUALLY take you to a well-conditioned state and keep you there. Achieving fitness can be fun and not nearly as strenuous as you thought.

Most of our programs are dedicated to the general public, although we do meet the need of the fitness enthusiasts by including high intensity workouts for joggers and runners and elite athletes alike.

Technically, our programs spread a workload over as many muscle groups as possible at a low intensity (i.e. walking or jogging) for long periods of time. These programs gradually increase the workloads by using speed and incline to keep the activity as aerobic (vs. anaerobic) as possible. This will enable you to achieve the best kind of cardiovascular conditioning exercise. Simply use your Woodway treadmill on a regular basis. And try to have as much fun as you can while achieving your goals!

1.3 TREADMILL SPECIFICATIONS

All models are equipped with six (6) rubber feet to support the unit; Belt speed accuracy on all models is +/- .2 MPH; and Belt ramp speed (from 0- treadmill top speed) is 30 seconds for full speed range.

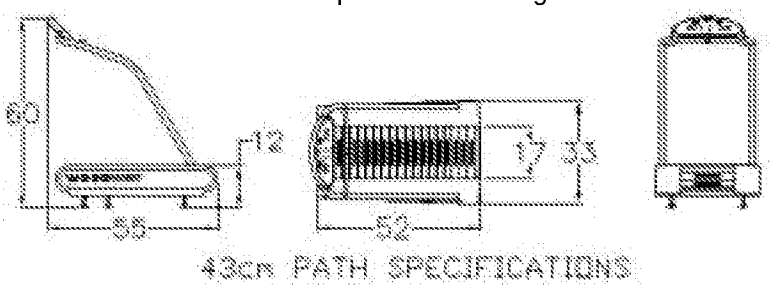
1.3.1 Woodway *PATH* TreadErgometer

Design Specifications:

- Patented Slat-Belt Transportation System:

-47 individual slats with vulcanized rubber surface of 35-40 shore hardness
-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip
-86 precision ball bearings including 8 guide bearing - 4 mm lateral tolerance

- 17" X 52" Running Surface
- 2 HP continuous (5 HP peak) servo drive motor.
- 110 V Power Supply
- Unitized steel frame with integrated black powder coated handrails
- 340 pound unit weight



43cm PATH SPECIFICATIONS

Performance Specifications:

- 0 - 11 MPH; zero start, .1 MPH resolution
- 0 - 15%Incline
- Manual (non-motorized) Mode
- 400 lb. User Capacity

User Controls and Feedback Systems:

- Contact Heart Rate
- Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

- "User defined" Emergency Stop Magnet & Safety Lanyard

Options:

- Personal Trainer Control Board
- Polar Monitor Chest Strap
- RS-232 Serial Interface Port
- Dynamic Mode

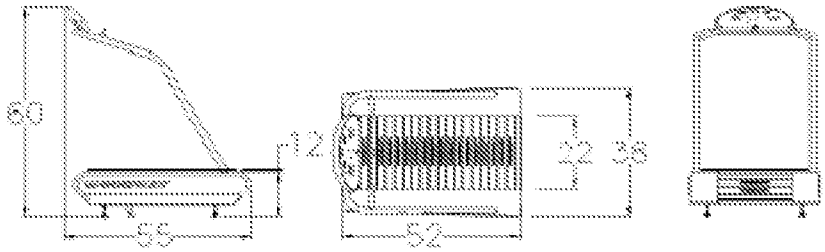
1.3.2 Woodway *WIDE PATH* TreadErgometer

Design Specifications:

- Patented Slat-Belt Transportation System:

-47 individual slats with vulcanized rubber surface of 35-40 shore hardness
-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip
-86 precision ball bearings including 8 guide bearing - 4 mm lateral tolerance

- 22" X 52" Running Surface
- 2 HP continuous (5 HP peak) servo drive motor.
- 110 V Power Supply
- Unitized steel frame with integrated black powder coated handrails
- 350 pound unit weight



55cm PATH SPECIFICATIONS

Performance Specifications:

- 0 - 11 MPH; zero start, .1 MPH resolution
- 0 - 15%Incline
- Manual (non-motorized) Mode
- 400 lb. User Capacity

User Controls and Feedback Systems:

- Contact Heart Rate
- Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

- "User defined" Emergency Stop Magnet & Safety Lanyard

Options:

- Personal Trainer Control Board
- Polar Monitor Chest Strap
- RS-232 Serial Interface Port
- Dynamic Mode

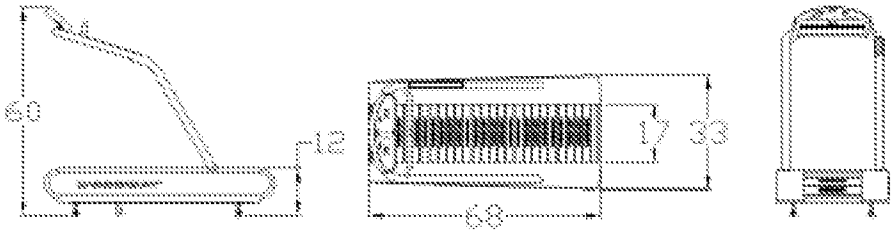
1.3.3 Woodway *MERCURY S* TreadErgometer

Design Specifications:

- Patented Slat-Belt Transportation System:

-60 individual slats with vulcanized rubber surface of 35-40 shore hardness
-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip
-116 precision ball bearings including 10 guide bearing - 4 mm lateral tolerance

- 17" X 68" Running Surface
- 2 HP continuous (5 HP peak) servo drive motor.
- 110 V Power Supply
- Unitized steel frame with integrated black powder coated handrails
- 390 pound unit weight



43cm MERCURY SPECIFICATIONS

Performance Specifications:

- 0 - 11 MPH; zero start, .1 MPH resolution
- 0 - 15% Incline
- Manual (non-motorized) Mode
- 450 lb. User Capacity

User Controls and Feedback Systems:

- Contact Heart Rate
- Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

- "User defined" Emergency Stop Magnet & Safety Lanyard

Options:

- Personal Trainer Control Board
- Polar Monitor Chest Strap
- 208 **or** 220 V - 50/60 Hz Power Supply
- 0 - 15 MPH Speed Range
- 0-25% Incline
- RS-232 Serial Interface Port
- Dynamic Mode

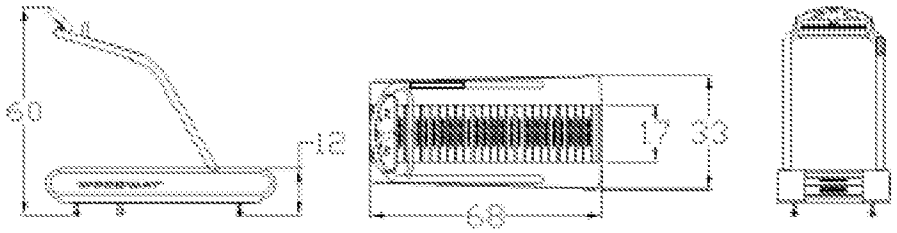
1.3.4 Woodway *MERCURY M* TreadErgometer

Design Specifications:

- Patented Slat-Belt Transportation System:

-60 individual slats with vulcanized rubber surface of 35-40 shore hardness
-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip
-116 precision ball bearings including 10 guide bearing - 4 mm lateral tolerance

- 17" X 68" Running Surface
- 2 HP continuous (5 HP peak) servo drive motor.
- 110 V Power Supply
- Unitized steel frame with integrated black powder coated handrails
- Hospital Grade Specifications (micro-amp Leakage)
- 390 pound unit weight



43cm MERCURY SPECIFICATIONS

Performance Specifications:

- 0 - 11 MPH; zero start, .1 MPH resolution
- 0 - 5 MPH Reverse Speed
- 0 - 15%Incline
- Manual (non-motorized) Mode
- 450 lb. User Capacity

User Controls and Feedback Systems:

- Contact Heart Rate
- Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

- "User defined" Emergency Stop Magnet & Safety Lanyard

Options:

- Personal Trainer Control Board
- Polar Monitor Chest Strap
- 208 or 220 V - 50/60 Hz Power Supply
- 0 - 15 MPH Speed Range
- RS-232 Serial Interface Port
- 0 – 25%Incline
- Dynamic Mode

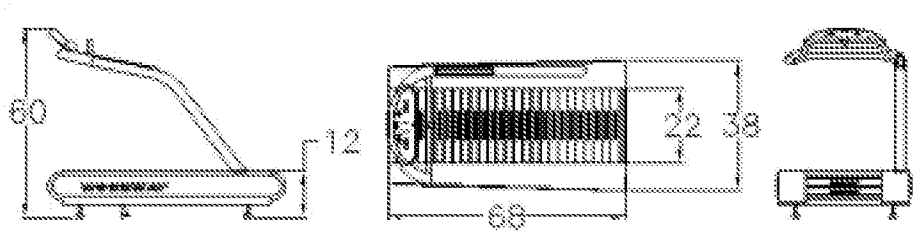
1.3.5 Woodway *DESMO S* TreadErgometer

Design Specifications:

- Patented Slat-Belt Transportation System:

-60 individual slats with vulcanized rubber surface of 35-40 shore hardness
-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip
-116 precision ball bearings including 10 guide bearing - 4 mm lateral tolerance

- 22" X 68" Running Surface
- Single side handrail with Switches (control of speed, incline and stop)
- 2 HP continuous (5 HP peak) servo drive motor.
- 110 V Power Supply
- Unitized steel frame with integrated black powder coated side handrail
- 450 pound unit weight



55cm DESMO SPECIFICATIONS

Performance Specifications:

- 0 - 12.5 MPH; zero start, .1 MPH resolution
- 0 - 15% Incline
- Manual (non-motorized) Mode
- 500 lb. User Capacity
- "User defined" Emergency Stop Magnet & Safety Lanyard

User Controls and Feedback Systems:

- Contact Heart Rate
- Side handrail control of speed, incline and stop.
- Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

Options:

- Personal Trainer Control Board
- Polar Monitor Chest Strap
- 208 **or** 220 V - 50/60 Hz Power Supply
- Dual Handrails
- 0 - 15 MPH Speed Range
- 0-25% Incline
- RS-232 Serial Interface Port
- Dynamic Mode

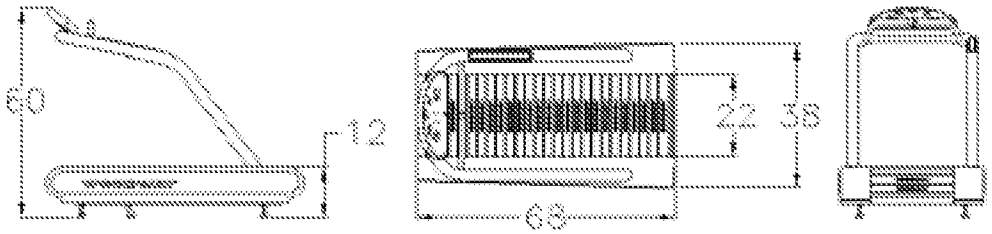
1.3.6 Woodway *DESMO M* TreadErgometer

Design Specifications:

- Patented Slat-Belt Transportation System:

-60 individual slats with vulcanized rubber surface of 35-40 shore hardness
-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip
-116 precision ball bearings including 10 guide bearing - 4 mm lateral tolerance

- 22" X 68" Running Surface
- 2 HP continuous (5 HP peak) servo drive motor.
- 110 V Power Supply
- Unitized steel frame with integrated black powder coated dual side handrails
- Hospital Grade Specifications (micro-amp leakage)
- 450 pound unit weight



55cm DESMO SPECIFICATIONS

Performance Specifications:

- 0 - 12.5 MPH; zero start, .1 MPH resolution
- 0 - 5 MPH Reverse Speed
- 0 - 15%Incline
- Manual (non-motorized) Mode
- 500 lb. User Capacity

User Controls and Feedback Systems:

- Contact Heart Rate
- Side handrail control of speed, incline and stop.
- Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

- "User defined" Emergency Stop Magnet & Safety Lanyard

Options:

- Personal Trainer Control Board
- Polar Monitor Chest Strap
- 208 **or** 220 V - 50/60 Hz Power Supply
- 0 - 15 MPH Speed Range
- 0 - 25 %Incline
- RS-232 Serial Interface Port
- Dynamic Mode

1.3.7 Woodway *DESMO PRO* TreadErgometer

Design Specifications:

• Patented Slat-Belt Transportation System:

-60 individual slats with vulcanized rubber surface of 35-40 shore hardness

-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip

-116 precision ball bearings including 10 guide bearing - 4 mm lateral tolerance

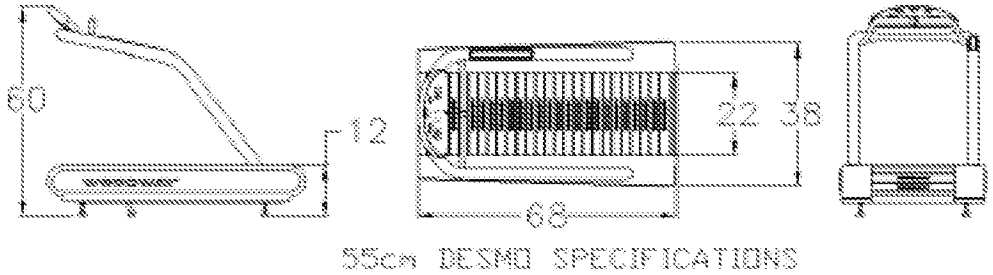
• 22" X 68" Running Surface

• 2 HP continuous (5 HP peak) servo drive motor.

• 220 V - 50/60 Hz Power Supply

• Unitized steel frame with integrated black powder coated side handrails

• 450 pound unit weight



55cm DESMO SPECIFICATIONS

Performance Specifications:

• 0 - 15 MPH; zero start, .1 MPH resolution

• Acceleration / Deceleration Quickness Control - 10 to 45 seconds zero to top speed

• 0 - 25% Incline

• Manual (non-motorized) Mode

• 500 lb. User Capacity

User Controls and Feedback Systems:

• Contact Heart Rate

• Side handrail control of speed, incline and stop.

• Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

• Dials for Acceleration / Deceleration Quickness control

• "User defined" Emergency Stop Magnet & Safety Lanyard

Options:

• Personal Trainer Control Board

• Polar Monitor Chest Strap

• 208 **or** 220 V - 50/60 Hz Power Supply

• Belt Reversal - 0 to 5 MPH

• 0 – 16.5 MPH speed range

• 0 – 18 MPH speed range

• RS-232 Serial Interface Port

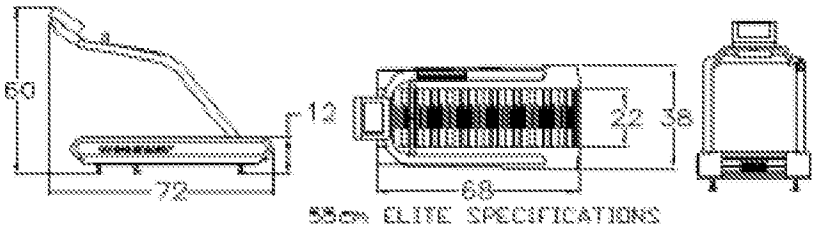
• Dynamic Mode

• Single Side Handrail

1.3.8 Woodway *DESMO ELITE* TreadErgometer

Design Specifications:

• Patented Slat-Belt Transportation System:
-60 individual slats with vulcanized rubber surface of 35-40 shore hardness
-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip
-116 precision ball bearings including 10 guide bearing - 4 mm lateral tolerance
• 22" X 68" Running Surface
• 2 HP (5 HP peak) servo drive motor.
• 110 V - 50/60 Hz Power Supply
• Unitized steel frame with integrated black powder coated handrails
• 1 year computer/screen warranty
• 515 pound unit weight



Performance Specifications:

• 0 - 12.5 MPH; zero start, .1 MPH resolution
• 15% Elevation
• 450 lb. User Capacity
• Contact Heart Rate
• Belt Reverse 0 –5 mph
• Manual Mode

User Controls and Feedback Systems:

• **Elite Controller features:**
-14" full color LCD touch-screen display.
-Administrative features such as: Heart Rate controlled workouts
(incline only, speed only or speed and incline combination).
-Fourteen pre-programmed workout protocols.
-Unlimited storage of user programmable workouts.
Each program stage programmable with independent
time, speed and incline. Graphical display of each program.
-User log-in feature – enables monitoring of workout totals for each user.
-Cable-ready; Ability to watch TV, adapt VCR, adapt DVD and surf Internet.

Options:

• 0 - 15 MPH Speed Range (220v only)
• 220 V **or** 208 V - 50/60 Hz Power Supply
• 0 - 25% Elevation
• Polar Heart Rate Chest Strap
• Intra-treadmill networking
• Coaches Station Software

1.4 ELECTRICAL SPECIFICATIONS

Power Requirements	
120 V ac	20 A, 60 Hertz
	20 A **DEDICATED LINE REQUIRED**** (cannot share neutral)
208/220 V ac	10 A, 60 Hertz
Motor Specifications	
	DC with encoder
	2 HP, 5 Hp peak
Incline Type	Rack and Pinion
Incline Resolution	.1%
Incline Motor	ac Permanent Split Capacitor type
Power Cord and Type	10 feet, 3 prong
120 V ac	5-20P
208/220 V ac	6-20P
Wall Outlet Requirements	
120 V ac	NEMA 5-20R Receptacle (Dedicated circuit required**)
208/220 V ac	NEMA 6-20R Receptacle (Dedicated circuit required**)
Main Fuse	
120 V ac input	15 A slo-blo, 3AG
208/220 V ac	10 A slo-blo, 3AG
ODYSSEY (120 V ac)	5A slo-blo, 3AG
Heart Rate Pickup Assembly	
Pickup Range	Up to 30 inches
Heart Rate Range	Up to 200 Beats per Minute; Uni-directional

1.5 RUNNING BELT SPECIFICATIONS

General	Slats, overlapping, replaceable
Slat type	Rubber over aluminum support
Running Belt Hardness	Approximately 40 Shore D
Running Area	See detailed specifications/model (Ch.1)
Standard Color	Grey
Support	102 roller bearings, 10 roller guides standard;
	The Path = 64 roller bearings, 8 roller guides.
Lateral movement	+/- 8 mm

1.6 ENVIRONMENTAL SPECIFICATIONS

Degree of Protection	IP42
Operating Conditions	
Ambient Temperature:	+10°C to +40°C (0°F to +104°F)
Relative Humidity:	20 to 95%
Transportation & Storage Conditions	
Temperature Range:	-18°C to +49°C (0°F to +120°F)
Relative Humidity:	20 to 95%
Atmospheric Pressure Range	700hPa to 1060 hPa (20.67 to 31.3 inches of Mercury)

****A DEDICATED CIRCUIT** *WHICH DOES NOT SHARE THE NEUTRAL* **IS REQUIRED!**

CHAPTER TWO *TREADMILL INSTALLATION*

In almost all cases, your Woodway treadmill is delivered fully assembled. Please make sure that the treadmill is fully inspected for any transportation damage. Report any damage to the carrier and to the factory immediately.

2.1 GROUNDING INSTRUCTIONS

This treadmill must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a power cord with a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

2.2 LOCATION REQUIREMENTS

Locate your treadmill on a structurally sound surface. If it is to be used above ground level set it up near the corner of the room to ensure maximum support during high-speed use. The surface should be reasonably level to ensure minimum frame flexing. Do not place the treadmill directly on shag or plush carpeting because of the moving parts underneath. If the operating area is thickly carpeted, set the unit on a mat (Woodway has a selection of mats available for purchase if needed; call 1-800-WOODWAY for details). This will reduce the lint that can get into the treadmill and also reduce carpet wear.

2.3 TRANSPORTING YOUR TREADMILL

CAUTION: This treadmill is heavy and could cause injury if proper lifting techniques are not utilized. Lifting Bars are supplied with the treadmill to move the treadmill.

Lifting bars are inserted into each bottom corner of the treadmill. Do not pull or lift on the cosmetic covers. If a flat dolly is available, place the dolly underneath the treadmill and push it to the desired location. If the treadmill must be disassembled, the cosmetic covers and the handrail assembly could be removed for easier transportation. Always unplug your treadmill before disassembly.

2.4 ELECTRICAL REQUIREMENTS

The maximum electrical power requirements of your treadmill at top operating speed is 20 A at 120 V ac. Therefore, the operating area must be equipped with an approved, dedicated 120 V ac, 60 Hz NEMA 5-20R grounded outlet and properly fused – **CANNOT SHARE THE NEUTRAL**! If an extension cable is needed, it must be at least 12 AWG with ground and no more than 10 feet long. For the 208 or 220 V ac input power options, the outlet must provide the appropriate ac voltage, 60 Hz at 15 A.

2.5 OUTLET COMPATIBILITY

The 120 V ac input Woodway treadmill comes standard with a 3-prong plug (NEMA 5-20P). The only outlet that the plug can be installed is a NEMA 5-20R – which does not share the neutral.

The 208 V or 220 V ac input Woodway treadmill has a 3-prong plug (NEMA 6-20P). It will only fit in a NEMA 6-20R outlet. DO NOT BEND OR REMOVE PRONGS. If other power cord plugs are required, please consult factory.

DESMO M Models: The 120 V ac input Woodway treadmill comes standard with a 3-prong, hospital-grade (NEMA 5-20P). The only outlet that the plug can be installed in is a NEMA 5-20R receptacle that does not share the neutral.
NOTE: For grounding reliability, only connect to the proper receptacle marked "Hospital Grade."

****BE CAREFUL - ANY ALTERATIONS TO THE PLUG CONFIGURATION COULD VOID YOUR WARRANTY.**

CHAPTER THREE *TREADMILL FUNDAMENTALS*

3.1 RUNNING BELT AND SUPPORT

3.1.1 *BELT SURFACE*

The patented running belt is made of individual slats mounted on a continuous set of tooth belts. The tooth belts mesh with the front pulley assembly, which meshes with the drive motor. This results in no belt slippage. The individual slats are comprised of two materials: a rubber based surface and an aluminum T-shaped frame. The rubber material, approximately ½ inch thick, and the aluminum T-slat makes a Woodway the "softest treadmill running surface in the world". The rubber running surface greatly reduces shock of impact and helps reduce the local extremity pain associated with long-term running. The positive belt engagement eliminates friction and heat, and therefore increases the longevity of the running surface and treadmill itself.

The Woodway rubber belt surface is unlike other treadmills (which normally utilize a fabric belt) and takes some getting used to. You may find, at first, that the surface has a "grip" to it you have not experienced before. The more often you utilize your treadmill the more you will become accustomed to the feel of it. With continuous prolonged usage, the running surface will eventually "smooth" itself in the areas that receive the most wear.

3.1.2 *TRANSPORTATION SYSTEM*

The transportation system is comprised of two bearing rail assemblies, an endless steel wire reinforced lateral belt, and 7-inch diameter toothed roller drums. The bearing rails support the running surface and are integral to reducing belt wear and friction.

The two endless lateral belts have many key functions: they hold the individual slats together, transfer power to and from the motor and runner and help keep the running belt from tracking to the left or right. The two bearing rails consist of three main parts: the bearing rail, individual bearings and the bearing-supported roller guides. A smooth section of the lateral belts roll over the bearings and roller guides.

The bearing rail supports all the bearings and roller guides and distributes the local loads throughout the treadmill. The roller guides on each side assist to reduce tracking error and help support the running belt. The individual bearings on each side also evenly distribute the load across the treadmill.

The toothed drums are used to transfer the load to and from the motor and to eliminate any slippage. The front drum assembly has an extra tooth pulley that is used by the motor. The drum assemblies have heavy-duty pillow blocks (bearings), which help to reduce friction.

