

Search history

- Search 1: [SP]: An equipment for vertical climbing simulation comprising two parallel rectangular profiles 1, joined at the top by a bridge (2) having housed wheels (3), which act as a guide; a piece in the form of "C" (4), attached to the bottom of the rectangular parallel profiles (1) and a bent tube (5); a bar (6), located in one practiced in the rectangular shapes in parallel (1) perforations above the shaped part "C" (4) having attached swingably a profile (7) to control the angle opening of the equipment; a horizontal tubular piece (8), welded on the rear side of the bridge (2), with two separable grip holders (9), one on each side, coated protectors (10); an extension in the form of "L" (11), to allow folding equipment which holds a vertical rectangular profile (12) having a ready bent tube (13) horizontally and a shaped part "C" (14) for receiving profile (7) to and fixed to it by a safe, their displacement being limited by a stop (15); a mechanical system with a pulley (16) arranged in an extension of the shaped extension "L"; a pair of supports in the form of "C" (17) placed on the outside of each of the rectangular parallel profiles (1), with three wheels (18) which guide; a cable with connectors that join each of the supports in the form of "C" (17), said cable being supported by the pulley (16) to coordinate the movement of ascent and descent of the supports in the form of "C" (17) and; a pair of telescoping sections (22) coupled by screws to the supports in the form of "C" shaped handlebars "L" (23) to be grasped by the user during routine and ercitación; comprising a pair of pedals (19), each supported on a swivel base (20), said rotating base coupled by a shaped piece "T" to each of the supports in the form of "C" (17) and; a regulatory system intensity with a lower base (24) attached to the bent tube (13) which receives a pair of actuators (27) which are connected detachably to the supports in the form of "C" (17) by connectors (28), fixing the latter detachably by bolts (29). (Results 0)
- Search 2: [SP]: exerciser type equipment used for routine physical training simulating the action of climbing a vertical and wall particularly to an exerciser team simulation vertical climbing through a system of actuators strategically placed for regulating the intensity routines performed regardless of weight and force the user on the computer is applied. Also, the present invention also provides a number of modifications that allow the system actuators to be removably coupled to the frame of the equipment support and pedals, so that it can be placed not only on such equipment but other equipment characteristics Similar . (Results 0)
- Search 3: FT=(exerciser and vertical and climb* and actuator* and regula* and routine* and removal*) and PRD<20160601 and CPC=(a63b) (Results 5)
- Search 4: FT=(exerciser and vertical and climb* and actuator* and regula* and routine* and remova*) and PRD<20160601 and CPC=(a63b) (Results 12)
- Search 5: FT=(exerciser and vertical and climb*) and PRD<20160601 and CPC=(a63b) (Results 318)
- Search 6: FT=(exerciser and "vertical climber*") and PRD<20160601 and CPC=(a63b) (Results 0)
- Search 7: FT=(exerciser and vertical and climber) and PRD<20160601 and CPC=(a63b) (Results 62)
- Search 8: FT=(vertical and climber) and PRD<20160601 and CPC=(a63b) (Results 535)
- Search 9: FT=(vertical and (climb* or step*)) and PRD<20160601 and CPC=(a63b) (Results 13089)
- Search 10: FT=(vertical and (climber or stepper*)) and PRD<20160601 and CPC=(a63b) (Results 1182)
- Search 11: FT=(vertical and (climber or stepper*)) and exerci* and machin*) and PRD<20160601 and CPC=(a63b) (Results 547)
- Search 12: FT=(vertical and climb* and step* and exerci* and machin*) and PRD<20160601 and CPC=(a63b) (Results 635)

1) Family number: 30922000 (US5116044A)

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Title:	AEROBIC CLIMBING STEP/BENCH			
Priority:	US19900588449 19900926	US19910698392 19910510	US19910698382 19910510	
	US19910718754 19910621	US19910735185 19910724	US19910754075 19910903	
	CA19912052255 19910925	US19920891178 19920529	US19920967711 19921028	
	US19930069740 19930601	US19930082099 19930628	US19930096408 19930726	
	US19930128642 19930930	US19940248717 19940525	CA19942127508 19940706	
	US19950442890 19950517	US19950580048 19951220	US19960636426 19960423	

Family:	Publication number	Publication date	Application number	Application date
	AT125164 E	19950815	AT19910116353T	19910925
	AT170413 E	19980915	AT19940111498T	19940722
	AU199466109 A1	19950202	AU19940066109	19940630
	CA2052255 AA	19920327	CA19912052255	19910925
	CA2052255 C	19970624	CA19912052255	19910925
	CA2127508 AA	19950127	CA19942127508	19940706
	DE69111348 D1	19950824	DE19916011348	19910925
	DE69111348 T2	19960118	DE19916011348T	19910925
	DE69412942 D1	19981008	DE19946012942	19940722
	DK0477909 T3	19950904	DK19910116353T	19910925
	EP0477909 A1	19920401	EP19910116353	19910925
	EP0477909 B1	19950719	EP19910116353	19910925
	EP0636389 A2	19950201	EP19940111498	19940722
	EP0636389 A3	19950322	EP19940111498	19940722
	EP0636389 B1	19980902	EP19940111498	19940722
	ES2074621 T3	19950916	ES19910116353T	19910925
	JP2892194 B2	19990517	JP19910248050	19910926
	JP6343717 A2	19941220	JP19910248050	19910926
	JP7171230 A2	19950711	JP19940171238	19940722
	US5116044 A	19920526	US19910735185	19910724
	US5118096 A	19920602	US19910718754	19910621

US5133237 A	19920728	US19910698392	19910510
US5162028 A	19921110	US19910754075	19910903
US5184987 A	19930209	US19910698382	19910510
US5248286 A	19930928	US19920891178	19920529
US5275579 A	19940104	US19920967711	19921028
US5352168 A	19941004	US19930069740	19930601
US5354247 A	19941011	US19930096408	19930726
US5512026 A	19960430	US19940248717	19940525
US5540638 A	19960730	US19950442890	19950517
US5651753 A	19970729	US19960636426	19960423
US6290628 BA	20010918	US19950580048	19951220

Probable Assignee: WILKINSON WILLIAM T CHESAPEAKE MD US

Assignee(s):(std): BRESSLER PETER W ; DAFTE ERICH ; LINCOV PIETR ; SCHIFF DAVID R ; SCHNEIDER ERIC A ; WILKINSON WILLIAM T ; WILLIAM T WILKINSON

Assignee(s): WILKINSON WILLIAM T CROWNSVILLE MD US ; WILLOW GROVE BANK WELSH AND NORRISTOWN ROADSMAPLE ; WILLOW GROVE BANK ; WILKINSON WILLIAM T CHESAPEAKE MD US ; UIRIAMU TEI UIRUKINSON

Inventor(s):(std): BRESSLER PETER W ; LINCOV PIETR ; SCHIFF DAVID R ; SCHNEIDER ERIC A ; WILKINSON WILLIAM T ; WILLIAM T WILKINSON ; UIRIAMU TEI UIRUKINSON ; PIITAA DABURIYU BURETSUSURAA ; PIETORU RINKAABU ; ERITSUKU E SHIYUNAIDAA ; DEBITSUDO AARU SHIFU ; DAFTE ERICH

Inventor(s): ERITSUKU E SHUNAIDAA ; PIITAA DABURYU BURETSUSURAA ; WILKINSON WILLIAM T CHESAPEAKE CITY MD 21915 US ; SCHNEIDER ERIC A PHILADELPHIA PA 19118 US ; SCHIFF DAVID R PHILADELPHIA PA 19130 US ; LINCOV PIETR PHILADELPHIA PA 19128 US ; BRESSLER PETER W PHILADELPHIA PA 19131 US

Agent(s): FB RICE; FB RICE PTY LTD; BORDEN LADNER GERVAIS LLP

Designated states: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

International class (IPC 8-9): A47C3/20 A63B21/00 A63B22/00 A63B23/00 A63B23/04 B21D28/34 B23D35/00 B26F1/14 (Advanced/Invention); A63B23/00 (Advanced/Non-invention); A47C3/20 A63B23/04 B21D28/34 B23D35/00 B26F1/02 (Core/Invention)

International class (IPC 1-7): A47C3/20 A63B17/00 A63B21/00 A63B22/00 A63B22/000 A63B23/00 A63B23/04 A63B5/00 A63B71/00 B26D7/26 B26F1/14

CPC: A63B2225/093 Y10S248/912 Y10S248/911 Y10S482/908 A63B23/0458 A47C3/20 A63B2210/50 Y10T403/12 B26F1/14 B21D28/34 B23D35/008 Y10T83/2159 Y10T83/9423 Y10T83/9428 Y10T83/9476