This unique transportation system results in very little friction and can even be used without power - you can simply push the running belt under your own power! Consult your sales representative or the factory for more information regarding this "dynamic mode" of operation.

3.2 SERIAL NUMBER PLACEMENT

Each Woodway treadmill is assigned a serial number when built. The 7 or 8 alpha-numeric code can be found in two different locations on the treadmill. The serial number is on the main label located on the back of the display board housing. It is also on the front left section of the treadmill frame.

Sequential Number Assigned at Assembly ——— {XXXXX}{XY} ——— **Date Code of Manufacture**

The main label also includes information about your particular treadmill. It lists input voltage and current, and the options and/or features of your treadmill. Please refer to your packing slip or invoice or contact Woodway USA (**1-800-WOODWAY**) to determine the features you may have ordered, if you are in doubt, with your treadmill.

3.3 INCLINE SYSTEM

Woodway treadmills have a rack and pinion type of incline and can go to a maximum of 25% grade. The incline system is controlled by an ac gear motor and uses a chain and sprocket system to transfer power to a set of pinions. These pinion gears raise or lower the treadmill by gear racks. The gear racks have rubber feet and support most of the treadmill and person's weight when incline is used.

The feedback system is comprised of two sections: the incline potentiometer assembly, and the limit switches. The resolution is .1%grade and the accuracy is +/- .4%grade.

The feedback potentiometer assembly tells the display panel where the incline system is. An intermediate shaft rotates the potentiometer, via gears, when the incline system moves. The potentiometer is a one-turn potentiometer.

The limit switches are used to limit the incline system. After the display is turned on, the treadmill will automatically go to 0%or "home position." The display panel detects when the treadmill has tripped the 0%limit switch.

3.4 CONTACT HEART RATE

Located on the front cross bar of the handrail are grips that will transmit the user's heart rate when the user grips them. After starting the machine, the user can place their hands around the heart rate grips at any time. Please allow 20-30 seconds to elapse in order to obtain an accurate heart rate reading. The user's heart rate will automatically be displayed on the display panel under the heading for Heart Rate.
Note: Contact heart rate cannot be effectively utilized with the Personal Trainer Controller Programs Test Program or Heart Rate Control Program.

3.5 POLAR® HEART RATE MONITOR

Both display boards are also equipped to project a user's heart rate in conjunction with the use of a Polar® (Chest) Monitor. In order for the board to correctly display a user's heart rate, the receiver within the display board must obtain a stable heart rate signal from the Polar transmitter.

The Polar® Heart Rate System consists of three main elements: 1) the Sensor/Transmitter, 2) the Chest Band/Strap and 3) the Monitor/Console. The receiver of the wireless ECG system is built into the monitor/console unit of the board. While operating under heart rate control modes, the computer monitors the exact measurement of and control over the activity of the heart.

3.5.1 *How to Wear the Chest Strap*

The Sensor/Transmitter is worn just below the chest and at the top of the abdomen, preferably directly on bare skin (not over clothing). The transmitter should be centered below the pectoral muscles (breasts). Once the strap is secured, pull it away from the chest by stretching the band, and moisten the conductive electrode strips located underneath the snaps. If you wish to wear the band over a shirt, moisten the shirt under the area of the electrode strip. The transmitter is operational automatically while you are wearing it. It does not operate while it is disconnected from your body. However, as moisture may activate the Transmitter, please wipe it dry after use. The chest band is washable. After you have detached the transmitter, wash the band in warm water, using mild soap, and rinse thoroughly in clean water. Never scrub the transmitter surfaces.

3.5.2 *The Transmitter*

You must be within three and a half feet of the receiver in order for the signal to transmit. Please take note that your Transmitter may fluctuate erratically if you are too close to other Polar® equipment. Maintain **at least a three-foot** distance between other Polar® units.

NOTE: Erratic heart rate reception may occur if the Polar® Monitor is too close in proximity to strong sources of electromagnetic radiation, such as television sets, Personal Computers, electric motors and some other types of fitness equipment. Only one transmitter should be used inside the range of any one receiver as the receiver may pick up several signals simultaneously causing an inaccurate readout.

CHAPTER FOUR *SAFETY FEATURES*

4.1 EMERGENCY STOP SWITCH AND SAFETY LANYARD

The emergency stop switch, with safety Lanyard, is used to enable the belt. If the Stop Switch magnet is not placed on the front panel, or positioned properly, the belt will be disabled and will therefore not speed up. This is similar to an unplugged treadmill.

CAUTION: ALWAYS USE THE EMERGENCY STOP SWITCH WITH THE LANYARD!

This safety feature is to protect the user in case of an emergency or loss of balance. The plastic clip is intended to clip on an article of clothing while the treadmill is in use. When the activator (magnet) is pulled off, the belt will automatically and immediately be disabled and will coast to a stop.

4.2 HANDRAIL STOP SWITCH

The handrail stop (not standard on all models) switch can also be used to stop the treadmill. When the stop button is pressed, the treadmill will slowly ramp down and stop at zero speed and rest at zero incline. The display panel will then shut off.

4.3 BELT DRIVE CURRENT LIMIT

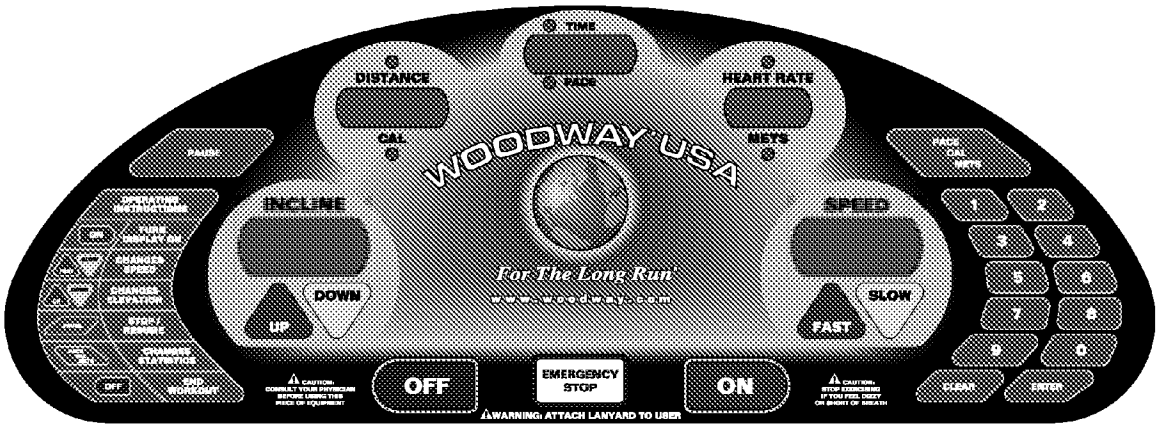
The treadmills have current limit features to reduce the power consumption and increase safety. The main feature is a current limit timeout. If the belt is stalled (stays in current limit) for more than 6 seconds, the motor drive will shut off and the belt will be able to be moved manually, or "freewheel". This feature becomes very useful if something should become caught in the belt, stopping it.

When the belt goes into this current limit mode, the treadmill must be turned off for at least 60 seconds to reset before it can be turned back on.

4.4 HOSPITAL GRADE (M MODELS)

Hospital grade requirements are important for medical clinics, physical therapy facilities and hospitals. The main features of the treadmill: hospital grade power plug and a low leakage input power transformer. A low leakage power transformer helps reduce the leakage current of the treadmill to about 100 microAmperes (uA). The hospital grade feature is an option for the Desmo Pro model.

CHAPTER FIVE *STANDARD DISPLAY BOARD*



5.1 DISPLAY OVERVIEW

The twenty buttons on the display panel are membrane-style switches from which complete control of the machine can be accomplished. The Emergency Stop Switch is a magnetic sensor that detects the presence of a magnet and performs a "fast" shutdown if removed.

The five seven-segment displays show program statistics. The four-digit displays are programmed to display time in an 88:88 format.

The numbered keypad on the right side of the panel is used for **CSAFE Compatibility** and is not utilized for any other functions. "CSAFE" is a standard for communication compatibility between two devices. Currently Woodway USA is compatible with CardioTheatre™, and Fitlinxx™. Please contact Woodway USA customer service for details and questions about **CSAFE Compatibility.**

5.2 DISPLAY PARAMETERS

- Manual control of Speed and Incline
- Statistics display of Time, Calories, METs, Pace, Distance and Heart Rate
- Display of treadmill Incline and Speed
- Controlled ramping, safety checks and automatic shutdown in the event of errors

5.3 TO START THE TREADMILL

First, make sure to check that the treadmill is plugged in and that the power switch (within lower right-hand cut-out) has been turned on. Make sure the **EMERGENCY STOP** Magnet is positioned correctly. To power-up the display, press the "**ON**" Button. The Speed and Incline displays will show values of 0.

5.4 WORKOUT PARAMETERS

5.4.1 To Begin Workout

Press the FAST button to increase the speed of the running surface. The **TIME**, **DISTANCE**, **SPEED** and **INCLINE** LED displays will be illuminated in the format of their respective values. **TIME** and **DISTANCE** will count up from zero (0). The **HEART RATE** LED display will indicate dashes (- - -) unless Polar™Heart Rate chest transmitter is utilized, or user's hands are placed on the Contact Heart Rate sensors on the front handlebar. When one of these two methods of sensing the User's Heart Rate, then **HEART RATE** will be indicated on the **HEART RATE** LED display.

5.4.2 Active Controls

During a workout, the user may change incline using the UP and DOWN incline buttons or change speed using the Fast and Slow speed buttons. The user may pause their workout at any time by pressing the PAUSE button.

5.4.3 Pausing the Workout

If the user presses the PAUSE button, the belt will come to a stop. The TIME display will show "PAUS" and the other seven-segment displays will freeze with their current values of the session at the time the Pause button was pressed. To resume the workout session, the user may press the Pause button. Speed will ramp up to its previous value and the Time display will demonstrate time counting up.

5.4.4 Statistics Displayed During Workout

During a workout, the user may press the Pace/ Cal/ METs button to replace the Distance, Time and Heart Rate values. Distance will be replaced with Calories, Time will be replaced with Pace and Heart Rate will be replaced with METs. The displays will return to their original values if the Pace/ Cal/ METs button is pressed again. The LEDs associated with the statistics currently being displayed will be lit.

5.4.5 Ending a Workout

The user may press the OFF button at any time to end the workout session. Speed and Incline will return slowly to zero. Workout statistics will be displayed for approximately 5 seconds. The Time display will show total time and the Distance/ Calories display will alternate total distance and total calories.

5.5 DESCRIPTION OF STATISTICS

Time:

Time is displayed in the format 00:00. Time always counts up.

Speed:

Speed is displayed in the format 00.0. Speed represents the user's current speed in miles per hour (or kilometers per hour). Valid speed values are: 0.0 – top speed (which varies depending on model and options ordered).

Distance:

Distance is displayed in the format 00.00. Distance represents the accumulated user distance in miles or kilometers.

Calories:

Calories are displayed in the format 0000. Calories represent the accumulated user calories burned and are calculated using a default weight of 155 lbs.

Pace:

Pace is displayed in the format 00:00. Pace is minutes-per-mile, or represents the amount of time it will take to run one mile at the user's current speed, or minutes per mile.

METs (metabolic equivalency):

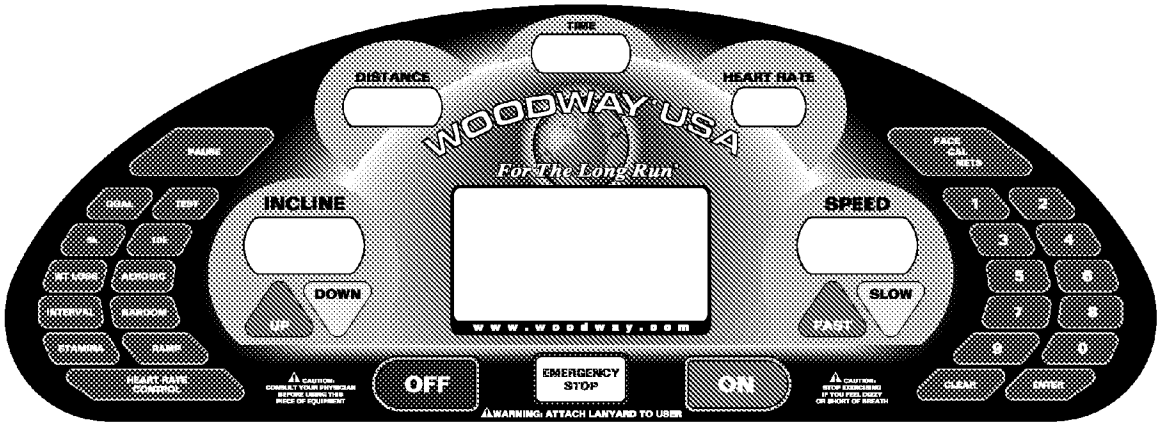
METs is displayed in the format 00.0 and represents the equivalent amount of work in lifestyle or formal exercise activities as defined by a MET equivalence chart. The method for calculating MET's is 3.5 milliliters of oxygen per kilogram of body weight per minute.

Heart Rate:

Heart Rate is displayed in the format 000. Heart Rate represents the user's actual heart rate (pulse).

Incline:

The incline display is used to display the current user elevation or to set the user elevation. Valid incline values are 0 - (top level of incline which varies based on model and options ordered) in 0.1% increments.



6.1 DISPLAY OVERVIEW

There are thirty-one buttons on this display panel, which allow the user to input program parameters to control treadmill operation and allows the user to monitor the progress of their workout. The Emergency Stop Switch is a magnetic sensor that detects the presence of a magnet and performs a hard belt shutdown if removed. The five seven-segment displays show program statistics. The four-digit displays are programmed to display time in an 88:88 format.

The 128 x 256 pixel LCD display shows the user's choice of program profiles and also shows the user's progress during their workout. The program profiles indicate the speed contours in printed graphics. The incline profile is demonstrated with a solid line drawn through the speed profile.

Heart rate is monitored by a Polar® receiver for pickup RF from Polar chest belt heart rate units. There is also a handlebar EKG pulse sensor for handgrip pulse rate measurement.

The control panel allows the user to control or view:

- Manual Control of speed and incline
- Statistics display of Speed, Incline, Time, Calories, METs, Pace, Distance & Heart Rate
- 12 Built-in programs, including manual operation
- 10 user-modifiable programs
- Automatic speed and incline adjustment during programs.
- User prompts and warnings
- Controlled ramping, safety checks and automatic shutdown on errors.

In order for the user to monitor the progress of their workout, the personal trainer board displays:

- Speed Profile
- Incline Profile
- Time/ Vertical Feet
- Calories/ Distance
- Speed/ Pace
- Heart Rate

6.2 DESCRIPTION OF STATISTICS

Time:
Time is displayed in the format 00:00. Time counts up from zero in the user-defined mode. The time counts down in Programmed Run mode.

Speed:
Speed is displayed in the format 00.0. Speed represents the user's current speed in miles per hour (or kilometers per hour) or can be used to set the desired user speed. Valid speed values are: 0.0 – top speed (which varies depending on model and options ordered).

Distance:
Distance is displayed in the format 00.00. Distance represents the accumulated user distance in miles. Distance continues to accumulate until the program ends or until the user presses the PAUSE button.

Calories:
Calories are displayed in the format 0000. Calories represent the accumulated user calories burned and are calculated using the user's weight (entered at the start up of a program), or if not entered by the user, a default weight of 155 lbs. Calories continue to accumulate until the program ends or until the user presses the PAUSE button.

Pace:
Pace is displayed in the format 00:00. Pace represents the amount of time it will take to run one mile at the user's current speed.

METs (metabolic equivalency):
METs is displayed in the format 00.0 and represents the equivalent amount of work in lifestyle or formal exercise activities as defined by a MET equivalence chart. The method for calculating MET's is 3.5 milliliters of oxygen per kilogram of body weight per minute.

Heart Rate:
Heart Rate is displayed in the format 000. Heart Rate represents the user's actual heart rate (pulse).

Incline:
The incline display is used to display the current user elevation or to set the user elevation. Valid incline values are 0 - (top level of incline which varies based on model and options ordered) in 0.1% increments.

6.3 "QUICK STARTING" THE TREADMILL (USER-DEFINED OPERATION)

1) First, make sure to check that the treadmill is plugged in and that the power switch (within lower right-hand cut-out) has been turned on.
2) Make sure the **EMERGENCY STOP** Magnet is positioned correctly. To power-up the display, press the "**ON**" Button.
3) To "power-up" the display, press the "**ON**" Button until the LED and LCD display's are illuminated – *NOTE*, this process can take up to 3 seconds! The LCD display in the center of the

panel will read "**Press 'FAST' for Quick Start or select a program**." The user can choose to follow the directions or simply enter the speed and incline values desired. If the **FAST** button is pressed, the display will be in a User-directed Mode. The LCD display will read "Enter Weight = 150, Press Enter." For a Quick Start, the user must enter WEIGHT which will accept the default weight of 150 and begin the manual workout, or the user may enter their actual weight by using the keypad or FAST button and then **ENTER**. Valid weights are 50-500 lbs. (or 22 – 227 kilograms). The Clear button may be used to erase the currently displayed weight. Once the user has entered their weight, they may press the Enter button to accept it. The text "Press FAST to begin workout" will then appear in the LCD display. Once the user presses the Fast button, the workout will begin.

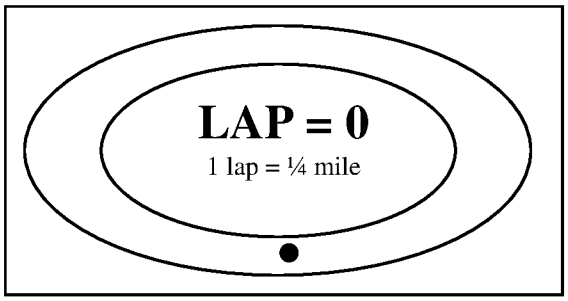
6.4 "QUICK START" DISPLAY PARAMETERS

Time will begin counting up from zero, speed will be set to 0.1 mph and the distance and calories will begin accumulating. The LCD display will illustrate a quarter-mile oval track. A flashing dot will move around the track (in a counterclock-wise direction) representing the user's distance. The center of the track will read "Laps = 0." Each lap around the track represents one-quarter of a mile. The lap counter will increase by one with every completed lap. Four laps is equivalent to the distance of one mile.

The numeric keys, CLEAR button and ENTER button are disabled during this time.

However, while running the user-directed mode program, the user may change Incline using the UP and DOWN Incline buttons or change Speed using the FAST and SLOW speed buttons. The user may Pause the program at any time by pressing the PAUSE button.

The user-defined track is laid out as shown in the figure below:



Pausing Workout

If the user presses the PAUSE button, the belt will come to a stop and seek minimum incline. The LCD display will read "Treadmill Paused. Press PAUSE to resume." Statistics will freeze with the current session values at the time the PAUSE button was pressed. Once the user presses the Pause button again, the workout will resume. While paused, the CLEAR button will be enabled. Pressing the CLEAR button will reset all of the treadmill statistics and return the user to the opening screen (the LCD display will read "Press 'FAST' for Quick Start or select a program.") At any time during the workout, the user may press the Pace, Cal, METs button to view the respective statistics. One this button is pressed, the LCD display will show " PACE = 00:00,

CALORIES = 0000, METs = 00." These values will remain on the display for a period of 4 seconds, after which the LCD display will return to its original display. If the Off button is pressed, the speed and incline will return to zero. The LCD will show "Totals, Calories = XXXX, Distance = XX.XX, Time = X:XX:XX" for 5 seconds.

6.5 STARTING A PROGRAMMED WORKOUT

Before starting any programmed workout, it is advisable to consult a certified exercise professional or personal physician.
If a program button is pressed when the user is prompted to "press 'FAST' for Quick Start or select a program," program set-up will begin.

6.5.1 Entering Workout Level

The LCD display will show the associated program profile and title of that program for three seconds. The LCD will then read, "Enter Workout Level 1-10 and press Enter." A default would level of 1 will be displayed. The numeric keys may be used to enter desired workout level. When selecting a workout level, the user should consider their current fitness level and workout goals. The CLEAR button may be used to erase the currently displayed workout level. When the user finishes entering the desired workout level, they may press the ENTER button to accept it.

6.5.2 Entering Weight

The LCD display will then read "Enter Weight = 150, Press Enter." For a Quick Start, the user may simply bypass the weight menu by pressing the FAST button to accept the default weight of 150 and begin the user-directed workout, or enter his/her weight using the keypad. Valid weights are 50 – 500 lbs (or 22 – 227 kilograms). The CLEAR button may be used to erase the currently displayed weight. One the user has entered their weight, they may press the ENTER button to accept it.

6.5.3 Entering Workout Time

The LCD display will then read "Enter Workout Time 10-99 Min, Press Enter." A default time of 10:00 will appear on the display. The user may use the numeric keys to enter their desired workout duration. Valid times are 10- 99 minutes. The CLEAR button may be used to erase the currently displayed time. Once the user has entered their desired workout duration, they can press the ENTER button to accept it. The text "Press FAST to begin workout" will appear on the LCD display. Once the user presses the FAST button, their workout will begin.

6.5.4 Starting a Workout

Time will begin counting down, speed will be set to the first segment speed and incline will be set to the first segment incline. Distance and calories will begin accumulating. The LCD display will show the program profile. The numeric keys, the CLEAR button and the ENTER button will now be disabled.

6.5.5 Workout Variables

While running the program, the user may change incline using the UP and DOWN incline buttons or change speed using the FAST and SLOW speed buttons. The user may pause the program at any time by pressing the PAUSE button. The state of the program you are in will be flashing to show your progress. The beeper will sound 3 seconds prior to speed and/or grade changes.

6.5.6 Pausing a Workout

If the PAUSE button is pressed, the belt will come to a stop and seek minimum incline. The LCD display will read "Treadmill Paused. Press PAUSE to resume." Statistics will freeze with the current session values at the time the PAUSE button was pressed. Once the user presses the PAUSE button again, the workout will resume. While paused, the CLEAR button will be enabled. Pressing the CLEAR button will reset all of the treadmill statistics and return the user to the opening screen (the LCD display will read "Press 'FAST' for Quick Start or select a program.")

6.5.7 Viewing Statistics

At any time during the workout, the user may press the Pace, Cal, METs buttons to view these statistics. Once this button is pressed, the LCD display will show "PACE = 00:00, CALORIES = 0000, METS = 00." These values will remain on the display for a period of 4 seconds, after which the LCD display will return to its original display.

6.5.8 At the end of a Program

When the program time expires, the LCD will read "Program Complete" for 3 seconds. The speed and elevation will then return to zero.

IF the OFF button is pressed, the speed and incline will return to zero. The LCD will show "Totals, Calories = 0000, Distance = 00.00, Time = 0:00:00" for 5 seconds. The display will shut off.

6.6 PROGRAM PROFILES

6.6.1 Goal Program

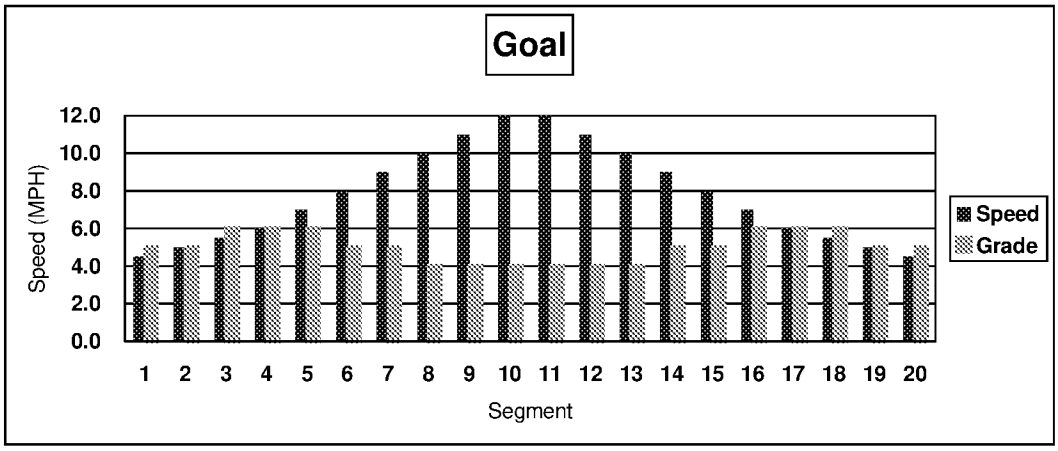
This is a conditioning program that peaks in the middle of workout. This program is designed to build strength and stamina.

Stage #

SPEED DATA

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.5	0.5	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.6	0.5	0.5
2	0.9	1.0	1.1	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.4	2.2	2.0	1.8	1.6	1.4	1.2	1.1	1.0	0.9
3	1.4	1.5	1.7	1.8	2.1	2.4	2.7	3.0	3.3	3.6	3.6	3.3	3.0	2.7	2.4	2.1	1.8	1.7	1.5	1.4
4	1.8	2.0	2.2	2.4	2.8	3.2	3.6	4.0	4.4	4.8	4.8	4.4	4.0	3.6	3.2	2.8	2.4	2.2	2.0	1.8
5	2.3	2.5	2.8	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.8	2.5	2.3
6	2.7	3.0	3.3	3.6	4.2	4.8	5.4	6.0	6.6	7.2	7.2	6.6	6.0	5.4	4.8	4.2	3.6	3.3	3.0	2.7
7	3.2	3.5	3.9	4.2	4.9	5.6	6.3	7.0	7.7	8.4	8.4	7.7	7.0	6.3	5.6	4.9	4.2	3.9	3.5	3.2
8	3.6	4.0	4.4	4.8	5.6	6.4	7.2	8.0	8.8	9.6	9.6	8.8	8.0	7.2	6.4	5.6	4.8	4.4	4.0	3.6
9	4.1	4.5	5.0	5.4	6.3	7.2	8.1	9.0	9.9	10.8	10.8	9.9	9.0	8.1	7.2	6.3	5.4	5.0	4.5	4.1
10	4.5	5.0	5.5	6.0	7.0	8.0	9.0	10.0	11.0	12.0	12.0	11.0	10.0	9.0	8.0	7.0	6.0	5.5	5.0	4.5
GRD	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	4.0	5.0	4.0	3.0	4.0	5.0	5.0	6.0	6.0	6.0	5.0	5.0

Level



6.6.2 Test Program

This program has been designed to determine the user's current fitness level. Utilizing the Balke Protocol, this program will evaluate the functional aerobic capacity (VO2max), which is used to classify the user's cardiorespiratory fitness. With increasing workload, oxygen uptake (VO2) eventually plateaus. This is the maximum VO2 value we are seeking. A Chest Strap is required for this test. Changing the speed or incline will invalidate the test. The test will end when the user's heart rate stabilizes at 130 BPM or 85%of the user's maximum heart rate.

Time will be forced to 20 minutes as there are 20 program segments. Realistically, the test will end sooner. According to this protocol, speed is constant at 3.4 mph. Incline is 0%for 1st minute and 2%for 2nd minute. Each minute thereafter, incline will increase by 1%until the test ends.

The fitness test will terminate when the user's heart rate reaches 130 bpm or 85%of maximum heart rate, whichever is less. A fitness score will be displayed along with one of the charts below so the user may assess their fitness level.

Men

	10-19	20-29	30-39	40-49	50-59	60-69	70-79
High	56+	53+	49+	45+	43+	41+	39+
Good	46-55	43-52	39-48	36-44	34-42	31-40	29-38
Average	36-45	34-42	31-38	27-35	25-33	23-30	21-28
Fair	27-35	25-33	23-30	20-26	18-24	16-22	14-20
Low	<27	<25	<23	<20	<18	<16	<14

Women

	10-19	20-29	30-39	40-49	50-59	60-69	70-79
High	53+	49+	45+	42+	38+	35+	33+
Good	41-52	38-48	34-44	31-41	28-37	24-34	22-32
Average	33-40	31-37	28-33	24-30	21-27	18-23	15-21
Fair	27-32	24-30	20-27	17-23	15-20	13-17	11-14
Low	<27	<24	<20	<17	<15	<13	<11

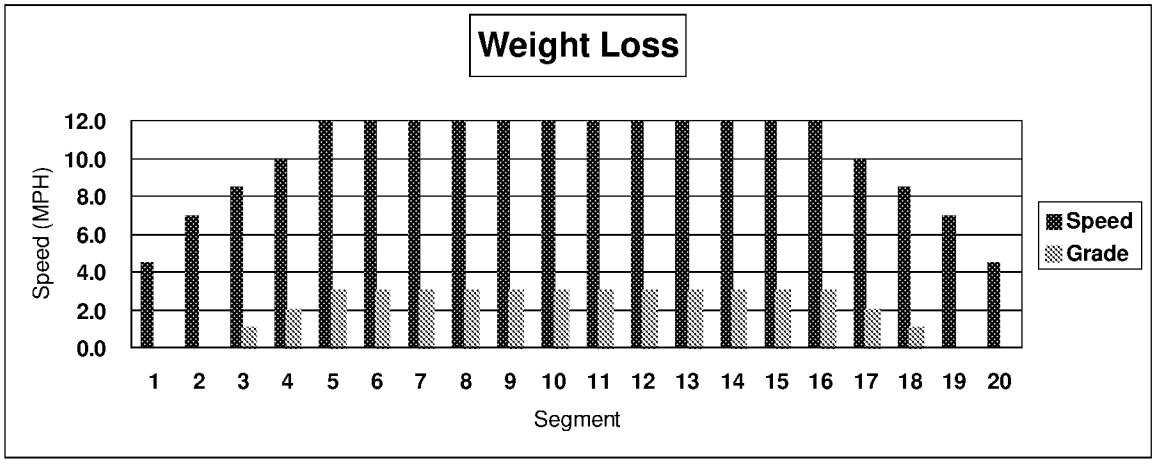
6.6.3 Weight Loss Program

A constant workload program with a gradual warm up and cool down period. This program is designed to keep you at a constant level.

Stage #

SPEED DATA

Level	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.5	0.7	0.9	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.0	0.9	0.7	0.5
2	0.9	1.4	1.7	2.0	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.0	1.7	1.4	0.9
3	1.4	2.1	2.6	3.0	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.0	2.6	2.1	1.4
4	1.8	2.8	3.4	4.0	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.0	3.4	2.8	1.8
5	2.3	3.5	4.3	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0	4.3	3.5	2.3
6	2.7	4.2	5.1	6.0	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	6.0	5.1	4.2	2.7
7	3.2	4.9	6.0	7.0	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	7.0	6.0	4.9	3.2
8	3.6	5.6	6.8	8.0	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	8.0	6.8	5.6	3.6
9	4.1	6.3	7.7	9.0	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	9.0	7.7	6.3	4.1
10	4.5	7.0	8.5	10.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	10.0	8.5	7.0	4.5
GRD	0.0	0.0	1.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	0.0	0.0



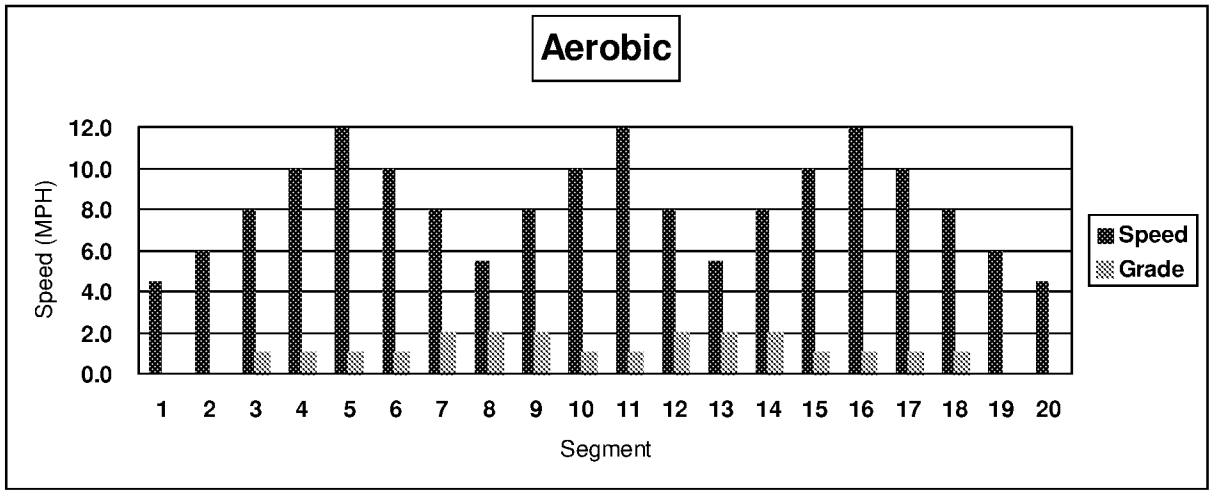
6.6.4 Aerobic Program

A high-level workout with three high intensity periods. This program is designed for aerobic conditioning.

Stage #

SPEED DATA

Level	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.5	0.8	0.9	1.0	1.2	1.0	0.8	0.8	0.8	1.0	1.2	0.8	0.8	0.8	1.0	1.2	1.0	0.8	0.8	0.5
2	0.8	1.2	1.6	2.0	2.4	2.0	1.6	1.1	1.6	2.0	2.4	1.6	1.1	1.6	2.0	2.4	2.0	1.6	1.2	0.8
3	1.4	1.8	2.4	3.0	3.6	3.0	2.4	1.7	2.4	3.0	3.6	2.4	1.7	2.4	3.0	3.6	3.0	2.4	1.8	1.4
4	1.8	2.4	3.2	4.0	4.8	4.0	3.2	2.3	3.2	4.0	4.8	3.2	2.3	3.2	4.0	4.8	4.0	3.2	2.4	1.8
5	2.3	3.0	4.0	5.0	6.0	5.0	4.0	2.8	4.0	5.0	6.0	4.0	2.8	4.0	5.0	6.0	5.0	4.0	3.0	2.3
6	2.7	3.6	4.8	6.0	7.2	6.0	4.8	3.3	4.8	6.0	7.2	4.8	3.3	4.8	6.0	7.2	6.0	4.8	3.6	2.7
7	3.2	4.2	5.6	7.0	8.4	7.0	5.6	3.9	5.6	7.0	8.4	5.6	3.9	5.6	7.0	8.4	7.0	5.6	4.2	3.2
8	3.6	4.8	6.4	8.0	9.6	8.0	6.4	4.4	6.4	8.0	9.6	6.4	4.4	6.4	8.0	9.6	8.0	6.4	4.8	3.6
9	4.1	5.4	7.2	9.0	10.8	9.0	7.2	5.0	7.2	9.0	10.8	7.2	5.0	7.2	9.0	10.8	9.0	7.2	5.4	4.1
10	4.5	6.0	8.0	10.0	12.0	10.0	8.0	5.5	8.0	10.0	12.0	8.0	5.5	8.0	10.0	12.0	10.0	8.0	6.0	4.5
GRD	0.0	0.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	1.0	1.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	0.0	0.0



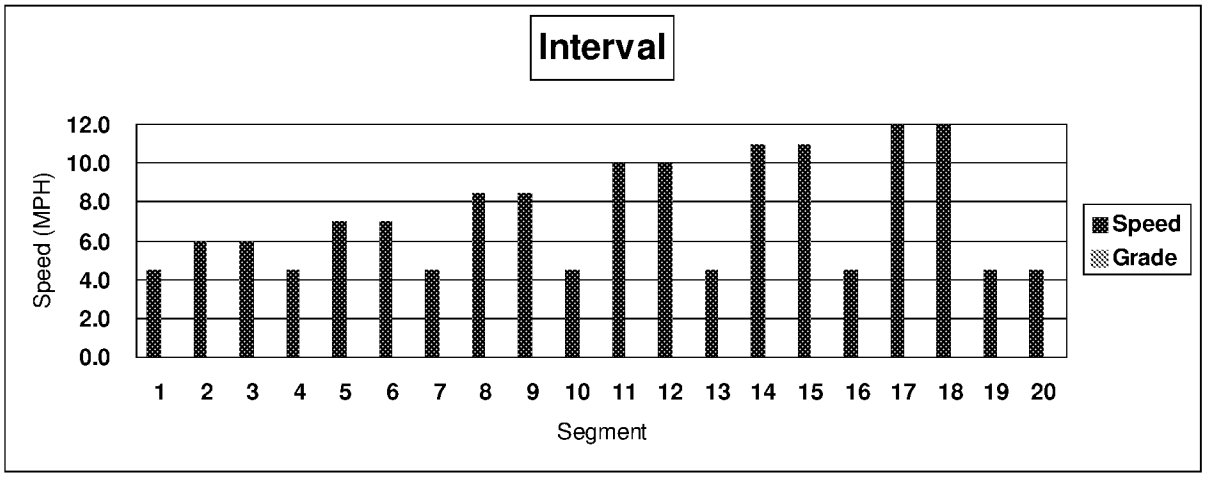
6.6.5 Interval Program

A gradually increasing workload program, interspersed with a lower intensity interval at every third stage.

Stage #

SPEED DATA

Level	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5
2	0.9	1.2	1.2	0.9	1.4	1.4	0.9	1.7	1.7	0.9	2.0	2.0	0.9	2.2	2.2	0.9	2.4	2.4	0.9	0.9
3	1.4	1.8	1.8	1.4	2.1	2.1	1.4	2.6	2.6	1.4	3.0	3.0	1.4	3.3	3.3	1.4	3.6	3.6	1.4	1.4
4	1.8	2.4	2.4	1.8	2.8	2.8	1.8	3.4	3.4	1.8	4.0	4.0	1.8	4.4	4.4	1.8	4.8	4.8	1.8	1.8
5	2.3	3.0	3.0	2.3	3.5	3.5	2.3	4.3	4.3	2.3	5.0	5.0	2.3	5.5	5.5	2.3	6.0	6.0	2.3	2.3
6	2.7	3.6	3.6	2.7	4.2	4.2	2.7	5.1	5.1	2.7	6.0	6.0	2.7	6.6	6.6	2.7	7.2	7.2	2.7	2.7
7	3.2	4.2	4.2	3.2	4.9	4.9	3.2	6.0	6.0	3.2	7.0	7.0	3.2	7.7	7.7	3.2	8.4	8.4	3.2	3.2
8	3.6	4.8	4.8	3.6	5.5	5.5	3.6	6.8	6.8	3.6	8.0	8.0	3.6	8.8	8.8	3.6	9.6	9.6	3.6	3.6
9	4.1	5.4	5.4	4.1	6.3	6.3	4.1	7.7	7.7	4.1	9.0	9.0	4.1	9.9	9.9	4.1	10.8	10.8	4.1	4.1
10	4.5	6.0	6.0	4.5	7.0	7.0	4.5	8.5	8.5	4.5	10.0	10.0	4.5	11.0	11.0	4.5	12.0	12.0	4.5	4.5
GRD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

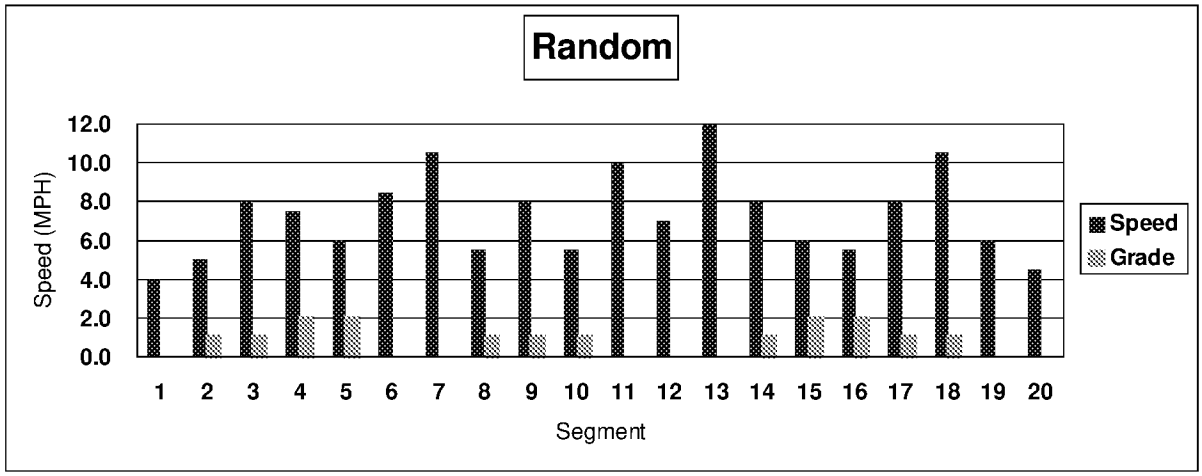


6.6.7 Random Program

A fun and challenging workout program. Random intervals offer varying speed and elevation changes.

Stage #

	SPEED DATA																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.4	0.5	0.8	0.8	0.6	0.9	1.1	0.6	0.8	0.6	1.0	0.7	1.2	0.8	0.6	0.6	0.6	1.1	0.6	0.5
2	0.8	1.0	1.6	1.5	1.2	1.7	2.1	1.1	1.6	1.1	2.0	1.4	2.4	1.6	1.2	1.1	1.5	2.1	1.2	0.9
3	1.2	1.5	2.4	2.3	1.8	2.6	3.2	1.7	2.4	1.7	3.0	2.1	3.6	2.4	1.8	1.7	2.4	3.2	1.8	1.4
4	1.6	2.0	3.2	3.0	2.4	3.4	4.3	2.2	3.2	2.2	4.0	2.8	4.8	3.2	2.4	2.2	3.2	4.3	2.4	1.8
5	2.0	2.5	4.0	3.8	3.0	4.3	5.3	2.8	4.0	2.8	5.0	3.5	6.0	4.0	3.0	2.8	4.0	5.3	3.0	2.3
6	2.4	3.0	4.8	4.5	3.6	5.1	6.3	3.3	4.8	3.3	6.0	4.2	7.2	4.8	3.6	3.3	4.8	6.3	3.6	2.7
7	2.8	3.5	5.6	5.3	4.2	6.0	7.4	3.8	5.6	3.8	7.0	4.8	8.4	5.6	4.2	3.8	5.6	7.4	4.2	3.2
8	3.2	4.0	6.4	6.0	4.8	6.8	8.4	4.4	6.4	4.4	8.0	5.6	9.6	6.4	4.8	4.4	6.4	8.4	4.8	3.6
9	3.6	4.5	7.2	6.8	5.4	7.7	9.5	5.0	7.2	5.0	9.0	6.3	10.8	7.2	5.4	5.0	7.2	9.5	5.4	4.1
10	4.0	5.0	8.0	7.5	6.0	8.5	10.5	5.5	8.0	5.5	10.0	7.0	12.0	8.0	6.0	5.5	8.0	10.5	6.0	4.5
GRD	0.0	1.0	1.0	2.0	2.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	0.0	1.0	2.0	2.0	1.0	1.0	0.0	0.0

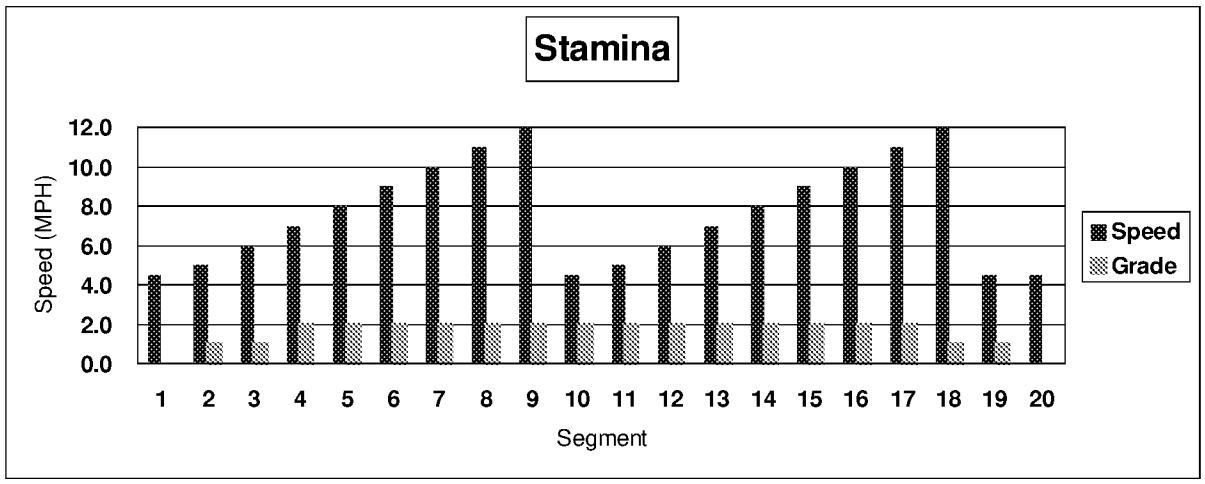


6.6.8 Stamina Program

An increasing workload program with two separate periods of peak workload.

Stage #

SPEED DATA																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.5	0.5	0.5	0.7	0.9	0.9	1.0	1.1	1.2	0.5	0.5	0.5	0.7	0.9	0.9	1.0	1.1	1.2	0.5	0.5
2	0.9	1.0	1.2	1.4	1.8	1.8	2.0	2.2	2.4	0.9	1.0	1.2	1.4	1.8	1.8	2.0	2.2	2.4	0.9	0.9
3	1.4	1.5	1.8	2.1	2.4	2.7	3.0	3.3	3.6	1.4	1.5	1.8	2.1	2.4	2.7	3.0	3.3	3.6	1.4	1.4
4	1.8	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8	1.8	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8	1.8	1.8
Level 5	2.3	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	2.3	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	2.3	2.3
6	2.7	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2	2.7	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2	2.7	2.7
7	3.2	3.5	4.2	4.9	5.6	6.3	7.0	7.7	8.4	3.2	3.5	4.2	4.9	5.6	6.3	7.0	7.7	8.4	3.2	3.2
8	3.6	4.0	4.8	5.6	6.4	7.2	8.0	8.8	9.6	3.6	4.0	4.8	5.6	6.4	7.2	8.0	8.8	9.6	3.6	3.6
9	4.1	4.5	5.4	6.3	7.2	8.1	9.0	9.9	10.8	4.1	4.5	5.4	6.3	7.2	8.1	9.0	9.9	10.8	4.1	4.1
10	4.5	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	4.5	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	4.5	4.5
Grade	0.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	0.0



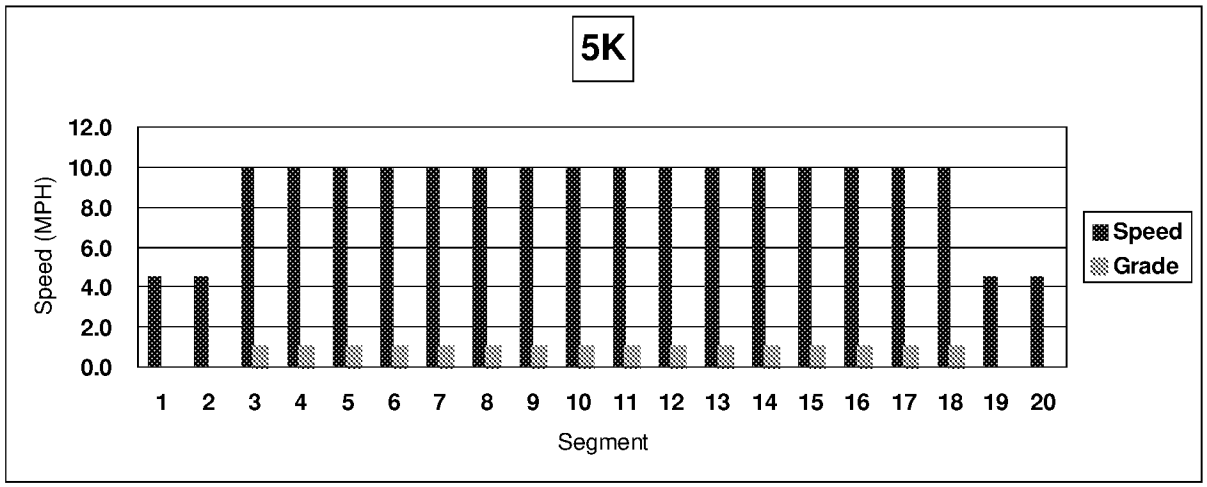
6.6.9 5K Program

This program offers a distance-based program providing a 3.1-mile (5 kilometer) simulated racecourse. The user determines the speed at which the race will take place by selecting an Intensity level.