European class: A47C3/20 A63B23/04B6 B21D28/34 B23D35/00E B26F1/14 K63B210/50 K63B225/09H

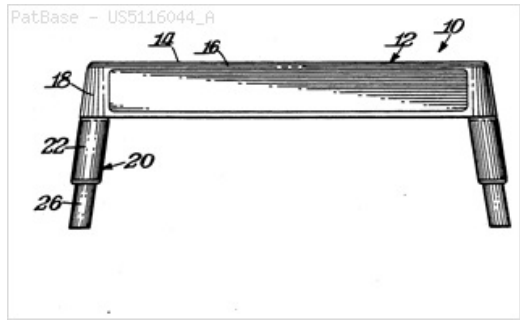
US class: 108/12 108/65 197/438 206/505 206/506 211/175 248/157 248/188 248/188.2 248/188.8 248/911 248/912 297/423.44 297/423.45 297/438 403/3 482/148 482/51 482/52 482/55 482/908 83/140 83/684 83/686 83/698 83/698.91

[Classification Explorer](#)

Cited documents: US770239 A, US744287 A, US5470292 A, US5363774 A, US5352168 A, US5275579 A, US5234396 A, US5226865 A, US5213554 A, US5176596 A, US5169360 A, US5162028 A, US5158512 A, US5154678 A, US5125646 A, US5118101 A, US5118095 A, US5116044 A, US5108089 A, US5094505 A, US5050861 A, US4991325 A, US4930769 A, US4903614 A, US4879800 A, US4849800 A, US4686910 A, US4678234 A, US4659075 A, US4624341 A, US4609192 A, US4558616 A, US4487566 A, US4372183 A, US4297952 A, US4237795 A, US4228745 A, US4203525 A, US3967562 A, US3964404 A, US3930699 A, US3865050 A, US3763732 A, US3744845 A, US3742804 A, US3636576 A, US3628790 A, US3599750 A, US3496818 A, US3272051 A, US3242509 A, US3204259 A, US3177035 A, US3164351 A, US2806606 A, US2722970 A, US2580366 A, US2532902 A, US2522827 A, US2483920 A, US2278894 A, US2172272 A, US2097273 A, US2087186 A, NL83945 A, NL7511686 A, GB2261608 A1, GB2229625 A1, FR2546703 A1, FR2070314 A5, EP0418825 A1, DE2500591 A1, DE2012994 A1, DE1654407 A1, CH333856 A,

Forward Citations: WO9515789, WO9428979, WO9309851, WO9309851, WO17218784, WO17218377, WO16109791, WO16086264, WO16079542, WO11026043, USD831133, USD822774, USD806412, USD707311, USD704278, USD629853, USD628247, USD560260, USD483084, US9908254, US9878198, US9702653, US9656110, US9486658, US9451832, US9446283, US9433813, US9415260, US9192813, US9151561, US9089732, US9022910, US9022906, US8986172, US8931201, US8844397, US8702570, US8499507, US8465399, US8459410, US8444532, US8414414, US8323154, US8136885, US8092347, US8088046, US8062189, US8012073, US7927257, US7927256, US7922624, US7922623, US7835815, US7824319, US7784414, US7713182, US7666128, US7601101, US7575540, US7497406, US7437210, US7354110, US7249746, US7198592, US7169098, US7144351, US7144351, US7052449, US7032812, US6951283, US6926643, US6908417, US6843454, US6626403, US6558301, US6524355, US6494418, US6442820, US6402664, US6290628, US6163734, US6139450, US6117051, US6063007, US6058850, US6012185, US5997442, US5997112, US5954303, US5882082, US5855536, US5772559, US5761313, US5749555, US5746104, US5697870, US5683331, US5660257, US5647286, US5645511, US5641369, US5591105, US5562575, US5558603, US5547154, US5470292, US5451288, US5441466, US5407085, US5387166, US5370447, US5352168, US5322490, US5269735, US2018339191, US2017056714, US2016346157, US2016199689, US2016184624, US2015231440, US2015157892, US2014256525, US2014190295, US2014051553, US2014033887, US2013231218, US2013172160, US2012165137, US2012065033, US2011230318, US2011192069, US2011172063, US2011061972, US2011059830, US2010234187, US2010197465, US2010099541, US2010060068, US2010011932, US2009291807, US2009277852, US2009247378, US2009124464, US2009111669, US2009105048, US2009069907, US2008248937, US2008108487, US2008105799, US2008067003, US2007164186, US2007099765, US2007090236, US2006271745, US2006189449, US2006189448, US2006052220, US2006040796, US2005227813, US2005209073, US2004108433, US2004082441, US2004035986, US2004002411, US2003228958, US2003075476, US2002162440, US2002096832, US10286252, US10252103, US10212994, TWI599337, JP6099366, JP2014097245, GB2517968, GB2410426, FR2887462, FR2868960, EP1855764, EP1855764, EP0636389, EP0636389, DE29506312, CN103815821, AU651517,

Abstract:
 An exercise step/bench for aerobic climbing and dance includes a base in the form of a horizontal platform having a downwardly and outwardly extending apron. A leg is reverseably mounted against the apron at each corner of the platform. The reverseable mounting of the legs permits height adjustment in accordance with the orientation of each leg.



2) Family number: 28247001 (US2002086777A)

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Title:	Inertial resistance exercise apparatus and method									
Priority:	US19970899964 19970724			US20010947226 20010904			US20030644591 20030819			
Family:	Publication number		Publication date		Application number		Application date			
	US2002086777 AA		20020704		US20010947226		20010904			
	US2005037902 AA		20050217		US20030644591		20030819			
	US6283899 BA		20010904		US19970899964		19970724			
	US6689024 BB		20040210		US20010947226		20010904			
	US6929587 BB		20050816		US20030644591		20030819			
	WO9904864 A1		19990204		WO1998US15168		19980723			
Probable Assignee:	CHARNITSKI RICHARD D									
Assignee(s):(std):	CHARNITSKI RICHARD D									
Inventor(s):(std):	CHARNITSKI RICHARD D									
Inventor(s):	CHARNITSKI RICHARD									
Agent(s):	KNOBBE MARTENS OLSON AND BEAR LLP									
Designated states:	AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE									
International class (IPC 8-9):	A63B21/22 (Advanced/Invention); A63B21/00 A63B23/04 (Advanced/Non-invention)									
International class (IPC 1-7):	A63B21/00 A63B21/06 A63B21/22 A63B23/025									
CPC:	A63B21/15 A63B21/153 A63B21/155 A63B21/227 A63B22/001 A63B22/205 A63B23/0417 A63B2022/0043									
European class:	A63B21/15 A63B21/15F4 A63B21/15F6C A63B21/22F2 A63B22/00A6 A63B22/20T4 K63B21/22F2 K63B22/00C12 K63B23/04B2									
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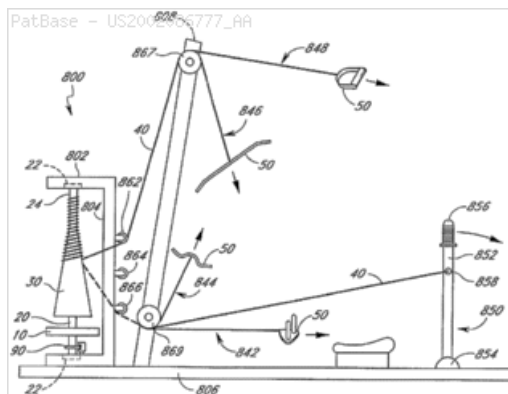
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Cited documents: USD231424 S1, USD231242 S1, US975311 A, US786552 A, US770994 A, US764118 A, US684688 A, US6689024 BB, US6328677 BA, US6328377 BA, US6302829 BA, US6283899 BA, US6261212 BA, US5989163 A, US595594 A, US5679100 A, US5509878 A, US5496236 A, US5492515 A, US5443433 A, US5399136 A, US5354251 A, US5354083 A, US5242351 A, US5192257 A, US517228 A, US517225 A, US5013031 A, US5007631 A, US4953855 A, US4953854 A, US4949954 A, US4844450 A, US4842268 A, US4798379 A, US4728102 A, US4720093 A, US4714244 A, US4659077 A, US4632392 A, US4422636 A, US4328965 A, US4231568 A, US4077626 A, US4003575 A, US3841627 A, US3785641 A, US3737162 A, US3729861 A, US319686 A, US2518840 A, US198435 A, US196435 A, US1869673 A, US181836 A, US1783376 A, US1006470 A, SU611623 T, SU1405856 T, DE3042430 A1, DE3011404 A1,