Stage #

SPEED DATA

Level	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5
2	0.9	0.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.9	0.9
3	1.4	1.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	1.4	1.4
4	1.8	1.8	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.8	1.8
5	2.3	2.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.3	2.3
6	2.7	2.7	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	2.7	2.7
7	3.2	3.2	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	3.2	3.2
8	3.6	3.6	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	3.6	3.6
9	4.1	4.1	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	4.1	4.1
10	4.5	4.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	4.5	4.5
GRD	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0



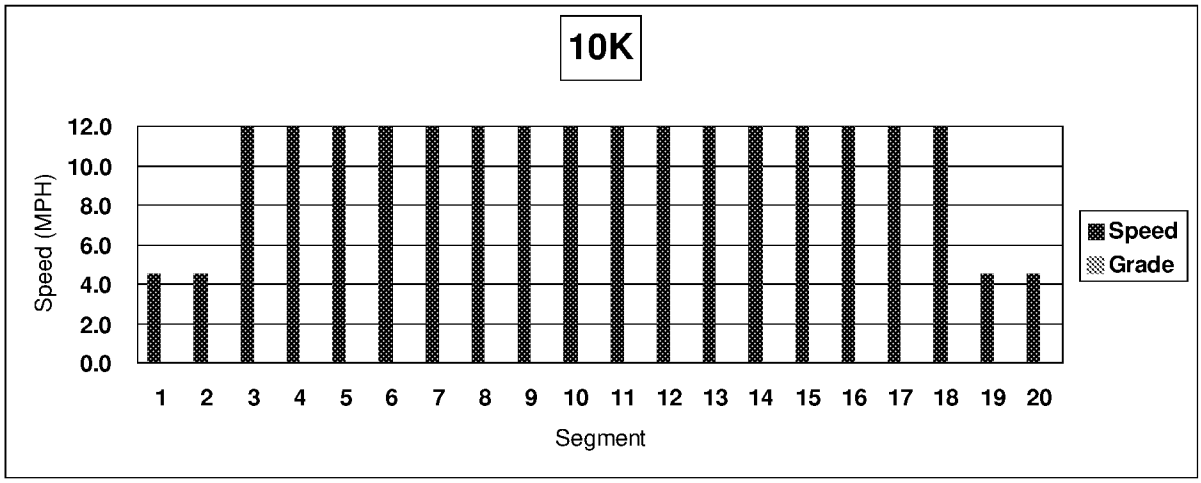
6.6.10 10K Program

Is a distance-based program providing a 6.2-mile (10 kilometer) simulated racecourse. The user determines the speed at which the race will take place by selecting an Intensity level.

Stage #

SPEED DATA

Level	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.5	0.5	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.5	0.5
2	0.9	0.9	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	0.9	0.9
3	1.4	1.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	1.4	1.4
4	1.8	1.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	1.8	1.8
5	2.3	2.3	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	2.3	2.3
6	2.7	2.7	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	2.7	2.7
7	3.2	3.2	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	3.2	3.2
8	3.6	3.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	3.6	3.6
9	4.1	4.1	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	4.1	4.1
10	4.5	4.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	4.5	4.5
GRD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



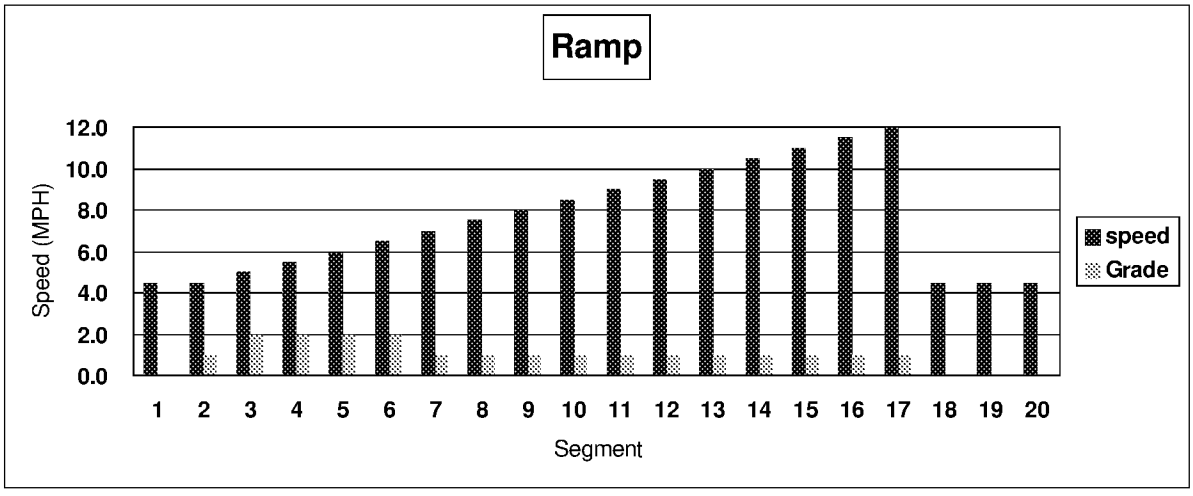
6.6.11 Ramp Program

A gradually increasing workload program. Designed to gradually take you to a peak speed for the intensity level selected. Followed immediately by a cool down period.

Stage #

SPEED DATA

Level	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.5	0.5	0.5	0.5	0.5	0.7	0.7	0.8	0.8	0.5	0.9	1.0	1.0	1.1	1.1	1.2	1.2	0.5	0.5	0.5
2	0.9	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.8	2.0	2.1	2.2	2.3	2.4	0.9	0.9	0.9
3	1.4	1.4	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.8	3.0	3.2	3.3	3.5	3.6	1.4	1.4	1.4
4	1.8	1.8	2.0	2.2	2.4	2.5	2.8	3.0	3.2	3.4	3.5	3.6	4.0	4.2	4.4	4.5	4.8	1.8	1.8	1.8
5	2.3	2.3	2.5	2.8	3.0	3.3	3.5	3.8	4.0	4.3	4.5	4.6	5.0	5.3	5.5	5.8	6.0	2.3	2.3	2.3
6	2.7	2.7	3.0	3.3	3.6	3.9	4.2	4.5	4.8	5.1	5.4	5.7	6.0	6.3	6.6	6.9	7.2	2.7	2.7	2.7
7	3.2	3.2	3.5	3.9	4.2	4.5	4.9	5.3	5.5	5.8	6.3	6.7	7.0	7.4	7.7	8.1	8.4	3.2	3.2	3.2
8	3.6	3.6	4.0	4.4	4.8	5.2	5.5	6.0	6.4	6.8	7.2	7.6	8.0	8.4	8.8	9.2	9.6	3.6	3.6	3.6
9	4.1	4.1	4.5	5.0	5.4	5.9	6.3	6.8	7.2	7.7	8.1	8.6	9.0	9.5	9.9	10.4	10.8	4.1	4.1	4.1
10	4.5	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	4.5	4.5	4.5
SPD	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0



6.7 RUNNING A HEART RATE CONTROL PROGRAM

Note: These programs will only operate effectively if you are wearing a heart monitor chest strap.

1) If the Heart Rate Control Program was chosen, the user will be prompted to enter their age and target heart rate. The display will read "Enter Age" and a default age of 40 will be displayed. The user may use the numeric keys to enter their age. (Valid age values are 15 – 100). The CLEAR button may be used to erase the currently displayed age. When the user finishes entering his age, he may press the ENTER button to accept it.

2) Once the user's age has been entered, they will be prompted to enter their target heart rate. The LCD display will read "Enter Target Heart Rate" and a target heart rate based on the user's age will be displayed. (The formula 220 – age will be used to compute the user's maximum heart rate. The user's target heart rate will be equal to sixty-five percent of his/her max heart rate). The user may use the numeric keys to modify the estimated target heart rate value. (Valid target heart rate values are 70 – 200). The CLEAR button may be used to erase the currently displayed target heart rate. When the user finishes entering target heart rate, they may press the ENTER button to accept it.

3) Once the user has entered target heart rate, they must choose the heart rate control type for the workout. The LCD display will read "Select Control Type" and the text "Incline and Speed" will be displayed. The user may use the arrow keys to scroll through the three possible control types (Incline and Speed, Incline Only, Speed Only). Once the user has chosen their desired control type, they may press the ENTER button to accept it.

4) Once the user has chosen their desired control type, they will enter weight, workout level, and workout time. Next, the user will be prompted to press the FAST button to begin their workout. The text "Press FAST to begin workout" will appear on the LCD display. Once the user presses the FAST button, their workout will begin.

5) Once the workout begins, the Heart Rate Control profile will appear on the LCD display. A title will appear above the profile graphic indicating which Heart Rate Control algorithm is being implemented. While running the program, the user may override incline using the UP an DOWN Incline buttons or override speed using the FAST and SLOW speed buttons. Target heart rate may be modified at any time while running the Heart Rate Control program. The user may enter a new target heart rate using the numeric keys. Press the CLEAR button to erase the newly entered target heart rate. Press the ENTER button to accept it.

6.7.1 HEART RATE CONTROL ALGORITHMS

One of the three Heart Rate Control Algorithms will be used during the workout. The user will choose their desired algorithm during program setup.

6.7.1.1 Heart Rate Control Algorithm - Incline Only

This heart rate control algorithm controls incline only. The user will choose his own speed.
The Incline Only heart rate control feature operates as follows:

- If the actual heart rate is 26 beats per minute (bpm) below the target, there is no adjustment in elevation. This allows for a proper warm-up period.
- If the actual heart rate is 11 to 25 bpm below target, elevation adjusts 1% higher after 15 seconds.
- If the actual heart rate is 6 to 10 bpm below target, elevation adjusts 1% higher after 30 seconds.
- If the actual heart rate is 3 to 5 bpm below target, elevation adjusts ½ % higher after 15 seconds.
- If the actual heart rate is 3 bpm or more above target, elevation adjusts 1% lower after 15 seconds.
- There is no adjustment if the actual heart rate is within 2 bpm of the target.

6.7.1.2 Heart Rate Control Algorithm - Speed Only

This heart rate control algorithm controls speed only. The user will choose his own incline.

The Speed Only heart rate control feature operates as follows:

- If the actual heart rate is 26 beats per minute (bpm) below the target, there is no adjustment in speed. This allows for a proper warm-up period.
- If the actual heart rate is 11 to 25 bpm below target, speed adjusts 0.2 MPH higher after 15 seconds.
- If the actual heart rate is 6 to 10 bpm below target, speed adjusts 0.2 MPH higher after 30 seconds.
- If the actual heart rate is 3 to 5 bpm below target, speed adjusts 0.1 MPH higher after 15 seconds.
- If the actual heart rate is 3 bpm or more above target, speed adjusts .2 MPH lower after 15 seconds.
- There is no adjustment if the actual heart rate is within 2 bpm of the target.

6.7.1.3 Heart Rate Control Algorithm - Incline and Speed

This heart rate control algorithm controls both incline and speed.

The Incline and Speed heart rate control feature operates as follows:

- Speed is increased incrementally until it reaches 80% of the user's maximum speed (computed from user's entered workout level).
- Incline is increased incrementally until it reaches 10% of the treadmill maximum incline.
- Speed is increased incrementally until it reaches the user's maximum speed.
- Incline is increased incrementally until it reaches the treadmill maximum incline.

- If the actual heart rate is 26 beats per minute (bpm) below the target, there is no adjustment in speed or elevation. This allows for a proper warm-up period.
- If the actual heart rate is 11 to 25 bpm below target, adjustments to speed (0.2 MPH) or incline (1%) are made every 15 seconds according to conditions above.

- If the actual heart rate is 6 to 10 bpm below target, adjustments to speed (0.2 MPH) or incline (1%) are made every 30 seconds according to conditions above.
- If the actual heart rate is 3 to 5 bpm below target, adjustments to speed (0.1 MPH) or incline (½ %) are made every 15 seconds according to conditions above.
- If the actual heart rate is 3 bpm or more above target, adjustments to speed (0.2 MPH) or incline (1%) are made every 15 seconds according to conditions above.
- There is no adjustment if the actual heart rate is within 2 bpm of the target.

6.8 CHANGING A PROGRAM DURING A WORKOUT

If a user is running any program (user-defined, predefined, heart rate control or programmable) and wishes to choose a different program, they have several options:

- Do not wish to retain current program statistics? Simply press the Off button followed by the On button to reset the treadmill. Choose another workout.
- Or enter Pause Mode and then press the Clear button to clear current program statistics. The opening screen will appear on the LCD display and the user may choose a new workout.
- Enter Pause Mode and then press a program button (example: Interval). The profile associated with that program button will appear on the LCD display. The user may then setup the program and begin his workout. Because statistics were not cleared, the statistics from the previous workout will be retained. Upon completion of this workout, the final program statistics will include statistics from this workout and the previous workout.

6.9 PROGRAMMING USER PROGRAMS

There are 10 user program profiles. Each profile consists of 40 segments, each with a programmable time, speed and incline setting.

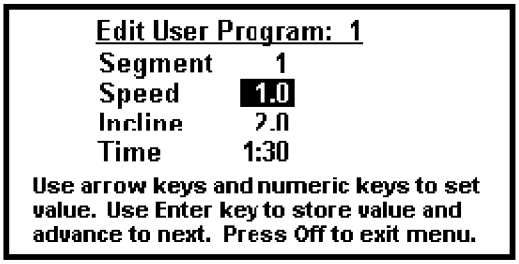
If a numeric key is pressed on power-up while the user is prompted to "Press 'FAST' for Quick Start or select a program," program setup will begin. The user program associated with that numeric key will appear on the LCD display. The user may then setup the program and begin their workout. The user will not enter a workout duration for user programs. Workout durations are calculated by adding each of the segment time values (for that profile) stored.

Editing User Programs

To edit one of the 10 user programs, hold pressed the numeric key associated with that user program (0 - 9) and the Enter button while pressing the On button (during power-up). The Edit User Program screen will appear.

The treadmill Edit User Program screen is laid out as shown in figure 6.9

Figure 6.9 - Edit User Program screen



The user program number will appear next to the "Edit User Program:" heading. Segment number one will be displayed and highlighted. The Up and Down Incline buttons or the Fast and Slow Speed buttons may be used to increment or decrement the segment number. Press Enter to begin editing that segment. The speed value for segment one will be highlighted. The numeric keys or the Speed arrow keys may be used to enter a speed value. Press Enter to store that value and highlight the incline value. The numeric keys or the Incline arrow keys may be used to enter an incline value. Press Enter to store that value and highlight the Time value. The numeric keys may be used to enter a segment time length. Press Enter to store that value and advance to the data for the next segment. Repeat this process for all 40 segments. When programming is complete, press the Off button to exit the Edit User Programs screen and turn the treadmill off.

7.1 208 or 220 V INPUT POWER

The 208 or 220 V ac input voltage requirements are options for all Woodway treadmills. A power transformer is installed and wired for either 208 V ac **or** 220 V ac. A different power cord and plug is installed for 208 vs. 220 V operation. The remaining parts of the treadmill are unaffected.

7.2 DOUBLE HANDRAIL

The double side handrails can be ordered for models that only come with a single handrail to aid rehabilitation patients, those with a preference for double handrails or for those who are not used to walking or running on a treadmill.

7.3 HANDRAIL CONTROLS

One of the many unique features of both the Desmo and Mercury series of treadmills is the side handrail control operation. The handrail controls allow the user to adjust the speed and/or incline without needing to lean over the display to do so. This means the user does not have to "break stride," therefore reducing the possibility of losing balance and/or falling.

The handrail controls consist of 5 buttons. They are: 1) STOP, 2) SPEED INCREASE, 3) SPEED DECREASE, 4) ELEVATION UP and 5) ELEVATION DOWN buttons.

7.4 BI-DIRECTIONAL BELT CONTROL *(REVERSE MODE)*

The Bi-directional belt control feature is standard on the medical model treadmills and is an option on all other models. ***Therefore, this option will only be activated if it was selected upon purchase.***
The belt reversal circuit was designed to use a standard Woodway treadmill to simulate negative grades. The main use for the negative grade is rehabilitation and gait analysis. The incline system is not affected by this option. The speed in the normal (or forward) direction is 12 MPH (or 15 MPH optional). In the reverse belt direction, the speed is limited to approximately 5 MPH. This speed limitation is for safety reasons. Constant supervision is required while the treadmill is in reverse.

To activate the Reverse Mode, hold down the SLOW button for 5 seconds while speed is set to 0 mph. The beeper will sound three times to let the user know the Reverse Mode is in effect. To exit Reverse Mode, hold the SLOW button for 5 seconds while speed is at - 0.0 mph. While in Reverse Mode, speed will be displayed preceded by a negative sign (Example: - 4.2)
The beeper will sound three times to let the user know they have returned to Forward Mode.

While operating the Personal Trainer Display Board:

1) The user has chosen to workout in the user-directed mode and the text "Press FAST to start workout" appears on the LCD display of the Personal Trainer Display Board. The user will press and hold the SLOW button for 5 seconds to enter Reverse Mode.
2) The user has already begun user-directed workout and wishes to enter Reverse Mode. Press the slow button to decrease speed to zero. Hold the Slow button for 5 seconds to enter Reverse Mode.

Once in Reverse Mode, the beeper will sound 3 times and the LCD will read "Reverse Mode." The maximum allowable speed in reverse mode will be 5 mph. To exit Reverse Mode, hold the SLOW button for 5 seconds while speed is at 0mph. While in Reverse Mode, speed will be displayed preceded by a negative sign. (For example –4.2)

7.5 16.5 MPH & 18 MPH TOP SPEEDS

These options should only be ordered where constant supervision is available. These options are mainly used for sports medicine and training elite, conditioned athletes. The Desmo model is the only treadmill for which these options are available. This option also requires 220 or 208 Voltage.

7.6 STANDARD & SPECIALTY COLORS

The standard frame colors are white or black. White treadmills are predominately used in the home, medical and sports medicine applications. The black treadmills are popular in the fitness clubs or high use areas. The standard running belt color is grey.
Woodway will always try to accommodate special color requests. Consult the factory for details.

7.7 RS-232 REMOTE COMPUTER CONTROL

This option enables you to switch between the display board to a remote computer for remote control operation. Programs are available so consult the factory for details.

7.8 DYNAMIC MODE

The treadmill has the ability to allow the user to become the power source for the running belt. This is called "dynamic mode." To engage dynamic mode, the running belt must be stopped. While the running belt is stopped, the user must press and hold both the FAST and SLOW keys together for approximately five seconds. The display will beep once per second for five slow beeps, followed by two rapid beeps. The speed display window will start to blink. The treadmill is now in dynamic mode. The treadmill running belt is now manually powered and the speed will continue to be displayed. The incline will also continue to function.

7.8.1 HOW TO DISENGAGE DYNAMIC MODE

To disengage dynamic mode, press and hold FAST and SLOW together again for approximately five seconds. The display will beep once per second for five beeps, followed by two rapid beeps. The speed display window will stop blinking. Dynamic mode is now off.

CHAPTER EIGHT *PREVENTATIVE MAINTENANCE*

8.1 CLEANING AND INSPECTION

Periodic cleaning and inspection will help lengthen the life of your treadmill and keep it looking good. It will also be easier to spot any problems that might not otherwise be found until it is too late. Below is a guideline on our recommended cleaning and maintenance intervals. If your Woodway treadmill is located in a dirty environment or is under heavy-duty use, cleaning and inspection intervals should be implemented on more intervals.
Do not use abrasive brushes or cleaners, as they will mar and scratch the paint and plastic surfaces. Also, do not soak any surface, as the sensitive electronics can be harmed.

CAUTION: TURN OFF TREADMILL AND DISCONNECT THE POWER CORD BEFORE CLEANING.

WEEKLY:

- Clean handrail, front display panel & cosmetic covers.
- Inspect power cord.
- Check overall condition of the treadmill.
- Move, and vacuum underneath the treadmill.

EVERY SIX (6) MONTHS:

- Vacuum inside the treadmill (unplug and remove cosmetic covers).
- Inspect all nuts and bolts. Tighten any that are loose.
- Clean running surface.
- Spray running surface with an anti-static spray.
- Check the drive belt - replace if belt is shredding or teeth are missing.

YEARLY:

- Grease front and rear roller bearings.
- Change motor brushes every 20,000 miles, or 1 year in high-use applications.

SEASONALLY:

- In Autumn & Winter remember that the drier climate in many regions of the country will cause a greater static discharge to occur when the treadmill is used. Be sure to spray the running surface with a Staticide spray regularly to prevent static shock to the treadmill users and to prevent interference with the treadmill's electronic systems.

8.2 LUBRICATION

8.2.1 BEARINGS

Almost all of the bearings used in the treadmill are pre-lubricated and do not need to be greased. On a yearly basis, the four (4) bearings located at the end of the front shaft and rear shaft will need to be lubed.

8.2.2 RUNNING BELT

The teeth on the bottom of the running belt are pre-lubricated to aid in reducing noise. There is no need to lubricate the teeth.

If the running belt is rubbing against the side of the drive pulleys, then a small amount of grease (i.e. Molykote or equal) on the edges of the belt slats will help reduce the noise. Be careful not to put too much grease on the belt, as it will only collect dust and dirt.

8.2.3 DRIVE BELT

As in the case of the running belt, the application of grease on the edge of the drive belt is only needed to reduce belt squeak and should be applied sparingly.

8.2.4 INCLINE SYSTEM

The incline systems on Woodway treadmills are greased at the factory. If utilized for many hours or if in a very dusty environment, the incline system will need to be checked. If lubrication is required, apply a small amount of grease on the chains and on the incline drive screws.

Remember: Too much grease will make a mess and will accumulate dust and dirt.

8.3 ADJUSTMENTS AND CALIBRATION

8.3.1 INCLINE SYSTEM

The Rack and Pinion style incline system is used in Woodway treadmills. The 15%& 25% incline systems use most of the same components and only differ in the rack travel.

8.3.2 RUNNING BELT

The belt should not require periodic adjustment. However, if the running belt or associated parts have been changed, then the belt tension should be checked.

8.3.3 TREADMILL MOUNTING FEET

Tools Required: 2-foot level, 3/4 inch wrenches

If the treadmill wobbles or seems unstable, the treadmill's mounting feet must be checked. Using the level, check the front and rear ends of treadmill. Loosen the tensioning nut and turn the foot until it is at the correct level. Tighten the tensioning nut.

NOTE: Sometimes the frame flexes from moving the treadmill. If the treadmill seems wobbly, try to push the handrail to one side or the other. This might straighten the frame and no mounting feet adjustment is necessary.

CHAPTER NINE *WARRANTY INFORMATION*

COMMERCIAL FITNESS USE **--** 3 years parts, 1 year labor
HOME USE **--** 4 years parts, 3 years labor
COMMERCIAL MEDICAL/REHAB "M" MODELS **--** 4 years parts, 1 year labor

Woodway USA, Inc. warrants that all products and accessories will be free from manufacturing defects according to the applications/terms listed above. The warranty period commences on the original date of purchase (with the exception of the running belt component, which is warranted for a period of four years from the original date of purchase). This warranty is given only to the original purchaser. This warranty does not cover damage or equipment failure resulting from misuse, abuse, or failure to comply with electrical codes. Further, this warranty shall not apply if there is any modification to the products or accessories or if there is a failure to provide maintenance as outlined in the Owner's Manual.

WOODWAY USA, INC. GIVES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. THE WARRANTY OF FITNESS FOR A PARTICULAR USE IS HEREBY DISCLAIMED.

The buyer's remedy for breach of the expressed warranties contained herein shall be limited to the return of the product and accessories and repayment of the original purchase price. However, at Woodway USA's discretion, it may repair and replace the non-conforming goods or parts. Woodway USA, Inc. shall not be liable for any incidental or consequential damages.

CHAPTER TEN *OUR GUARANTEE*

Woodway *USA* guarantees the repurchase of Woodway treadmill products for a period of up to five (5) years after original installation. A direct payment, or credit toward the purchase of a new Woodway, of 25%of the purchase price of the treadmill will be made to the owner of a Woodway treadmill. This guarantee is limited to the original owner. Contact Woodway for further details.

CHAPTER ELEVEN *TROUBLESHOOTING*

11.1 REPAIRS

DO NOT attempt to service the treadmill yourself except for the minor maintenance described in this manual. Contact your authorized Woodway dealer, Service Center, or factory if your treadmill needs service.

If you are having problems with your treadmill, please be prepared with the answers to the following questions before calling our service center.

QUESTIONS:

--What is the make, model, and serial number of the treadmill?
--What happened prior to the problem?
--Did the problem happen unexpectedly or did it get progressively worse over time?
--If it is a noise problem, from where does the noise originate?
--Was someone using the treadmill at the time the problem occurred?
--Explain any other symptoms that you feel are relevant.

11.2 NO DISPLAY

If the treadmill's display does not light up when powered up, check the following items:

Input power fuse(s) - replace if blown
Power coming out of wall outlet
Check power with another piece of equipment (radio, fan, etc.). Check main fuse or circuit breaker. Move to another outlet.
Is the treadmill plugged in?
Is the safety magnet (activator) installed or positioned correctly? Try to reposition.
Check all connectors at display and at circuit boards.

11.3 BELT MOVEMENT

11.3.1 BELT LOOSE (CAN PUSH BY HAND)

Suggestions:
Is the Safety magnet or activator installed or positioned correctly? Try repositioning.
Is the Display working properly?
If the display works, and/or the incline works, unplug the treadmill and wait at least 60 seconds before plugging it back in.

11.3.2 BELT TIGHT (HARD TO PUSH)

Suggestions: First, determine if display board is illuminated and/or if the incline system is working. This information will help our service technician in advising you where the source of the problem may be.

11.3.3 BELT BINDING

Suggestion: Check for obstructions and remove, if possible.

11.4 INCLINE DOES NOT WORK

Suggestions:
Check for any noises from the incline motor (brake sticking? motor stalled)?

11.5 ERRATIC OR BLINKING DISPLAYS

Probable causes: Low line voltage; too much load on same line.
Suggestion: Remove other machines. Install treadmill on a dedicated line.

11.6 SQUEAKING SOUND(S)

Possible causes:
--Noisy bearing(s). Suggestion: grease or replace the bearings.
--Drive belt rubbing against drive pulleys. Suggestion: lightly grease edge of drive belt.
--Running belt rubbing against drive pulleys. Suggestion: lightly grease edge of running belt.

11.7 HANDRAILS

11.7.1 FRONT HANDRAIL

Removal Procedure:

1. Unplug treadmill and remove cosmetic covers.
2. Disconnect cable coming from the handrail.
3. Loosen the nuts holding the clamps to the handrail. Slide out the handrail, being careful not to pinch or cut the handrail harness(es).

Installation Procedure:
Reverse the above procedure.

PREVENTATIVE MAINTENANCE LOG

DATE	MAINTENANCE PERFORMED?	BY WHOM?	RESULT/ NEXT ACTION

NUMBERS TO KNOW

Your Treadmill Serial #(s):

_____

_____

_____

_____

_____

_____

_____

_____

(The serial number can be found on the back of the treadmill's display board housing & also on the front/left section of treadmill frame – side cover must be removed to locate on the frame).

DIALING UP WOODWAY: **1-800-WOODWAY**

(966-3929)

- Woodway Technical Support (ask for service)
- Woodway Customer Service
- Woodway Sales (let us know what state you live in)

NOTES



Speed Control – WOODWAY has mastered non-motorized treadmill technology allowing the user to set their desired max speed. Our electromagentic braking system effectively controls and maintains a consistent speed throughout.

Safety Features – The EcoMill has an initial max speed setting of 1.0 mph to prevent over acceleration. Triggering the safety lanyard during a workout returns the max speed to 1.0 mph.

Battery Back-up System – Assures uninterupted use of the display functions during a workout. Battery recharges during workout.

Physical Specifications	
Belt Type	60 individual slats
Drive System	114 precision ball bearings with 12 roller guides (4 mm lateral tolerance)
Running Surface	Vulcanized rubber (38-43 shore hardness)
Speed Control	High power 900 watt eddy-current braking system for controlled speed regulation
Unit Weight	300 lb.
Power Source	12vdc/12ah sealed rechargeable battery On board generator and battery management

Performance Specifications	
User Weight Capacity	Running 500 lb. Walking 800 lb. (4 mph max)
Running Surface Area	17" X 67"
Speed Range	User generated
Elevation Range	Innovative Curved Design
Standard Fitness Warranty	5 year belt 3 year all components 1 year labor

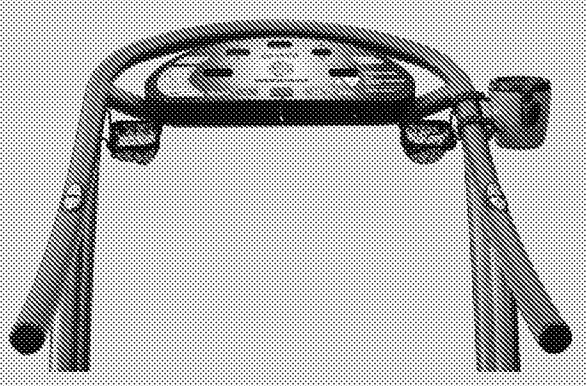
EcoMill

Totally Self-powered Treadmill

Zero electrical consumption, does not plug into an outlet

Battery Powered Display

User Generates Electricity to Recharge Battery Via Onboard Generator



EcoMill Display

Manual control of "Max Speed Set Point"

Closed loop max speed control via generator/brake

Display of Desired Speed, Actual Speed, Time, Calories, METs, Pace, Distance and Heart Rate

Battery conservation and timed shutdown on idle belt

Polar Heart Rate Pick-up

WOODWAY®

For The Long Run

www.woodway.com 800.WOODWAY

Owner's Manual

WOODWAY®

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EcoMill Non-Motorized



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FAX# 262 548 6239

WOODWAY SERVICE PROVIDER INFORMATION SHEET

NAME OF COMPANY _____

CONTACT PERSON _____

ADDRESS _____

_____

PHONE NUMBER _____

FAX NUMBER _____

MAJOR CITIES AND AREAS YOUR COMPANY SERVICES _____

_____

_____

MY WOODWAY _____ **ARRIVED** _____

Model Name Date

TABLE OF CONTENTS

Chapter 1 Getting Started 5

IMPORTANT SAFETY INSTRUCTIONS 6
THINGS TO CONSIDER BEFORE STARTING EXERCISE PROGRAM 9

Chapter 2 Specifications 12

RUNNING BELT SPECIFICATIONS 13
ENVIRONMENTAL SPECIFICATIONS 13

Chapter 3 Treadmill Installation 14

LOCATION REQUIREMENTS 15
TRANSPORTING YOUR TREADMILL 15

Chapter 4 Treadmill Fundamentals 16

BELT SURFACE 17
TRANSPORTATION SYSTEM 17
SERIAL NUMBER PLACEMENT 18
POLAR ® HEART RATE MONITOR 18

Chapter 5 Safety Features 20

Chapter 6 EcoMill LED Display 23

DISPLAY OVERVIEW 24
DISPLAY PARAMETERS ..... **ERROR! BOOKMARK NOT DEFINED.**
FUNCTIONAL BUTTONS – PRE-SET PARAMETERS ... **ERROR! BOOKMARK NOT DEFINED.**
DESCRIPTION OF STATISTICS 24
WORKOUT PARAMETERS 25

Chapter 7 Treadmill Maintenance 26

CLEANING AND INSPECTION 27
LUBRICATION 28

Chapter 8 Warranty Information 29

Chapter 9 Wrap-up 31

TROUBLESHOOTING 32
PREVENTATIVE MAINTENANCE LOG 33
NUMBERS TO KNOW 34

WOODWAY History

WOODWAY's history begins in Germany in 1974. Willi Schoenberger, a technical director in charge of planning a fitness center, noticed that the most important piece of equipment, the treadmill, didn't meet the most important requirements: a mechanically sound machine that is designed to meet human needs.

He envisioned a comfortable surface that didn't interfere with the natural biomechanics of running or walking. Also, he wanted a transportation system which eliminated the friction associated with conventional (conveyor belt) treadmills. After intensive research, and trial and error (and in cooperation with the Deutsche Sporthochschule in Cologne, Germany), Willi developed and patented a very unique and revolutionary treadmill design.

In 1975, WOODWAY GmbH was founded in Weil am Rhein, Germany. The name "WOODWAY" is derived from the German "Waldweg" (Wald = Wood and Weg = Way) – the feel of running on a soft pine needle covered path in the forest.

In 1983, a manufacturing license was awarded to Sakai Medical, for the use of WOODWAY technology in the Japanese marketplace.

In 1988, a U.S. license was granted to a small, well-established manufacturing company in Waukesha, Wisconsin. WOODWAY USA was formed when the U.S. incarnation of the WOODWAY was developed and completed in 1990. WOODWAY USA is proud to be the primary manufacturer of WOODWAY Treadmills worldwide, exporting treadmills for international distribution, in addition to serving our domestic customers and clients.

Today, WOODWAY's design and manufacturing facilities in the United States, Germany and Japan make WOODWAY the largest specialized treadmill manufacturer in the world. Constant enhancements in quality, design and function are shared and implemented by all three WOODWAY manufacturers.

As WOODWAY moves forward, attention to product quality, innovation, and customer service are at the forefront of our efforts. Along with our treadmills, other products, services and strategic relationships are being developed so as to keep WOODWAY on the leading edge as we meet fitness training, testing and rehabilitation needs.

Chapter

1

GETTING STARTED

SAFETY
THINGS TO CONSIDER
ITEMS AND SERVICES AVAILABLE

Important Safety Instructions

A safety sign has been included with your treadmill. It is the responsibility of the owner to post this sign in a visible area near the machine.

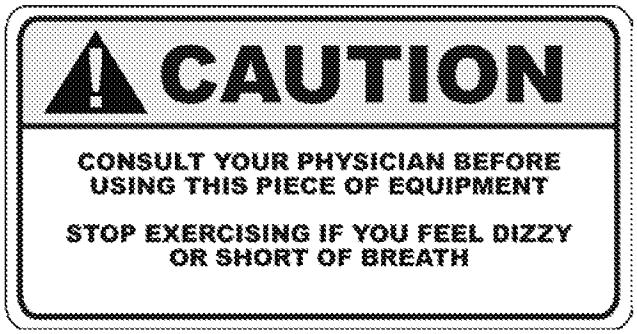
Controlled Start Speed – 1 MPH

The EcoMill is designed to control the maximum belt speed for user safety. The initial start speed is 1 MPH to assure the user has adequate time to adjust to the non-motorized running surface. Once acclimated, the user can then adjust the maximum speed to their desired speed for their workout.

WOODWAY Training Technique Advisory:
To maximize the benefit and safety of your treadmill training WOODWAY recommends all users maintain proper running form and not shuffle their feet.

When servicing any piece of fitness equipment, basic precautions must be followed. Familiarize yourself with all warnings, instructions and procedures concerning proper care and maintenance of a WOODWAY treadmill. Instructions are found in this service training manual and some also appear on labels and instructions on the treadmill itself.





DANGER – *To Reduce the Risk of Electrical Shock*

- Do not operate the heart rate monitor transmitter in conjunction with an electrical heart pacemaker. The transmitter may cause electrical disturbances.
- Do not soak the treadmill surfaces with any liquid; use a sprayer or damp cloth.
- Do not place any open liquid containers on any part of the treadmill. The use of sport bottles with closeable tops is acceptable to be used.
- Do not attempt to service your treadmill yourself if you feel at risk.
- Always keep the running surface clean.

CAUTION:

- Consult with your physician before beginning any exercise program, especially if any of the following pertain to you: history of heart disease, high blood pressure, diabetes, chronic respiratory disease, elevated cholesterol, smoke cigarettes, or experience any other chronic disease or physical impairments.
- Pregnant women should consult their physician before beginning an exercise program.
- If you experience dizziness, chest pains, nausea or any other abnormal symptoms while utilizing the treadmill, stop immediately. Consult a physician before continuing.
- A qualified mechanic should perform service or repair work. *It is preferable that mechanics have successfully completed our factory-authorized service school or equivalent*.

WARNING – *To reduce the risk of injury to you and to others*:

- THE ECOMILL IS NON-MOTORIZED – The user controls the rate of speed including the rate at which the treadmill slows or comes to a stop. There is no motor on the EcoMill, therefore there is not an emergency stop lanyard. The treadmill will come to a stop on its own, it is imperative that all users familiarize themselves with the treadmill and its features.
- THE ECOMILL IS NON-MOTORIZED – The belt moves freely, always mount and dismount the EcoMill from the rear of the treadmill. Use the handrails at all times

when mounting and dismounting from the rear.

Set up and operate treadmills on a solid, level surface.

- Keep all loose clothing and towels away from the treadmill running surface. It is also important that shoe laces do not extend past the bottom of the sole of the shoe.
- Keep the area behind the treadmill clear and at least **FOUR FEET** from walls or furniture.
- Keep hands away from all moving parts.
- Never leave children unsupervised around a treadmill.
- Inspect the treadmill for worn or loose components prior to use. Tighten/replace any worn or loose components prior to use.
- WOODWAY treadmills are built to handle runners weighing up to 800 pounds at speeds between 0-4 MPH and 550 pounds at speeds up to 18 MPH. A treadmill running belt might not stop immediately if any object becomes caught in the belt or rollers.
- Care should be taken when entering and exiting the treadmill. Never enter or exit the treadmill while the running belt is moving. Use the handlebar or handrails whenever practical.
- Wear proper athletic shoes, such as those with rubber or high-traction soles. Do not use shoes with heels or leather soles. Make sure no stones are embedded in the soles.
- Allow several minutes to bring your heart rate into the training zone shown elsewhere in this manual. Walk slowly after your workout to allow your body time to cool down and your pulse rate to decrease.
- The safety and integrity designed into the machine can only be maintained when the treadmill is regularly examined for damage and repaired. It is the sole responsibility of the user/owner or facility operator to ensure that regular maintenance is performed. Worn or damaged components should be replaced immediately or the treadmill removed from service until the repair is made. Only manufacturer supplied or approved components should be used to maintain and repair the treadmill.

Things to Consider Before Starting Exercise Program

CONSULT A PROFESSIONAL FITNESS TRAINER

It is advisable for all exercise beginners to consult a professional fitness instructor or personal trainer to develop an overall fitness evaluation/wellness program before starting an exercise routine.

CONSULT A PHYSICIAN

If you are over 40, have a history of heart disease, are overweight, or have not been involved in any kind of exercise program for several years, it is recommended that you see your physician as a precaution before engaging in a vigorous exercise program.

UNDERSTAND THE IMPORTANCE OF WARMING UP AND COOLING DOWN

It is important to warm up and cool down prior to and at the end of each work out, respectively. Always try to incorporate a series of basic leg stretches before and after each workout. Stretching provides the necessary flexibility to prevent sore muscles and injury during daily activities.

LEARN HOW TO TAKE YOUR PULSE PROPERLY

To select the fitness level that is most suitable to exercise, it is important to correctly determine your heart rate or pulse. To do this, it is recommended that you use a good quality heart rate monitor. If you do not have a heart rate monitor, you can find your pulse by placing your fingers on the underside of your wrist or either side of your throat. While looking at the second hand on your watch, count how many heartbeats you feel within fifteen (15) seconds. Multiply this number by four to get your Beats Per Minute (BPM). Your heart rate will be needed when you take the Self-Fitness Test.

KNOW YOUR MAXIMUM HEART RATE

To determine your maximum heart rate, subtract your age from 220 (general formula). The difference is the approximation of your maximum heart rate, as used by the American Heart Association and The American College of Sports Medicine. The only way to determine your true maximum heart rate is to have a stress test administered by your physician. The American Heart Association recommends that you have a stress test done if you have any history of heart disease or if you are over the age of 40 and beginning an exercise program.

During exercise, it is recommended that you not exceed 85% of your maximum heart rate. Our programs are designed to keep your heart rate within your target zone. Your target zone is an area between 60 and 75% of your maximum heart rate. Should you find your heart rate above the 75% level, you have probably selected a fitness level that is too high in that particular fitness program. You should either drop to a lower intensity level in the same fitness program, or use a less stressful fitness program.

Heart Rate Chart

AGE	MAXIMUM HEARTRATE	60% OF MAXIMUM HEART RATE	75% OF MAXIMUM HEART RATE	85% OF MAXIMUM HEART RATE
20	200 BPM	120 BPM	150 BPM	170 BPM
25	195	120	150	160
30	190	110	140	160
35	185	110	130	150
40	180	100	130	150
45	175	100	130	140
50	170	100	120	140
55	165	90	120	130
60	160	90	120	130
65	155	90	110	130
70	150	90	110	120
75	145	80	100	120

Source: American College of Sports Medicine.

HOW OFTEN SHOULD YOU EXERCISE?

The biggest mistake made by people when starting an exercise program is that they try to do too much too fast. Give yourself time to get into shape. Becoming re-conditioned also takes time. Either way, it will not happen overnight. Remember: the key is consistency and duration of exercise, not intensity. Fitness experts recommend that you start by exercising three to four days a week within your target heart rate for at least 20 minutes per session. Your ultimate goal should be to get yourself gradually to a level of fitness where you can comfortably keep your heart rate in the target zone for 50 to 60 minutes four to five times a week.

WEAR PROPER WALKING/JOGGING SHOES

To help avoid getting sore feet and muscles, it is suggested that you invest in a good pair of walking/jogging shoes. It is important to purchase a comfortable pair of shoes with good heel and arch support. Also, remember to regularly replace old or worn out shoes with new shoes.

STAY ACTIVE

Between workouts it is suggested that you simply stay active, eat well-balanced meals, and drink plenty of water. The combination of these activities should enhance your chances for a future of good health.

ITEMS & SERVICES AVAILABLE FROM WOODWAY

Protective Treadmill Floor Mat **$79.00**
Designed to protect the flooring or carpeting below your WOODWAY and to keep your treadmill clear of obstructions such as thick carpeting.

WOODWAY Renewal Program: **call for quotation**
This entails having your treadmill shipped back to WOODWAY via Van Line (WOODWAY can coordinate these details; cost is additional). Your treadmill will then be thoroughly renovated by a WOODWAY Service Technician. Any worn or outdated features will be replaced, such as: the running belt and slats, side covers and trim plates, timing belt, display board comparable to the board currently on the treadmill, HTD drive shaft, tracking rollers, any worn bearings, re-powder coating of handrails and exterior hardware. The treadmill will then carry a 1 year parts and labor warranty. It is like getting a brand new WOODWAY at a fraction of the cost.

*Prices above may not include shipping & handling.

*Contact the WOODWAY Service Department or your Sales Representative to order at 1-800-966-3929.

Chapter

2

SPECIFICATIONS

POWER REQUIREMENTS
RUNNING BELT SPECIFICATIONS
ENVIRONMENTAL SPECIFICATIONS

Power Requirements

The EcoMill is non-motorized and therefore does not require electricity from a wall outlet. The EcoMill display is powered up by the user moving the belt.

The display utilizes a battery back-up to assure uninterrupted use and will remain constant on for two minutes after the belt is initially moved.

**The EcoMill has a power switch located on the lower middle of the running deck. This power switch enables the battery back-up system and must be switched to the on position.

Running Belt Specifications

General	Slats, overlapping, replaceable
Slat type	Rubber over aluminum support
Running Belt Hardness	Approximately 40 Shore A
Running Area	See detailed specifications/model (Ch.1)
Standard Color	Black
Support	114 roller bearings, 12 roller guides
Lateral movement	+/- 8 mm

Environmental Specifications

Degree of Protection	IP2x
<u>Operating Conditions</u>	
Ambient Temperature	+10°C to +40°C (0°F to +104°F)
Relative Humidity	20 to 95%
<u>Transportation & Storage Conditions</u>	
Temperature Range	-18°C to +49°C (0°F to +120°F)
Relative Humidity	20 to 95%
Atmospheric Pressure Range	700hPa to 1060 hPa (20.67 to 31.3 inches of Mercury)

Chapter

3

TREADMILL INSTALLATION

LOCATION REQUIREMENTS
TRANSPORTING YOUR TREADMILL
ECOMILL SET-UP

Location Requirements

Install your treadmill on a structurally sound surface. If it is to be used above ground level set it up near the corner of the room to ensure maximum support during high-speed use. The surface should be reasonably level to ensure minimum frame flexing. Do not place the treadmill directly on shag or plush carpeting because of the moving parts underneath. If the operating area is thickly carpeted, set the unit on a mat (WOODWAY has a selection of mats available for purchase if needed; call 1-800-WOODWAY for details). This will reduce the lint that can get into the treadmill and also reduce carpet wear.

Transporting Your Treadmill

CAUTION: THIS TREADMILL IS HEAVY AND COULD CAUSE INJURY IF PROPER LIFTING TECHNIQUES ARE NOT UTILIZED. LIFTING BARS ARE SUPPLIED WITH THE TREADMILL TO MOVE THE TREADMILL.

Lifting bars are inserted into each bottom corner of the treadmill. Do not pull or lift on the cosmetic covers. If a flat dolly is available, place the dolly underneath the treadmill and push it to the desired location. If the treadmill must be disassembled, the cosmetic covers and the handrail assembly could be removed for easier transportation.

EcoMill Set-Up

The EcoMill is designed to be mobile and comes standard with 2 wheels on the front underside of the frame rails. To move the treadmill, carefully lift on the bar at the back of the treadmill elevating the rear to a near 45 degree angle. At this point the front of the unit will be resting on the wheels and the treadmill can be moved via pushing.