Forward Citations: WO13192048, WO12106142, WO09029304, WO07099283, WO07099283, WO06107266, WO06017680, US9901774, US9757613, US9522300, US9511253, US9415257, US9320936, US9072936, US9061175, US9017224, US8998779, US8845497, US8652015, US8622879, US8556785, US8556783, US8523745, US8465401, US8333681, US8162802, US8083656, US8075453, US8070657, US8016730, US8012071, US7604576, US7503881, US7294095, US7112165, US7087001, US7014599, US6929587, US6889609, US6689024, US2016151664, US2012289383, US2012245003, US2012108402, US2011130252, US2010298104, US2010144496, US2009215591, US2009156362, US2009062089, US2009036276, US2008139370, US2007054785, US2006252611, US2005250626, US2004224827, US10166425, US10118073, US10065067, TWI622420, ITTO20100009, ITMI20101863, GB2443761, GB2443761, EP1595522, CN104519968, CN104519968,

Abstract:

An exercise apparatus and method utilizes a flywheel mounted on a rotatable axle. The user exercises by accelerating and decelerating the rotation of the flywheel. For example, a line which wraps around the axle provides a mechanism for accelerating and decelerating the flywheel when a user applies a pulling force to the line. The inertia of the flywheel resists the user applied pulling force and provides the exercise mechanism. Preferably, spool mounted on the axle and variable pivot locations provide a mechanism for easily varying the exercise resistance.



3) Family number: 23471001 (WO03089069A1)

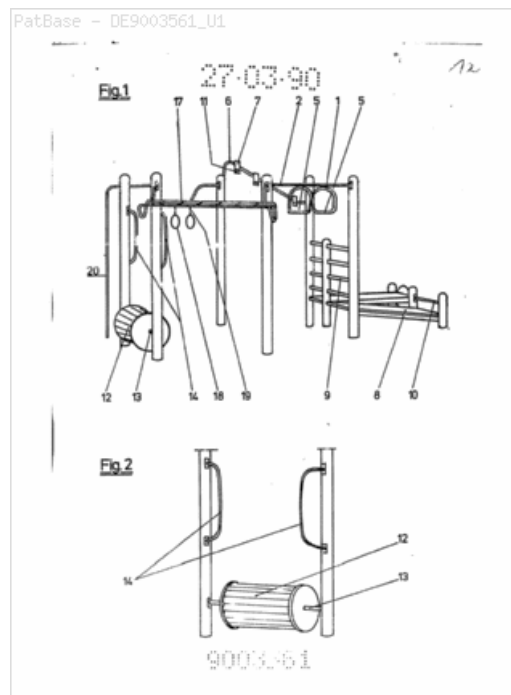
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Title: METHOD AND APPARATUS FOR RECORDING, MONITORING AND ANALYSING PERFORMANCE IN THE GYM PROCEDE ET APPAREIL POUR ENREGISTRER, CONTROLER ET ANALYSER DES PERFORMANCES RE
Priority: AU2002PS01754 20020417 AU20030218897 20030417 WO2003AU00452 20030417
Family:

Publication number	Publication date	Application number	Application date
AU175402 A0	20020523	AU2002PS01754	20020417
AU2002001754 A0	20020523	AU2002PS01754	20020417
AU2003218897 AA	20031103	AU20030218897	20030417
WO03089069 A1	20031030	WO2003AU00452	20030417

Probable Assignee: KINETIC PERFORMANCE TECHNOLOGY
Assignee(s):(std): KINETIC PERFORMANCE TECHNOLOGY ; LAWTON EVAN ; SHUGG ROB ; RICKETSON JONATHAN
Assignee(s): KINETIC PERFORMANCE TECHNOLOGY PTY LIMITED ; KINETIC PERFORMANCE TECHNOLOGY PTY LTD
Inventor(s):(std): LAWTON EVAN ; RICKETSON JONATHAN ; SHUGG ROB
Inventor(s): ROB SHUGG ; JONATHAN RICKETSON ; EVAN LAWTON
Designated states: AT AU BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE SI SK TR US
International class (IPC 8-9): A63B21/06 A63B24/00 (Advanced/Invention); A63B21/00 A63B21/072 (Advanced/Non-invention); A63B21/06 A63B24/00 (Core/Invention); A63B21/00 A63B21/06 (Core/Non-invention)
International class (IPC 1-7): A63B21/06 A63B24/00
CPC: A63B21/0724 A63B21/153 A63B24/00 A63B2220/16 A63B2220/17 A63B2225/20 A63B2225/30 A63B2225/50
European class: A63B21/15F4 A63B24/00 K63B21/072B K63B220/16 K63B220/17 K63B225/20 K63B225/30 K63B225/50
[Classification Explorer](#)
Cited documents: US6231481 BA,
Forward Citations: WO07060616, WO07060616, US7717866, US7712365, US7676332, ES2705359, EP1737541, EP1737541,

Abstract:
A system for recording, monitoring and analysing performance in the gym includes a transducer (15) and interface (13) fitted to standard gym equipment (1). Client software for a handheld computer (16), interface software for a personal computer (PC), and server software for a host system. The client software is used to record and send data representing time, displacement and angle of the lifted weight (30). The interface software facilitates transfer of the data from the handheld computer (16) to the host server. The server software facilitates upload of data, which it stores, analyses and reports through a web interface and by file downloads. It also allows for on-line programming of exercise routines for later download into handheld computers, through the PC interface software.



5) Family number: 57420008 (US2014274563A)

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Title: EXERCISE CELL, KETOSIS/WEIGHT LOSS INDUCING EXERCISE MACHINE (KWIEM), KETOSIS INDUCING APPARATUS (KIA)

Priority: US20130789800P 20130315 US20140205752 20140312 US20140584980 20141229

Family:

Publication number	Publication date	Application number	Application date
US2014274563 AA	20140918	US20140205752	20140312
US2015321070 AA	20151112	US20140584980	20141229
US8920286 BB	20141230	US20140205752	20140312

Probable Assignee: SHETA MOSTAFA

Assignee(s):(std): SHETA MOSTAFA

Inventor(s):(std): SHETA MOSTAFA

Agent(s): RONALD C

International class (IPC 8-9): A63B21/22 A63B22/00 A63B22/02 A63B22/06 A63B24/00 A63B26/00 A63B69/12 A63B71/06 (Advanced/Invention)

CPC: A63B23/047 A63B2071/0661 A63B2208/03 A63B2220/70 A63B2220/75 A63B2220/76 A63B2225/20 A63B2225/50 A63B2225/64 A63B2225/66 A63B2230/06 A63B2230/50 E04H1/125 A63G31/007 A63G31/16 A63B71/0622 A63B21/22 A61F7/0053 A61F7/007 A61F2007/029 A63B22/0023 A63B22/0235 A63B22/0605 A63B69/125 A63B71/0619 A63G31/00 A63G2031/005

US class: 482/1 482/148 482/2

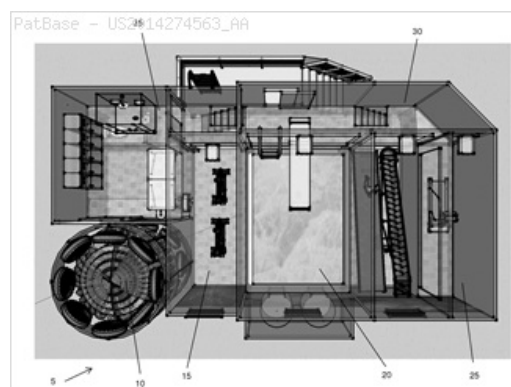
[Classification Explorer](#)

Cited documents: US7749089 BA, US7465257 BA, US6740017 BB, US6443849 BA, US5799652 A, US5352166 A, US5342244 A, US2012309551 AA, US2011164044 AA, US2011004993 AA, US2010042555 AA, US2008110115 AA,

Forward Citations: USD845406, USD794144, US2016038071, US10219734,

Abstract:

A unique concept of exercise and weight loss that takes place in a new invention utility, namely the exercise cells or the Ketone Inducing Apparatus is disclosed. The apparatus consists of four exercise cells to simulate four different exercise categories in extreme environments, namely walk/run/hike in a cold mountain environment, swim/water jogging in a cold water marine environment, cycling in a hot, humid, rainy, tropical forest environment, and gravitational rotation in a hot dry air windy space or desert environment. The purpose of this activity is to maximally stimulate the process of Ketosis (breakage of the human fat) to form smaller molecules of Ketones. The Ketones will then be eliminated both passively from the human body via urination and exhalation and actively through intracellular burn oxidation, hence reducing the extra fat load and reducing obesity. The reduction of the human obesity will enhance the human health status and reduce the complication of obesity namely diabetes, heart disease, and reduce the human mortality and morbidity.