Chapter

4

TREADMILL FUNDAMENTALS

BELT SURFACE
TRANSPORTATION SYSTEM
SERIAL NUMBER PLACEMENT
POLAR HEART RATE

Belt Surface

The patented running belt is made of individual slats mounted on a continuous set of tooth belts. The tooth belts mesh with the front pulley assembly, which meshes with the drive pulley. This results in no belt slippage. The individual slats are comprised of two materials: a rubber based surface and an aluminum T-shaped frame. The rubber material, approximately 3/8 inch thick, and the aluminum T-slat makes a WOODWAY the "softest treadmill running surface in the world". The rubber running surface greatly reduces shock of impact and helps reduce the local extremity pain associated with long-term running. The positive belt engagement eliminates friction and heat, and therefore increases the longevity of the running surface and treadmill itself.

The WOODWAY rubber belt surface is unlike other treadmills (which normally utilize a cotton and nylon belt). All treadmills take time getting us to operating and using them. With your WOODWAY, you may find, at first, that the surface has a "grip" to it you have not experienced before. The more often you utilize your treadmill the more you will become accustomed to the feel of it. Like all treadmills, it is important not to drag your feet on a WOODWAY treadmill.

Transportation System

The transportation system is comprised of two bearing rail assemblies, an endless steel wire reinforced lateral belt, and 7-inch diameter toothed roller drums. The bearing rails support the running surface and are integral to reducing belt wear and friction.

The two endless lateral belts have many key functions: they hold the individual slats together, transfer power to and from the motor and runner, and help keep the running belt from tracking to the left or right. The two bearing rails consist of three main parts: the bearing rail, individual bearings, and the bearing-supported roller guides. A smooth section of the lateral belts roll over the bearings and roller guides.

The bearing rail supports all the bearings and roller guides and helps to distribute the local loads throughout the treadmill. The roller guides on each side assist to reduce tracking error and help support the running belt. The individual bearings on each side also evenly distribute the load across the treadmill.

The toothed drums are used to eliminate any slippage. The drum assemblies have heavy-duty pillow blocks (bearings) which also reduce friction.

This unique transportation system results in very little friction so you can simply push the running belt under your own power!

Serial Number Placement

Each WOODWAY treadmill is assigned a serial number when built. Depending on the year your model was built, it will have either a 7 – 8 digit alpha-numeric code, or a 9 digit numeric code. The serial number can be found on the front left section of the treadmill frame.

The label also includes information about your particular treadmill. It lists input voltage and current, and the options and/or features of your treadmill. Please refer to your packing slip or invoice or contact WOODWAY USA (**1-800-WOODWAY**) to determine the features you may have ordered, if you are in doubt, with your treadmill.

Polar ® Heart Rate Monitor

The display board is equipped to project a user's heart rate in conjunction with the use of a Polar® Monitor. In order for the board to correctly display a user's heart rate, the receiver within the display board must obtain a stable heart rate signal from the Polar ® transmitter.

The Polar® Heart Rate System consists of three main elements: 1) the Sensor/Transmitter, 2) the Chest Band/Strap and 3) the Monitor/Console. The receiver of the wireless ECG system is built into the monitor/console unit of the board. While operating under heart rate control modes, the computer monitors the exact measurement of and control over the activity of the heart.

How to Wear the Chest Strap

The Sensor/Transmitter is worn just below the chest and at the top of the abdomen, preferably directly on bare skin (not over clothing). The transmitter should be centered below the pectoral muscles (breasts). Once the strap is secured, pull it away from the chest by stretching the band, and moisten the conductive electrode strips located underneath the snaps. If you wish to wear the band over a shirt, moisten the shirt under the area of the electrode strip. The transmitter operates automatically while you are wearing it. It does not operate while it is disconnected from your body. However, as moisture may activate the transmitter, please wipe it dry after use. The chest band is washable. After you have detached the transmitter, wash the band in warm water, using mild soap, and rinse thoroughly in clean water. Never scrub the transmitter surfaces.

The Transmitter

You must be within three and a half feet of the receiver in order for the signal to transmit. Please take note that your transmitter may fluctuate erratically if you are too close to other Polar® equipment. Maintain **at least a three-foot** distance between other Polar® units.

Note: Erratic heart rate reception may occur if the Polar® Monitor is too close in proximity to strong sources of electromagnetic radiation, such as television sets, personal computers, electric motors and some other types of fitness equipment. Only one transmitter should be used inside the range of any one receiver as the receiver may pick up several signals simultaneously causing an inaccurate readout.

Chapter

5

SAFETY FEATURES

1.0 MPH Start Speed

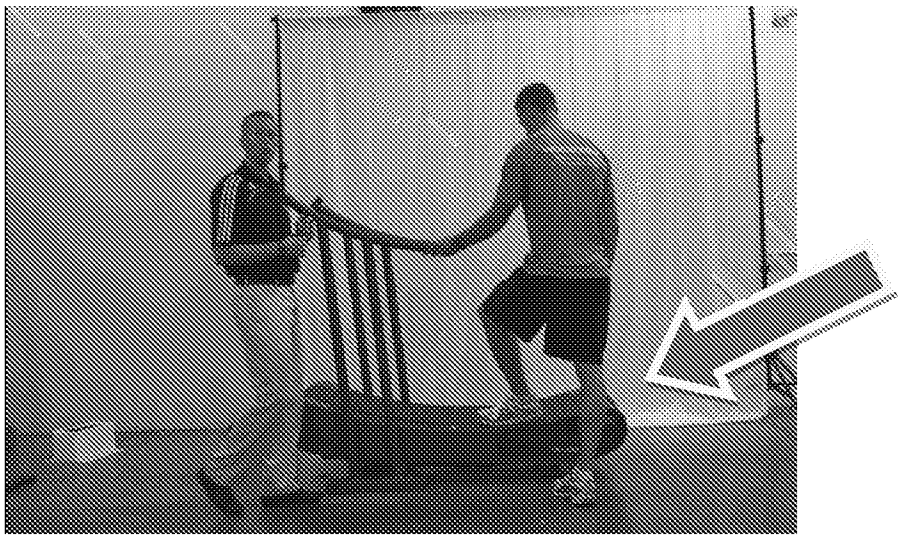
The EcoMill is designed to control the maximum belt speed for user safety. The initial start speed is 1 MPH to assure the user has adequate time to adjust to the non-motorized running surface. Once acclimated, the user can then adjust the maximum speed to their desired speed for their workout.

One Way Drive Mechanism

The EcoMill's non-motorized running surface is designed for the user to control and actually drive or turn the belt. The innovative curved design coupled with gravity makes this possible.

For the safety of the user, the running surface only rotates in a motion that allows for forward running use of the machine (as opposed to reverse). This provides a stable and nearly locked running surface for mounting and dismounting of the treadmill from the rear or back of the unit.

THE ECOMILL SHOULD ONLY BE ENTERTED FROM THE BACK OF THE UNIT – NEVER STEP ON THE FRONT OF THE ECOMILL UNIT



STEPPING ON THE FRONT OF THE UNIT WILL CAUSE THE BELT TO SPIN RAPIDLY

Curved Parallel Handrails

The EcoMill has curved parallel handrails which allow the user to maintain direct contact

for safety and stability throughout the curve of the running surface. Users should maintain constant contact with the handrails for safety at all times.

ALWAYS USER THE HANDRAILS WHEN ENTERING OR EXITING THE ECOMILL

CAUTION LABELS

The EcoMill has two caution labels expressing the fact that the treadmill is non-motorized and the belt spins freely and it must be entered from the back and health risks associated with overexertion.





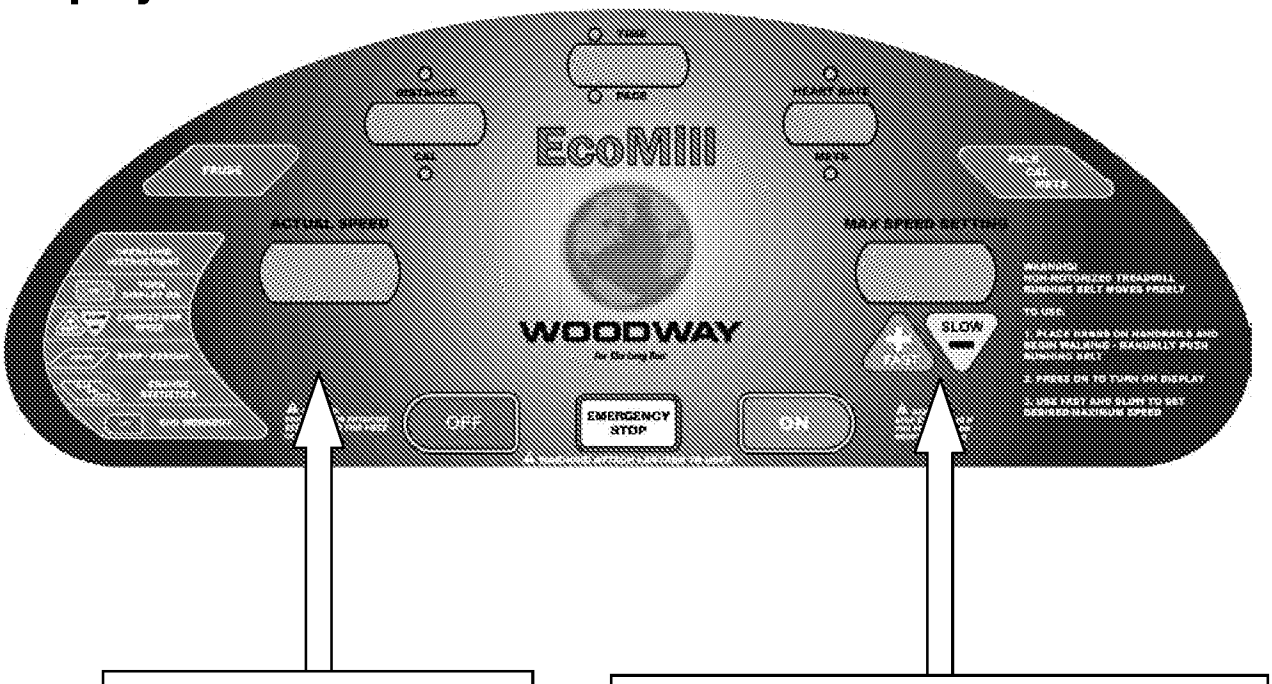
Chapter

6

EcoMill LED DISPLAY BOARD

DISPLAY OVERVIEW
DISPLAY PARAMETERS
FUNCTIONAL BUTTONS – PRE-SET PARAMETERS
DESCRIPTION OF STATISTICS
WORKOUT PARAMETERS

Display Overview



Actual Speed Window – Displays the current speed the treadmill user is walking/running

Max Speed Setting Window – Displays the current maximum speed setting.

This is the maximum speed the running belt can spin.

Adjust the maximum speed with the fast arrow to increase speed or slow to reduce.

Description of Statistics

TIME:
Time is displayed in the format 00:00. Time always counts up.

SPEED:
Speed is displayed in the format 00.0. Speed represents the user's current speed in miles per hour (or kilometers per hour). Valid speed values are: 0.0 – top speed (which varies depending on model and options ordered).

DISTANCE:
Distance is displayed in the format 00.00. Distance represents the accumulated user distance in miles or kilometers.

CALORIES:
Calories are displayed in the format 0000. Calories represent the accumulated user calories burned and are calculated using a default weight of 155 lbs.

PACE:
Pace is displayed in the format 00:00. Pace represents the amount of time it will take to run one mile at the user's current speed.

METs:
METs is displayed in the format 00.0 and represents 3.5 milliliters of oxygen per kilogram of body weight per minute.

HEART RATE:
Heart Rate is displayed in the format 000. Heart Rate represents the user's actual heart rate (pulse).

Workout Parameters

To Begin Workout

Caution - Non-Motorized Treadmill

To Use:

1. Place hands on handrails and begin walking – manually push running belt
2. Press on to turn on display
3. Use Fast and slow to set desired/maximum speed

ALWAYS ENTER THE TREADMILL FROM THE BACK

Ending a Workout

To end a workout, gradually reduce walking speed while holding onto handrails. Press the off button to shut off the display completely.

ALWAYS EXIT THE TREADMILL FROM THE BACK

Chapter

7

TREADMILL MAINTENANCE

CLEANING AND INSPECTION
LUBRICATION

Cleaning and Inspection

Periodic cleaning and inspection of your WOODWAY treadmill will help to lengthen the life while helping keep it looking like new. With this preventative maintenance it will be easier to spot problems that might not otherwise be found.

Below is a guideline of our recommended cleaning and maintenance intervals. If your treadmill is located in a dirty environment or under heavy-duty use, cleaning and inspection should be implemented more often.

Do not use abrasive brushes or cleaners, as they may scratch the paint and plastic surfaces. Do not soak any surface; the sensitive electronics may be harmed.

CAUTION: **Turn off treadmill battery back-up system.**

Weekly:

- Clean handrail, front display panel & cosmetic covers.
- Check overall condition of the treadmill.
- Move, and vacuum underneath the treadmill.

Every Six (6) Months:

- Vacuum inside the treadmill (remove cosmetic covers.)
- Inspect all nuts and bolts. Tighten any that are loose.
- Clean running surface.
- Check drive belt – replace if shredding or teeth are missing.

Yearly:

- Grease front and rear roller bearings.

Seasonally:

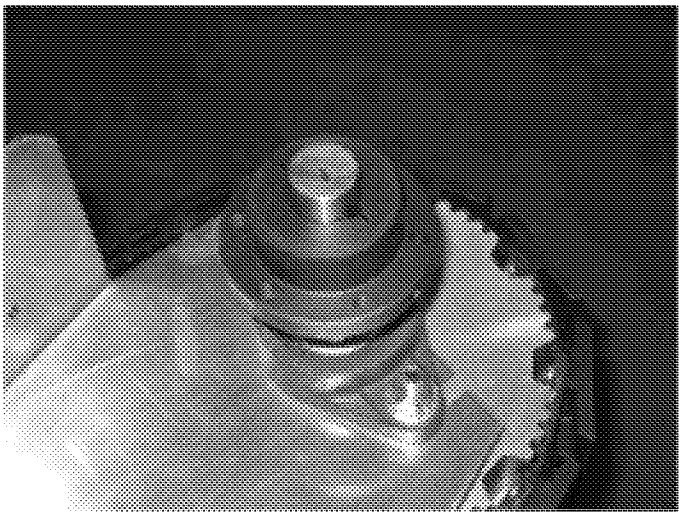
- In autumn & winter remember that the dry climate in many regions of the country will cause a greater static discharge to occur when the treadmill is used. Be sure to spray the running surface with a staticide spray regularly to prevent static shock to the treadmill user.

Lubrication

Bearings
Almost all of the bearings used in the treadmill are pre-lubricated and do not need to be greased. On a yearly basis, the four (4) bearings located at the front and rear shaft will need to be lubricated.



Running Belt
The teeth on the bottom of the running belt are pre-lubricated to aid in reducing noise. There is no need to lubricate the teeth. If running belt is rubbing against the side of the drive pulleys, then a small amount of grease (i.e. Molykote or equal) on the edges of the belt slats will help reduce noise. Apply grease to the teeth on the back drive shaft to help the belt stay aligned properly.



Chapter

8

WARRANTY INFORMATION

Warranty Information

	All Components	Labor
Commercial Fitness Use	3 years	1 year

WOODWAY warrants that all products and accessories will be free from manufacturing defects according to the applications/terms listed above. The warranty period commences on the original date of purchase. This warranty is given only to the original purchaser. This warranty does not cover damage or equipment failure resulting from misuse, abuse, or failure to comply with electrical codes. Further, this warranty shall not apply if there is any modification to the products or accessories or if there is a failure to provide maintenance as outlined in the Owner's Manual.

WOODWAY GIVES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. THE WARRANTY OF FITNESS FOR A PARTICULAR USE IS HEREBY DISCLAIMED.

The buyer's remedy for breach of the expressed warranties contained herein shall be limited to the return of the product and accessories and repayment of the original purchase price. Provided, however, at WOODWAY selection, it may repair and replace the non-conforming goods or parts. WOODWAY shall not be liable for any incidental or consequential damages.

Our Guarantee

WOODWAY guarantees the repurchase of WOODWAY treadmill products for a period of up to five (5) years after original installation. A direct payment, or credit toward the purchase of a new WOODWAY, of 20% of the purchase price of the treadmill will be made to the original owner of a WOODWAY treadmill. This guarantee is limited to the original owner. Contact WOODWAY for further details.

Chapter

9

WRAP UP

TROUBLESHOOTING
PREVENTATIVE MAINTENANCE LOG
NUMBERS TO KNOW

Troubleshooting

*If you are having problems with your treadmill, please be prepared with answers to the following questions **before** calling our service center.*

QUESTIONS:

- What is the make, model and serial number?
- What happened prior to the problem?
- Did the problem happen unexpectedly or did it progressively worsen over time?
- Was someone using the treadmill at the time the problem occurred?
- Was the treadmill in LOCKED or FREEWHEEL mode?
- Explain any other symptoms that you feel are relevant.

Preventative Maintenance Log

DATE	MAINTENANCE PERFORMED	BY	RESULT

Numbers to Know

Your Treadmill Serial #(s):

Model/#_____

Model/#_____

Model/#_____

Model/#_____

Model/#_____

Model/#_____

Model/#_____

Model/#_____

(The serial number can be found on the back of the treadmill's display board housing & also on the front/left section of treadmill frame – side cover must be removed to locate on the frame).

WOODWAY®

For The Long Run®

800-WOODWAY (966-3929)

Electronic Patent Application Fee Transmittal

Application Number:	15958339
Filing Date:	20-Apr-2018
Title of Invention:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
First Named Inventor/Applicant Name:	Douglas G. Bayerlein
Filer:	Alexander J. Neuworth/Laura Buhs
Attorney Docket Number:	097208-0226

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	2806	1	120	120
		Total in USD ($)		**120**

Electronic Acknowledgement Receipt

EFS ID:	37477043
Application Number:	15958339
International Application Number:	
Confirmation Number:	4765
Title of Invention:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
First Named Inventor/Applicant Name:	Douglas G. Bayerlein
Customer Number:	26371
Filer:	Alexander J. Neuworth/Laura Buhs
Filer Authorized By:	Alexander J. Neuworth
Attorney Docket Number:	097208-0226
Receipt Date:	16-OCT-2019
Filing Date:	20-APR-2018
Time Stamp:	16:58:47
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$120
RAM confirmation Number	E20190FG59147999
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		097208-0226_Response.pdf	250075 a71a02381775f9196a7536428a57ef33d942b33e	yes	21
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Applicant Arguments/Remarks Made in an Amendment		14	21	
	Claims		2	13	
	Amendment/Req. Reconsideration-After Non-Final Reject		1	1	
Warnings:					
Information:					
2	Transmittal Letter	097208-0226_IDS.pdf	118955 d3417255fa3c8ae1b23ce089603b527d388daa5b	no	2
Warnings:					
Information:					
3	Information Disclosure Statement (IDS) Form (SB08)	097208-0226_SB08.pdf	106550 b039cd2b9276f39585ab583273945a47f07dce2c	no	1
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
4	Non Patent Literature	G3--WOODWAY_USA__INC____Treadmill_Owner_s_Ma.pdf	2676010 4946c83d17315519fd2138f74a87805495efd095	no	56
Warnings:					
Information:					

5	Non Patent Literature	G4--WOODWAY_USA__INC___EcoMill_Promotional_F.pdf	464409 34e388de28324a01e9ae9153fb656416029bea3d	no	1
Warnings:					
Information:					
6	Non Patent Literature	G5--WOODWAY_USA__INC___Owner_s_Manual__EcoMi.pdf	1349088 bd46e47507c0dda309ac3e578640cca26a266507	no	35
Warnings:					
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7	Fee Worksheet (SB06)	fee-info.pdf	30613 50e866c99ec63bf51bf281f1ff248c89c4356de9	no	2
Warnings:					
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			Total Files Size (in bytes):	4995700	

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and the reasons that follow.

Status of Claims

No claims are currently amended. No claims are cancelled. No claims are new.

Accordingly, claims 1-16 and 18-60 remain pending in this application for examination. Applicant respectfully requests favorable consideration of these claims.

Statement of Substance of Interview

On September 25, 2019, a telephone interview was conducted in the present application between Examiner Jennifer Deichl and attorneys Richard J. McKenna and Alexander J. Neuworth for the Applicant. Applicant thanks the Examiner for her time and thoughtful consideration. During the interview, the parties discussed U.S. Publication No. 2005/0009668 ("Savettiere") relative to the "safety device" of the independent claims. Attorneys McKenna and Neuworth explained operation of the one-way clutch device of Savettiere and how this disclosure does not disclose, teach, or suggest the features of the "safety device," and in fact the disclosure of Savettiere teaches away from the Examiner's application of the prior art in the most recent rejection. The Examiner appeared to agree with the Attorneys, and requested that the Attorneys also provide these remarks in written form in response to the outstanding Office Action. No agreement regarding allowability of the claims was reached as the Examiner indicated that more time would be needed to consider the Applicant's response.

Claim Rejections Under 35 U.S.C. § 103

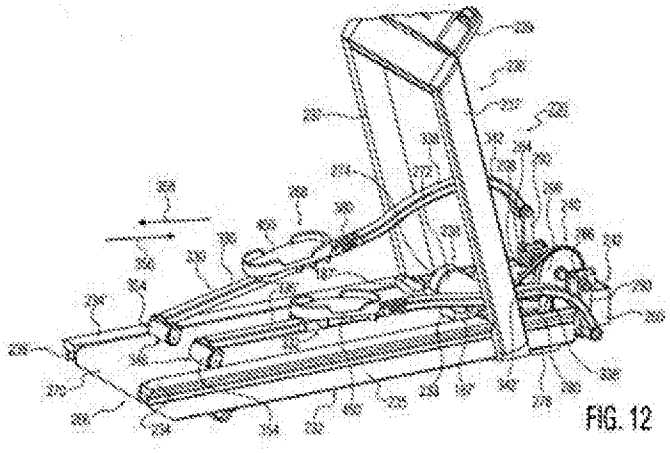
On page 2 of the Office Action, the Examiner rejected claims 1-4, 6-14, 17-21, 23-29, 31-34, 36-44, 47-51, and 53-59 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No.

5,492,517 ("Bostic") in view of U.S. Patent No. 3,642,279 ("Cutter"), U.S. Patent No. 4,334,676 ("Schonenberger"), and Savettiere. On pages 18-19 of the Office Action, the Examiner rejected claims 5, 16, 30, 35, 46, and 60 under 35 U.S.C. § 103 as being unpatentable over Bostic, Cutter, Schonenberger, Savettiere, and U.S. Patent No. 4,406,451 ("Gaetano"). On page 19 of the Office Action, the Examiner rejected claims 15, 22, 45, and 52 under 35 U.S.C. § 103 as being unpatentable over Bostic in view of Cutter, Schonenberger, and Savettiere and further in view of U.S. Patent No. 6,923,746 ("Skowronski"). These rejections and the combinations of references on which the rejections are based are respectfully traversed. In addition, Applicant has previously presented arguments regarding the scope of teaching of the cited references and rejections based thereon and Applicants reassert those arguments in this Response.

I. Savettiere does not disclose, teach, or suggest the "safety device" that "substantially prevents rotation of the running belt" as in varying formats in independent claims 1, 8, 21, 28, 38, 51, and 58.

In the Office Action, the Examiner cited the one-way clutch device 372 of Savettiere as disclosing these features. Applicant respectfully disagrees.