6) Family number: 51556008 (US2012184409A)

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Title: ENDLESS BELT ARM EXERCISE DEVICE WITH BRAKING MECHANISM

Priority: US20110434376P 20110119 US20120354206 20120119 US20150589974 20150105

Family:

Publication number	Publication date	Application number	Application date
US2012184409 AA	20120719	US20120354206	20120119
US2015111699 AA	20150423	US20150589974	20150105
US8926474 BB	20150106	US20120354206	20120119

Probable Assignee: BEAL ADAM MORRIS

Assignee(s):(std): BEAL ADAM MORRIS

Inventor(s):(std): BEAL ADAM MORRIS

Agent(s): MP PATENTS LLC

International class (IPC 8-9): A63B17/00 A63B21/00 A63B21/005 A63B23/12 A63B24/00 A63B69/00 A63B7/04 A63B9/00 (Advanced/Invention); A63B21/16 A63B22/02 A63B7/04 (Advanced/Non-invention)

CPC: A63B22/02 A63B23/1209 A63B69/0048 A63B2220/13 A63B2220/805 A63B24/0087 A63B7/045 A63B21/169 A63B21/4035 A63B21/4045 A63B22/0285

US class: 482/35 482/36 482/37 482/5 482/5P 482/6

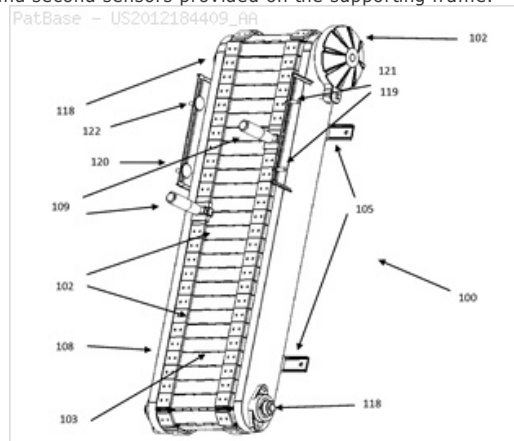
[Classification Explorer](#)

Cited documents: US7686739 BB, US7572208 BB, US7387593 BB, US7357757 BB, US7195582 BB, US6860836 BA, US6623409 BA, US6231482 BA, US5549195 A, US5242341 A, US2008119337 AA,

Forward Citations: US2017050097, US10293210, US10252130, CN106621251,

Abstract:

An exercise device for exercising a user's arms and upper body includes an endless belt of hingedly connected articulating panels guided in channels of a supporting frame. A pair of hand grip assemblies are slidably attached to the endless belt through a ratcheting mechanism that allows relative movement of the hand grip assemblies in a first direction while preventing said relative movement in a second direction. Movement of the endless belt may be retarded by a tensioning mechanism and completely ceased by a braking mechanism actuated by signals provided from first and second sensors provided on the supporting frame.

**7) Family number: 31497008** (US2005026757A)

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Title: AERIAL EXERCISING DEVICE AND METHOD

Priority: US20030629732 20030730

Family:

Publication number	Publication date	Application number	Application date
US2005026757 AA	20050203	US20030629732	20030730

Probable Assignee: CREARY NYA A

Assignee(s):(std): CREARY NYA A

Inventor(s):(std): CREARY NYA A

Inventor(s): CREARY NYA

Agent(s): NEAL T HAUSCHILD

International class (IPC 8-9): A63B5/16 A63B69/00 A63B7/00 (Advanced/Invention); A63B5/00 A63B69/00 A63B7/00 (Core/Invention)

International class (IPC 1-7): A63B26/00

CPC: A63B5/16 A63B7/00 A63B69/0064

European class: A63B5/16 A63B69/00N6 A63B7/00

US class: 482/142 482/143

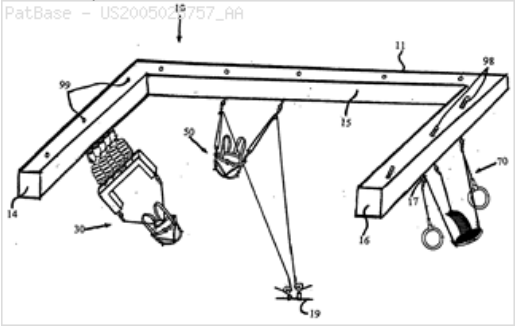
[Classification Explorer](#)

Cited documents: US5885190 A, US5816983 A, US5662555 A, US5577984 A, US5403253 A, US5178590 A, US4921245 A, US4431184 A, US4125257 A, US4084812 A, US4052070 A, US3937461 A, US3372926 A, US2005209069 AA, US2005049055 AA, US1477110 A,

Forward Citations: WO16133408, US9914003, US8992399, US7614957, US7351155, US2010130338, US2007021225, US10265565, US10232212, US10086297, KR100954320, IT201600082742,

Abstract:

An exercise device for allowing a user to perform functional tasks during training or exercise. The exercise device has an upper frame from which various exercise stations are positioned. The exercise device is provided which enables users to achieve jumping, horizontal movement, bounding, suspended sit-ups and leg-lift exercise movements. The exercise device comprises a harness system attached to an elastic suspension system to enable the user to jump vertically, another harness system attached to a flexible line to hoist the user up the wall and enable user to move horizontally on a vertical surface, and a cradle system with a ring attachment that allows a user to use upper body strength for suspension and perform abdominal exercises.

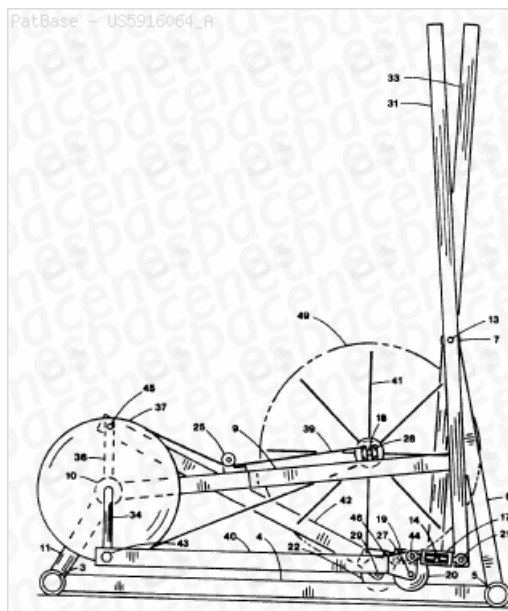


8) Family number: 11615008 (US5916064A) © PatBase

Title:	Compact exercise apparatus			
Priority:	US19970966678 19971110			
Family:	Publication number	Publication date	Application number	Application date
	US5916064 A	19990629	US19970966678	19971110
Probable Assignee:	ESCHENBACH PAUL WILLIAM			
Assignee(s):	ESCHENBACH PAUL WILLIAM			
Inventor(s):(std):	ESCHENBACH PAUL WILLIAM			
International class (IPC 8-9):	A63B23/04 (Advanced/Invention); A63B21/008 A63B23/035 (Advanced/Non-invention)			
International class (IPC 1-7):	A63B22/04 A63B69/16			
CPC:	A63B21/0088 A63B22/001 A63B22/0015 A63B22/0664 A63B2022/067			
European class:	A63B22/00A6 A63B22/06E K63B21/008C4 K63B22/00B K63B22/06E2			
US class:	482/51 482/57 482/70			
Classification Explorer				
Cited documents:	US5782722 A, US5577985 A, US5573480 A, US5529555 A, US5423729 A, US3724844 A, DE2919494 A1,			
Forward Citations:	WO04108225, USD489101, US8454478, US8162805, US8128535, US8062185, US8057363, US8025609, US7909740, US7824313, US7785235, US7775940, US7766797, US7758473, US7740563, US7736279, US7717828, US7674205, US7658698, US7618350, US7568999, US7462134, US7448986, US7361122, US7344480, US7341542, US7278955, US7270626, US7270625, US7267637, US7244217, US7214168, US7201705, US7179201, US7172531, US7169089, US7169088, US7137927, US7025710, US6908416, US6575877, US2018290015, US2017056709, US2015087480, US2011143885, US2010152000, US2009062080, US2008261780, US2007202999, US2007129217, US2007123393, US2006100066, US2006100065, US2006040794, US2006035754, US2005181911, US2005164835, US2005107219, US2005101445, US2005075217, US2004266588, US2004266587, US2004224825, US2004157706, US2003092532, US10293211, US10279212, US10272317, US10258828, US10252109, US10188890, EP2996780,			

Abstract:

A compact standup exercise apparatus simulates walking and jogging with arm exercise. Elongate foot pedals move with a back and forth elliptical movement while the pedals incline. Several foot positions are provided on the elongate pedals. Arm exercise is coordinated with the motion of the foot pedals. An adjustable connector link is provided to relocate the arm exercise for different foot positions on the elongate pedals. Leg joint impact is controlled to be very low as to allow extended exercise without joint soreness.