Savettiere relates to an elliptical/treadmill exercise apparatus. (Title). A common frame is used for each of the treadmill and elliptical apparatuses. (*See* Abstract). The elliptical system 268 includes pedal arm assemblies 330 and 332. Each assembly 330 and 332 includes a roller assembly 360 (shown as ref. number 354 in the left side picture below) having an axle 362, a peripheral roller wheel element 364, a clutch mechanism 366 having an inner race 368 fixed to the axle, an outer race 370 secured to the wheel 364, and a one-way clutch device 372 that "is preferably similar to a ratchet and resiliently mounted pawl mechanism." (¶[0136]).


FIG. 12

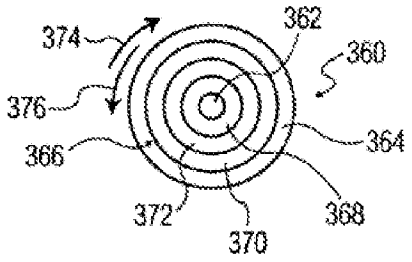


FIG. 20a

In operation, "[t]he device 372 permits the outer wheel element to rotate in one direction 374 relative to the axle 362. However, the outer wheel element 364 is fixed to the axle by the device 372 when a force is applied to the element 364 tending to rotate the element 364 in a direction 376 opposite direction 374. The element 364 can not rotate about the axle in direction 374 and is locked thereto." (¶[0136]).

Savettiere does not disclose, teach, or suggest the "safety device" that "substantially prevents rotation of the running belt" as in varying formats in independent claims 1, 8, 21, 28, 38, 51, and 58. Savettiere discloses that the one-way clutch 372 is included in the roller assembly 346 having the roller 354 that may be provided atop the treadmill belt 270. The one-way clutch does not control the direction of rotation of the treadmill belt. Paragraphs [0135] and [0137] disclose:

> When the rear ends of the pedal arm assemblies 330 and 332 move forward in direction 356, FIG. 12, the rollers 354 roll freely. When the rear ends of the pedal arm assemblies 330 and 332 move rearward in direction 358, however, the rollers can not roll freely and are fixed to the axle such as axle 352 via a clutch mechanism as shown in FIG. 20 *a.*
>
> Thus, in FIG. 12, when the pedal arm assemblies 330 and 332 move rearward in direction 358, the rollers 360, FIG. 20*a,* do not roll on the belt 270. The rollers 360 frictionally engage the belt in relatively

> fixed relationship during the rearward motion in direction 358. As a result of the relatively fixed engagement, the rollers 360 thus push the belt 270 rearward in direction 358 as the pedals move rearwardly.

In other words, Savettiere discloses that when the pedal arm assemblies are moved in one direction, the one-way clutch device 372 allows the rollers 354 to roll freely relative to the treadmill belt 270. However, in the opposite direction of movement, the one-way clutch device prevents rolling movement of the rollers 354 relative to the treadmill belt so that the rollers frictionally engage the treadmill belt 270 and cause rotational movement of the belt 270. Thus, the one-way clutch of Savettiere *only* controls rotational movement of the pedal arm assemblies and does ***not*** control a rotational movement direction of the treadmill belt as a "safety device" of claims 1, 8, 21, 28, 38, 51, and 58. In fact, there is no teaching in Savettiere of a "safety device" use of a one-way clutch device.

Moreover, the one-way clutch device of Savettiere does not teach enabling or allowing only one rotational direction of movement. Rather, the one-way clutch device 372 discloses enabling relative movement between the rollers 354 and the belt 270 in one rotational direction and transmitting frictional force from the rollers 354 to the belt 270 in an opposite rotational directional direction. At no point are the rollers 354 used to *restrict* rotation of the treadmill belt 270 to move in only one rotational directional.

As such and alone or in combination with the other features, Savettiere does not disclose, teach, or suggest a "safety device" that "substantially prevents rotation of the running belt" as in varying formats in independent claims 1, 8, 21, 28, 38, 51, and 58. In fact Savettiere teaches just the opposite, namely *inducing* rotation of the treadmill belt 270 through the application of a frictional force.

II. There is no teaching, suggestion, or motivation by Savettiere that would have led one of ordinary skill in the art to modify Savettiere or to combine Savettiere with the other cited references to arrive at the claimed invention. (MPEP § 2143).

As mentioned above, Savettiere does not disclose, teach, or suggest a "safety device" that "substantially prevents rotation of the running belt" as in varying formats in each of independent claims 1, 8, 21, 28, 38, 51, and 58. Moreover, the disclosure of the one-way device 372 of Savettiere teaches away from combining this structure with the other cited references to arrive at a "safety device" that "substantially prevents rotation of the running belt" as in varying formats in each of independent claims 1, 8, 21, 28, 38, 51, and 58.

The intent of the one-way clutch 372 of Savettiere is to allow relative movement between the treadmill belt 270 and the rollers 354 in one rotational direction while enable the transmission of torque from the rollers 354 to the treadmill belt 270 to *induce* rotation of the belt in another, opposite direction in order to drive rotational movement of the belt 270. However, Applicant's independent claims 1, 8, 21, 28, 38, 51, and 58 clearly provide that the "safety device" "substantially prevents rotation of the running belt" in one rotational direction. One of ordinary skill in the art would not look to Savettiere to cure the deficiencies of the other cited references because the teachings of Savettiere do not restrict rotational movement of the treadmill belt. Thus, a person of ordinary skill in the art would not be motivated to combine the teachings of Savettiere with the other cited references because this combination would not one to arrive at the claimed arrangement in each of independent claims 1, 8, 21, 28, 38, 51, and 58.

III. The other cited references do not cure the aforementioned deficiencies of Savettiere.

First, as stated above, a person of ordinary skill in the art would not be motivated to combine the teachings of Savettiere with the other cited references to arrive at the arrangement recited in each of independent claims 1, 8, 21, 28, 38, 51, and 58.

Second, the other references are not cited as disclosing the "safety device" and its associated features and, indeed, do not disclose, teach, or suggest these features. In this regard, the cited prior art references also fail to disclose, teach, or suggest "a portion of the safety device

is at least partially supported by a housing of the safety device so that the portion of the safety device … freely rotate[s] … in a first direction of rotation" and "in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device" as in varying formats of independent claims 1, 8, 21, and 28. Additionally, the cited prior art references also fail to disclose, teach, or suggest a "safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame" and that "one of the first and second rotatable elements of the safety device freely rotate in a first direction of rotation relative to the other of the first and second rotatable elements of the safety device, but 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" as in varying formats of independent claims 31, 38, 51, and 58.

Accordingly, independent claims 1, 8, 21, 28, 31, 38, 51, and 58 are all patentable over the cited references. Claims 2-7, 9-16 and 18-20, 22-27, and claims 29-30 depend variously from claims 1, 8, 21, and 28 and are all patentable for similar reasons. *See* pre-AIA 35 U.S.C. § 112 ¶ 4 or post-AIA 35 U.S.C. § 112(d). Claims 32-37, 39-50, 52-57, and 59-60 depend variously from claims 31, 38, 51, and 59 and are all patentable for similar reasons. *See* pre-AIA 35 U.S.C. § 112 ¶ 4 or post-AIA 35 U.S.C. § 112(d).

IV. Conclusion

Based on the foregoing, Applicant respectfully submits that the claim rejections under Section 103 are overcome. Withdrawal of same is respectfully requested.

Concluding Remarks

It is submitted that each outstanding objection and rejection to the present application has been overcome, and that the present application is in condition for allowance. Applicant requests consideration and allowance of all pending claims.

It should also be noted that although Applicant has only addressed certain claims or claimed features herein, other claims, features, or combinations of features may also be patentable for additional reasons. Further, the failure to address any statement by the Examiner should not be interpreted as acquiescence or agreement with such statement. Applicant expressly reserves the right to rebut any statement presented by the Examiner and to set forth additional and/or alternative reasons for patentability during prosecution of the present application or in any other future proceeding.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance prosecution.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application, or credit any overpayment, to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date /10-16-2019/ By /Alexander J. Neuworth/

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Listing of Claims:

1. (Previously Presented) A manually powered treadmill, comprising:

a frame having a front end and a rear end positioned opposite the front end;

a front shaft coupled to the frame proximate the front end;

a rear shaft coupled to the frame proximate the rear end;

a plurality of bearings coupled to the frame;

a running belt at least partially supported by the plurality of bearings, wherein the running belt includes a curved running surface; and

a safety device coupled to the running belt and to at least one of the front shaft and the rear shaft, wherein a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device, the running belt and the at least one of the front shaft and the rear shaft freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the housing, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of 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 the rear shaft.

2. (Original) The manually powered treadmill of claim 1, wherein the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member, wherein the plurality of bearings includes a first plurality of bearings coupled to a left-side of the frame and a second plurality of bearings coupled to a right-side of the frame.

3. (Original) The manually powered treadmill of claim 2, wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile, wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

4. (Previously Presented) The manually powered treadmill of claim 1, wherein the portion of the safety device is a one-way bearing.

5. (Original) The manually powered treadmill of claim 1, further comprising at least one support foot coupled to the frame, wherein the at least one support foot is adjustable to enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill.

6. (Original) The manually powered treadmill of claim 1, further comprising a braking system coupled to the frame and configured to selectively resist the rotational movement of the running belt.

7. (Original) The manually powered treadmill of claim 6, wherein the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt.

8. (Previously Presented) A manually powered treadmill, comprising:

a frame;

a first plurality of bearings coupled to the frame;

a second plurality of bearings coupled to the frame and spaced a distance from the first plurality of bearings;

a front shaft assembly coupled to the frame;

a rear shaft assembly coupled to the frame;

a running belt at least partially supported by the first plurality of bearings and the second plurality of bearings, the running belt being at least partially disposed about the front and rear shaft assemblies, and comprising a running surface, at least a portion of which is curved; and

a safety device coupled to the frame and the running belt, wherein a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the housing, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device and the running belt.

9. (Previously Presented) The manually powered treadmill of claim 8, wherein the portion of the safety device is a one-way bearing.

10. (Original) The manually powered treadmill of claim 8, wherein the front shaft assembly comprises a front shaft coupled to frame.

11. (Previously Presented) The manually powered treadmill of claim 10, wherein the front shaft assembly comprises at least one front running belt pulley coupled to the front shaft.

12. (Original) The manually powered treadmill of claim 8, wherein the rear shaft assembly comprises a rear shaft coupled to the frame.

13. (Original) The manually powered treadmill of claim 12, wherein the rear shaft assembly comprises at least one rear running belt pulley coupled to the rear shaft.

14. (Original) The manually powered treadmill of claim 8, wherein the rear shaft assembly comprises at least one rear running belt pulley and the front shaft assembly comprises at least one front running belt pulley.

15. (Previously Presented) The manually powered treadmill of claim 14, wherein at least one of the at least one rear running belt pulley and the at least one front running belt pulley are formed from an electrically insulating material.

16. (Previously Presented) The manually powered treadmill of claim 8, further comprising at least one support foot coupled to the frame, wherein the at least one support foot is adjustable to enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill.

17. (Cancelled)

18. (Previously Presented) The manually powered treadmill of claim 8, wherein each of the first and second pluralities of bearings define a curved top profile and wherein the curved top profile substantially corresponds to at least a portion of the curved portion of the running surface.

19. (Previously Presented) The manually powered treadmill of claim 8, wherein the frame includes a left side member, a right side member spaced a distance from the left side member, and at least one cross-member extending between the left side member and the right side member.

20. (Original) The manually powered treadmill of claim 19 wherein the first plurality of bearings are coupled the left side member and the second plurality of bearings are coupled to the right side member.

21. (Previously Presented) A manually powered treadmill, comprising:

a frame;

at least one front running belt pulley coupled to the frame;

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 plurality of bearings coupled to the frame;

a running belt at least partially supported by the plurality of bearings and 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

a safety device coupled to the running belt, wherein a portion of the safety device is at least partially supported by a housing of the safety device so that the portion of the safety device and the running belt freely rotate when the portion of the safety device rotates in a first direction of rotation relative to the housing, however, in a second direction of rotation, opposite the first direction of rotation, interference between the housing and the portion of the safety device substantially prevents rotation of the portion of the safety device and the running belt.

22. (Previously Presented) The manually powered treadmill of claim 21, wherein at least one of the at least one rear running belt pulley and the at least one front running belt pulley are formed from an electrically insulating material.

23. (Previously Presented) The manually powered treadmill of claim 21, further comprising a front shaft coupled to frame, the front shaft being adapted to support the at least one front running belt pulley.

24. (Previously Presented) The manually powered treadmill of claim 21, further comprising a rear shaft coupled to frame, the rear shaft being adapted to support the at least one rear running belt pulley.

25. (Previously Presented) The manually powered treadmill of claim 21, wherein the portion of the safety device is a one-way bearing.

26. (Original) The manually powered treadmill of claim 21, further comprising a braking system coupled to the frame and configured to selectively resist the rotational movement of the running belt.

27. (Original) The manually powered treadmill of claim 26, wherein the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt.

28. (Previously Presented) A method, comprising:

providing a manually powered treadmill, the manually powered treadmill having a frame with a front end and a rear end;

providing a plurality of bearings coupled to the frame, wherein the plurality of bearings define at least a portion of a curved top profile;

disposing a running belt on the plurality of bearings such that the curved top profile of plurality of bearings define at least a portion of a curved running surface of the running belt;

providing a safety device coupled to the frame and the running belt, the safety device having a first element at least partially supported by a housing of the safety device;

permitting rotation of the running belt in a first direction by freewheeling of the first element of the safety device relative to the housing; and

resisting rotation of the running belt in a second direction opposite the first direction by restricting rotation of the first element via interference between the housing and the first element of the safety device.

29. (Previously Presented) A method according to claim 28, further comprising providing for a selective application of a braking force to resist the rotational movement of the running belt in the first direction.

30. (Previously Presented) A method according to claim 28, further comprising providing for the adjustment of the vertical incline of at least a portion of the running surface.

31. (Previously Presented) A manually powered treadmill, comprising:

a frame having a front end and a rear end positioned opposite the front end;

a front shaft coupled to the frame proximate the front end;

a rear shaft coupled to the frame proximate the rear end;

a plurality of bearings coupled to the frame;

a running belt at least partially supported by the plurality of bearings, wherein the running belt comprises a curved running surface; and

a safety device coupled to the frame and the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

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

32. (Previously Presented) The manually powered treadmill of claim 31, wherein the frame includes a left side member, a right side member, and at least one cross-member extending between the left side member and the right side member, wherein the plurality of bearings includes a first plurality of bearings coupled to a left-side of the frame and a second plurality of bearings coupled to a right-side of the frame.

33. (Previously Presented) The manually powered treadmill of claim 32, wherein the first plurality of bearings and the second plurality of bearings each at least partially define a curved top profile, wherein the curved top profile substantially corresponds to at least a portion of the curved running surface.

34. (Previously Presented) The manually powered treadmill of claim 31, wherein the first and second rotatable elements of the safety device at least partly form a one-way bearing.

35. (Previously Presented) The manually powered treadmill of claim 31, further comprising at least one support foot coupled to the frame, wherein the at least one support foot is adjustable to enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill.

36. (Previously Presented) The manually powered treadmill of claim 31, further comprising a braking system coupled to the frame and configured to selectively resist the rotational movement of the running belt.

37. (Previously Presented) The manually powered treadmill of claim 36, wherein the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt.

38. (Previously Presented) A manually powered treadmill, comprising:

a frame;

a first plurality of bearings coupled to the frame;

a second plurality of bearings coupled to the frame and spaced a distance from the first plurality of bearings;

a front shaft assembly coupled to the frame;

a rear shaft assembly coupled to the frame;

a running belt at least partially supported by the first plurality of bearings and the second plurality of bearings, the running belt being at least partially disposed about the front and rear shaft assemblies, and comprising a running surface, at least a portion of which is curved; and

a safety device coupled to the frame and the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

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

39. (Previously Presented) The manually powered treadmill of claim 38, wherein the first and second rotatable elements of the safety device at least partly form a one-way bearing.

40. (Previously Presented) The manually powered treadmill of claim 38, wherein the front shaft assembly comprises a front shaft coupled to frame.

41. (Previously Presented) The manually powered treadmill of claim 40, wherein the front shaft assembly comprises at least one front running belt pulley coupled to the front shaft.

42. (Previously Presented) The manually powered treadmill of claim 38, wherein the rear shaft assembly comprises a rear shaft coupled to the frame.

43. (Previously Presented) The manually powered treadmill of claim 42, wherein the rear shaft assembly comprises at least one rear running belt pulley coupled to the rear shaft.

44. (Previously Presented) The manually powered treadmill of claim 38, wherein the rear shaft assembly comprises at least one rear running belt pulley and the front shaft assembly comprises at least one front running belt pulley.

45. (Previously Presented) The manually powered treadmill of claim 44, wherein at least one of the at least one rear running belt pulley and the at least one front running belt pulley are formed from an electrically insulating material.

46. (Previously Presented) The manually powered treadmill of claim 38, further comprising at least one support foot coupled to the frame, wherein the at least one support foot is adjustable to enable an adjustment of the relative vertical incline of at least a portion of the manually powered treadmill in relation to a surface supporting the manually powered treadmill.

47. (Previously Presented) The manually powered treadmill of claim 38, wherein the running belt is at least partially supported by the first plurality of bearings and the second plurality of bearings.

48. (Previously Presented) The manually powered treadmill of claim 47, wherein each of the first and second pluralities of bearings define a curved top profile and wherein the curved top profile substantially corresponds to at least a portion of the curved portion of the running surface.

49. (Previously Presented) The manually powered treadmill of claim 38, wherein the frame includes a left side member, a right side member spaced a distance from the left side member, and at least one cross-member extending between the left side member and the right side member.

50. (Previously Presented) The manually powered treadmill of claim 49, wherein the first plurality of bearings are coupled the left side member and the second plurality of bearings are coupled to the right side member.

51. (Previously Presented) A manually powered treadmill, comprising:

a frame;

at least one front running belt pulley coupled to the frame;

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 plurality of bearings coupled to the frame;

a running belt at least partially supported by the plurality of bearings and 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 safety device coupled to the frame and the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

wherein one of the first and second rotatable 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, 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.

52. (Previously Presented) The manually powered treadmill of claim 51, wherein at least one of the at least one rear running belt pulley and the at least one front running belt pulley are formed from an electrically insulating material.

53. (Currently Amended) The manually powered treadmill of claim 51, further comprising a front shaft coupled to frame, the front shaft being adapted to support the at least one front running belt pulley.

54. (Previously Presented) The manually powered treadmill of claim 51, further comprising a rear shaft coupled to frame, the rear shaft being adapted to support the at least one rear running belt pulley.

55. (Previously Presented) The manually powered treadmill of claim 51, wherein the first and second rotatable elements of the safety device at least partly form a one-way bearing.

56. (Previously Presented) The manually powered treadmill of claim 51, further comprising a braking system coupled to the frame and configured to selectively resist the rotational movement of the running belt.

57. (Previously Presented) The manually powered treadmill of claim 56, wherein the braking system utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt.

58. (Previously Presented) A method, comprising:

providing a manually powered treadmill, the manually powered treadmill having a frame with a front end and a rear end;

providing a plurality of bearings coupled to the frame, wherein the plurality of bearings define at least a portion of a curved top profile;

disposing a running belt on the plurality of bearings such that the curved top profile of plurality of bearings define at least a portion of a curved running surface of the running belt;

providing a safety device coupled to the frame and to the running belt, the safety device having a first rotatable element and a second rotatable element, wherein at least one of the first and second rotatable elements are adapted for rotation relative to the frame;

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.

59. (Previously Presented) A method according to claim 58, further comprising providing for selective application of a braking force to resist the rotational movement of the running belt in the first direction.

60. (Previously Presented) A method according to claim 58, further comprising providing for the adjustment of the vertical incline of at least a portion of the running surface.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/958,339	Filing Date 04/20/2018	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $230 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	10/16/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 59	Minus	** 60	= 0		x $50 =	0
	Independent (37 CFR 1.16(h))	* 8	Minus	*** 8	= 0		x $230 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/ZETA T ADAMS/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Substitute for form 1449/PTO				***Complete if Known***	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	15/958,339
Date Submitted: December 18, 2019				**Filing Date**	4/20/2018
				First Named Inventor	Douglas G. Bayerlein
				Art Unit	3784
(use as many sheets as necessary)				Examiner Name	Deichl, Jennifer M.
Sheet	1	of	1	Attorney Docket Number	097208-0226

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	H1	5,378,213	01-03-1995	QUINT, JEFFREY T.	
	H2	2005/0202936	09-15-2005	OTA, YOSHITAKE	
	H3	2018/0001134-A1	01-04-2018	BAYERLEIN ET AL.	

Examiner Signature		Date Considered	

Electronic Patent Application Fee Transmittal

Application Number:	15958339
Filing Date:	20-Apr-2018
Title of Invention:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
First Named Inventor/Applicant Name:	Douglas G. Bayerlein
Filer:	Alexander J. Neuworth/Laura Buhs
Attorney Docket Number:	097208-0226

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	2806	1	120	120
		Total in USD ($)		**120**

Electronic Acknowledgement Receipt

EFS ID:	38074997
Application Number:	15958339
International Application Number:	
Confirmation Number:	4765
Title of Invention:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
First Named Inventor/Applicant Name:	Douglas G. Bayerlein
Customer Number:	26371
Filer:	Alexander J. Neuworth/Laura Buhs
Filer Authorized By:	Alexander J. Neuworth
Attorney Docket Number:	097208-0226
Receipt Date:	18-DEC-2019
Filing Date:	20-APR-2018
Time Stamp:	16:08:32
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$120
RAM confirmation Number	E2019BHG08503904
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	097208-0226_IDS.pdf	116932 2bab42a7b18b1cef6ba783f9b2ee0c07670b47c6	no	2
Warnings:					
Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	097208-0226_SB08.pdf	103060 21804396188dc3ab9b8de7cb7200988da839705a	no	1
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
3	Fee Worksheet (SB06)	fee-info.pdf	30614 f3910d26fec2895c8233849962168953220664bd	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	250606		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor Name:	Douglas G. Bayerlein
Title:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
Application No.:	15/958,339
Filing Date:	4/20/2018
Examiner:	Deichl, Jennifer M.
Art Unit:	3784
Confirmation No.:	4765

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

Applicant submits herewith documents for the Examiner's consideration in accordance with 37 CFR §§1.56, 1.97 and 1.98.

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

Applicant requests that, in accordance with 37 CFR §1.98(d), the Examiner review all applications relied on for an earlier effective filing date under 35 U.S.C. 120, including application no. 13/235,065, filed 9/16/2011; application no. 14/076912, filed 11/11/2013; application no. 14/832,708, filed 8/21/2015, for copies of references of record therein that are not being provided here; although Applicant would be pleased to provide copies of any such documents at the Examiner's request.

The submission of any document herewith is not an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document submitted herewith.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(c), before the mailing date of any of a final action under 37 CFR §1.113, a notice of allowance under 37 CFR §1.311, or an action that otherwise closes prosecution in the application.

FEE

Fees in the amount of $120.00 to cover the fee associated with an information disclosure statement are being paid by credit card via EFS-Web.

The Commissioner is hereby authorized to charge any additional fees which may be required for this application to Deposit Account Number 19-0741.