9) Family number: 34289010 (US2007049466A)

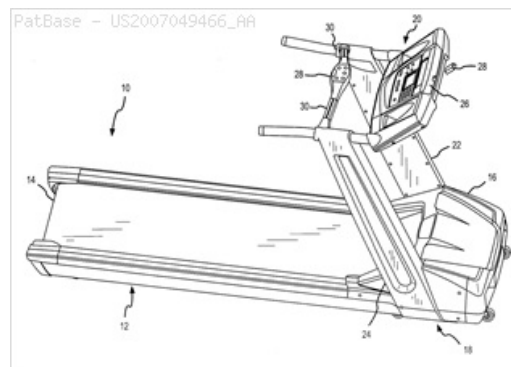
© PatBase

Title: APPARATUS AND METHOD FOR ALTERING EXERCISE DEVICE ELECTRONICS AND FUNCTIONALITY
Priority: US20050709744P 20050819 US20060465387 20060817 WO2006US32825 20060818
Family:

Publication number	Publication date	Application number	Application date
CN101495194 A	20090729	CN200680037435	20060818
EP1915200 A2	20080430	EP20060789941	20060818
TW200718454 A	20070516	TW20060130370	20060818
US2007049466 AA	20070301	US20060465387	20060817
WO07022539 A2	20070222	WO2006US32825	20060818
WO07022539 A3	20090423	WO2006US32825	20060818

Probable Assignee: NAUTILUS INC
Assignee(s):(std): HUBBARD ADAM P ; NAUTILUS INC
Assignee(s): BANK OF AMERICA NA ; BANK OF AMERICA NA ADMINISTRATIVE AGENT AS ; DASHAMERICA INC
Inventor(s):(std): HUBBARD ADAM P
Inventor(s): HUBBARD ADAM
Agent(s): MILLER JAMES LIONEL WOOLVERTON ET AL; DORSEY AND WHITNEY LLP, INTELLECTUAL PROPERTY DEPARTMENT; DORSEY AND WHITNEY LLP INTELLECTUAL PROPERTY DEPARTMENT; DURBIN GREGORY P ET AL
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW
International class (IPC 8-9): A63B21/00 A63B22/00 A63B22/02 A63B24/00 A63B71/00 (Advanced/Invention); A63B21/00 (Advanced/Non-invention); A63B21/00 A63B22/00 A63B71/00 (Core/Invention); A63B21/00 (Core/Non-invention)
CPC: A63B22/0605 A63B22/02 A63B22/0056 A63B22/0076 A63B22/0664 A63B24/00 A63B2225/15
European class: A63B22/02 A63B24/00 K63B22/00P6 K63B22/00R K63B22/06E K63B22/08 K63B225/15
US class: 482/54 482/8
[Classification Explorer](#)
Cited documents: US6949052 BB, US6736759 BA,
Forward Citations: USD589097, US2008119332, US10293211, US10279212, US10272317, US10258828, US10252109, US10188890, TWI657943, CN106170321, CN105936313,

Abstract:
A treadmill or other form of exercise equipment including a receptacle or other communication port adapted to provide a communication pathway to a cartridge or other removable memory and/or processing platform such that operation of electronics and software resident in some portion of the exercise equipment may be conveniently modified. In one particular form, the treadmill includes a receptacle in a console. A cartridge includes a memory and associated processing electronics. The cartridge is adapted to fit within the receptacle and engage communication ports or connections within the receptacle. Upon recognition of a cartridge within the receptacle, modification of some portion of the operation of the electronics, modifications to software within the exercise equipment, etc. may be undertaken as a function of whatever modification is provided by way of a new application, an addition to an existing application, a new subroutine, a modification of a subroutine, a control code, or some other treadmill electronics or software modification programming provided in the cartridge.



10) Family number: 44436010 (US7670268B)

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Title: EXERCISE METHODS AND APPARATUS WITH ELLIPTICAL FOOT MOTION

Priority: US20070918276P 20070314 US20070978332 20071029

Family:	Publication number	Publication date	Application number	Application date
	US7670268 BA	20100302	US20070978332	20071029

Probable Assignee: KELMSCOTT COMMUNICATIONS LLC A DELAWARE LIABILITY

Assignee(s):(std): MARESH JOSEPH D ; STEARNS KENNETH W

Assignee(s): KELMSCOTT COMMUNICATIONS LLC A DELAWARE LIABILITY

Inventor(s):(std): MARESH JOSEPH D ; STEARNS KENNETH W

International class A63B22/00 A63B22/04 (Advanced/Invention)
(IPC 8-9):

CPC: A63B21/225 A63B22/001 A63B22/0061 A63B22/0664 A63B22/203 A63B2022/0676 A63B2225/09

European class: A63B21/22F A63B22/00A6 A63B22/00P8 A63B22/06E K63B22/06E4 K63B22/20T2 K63B225/09

US class: 482/51 482/52 482/57

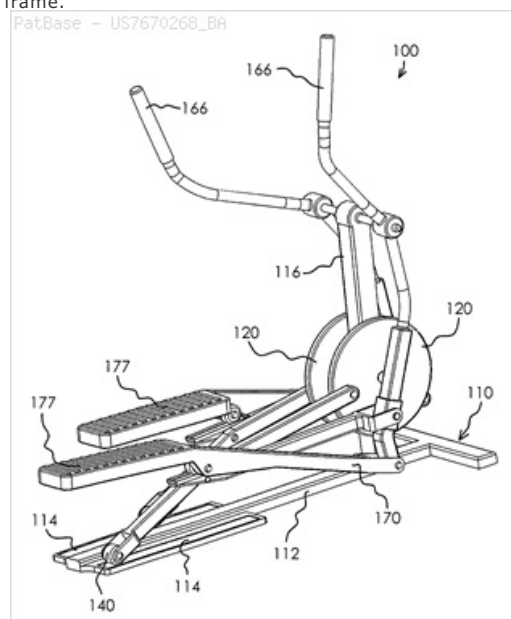
[Classification Explorer](#)

Cited documents: US7060004 BB, US7041036 BA, US6620079 BB, US6454682 BA, US6450925 BA, US6080086 A, US5882281 A, US5540637 A, US5383829 A, US5279529 A, US4185622 A,

Forward Citations: USD850541, US9339685, US9144706, US8216115, US8062186, US2011294627, US2010317492, CN103537052, CN103537052, CN103537051,

Abstract:

An exercise apparatus includes a frame configured to rest on a floor surface; left and right cranks rotatably mounted on the frame; left and right drive links having forward ends rotatably coupled to respective cranks, and rearward ends constrained to move in reciprocal fashion relative to the frame; left and right rocker links rotatably mounted on the frame at a common pivot axis; left and right drawbar links rotatably interconnected between respective rocker links and respective drive links; and left and right foot links having forward ends rotatably coupled to respective rocker links, and rearward, foot supporting ends constrained to move in reciprocal fashion relative to respective drawbar links or respective drive links. The resulting linkage assemblies constrain the foot supporting ends to move through elliptical paths, and the paths may be altered by adjusting various components of the linkage assemblies relative to one another and/or the frame.



11) Family number: 58590012 (US2015057127A)

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Title: ADJUSTABLE EXERCISE SYSTEM

Priority: US20130869904P 20130826 US20140004936P 20140530 US20140013028P 20140617

US20140468958	20140826	US20140090077P	20141210	US20150114338P	20150210
US20150725908	20150529	WO2015US33463	20150601	US20150742106	20150617
US20160041028	20160210	US20160187728	20160620	US20160332786	20161024
US20160376600	20161212	US20160395041	20161230	US20170407092	20170116
US20170595258	20170515	US20170785409	20171016	US20170853267	20171222
US20180917878	20180312				

Family:

Publication number	Publication date	Application number	Application date
AU2015275037 AA	20161201	AU20150275037	20150601
CA2959642 AA	20161122	CA20152959642	20150601
EP3148657 A1	20170405	EP20150807353	20150601
EP3148657 A4	20180314	EP20150807353	20150601
US2015057127 AA	20150226	US20140468958	20140826
US2015343250 AA	20151203	US20150725908	20150529
US2015360068 AA	20151217	US20150742106	20150617
US2016166870 AA	20160616	US20160041028	20160210
US2016317858 AA	20161103	US20160187728	20160620
US2017087397 AA	20170330	US20160376600	20161212
US2017106232 AA	20170420	US20160395041	20161230
US2017120101 AA	20170504	US20170407092	20170116
US2017246499 AA	20170831	US20170595258	20170515
US2018036583 AA	20180208	US20170785409	20171016
US2018117392 AA	20180503	US20170853267	20171222
US2018193691 AA	20180712	US20180917878	20180312
US9211440 BB	20151215	US20140468958	20140826
US9370679 BB	20160621	US20150725908	20150529
US9474926 BA	20161025	US20160187728	20160620
US9517375 BB	20161213	US20150742106	20150617
US9533184 BA	20170103	US20160332786	20161024
US9545535 BB	20170117	US20160041028	20160210
US9649526 BB	20170516	US20160395041	20161230
US9789354 BB	20171017	US20170595258	20170515
US9849330 BB	20171226	US20170407092	20170116
US9914014 BB	20180313	US20170785409	20171016
US10238910 BB	20190326	US20180917878	20180312
US10265573 BB	20190423	US20170853267	20171222
US10279207 BB	20190507	US20160376600	20161212
WO15191316 A1	20151217	WO2015US33463	20150601

Probable Assignee: LAGREE TECHNOLOGIES INC

Assignee(s):(std): LAGREE TECH INC ; SPX FITNESS INC

Assignee(s): REMUND TODD ; LAGREE TECHNOLOGIES INC ; COX SAMUEL ; LAGREE SEBASTIEN ANTHONY LOUIS

Inventor(s):(std): COX SAMUEL ; REMUND TODD ; REMUND TODD G ; COX SAMUEL D ; LAGREE SEBASTIEN ANTHONY LOUIS

Agent(s): FPA PATENT ATTORNEYS PTY LTD; ADE AND CO INC; MILLS ELIZABETH ROSE; NEUSTEL LAW OFFICES; MICHAEL S; GILBERT JASON ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A63B21/00 A63B21/005 A63B21/008 A63B21/02 A63B21/04 A63B21/055 A63B21/068 A63B22/00 A63B22/02 A63B22/06 A63B22/16 A63B22/20 A63B23/00 A63B23/02 A63B23/035 A63B23/04 A63B23/12 A63B24/00 A63B26/00 (Advanced/Invention); A63B21/008 A63B21/055 A63B22/00 A63B22/02 A63B22/06 A63B22/18 A63B23/00 A63B23/035 A63B23/04 A63B23/12 A63B71/06 (Advanced/Non-invention)

CPC: A63B21/00 A63B22/0056 A63B22/16 A63B23/0355 A63B23/03575 A63B23/1218 A63B2022/0051 A63B2225/107 A63B2225/20 A63B23/0205 A63B23/0216 A63B21/4045 A63B22/0002 A63B24/0075 A63B21/00076 A63B21/0083 A63B21/0087 A63B24/0087 A63B2024/0093 A63B2208/0204 A63B2208/0242 A63B2225/50 A63B24/0084 A63B69/0057 A63B21/0428 A63B21/008 A63B21/0085 A63B21/4047 A63B21/0058 A63B21/4033 A63B23/0233 A63B21/00069 A63B21/0552 A63B22/0076 A63B2024/0081 A63B21/023 A63B21/4034 A63B21/4035 A63B22/02 A63B22/0605 A63B22/0664 A63B22/18 A63B23/03508 A63B23/03525 A63B2022/0094 A63B2023/0411 A63B2225/54 A63B2230/60 A63B2071/0683 A63B21/00061 A63B21/00065 A63B21/0442 A63B21/068 A63B21/4043 A63B22/0012 A63B22/0023 A63B22/0046 A63B22/0087 A63B22/0089 A63B22/203 A63B22/205 A63B23/0211 A63B23/03541 A63B23/047 A63B23/1209 A63B2023/003 A63B2208/0214 A63B2208/0219

US class: 1/1 482/142 482/4 482/96

[Classification Explorer](#)

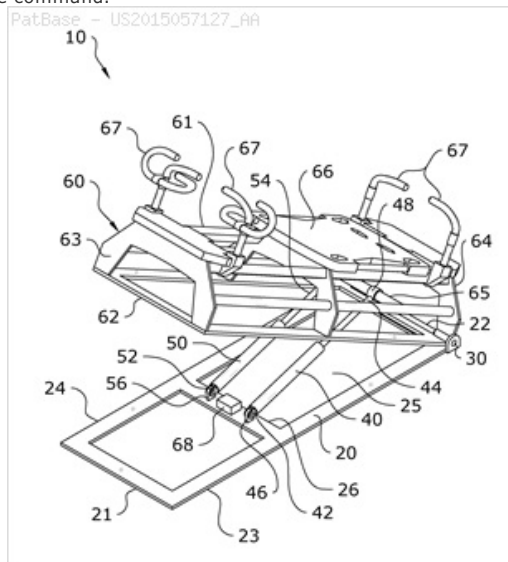
Cited documents: WO08010797 A1, US9539462 BB, US9339712 BB, US9199123 BB, US9132051 BB, US9125785 BB, US9050517 BB, US9038218 BA, US9022909 BB, US8870726 BB, US8858409 BB, US8834332 BB, US8764609 BA, US8734307 BB, US8721506 BB, US8641585 BB, US8356996 BB, US8192332 BB, US8012073 BB, US7998043 BB, US7935032 BA, US7803095 BA, US7641597 BB, US7530929 BB, US7270628 BB, US7163500 BB, US6796927 BB, US6761667 BA, US6179753 BA, US6179753 B1, US5895340 A, US5885197 A, US5820478 A, US5782639 A, US5460596 A, US5263913 A, US5066005 A, US4798378 A, US4759540 A, US4383684 A, US4240627 A, US3770267 A, US2016166870 AA, US2016008657 AA, US2015367166 AA, US2015364058 AA, US2015360113 AA, US2015360083 AA, US2015360068 AA, US2015343250 AA, US2015297944 AA, US2015246263 AA, US2015220523 AA, US2015217164 AA, US2015141204 AA, US2015072841 AA, US2015065318 AA, US2015057127 AA, US2015024914 AA, US2015011362 AA, US2014141948 AA, US2014141946 AA, US2014121079 AA, US2014121078 AA, US2014121076 AA, US2014011645 AA, US2013150219 AA, US2013008452 AA, US2012295771 AA, US2012122637 AA, US2012088634 AA, US2012071301 AA, US2011172069 AA, US2011166002 AA, US2011152032 AA, US2011082016 AA, US2011039669 AA, US2010227748 AA, US2010056289 AA, US2009209393 AA, US2009203505 AA, US2009156372 AA, US2009023556 AA, US2008248935 AA, US2008242511 AA, US2008070765 AA, US2007213187 AA, US2006293156 AA, US2006211543 AA, US2006199712 AA, US2006172862 AA, US2004248710 AA, US2004142800 AA, US2004077464 AA, US2003119635 AA, US2003078138 AA, US2002022551 AA, US2001056011 AA, US1866868 A, KR101226434 B1, EP0354785 A2,

Forward Citations: WO18119479, WO17184754, WO17070509, USD825153, USD789463, USD785104, US9981156, US9962592, US9914014, US9868011, US9849330, US9782659, US9776043, US9682270, US9604095,

US9498667, US9415253, US2017209728, US2017113094, US2016325137, US2016296791, US2016158622, US2015290486, US10300328, US10293211, US10279212, US10279207, US10272317, US10272285, US10265573, US10258828, US10252109, US10238910, US10226396, US10220259, US10220244, US10212994, US10201729, US10201724, US10188890, US10150003, US10143882, US10124232, US10124202, US10118067, US10112067, US10109216, US10092789, US10029141, US10016655, IT201600079097, EP3476440,

Abstract:

An adjustable exercise system for adjusting an exercise machine such as a Pilates machine between various angles of incline with respect to a fixed base to allow for a wider range of exercises. The adjustable exercise system generally includes a base, an exercise machine pivotably connected to the base, and one or more actuators, for lifting or lowering the exercise machine into varying angles of incline with respect to the base. The rear end of the base is generally pivotably connected to the rear end of the exercise machine by a hinge or pivot connectors. A controller is also provided which communicates via a wired or wireless communications network with one or more of the adjustable exercise systems. Using the controller, an exercise instructor may adjust the adjustable exercise systems of multiple exercisers with a single command.