Respectfully submitted,

Date /12-18-2019/ By /Alexander J. Neuworth/

FOLEY & LARDNER LLP
Customer Number: 26371
Telephone: (414) 319-7029
Facsimile: (414) 297-4900

Alexander J. Neuworth
Attorney for Applicant
Registration No. 72,021

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

26371 7590 01/03/2020

FOLEY & LARDNER LLP
3000 K STREET N.W.
SUITE 600
WASHINGTON, DC 20007-5109

EXAMINER
ROBERTSON, JENNIFER MARY DEICHL

ART UNIT	PAPER NUMBER
3784	

DATE MAILED: 01/03/2020

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/958,339	04/20/2018	Douglas G. Bayerlein	097208-0226	4765

TITLE OF INVENTION: MANUAL TREADMILL AND METHODS OF OPERATING THE SAME

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	04/03/2020

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

26371 7590 01/03/2020

FOLEY & LARDNER LLP
3000 K STREET N.W.
SUITE 600
WASHINGTON, DC 20007-5109

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/958,339	04/20/2018	Douglas G. Bayerlein	097208-0226	4765

TITLE OF INVENTION: MANUAL TREADMILL AND METHODS OF OPERATING THE SAME

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	04/03/2020

EXAMINER	ART UNIT	CLASS-SUBCLASS
ROBERTSON, JENNIFER MARY DEICHL	3784	482-054000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. Fees submitted: ❑ Issue Fee ❑ Publication Fee (if required) ❑ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❑ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/958,339	04/20/2018	Douglas G. Bayerlein	097208-0226	4765

26371 7590 01/03/2020

FOLEY & LARDNER LLP
3000 K STREET N.W.
SUITE 600
WASHINGTON, DC 20007-5109

EXAMINER	
ROBERTSON, JENNIFER MARY DEICHL	
ART UNIT	PAPER NUMBER
3784	

DATE MAILED: 01/03/2020

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

LIFECORE Ex. 1002

Notice of Allowability	Application No. 15/958,339	Applicant(s) Bayerlein et al.	
	Examiner JENNIFER ROBERTSON	Art Unit 3784	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to the amendment filed 10/16/2019.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 1-16 and 18-60 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information , please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some *c) ☐ None of the:

   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☐ Examiner's Amendment/Comment
6. ☐ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/JENNIFER ROBERTSON/
Primary Examiner, Art Unit 3784

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/958,339	Bayerlein et al.
	Examiner	**Art Unit**
	JENNIFER ROBERTSON	3784

CPC								
Symbol							**Type**	**Version**
A63B	/	21	/	0053			F	2013-01-01
A63B	/	22	/	0023			I	2013-01-01
A63B	/	21	/	157			I	2013-01-01
A63B	/	22	/	0285			I	2013-01-01
A63B	/	21	/	0054			I	2015-10-01
A63B	/	22	/	0017			I	2015-10-01
A63B	/	21	/	0055			I	2015-10-01
A63B	/	22	/	02			I	2013-01-01
A63B	/	22	/	0235			I	2013-01-01
A63B	/	23	/	04			I	2013-01-01
A63B	/	2230	/	06			A	2013-01-01
A63B	/	2230	/	75			A	2013-01-01

CPC Combination Sets									
Symbol							**Type**	**Set**	**Ranking**	**Version**
	/		/							

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	59	
/JENNIFER ROBERTSON/ Primary Examiner, Art Unit 3784	19 December 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

U.S. Patent and Trademark Office — Part of Paper No.: 20191219

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/958,339	Bayerlein et al.
	Examiner	**Art Unit**
	JENNIFER ROBERTSON	3784

INTERNATIONAL CLASSIFICATION				
CLAIMED				
A63B21/005	/	21	/	005
A63B22/00	/	22	/	00
A63B21/00	/	21	/	00
A63B22/02	/	22	/	02
A63B23/04	/	23	/	04

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	59	
/JENNIFER ROBERTSON/ Primary Examiner, Art Unit 3784	19 December 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

U.S. Patent and Trademark Office

Part of Paper No.: 20191219

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/958,339	Bayerlein et al.
	Examiner	**Art Unit**
	JENNIFER ROBERTSON	3784

☑ Claims renumbered in the same order as presented by applicant ☐ CPA ☑ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	59	
/JENNIFER ROBERTSON/ Primary Examiner, Art Unit 3784	19 December 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

U.S. Patent and Trademark Office

Part of Paper No.: 20191219

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/958,339	Bayerlein et al.
	Examiner	Art Unit
	JENNIFER ROBERTSON	3784

CPC - Searched*		
Symbol	Date	Examiner
A63B22/02-0228	07/11/2018	JD

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
reviewed family applicaiton history	07/11/2018	JD
EAST text search	07/11/2018	JD
updated	02/14/2019	JD
updated	07/31/2019	JD
updated	12/19/2019	JR

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
	EAST text search	12/19/2019	JR

/JENNIFER ROBERTSON/ Primary Examiner, Art Unit 3784	

PTO/SB/08 (modified)

Substitute for form 1449/PTO				*Complete if Known*	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	15/958,339
				Filing Date	4/20/2018
Date Submitted: October 16, 2019				**First Named Inventor**	Douglas G. Bayerlein
				Art Unit	3784
(use as many sheets as necessary)				Examiner Name	Deichl, Jennifer M.
Sheet	1	of	1	Attorney Docket Number	097208-0226

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	G1	6,652,424-B2	11-25-2003	DALEBOUT, WILLIAM T.	
	G2	2012/0010048-A1	01-12-2012	BAYERLEIN ET AL.	

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[6]
	G3	WOODWAY USA, INC., "Treadmill Owner's Manual", October 2001, 56 pages.	
	G4	WOODWAY USA, INC., EcoMill Promotional Flyer, October 18, 2011, 1 page.	
	G5	WOODWAY USA, INC., Owner's Manual: EcoMill Non-Motorized, June 4, 2010, 35 pages.	

Examiner Signature	/JENNIFER ROBERTSON /	Date Considered	12/19/2019

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.R./

PTO/SB/08 (modified)

Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	15/958,339
				Filing Date	4/20/2018
Date Submitted: December 18, 2019				**First Named Inventor**	Douglas G. Bayerlein
				Art Unit	3784
(use as many sheets as necessary)				Examiner Name	Deichl, Jennifer M.
Sheet	1	of	1	Attorney Docket Number	097208-0226

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	H1	5,378,213	01-03-1995	QUINT, JEFFREY T.	
	H2	2005/0202936	09-15-2005	OTA, YOSHITAKE	
	H3	2018/0001134-A1	01-04-2018	BAYERLEIN ET AL.	

Examiner Signature	/JENNIFER ROBERTSON /	Date Considered	12/19/2019

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.R./

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	0	(manual$2 and treadmill and frame and safety and housing and rotate and interference).clm.	US-PGPUB; USPAT; USOCR	OR	ON	2019/12/19 14:38
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S2	2189	A63B22/02-0292.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/10/23 17:44
S3	27	S2 and height with threaded	US-PGPUB; USPAT; USOCR	OR	OFF	2016/10/23 17:45
S4	8	S2 and (crank same pinion)	US-PGPUB; USPAT; USOCR	OR	OFF	2016/10/23 17:51
S5	11	treadmill and deichl.xa.	US-PGPUB; USPAT	OR	OFF	2017/05/01 20:22
S6	7	("20060052728" | "5089960" | "5913684" | "5980256" | "6152854" | "7166064" | "7980856").PN. OR ("8968161").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/01 20:24
S7	80	("3451526" | "3550756" | "4868682" | "5186270" | "5229756" | "5238099" | "5314391" | "5385519" | "5490784" | "5495576" | "5562572" | "D340342").PN. OR ("6152854").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/01 20:25
S8	25	("1211765" | "20040082890" | "2820454" | "2842365" | "3711090" | "4204673" | "4509510" | "4603851" | "5108094" | "5383828" | "5470293" | "5951441" | "6071354" | "6152854" | "6180210" | "6455123" | "8002674" | "8033387" | "8162769" | "8206801" | "8308592" | "8439807").PN. OR ("8714346").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/01 20:30
S9	17	("3641601" | "3659845" | "3689066" |	US-PGPUB;	OR	OFF	2017/05/01

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S11	1	("9352188").PN.	US-PGPUB; USPAT	OR	OFF	2017/05/01 20:43
S12	2319	A63B22/02-0292.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/02 09:42
S13	105	S12 and @pd>="20161015"	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/02 09:42
S14	25	("1211765" | "20040082890" | "2820454" | "2842365" | "3711090" | "4204673" | "4509510" | "4603851" | "5108094" | "5383828" | "5470293" | "5951441" | "6071354" | "6152854" | "6180210" | "6455123" | "8002674" | "8033387" | "8162769" | "8206801" | "8308592" | "8439807").PN. OR ("8714346").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/02 09:46
S15	17	("3641601" | "3659845" | "3689066" | "3711090" | "4509510" | "5018722").PN. OR ("6180210").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/02 09:47
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S17	8	(("20040077465") or ("4,659,074") or ("5,290,205") or ("5,431,612") or ("5,856,736") or ("7,179,205") or ("7,618,345") or ("7,789,800")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/08/03 12:54
S18	21	(("20050209059~") or ("20140087922") or ("20160263429") or ("20170182356") or ("4,886,266") or ("4,938,469") or ("5,242,339") or ("5,368,532") or ("5,643,144") or ("5,683,332") or ("6,152,854") or ("6,334,839") or ("6,824,502") or ("6,837,830") or ("7,410,449") or ("7,780,573") or ("7,806,805") or ("8,241,187") or ("8,864,627") or ("8,920,347") or ("9,429,511")).PN. or (2006/0122035).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/12/08 11:01
S19	2	(("8308619") or ("8343016")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/05/03 10:07
S20	35	("1211765" | "20120010048" | "20120010053" | "20120157267" | "3489408" | "3637206" | "3642279" | "3669238" | "4614337" | "5470293" | "5577598" | "5709632" | "6053848" | "6146315" | "6348025").PN. OR ("8343016").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/05/03 10:11
S21	5	("3489408").URPN.	USPAT	OR	ON	2018/05/03 10:32

S22	13	("0219439" | "1895285" | "3489408" | "3536324" | "4423864" | "5387159").PN. OR ("7513832").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/05/03 10:32
S23	3	(("20030186787") or ("20120019973") or ("20140080679")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/05/03 10:36
S24	12	(("5,031,901") or ("5,094,447") or ("5,145,480") or ("5,310,392") or ("7,862,483") or ("8,585,561") or ("8,876,668") or ("9,044,635") or ("9,233,272") or ("9,254,409") or ("9,314,667") or ("9,974,997")).PN. or ((2007/0021278) or (2007/0298935) or (2008/0119332) or (2009/0156363) or (2012/0264569) or (2014/0171272) or (2015/0119202) or (2017/0113093)).CCLS.	USPAT; USOCR	OR	OFF	2018/07/06 13:17
S25	108	(US-20160150084-$ | US-0003871-$ | US-0003872-$ | US-0007886-$ | US-0009668-$ | US-0011642-$ | US-0018917-$ | US-0019973-$ | US-0020907-$ | US-0023039-$ | US-0077465-$ | US-0080679-$ | US-0087922-$ | US-0096064-$ | US-0122035-$ | US-0123396-$ | US-0147079-$ | US-0150084-$ | US-0157267-$ | US-0166877-$ | US-0170666-$ | US-0182356-$ | US-0186787-$ | US-0209059-$ | US-0215589-$ | US-0216607-$ | US-0231934-$ | US-0263429-$ | US-0266091-$ | US-0270705-$ | US-0280960-$ | US-0287165-$ | US-0287266-$ | US-0296789-$ | US-0306456-$ | US-0367175-$ | US-0367851-$ | US-1211765-$ | US-2117957-$ | US-2842365-$ | US-20020147079-$ | US-20030186787-$ | US-20040018917-$ | US-20040077465-$ | US-20050009668-$ | US-20050209059-$ | US-20060003871-$ | US-20060003872-$ | US-20060122035-$ | US-20060287165-$ | US-20070123396-$ | US-20080020907-$ | US-20080287266-$ | US-20090170666-$ | US-20090215589-$ | US-20090280960-$ | US-20100216607-$ | US-20110266091-$ | US-20120019973-$ | US-20120157267-$ | US-20120231934-$ | US-20120270705-$ | US-20140011642-$ | US-20140080679-$ | US-20140087922-$ | US-20150306456-$ | US-20150367175-$ | US-20160023039-$ | US-20160096064-$ | US-20160166877-$ | US-20160263429-$ | US-20160296789-$ | US-20160367851-$ | US-20170007886-$ | US-20170182356-$ | US-2860541-$ | US-3637206-$ | US-3642279-$ | US-3968543-$ | US-3148743-$ | US-3201120-$ | US-4334676-$ | US-4389047-$ | US-4544152-$ | US-4548405-$ | US-4576352-$ | US-4614337-$ | US-4635928-$ | US-4659074-$ | US-4726581-$ | US-4886266-$ | US-4938469-$ | US-5162988-$ | US-5242339-$ | US-5290205-$ | US-5368532-$ | US-5411279-$ | US-5411455-$ | US-5431612-$ | US-5470293-$ | US-5538489-$ | US-5575740-$ | US-5577598-$ | US-5643144-$ | US-5669856-$ | US-5683332-$ | US-	USPAT	OR	OFF	2018/07/06 13:19

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S31	1	("6095952").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 13:35
S32	33	(US-20140011642-$ or US-20120270705-$ or US-20080287266-$ or US-20060287165-$ or US-20100216607-$ or US-20170182356-$).did. or (US-8343016-$ or US-8308619-$ or US-6053848-$ or US-5709632-$ or US-3637206-$ or US-1211765-$ or US-5833577-$ or US-4406451-$ or US-4635928-$ or US-5897461-$ or US-5538489-$ or US-5411455-$ or US-8968161-$ or US-6152854-$ or US-8714346-$ or US-9352188-$ or US-6180210-$ or US-3669238-$ or US-3642279-$ or US-7513832-$ or US-9486681-$ or US-0219439-$ or US-9005085-$ or US-8864627-$ or US-6923746-$ or US-5577598-$).did. or (US-3489408-$).did.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 13:36
S33	19	S32 and (resistance brak$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 13:36
S34	2765	A63B22/02-0292.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 13:39
S35	644	S34 and manual	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 13:39

S36	451	S35 and (resistance brak$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 13:39
S37	1956	A63B22/02-0228.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 13:45
S38	324	S37 and manual and (resistance brak$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 13:46
S39	888	S37 not motor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 13:46
S40	383	S37 and resistance not motor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 13:46
S41	264	S37 and "one way"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 13:54
S42	40	S37 and slat	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 13:56
S43	43	(US-20140011642-$ or US-20120270705-$ or US-20080287266-$ or US-20060287165-$ or US-20100216607-$ or US-20170182356-$ or US-20160263429-$).did. or (US-8343016-$ or US-8308619-$ or US-6053848-$ or US-5709632-$ or US-3637206-$ or US-1211765-$ or US-5833577-$ or US-4406451-$ or US-4635928-$ or US-5897461-$ or US-5538489-$ or US-5411455-$ or US-8968161-$ or US-6152854-$ or US-8714346-$ or US-9352188-$ or US-6180210-$ or US-3669238-$ or US-3642279-$ or US-7513832-$ or US-9486681-$ or US-0219439-$ or US-9005085-$ or US-8864627-$ or US-6923746-$ or US-5577598-$).did. or (US-	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 13:59

		5104120-$ or US-3554541-$ or US-4363480-$ or US-4625962-$ or US-5110117-$ or US-5492517-$ or US-5429563-$ or US-4334676-$).did. or (US-3489408-$ or US-3332683-$).did.				
S44	12	S43 and plastic	USPAT	OR	OFF	2018/07/06 14:00
S45	119	S37 and resistance with rear	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 14:02
S46	34	S37 and resistance with rear with (pulley roller)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 14:02
S47	21	S37 and resistance same (flywheel friction$4) with rear with (pulley roller)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 14:03
S48	54	S37 and flywheel with rear	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/07/06 14:09
S49	68	("1211765" | "3554541" | "3642279" | "4389047" | "4616822" | "4938473" | "5100127" | "5125361" | "5391129" | "5431612" | "5575740").PN. OR ("5709632").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 14:17
S50	38	("1211765" | "20120010048" | "20120010053" | "20120157267" | "3489408" | "3637206" | "3642279" | "3669238" | "4614337" | "5470293" | "5577598" | "5709632" | "6053848" | "6146315" | "6348025").PN. OR ("8343016").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 14:24
S51	11	S43 and height with adjust$4	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/06 14:29
S52	1	("4023795").PN.	USPAT; USOCR	OR	OFF	2018/07/07 15:24
S53	4	(("5709632") or ("5538489") or ("2399915")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/14 10:53
S54	3	(("5378213") or ("20050202936") or ("20180001134")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/12/19 10:06
S55	2	(("6652424") or ("20120010048")).PN.	US-PGPUB; USPAT;	OR	OFF	2019/12/19 10:07

			USOCR			
S56	0	(S54 S55) and clutch	US-PGPUB; USPAT; USOCR	OR	ON	2019/12/19 10:08
S57	44	(US-20140011642-$ or US-20120270705-$ or US-20080287266-$ or US-20060287165-$ or US-20100216607-$ or US-20170182356-$ or US-20160263429-$).did. or (US-8343016-$ or US-8308619-$ or US-6053848-$ or US-5709632-$ or US-3637206-$ or US-1211765-$ or US-5833577-$ or US-4406451-$ or US-4635928-$ or US-5897461-$ or US-5538489-$ or US-5411455-$ or US-8968161-$ or US-6152854-$ or US-8714346-$ or US-9352188-$ or US-6180210-$ or US-3669238-$ or US-3642279-$ or US-7513832-$ or US-9486681-$ or US-0219439-$ or US-9005085-$ or US-8864627-$ or US-6923746-$ or US-5577598-$).did. or (US-5104120-$ or US-3554541-$ or US-4363480-$ or US-4625962-$ or US-5110117-$ or US-5492517-$ or US-5429563-$ or US-4334676-$ or US-5688209-$).did. or (US-3489408-$ or US-3332683-$).did.	US-PGPUB; USPAT; USOCR	OR	ON	2019/12/19 10:08
S59	4	S57 and clutch	US-PGPUB; USPAT; USOCR	OR	ON	2019/12/19 10:09
S60	1	("4023795").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/12/19 10:09
S61	4	(("20110281649") or ("0604472") or ("20180104564")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/12/19 12:54
S62	3	(("20110281649") or ("6044772") or ("20180104564")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/12/19 13:07

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	0	(manual$2 and treadmill and frame and safety and housing and rotate and interference).clm.	US-PGPUB; USPAT	OR	ON	2019/12/19 14:39
L3	0	(manual$2 and treadmill and frame and bearing and rotate and interference).clm.	US-PGPUB; USPAT	OR	ON	2019/12/19 14:39
L4	0	(manual$2 and treadmill and frame and bearing and rotation and interference).clm.	US-PGPUB; USPAT	OR	ON	2019/12/19 14:39
L5	0	(manual$2 and treadmill and frame and safety and rotate and interference).clm.	US-PGPUB; USPAT	OR	ON	2019/12/19 14:46
L6	0	(manual$2 and treadmill and frame and safety and rotation and interference).clm.	US-PGPUB; USPAT	OR	ON	2019/12/19 14:46

12/19/2019 2:47:07 PM
C:\Users\jdeichl\Documents\EAST\Workspaces\15958339.wsp

Atty. Dkt. No. 097208-0226

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor Name:	Douglas G. Bayerlein
Title:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
Appl. No.:	15/958,339
Filing Date:	4/20/2018
Examiner:	Robertson, Jennifer M.
Art Unit:	3784
Confirmation Number:	4765

ISSUE FEE TRANSMITTAL

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

Enclosed herewith please find Issue Fee Transmittal Form PTOL-85(B).

Fees in the amount of $500.00 for payment of the Issue Fee are being paid by credit card via EFS-Web.

The Commissioner is hereby authorized to charge any additional fees which may be required for this application to Deposit Account No. 19-0741.

Respectfully submitted,

Date /1-3-2020/ By /Alexander J. Neuworth/

FOLEY & LARDNER LLP
Customer Number: 26371
Telephone: (414) 319-7029
Facsimile: (414) 297-4900

Alexander J. Neuworth
Attorney for Applicant
Registration No. 72,021

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

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26371 7590 01/03/2020

FOLEY & LARDNER LLP
3000 K STREET N.W.
SUITE 600
WASHINGTON, DC 20007-5109

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/958,339	04/20/2018	Douglas G. Bayerlein	097208-0226	4765

TITLE OF INVENTION: MANUAL TREADMILL AND METHODS OF OPERATING THE SAME

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	04/03/2020

EXAMINER	ART UNIT	CLASS-SUBCLASS
ROBERTSON, JENNIFER MARY DEICHL	3784	482-054000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Foley & Lardner LLP
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: Woodway USA, Inc.

(B) RESIDENCE: (CITY and STATE OR COUNTRY): Waukesha, Wisconsin

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ☒ Corporation or other private group entity ❑ Government

4a. Fees submitted: ☒ Issue Fee ❑ Publication Fee (if required) ❑ Advance Order - # of Copies _____

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5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

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NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Alexander J. Neuworth/ Date /1-3-2020/

Typed or printed name Alexander J. Neuworth Registration No. 72,021

Electronic Patent Application Fee Transmittal

Application Number:	15958339
Filing Date:	20-Apr-2018
Title of Invention:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
First Named Inventor/Applicant Name:	Douglas G. Bayerlein
Filer:	Alexander J. Neuworth/Laura Buhs
Attorney Docket Number:	097208-0226

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	2501	1	500	500

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**500**

Electronic Acknowledgement Receipt

EFS ID:	38196992
Application Number:	15958339
International Application Number:	
Confirmation Number:	4765
Title of Invention:	MANUAL TREADMILL AND METHODS OF OPERATING THE SAME
First Named Inventor/Applicant Name:	Douglas G. Bayerlein
Customer Number:	26371
Filer:	Alexander J. Neuworth/Laura Buhs
Filer Authorized By:	Alexander J. Neuworth
Attorney Docket Number:	097208-0226
Receipt Date:	03-JAN-2020
Filing Date:	20-APR-2018
Time Stamp:	14:19:10
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$500
RAM confirmation Number	E202013E19266702
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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	097208-0226_Transmittal.pdf	110469 b15b10f23e5e30a6ed7ab000e65e294e0b75e5dc	no	1
Warnings:					
Information:					
2	Issue Fee Payment (PTO-85B)	097208-0226_PTOL85.pdf	157012 c5e672b5333745cc19890dc3460456e07a4bc844	no	1
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30531 d71edf06c705bc6a45c53990fecc89fd8581dbb8	no	2
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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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Jan 03, 2020 03:36:38 AM

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Application	Document	Mailroom Date	Attorney Docket No.
15958339	NOA	01/03/2020	097208-0226
	1449	01/03/2020	097208-0226
	1449	01/03/2020	097208-0226

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/958,339	02/18/2020	10561884	097208-0226	4765

26371 7590 01/29/2020

FOLEY & LARDNER LLP
3000 K STREET N.W.
SUITE 600
WASHINGTON, DC 20007-5109

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Douglas G. Bayerlein, Oconomowoc, WI;
Woodway USA, Inc., Waukesha, WI;
Vance E. Emons, Hartland, WI;
Nicholas A. Oblamski, Waukesha, WI;
Scott D. Hoerig, Brookfield, WI;
Matthew J. Zank, Milwaukee, WI;
Robert L. Zimpel, Menomonee Falls, WI;
Joel W. Richards, Wauwatosa, WI;

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Jan 30, 2020 03:48:20 AM

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Application	Document	Mailroom Date	Attorney Docket No.
15958339	ISSUE.NTF	01/29/2020	097208-0226

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