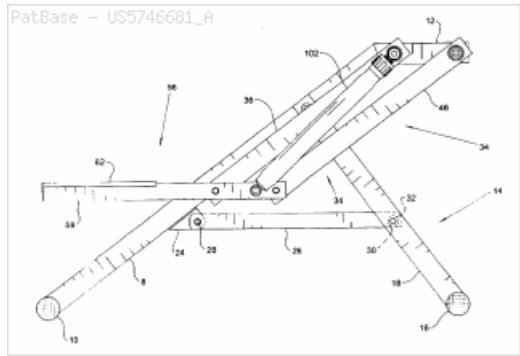
12) Family number: 10783012 (US5746681A)

© PatBase

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Abstract:

A non-impact exercise machine which can be used by people of all ages, requiring no special dexterity or athletic ability to perform and exerting minimal impact on the muscles and joints of the user, providing a light weight, collapsible, and affordable indoor exercise machine for simulating walking. One embodiment of the exercise machine comprises a support structure; and, right and left platforms for standing on by the use's right and left foot respectively in an approximately horizontal position; and, right and left linkage assemblies pivotably disposed on the support structure about a right and left upper pivot axis and the right and left platforms, the platforms movable in a fixed path below the right and left upper pivot axis; and, a resistance system for resisting the movement of the right and left platforms. In one embodiment of the exercise machine the right and left linkage assemblies comprising right and left, first and second members having their first ends pivotably mounted on the support structure about a right and left upper first and second pivot axis respectively and their opposite free ends pivotably mounted to the right and left platforms respectively, the platforms moveable in a fixed path below the right and left upper first and second pivot axis.



13) Family number: 5101015 (US5135447A) © PatBase

Title: Exercise apparatus for simulating stair climbing

Priority: US19880260968 19881021 US19890426909 19891024 US19890426909 19891029

Family:

Publication number	Publication date	Application number	Application date
US5135447 A	19920804	US19910669815	19910315

Probable Assignee: BRUNSWICK CORP

Assignee(s):(std): LIFE FITNESS

Assignee(s): JPMORGAN CHASE BANK NA ; BRUNSWICK FAMILY BOAT CO INC ; BRUNSWICK LEISURE BOAT CO LLC ; LAND N SEA DISTRIBUTING INC ; LUND BOAT CO ; TRITON BOAT CO LP ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS ; LF ACQUISITION CO A NY GENERAL PARTNERSHIP ; ATTWOOD CORP ; BALLY GAMING INC ; BALLY GAMING INC 6601 SOUTH BERMUDA ROAD LAS VEGAS ; BALLY MFG ; BRUNSWICK CORP ; BANK OF NEW YORK MELLON TRUST CO ; BANK OF NEW YORK MELLON TRUST CO NA ; BOSTON WHALER INC ; BRUNSWICK BOWLING AND BILLIARDS CORP ; BRUNSWICK COMMERCIAL AND GOVERNMENT PRODUCTS INC ; BALLY MFG CORP ; BRUNSWICK COMMERCIAL AND GOVERNMENT PRODUCTS INC ; LF ACQUISITION CO

Inventor(s):(std): ALEXANDER DONALD J ; CINKE STEVEN J ; GUENTHER DOUGLAS G ; KOHAN ROBERT ; LEON TOMAS ; ROBARDS JR CHESTER F ; THUM DAVID J ; WALTASTI STEPHEN A

International class (IPC 8-9): A63B23/04 (Advanced/Invention); A63B21/00 A63B21/005 A63B21/22 A63B23/035 A63B24/00 (Advanced/Non-invention)

International class (IPC 1-7): A63B23/04

CPC: A63B21/0053 A63B21/157 A63B21/225 A63B22/0056 A63B24/00 A63B2022/0038 A63B2208/0204 A63B2220/30 A63B2220/34 A63B2220/36 A63B2225/30

European class: K63B208/02B K63B21/005C K63B21/22F K63B22/00C8 K63B220/30 K63B220/34 K63B220/36 K63B225/30

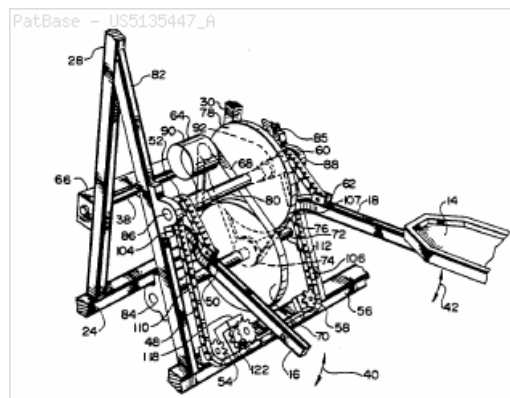
US class: 482/52 482/6 482/7 482/8

[Classification Explorer](#)

Cited documents: US4940233 A, US4881928 A, US4878663 A, US4850585 A, US4830362 A, US4809973 A, US4781658 A, US4720093 A, US4708338 A, US4705271 A, US4687195 A, US4676501 A, US4645200 A, US4600187 A, US4587960 A, US4555108 A, US4496147 A, US4493485 A, US4408183 A, US4358105 A, US4346886 A, US3970302 A, US3917262 A, US3842684 A, US3792860 A, US3747924 A, US3701529 A, US3638645 A, US3628791 A, US3592466 A, US3529474 A, US3511500 A, US3497215 A, US3316898 A, US2826192 A, US2079594 A, DE523174 A,

Forward Citations: WO15095563, WO05082100, WO03020376, USRE42698, USRE39904, USRE38803, USD742977, USD527060, US9993680, US9968824, US9789355, US9682279, US9440107, US9364708, US9352187, US9238158, US9216317, US9072932, US9050491, US8734300, US8696524, US8663071, US8647240, US8574130, US8550962, US8540609, US8439807, US8419598, US8409058, US8292789, US8292787, US8272996, US8113994, US8025611, US8021276, US8002674, US7981001, US7909740, US7833134, US7824314, US7819779, US7815549, US7789801, US7775940, US7771324, US7766797, US7740563, US7736279, US7731636, US7717828, US7674205, US7658698, US7658695, US7645215, US7625316, US7618350, US7594877, US7556589, US7553260, US7544153, US7517303, US7503878, US7468022, US7455626, US7435202, US7341542, US7267637, US7244217, US7214168, US7201705, US7179201, US7172531, US7169089, US7169088, US7153238, US7097593, US7025710, US6926646, US6908416, US6905441, US6855093, US6849034, US6837829, US6761665, US6752744, US6689019, US6626802, US6575877, US6511402, US6277055, US6238321, US6183398, US6165107, US6123650, US6036622, US5993356, US5938567, US5924962, US5890995, US5813949, US5785630, US5772558, US5766113, US5743834, US5741205, US5738614, US5690589, US5685804, US5683333, US5653662, US5637058, US5611758, US5611757, US5595553, US5593372, US5593371, US5591107, US5580249, US5573480, US5565002, US5549526, US5540637, US5529555, US5527246, US5527239, US5451070, US5403252, US5385063, US5354248, US5322491, US2013244838, US2011065552, US2010298096, US2010273609, US2010152001, US2010075812, US2009291804, US2009264260, US2009209395, US2008271551, US2007219065, US2007219064, US2007219063, US2007197345, US2007037667, US2006223680, US2005227817, US2005209061, US2005209056, US2005049117, US2004248711, US2004248710, US2004248705, US2004235621, US2004058784, US2003013583, US2002049122, US10220250, US10105568, US10046197, NL1019984, EP1834674, EP1727600, EP1727600, EP1518589, EP1514583, EP1275419, EP1188462, EP1188462, EP1029507, EP1029506, EP0910440, EP0817154, EP0813895, EP0667603,

Abstract:
A step type exercise apparatus is disclosed in which two pedal members are connected for reciprocating movement by a chain which, in turn, operates through a transmission providing a resistive force to the pedals. The resistive force is supplied by an alternator which is controlled by a computer. Means are provided to lubricate the chain thereby prolonging the life of the chain.



14) Family number: 10790017 (US5423729A)

Title:	Collapsible exercise machine with arm exercise						
Priority:	US19940283562 19940801						
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Appl. no.</th></tr><tr><td>US19940283562</td><td>19940801</td><td></td></tr></table>	Publication number	Publication date	Appl. no.	US19940283562	19940801	
Publication number	Publication date	Appl. no.					
US19940283562	19940801						

Publication number	Publication date	Application number	Application date
AT209943 E	20011215	AT19950305257T	19950727
DE69524305 D1	20020117	DE19956024305	19950727
DE69524305 T2	20020718	DE19956024305T	19950727
EP0695563 A1	19960207	EP19950305257	19950727
EP0695563 B1	20011205	EP19950305257	19950727
US5423729 A	19950613	US19940283562	19940801

Probable Assignee:	ESCHENBACH PAUL W
Assignee(s):(std):	ESCHENBACH PAUL W
Inventor(s):(std):	ESCHENBACH PAUL W
Designated states:	AT BE CH DE ES FR GB IT LI NL SE
International class	A63B23/04 (Advanced/Invention);
(IPC 8-9):	A63B23/035 (Advanced/Non-invention)
International class	A63B22/04 A63B23/04 A63B69/16
(IPC 1-7):	
CPC:	A63B22/001 A63B22/0015 A63B22/0664 A63B2022/067 A63B2210/50
European class:	A63B22/00A6 A63B22/06E K63B210/50 K63B22/00B K63B22/06E2
US class:	482/51 482/57 482/70

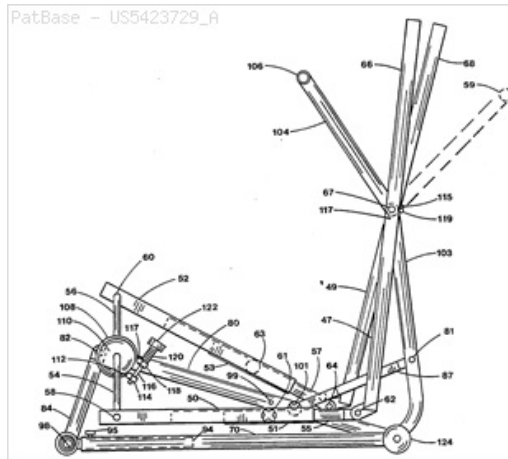
Classification Explorer

Cited documents: US5352169 A, US5290211 A, US5279530 A, US5279529 A, US5242343 A, US5149312 A, US5038758 A, US5013031 A, US4989858 A, US4927136 A, US4786050 A, US4726581 A, US4708338 A, US4687195 A, US4643419 A, US4519603 A, US4509742 A, US4477072 A, US4358105 A, US3563541 A, US3475021 A, US219439 A, US1323004 A, GB1512241 A, DE2919494 A1, DE2730892 A1,

Forward Citations:

WO9924121, WO9622814, USRE42699, USRE39904, USRE38803, USD742977, USD464688, USD449356, USD429781, US9993680, US9968824, US9968815, US9682279, US9610475, US9440107, US9364708, US9352187, US9308415, US9283425, US9138614, US9132311, US9114275, US9050498, US9050491, US8734299, US8721511, US8419598, US8409058, US8147385, US8128543, US7935027, US7909740, US7833134, US7811209, US7811205, US7785235, US7775940, US7766797, US7758473, US7749137, US7740563, US7736229, US7717828, US7691035, US7674205, US7658698, US7645215, US7632219, US7618350, US7517303, US7465261, US7462135, US7462134, US7448986, US7361122, US7344480, US7341542, US7288053, US7270626, US7267637, US7255665, US7244217, US7214168, US7201705, US7179201, US7172531, US7169089, US7169088, US7163500, US7137927, US7125369, US7097593, US7033306, US7025710, US6971976, US6939271, US6926650, US6908416, US6783481, US6752744, US6689019, US6629909, US6612969, US6575877, US6554750, US6527685, US6511402, US6440042, US6422977, US6371895, US6340340, US6302825, US6277055, US6254514, US6248046, US6238321, US6183398, US6176814, US6165107, US6162150, US6146314, US6135927, US6126574, US6123650, US6080086, US6063009, US6036622, US6030320, US5947872, US5938567, US5924962, US5921894, US5916065, US5916064, US5911649, US5893820, US5882281, US5848954, US5823919, US5823914, US5813949, US5803872, US5803871, US5800315, US5795268, US5792026, US5772558, US5766113, US5762588, US5759136, US5759135, US5755642, US5743834, US5738614, US5692994, US5690589, US5685804, US5683333, US5681244, US5653662, US5637058, US5611758, US5611757, US5611756, US5605521, US5595553, US5593372, US5593371, US5591107, US5577985, US5573480, US5569126, US5549526, US5540637, US5529555, US5527246, US2011034303, US2010152001, US2009312156, US2009176626, US2008300114, US2008280733, US2008125291, US2008058174, US2008058168, US2007238582, US2007232457, US2007184937, US2007060450, US2007060449, US2007037667, US2006293154, US2006116247, US2006100066, US2006100065, US2006035755, US2005250621, US2005245358, US2005209059, US2005181911, US2005164835, US2005113227, US2005113226, US2004248710, US2004248705, US2004209740, US2004176227, US2004072655, US2003195095, US2002193214, US2002155927, US2002049122, US10293211, US10279212, US10272317, US10258828, US10252109, US10220250, US10188890, US10046197, EP2996780, EP2018897, EP1566203, EP1557199,

Abstract: An exercise apparatus having a collapsible frame that simulates running and climbing depending upon where the foot is positioned along the elongate pedal. The user is able to maintain a standing posture while elongate pedals supporting each foot move through an exercise cycle having a different mode for each foot position that includes translating and non-parallel angular motion generated by a linkage mechanism. Arm exercise is provided by rocker extensions which are phased with the crank to use arm force for moving the crank through dead center positions.



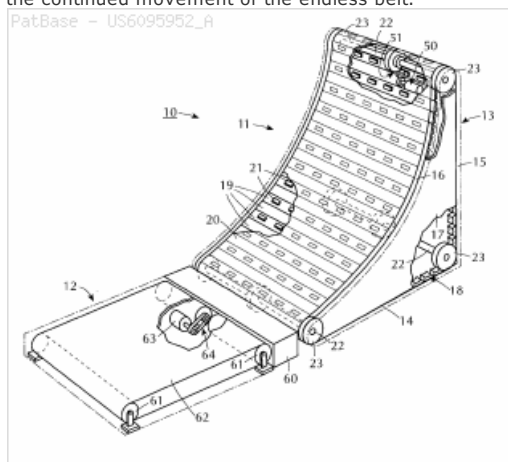
15) Family number: 12418019 (US6095952A)

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Abstract:

The exercise device has a horizontal section for walking/hiking purposes as well as a climbing section to simulate a mountain climbing exercise. The climbing section has an endless belt of interconnected panels, each of which is provided with a plurality of blocks to provide hand/foot holds. The blocks are movable from a retracted position to extended positions by electromagnets which are programmed to effect actuation of one or more of the blocks in a predetermined pattern. The blocks are retracted at the end of the curvilinear run of the endless belt to avoid obstruction with the continued movement of the endless belt.



16) Family number: 43635020 (US2009209393A)

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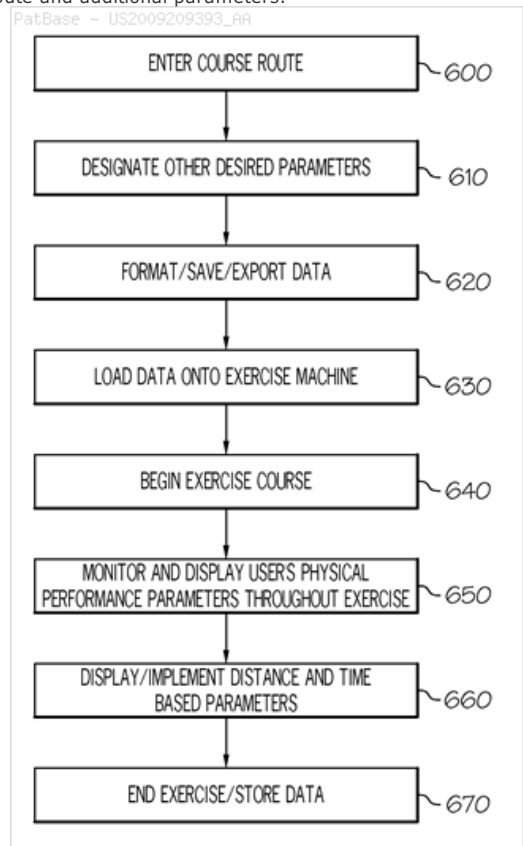
Title:	USER-DEFINED ENVIRONMENTS FOR EXERCISE MACHINE TRAINING
Priority:	US20080031505 20080214

Family:

Publication number	Publication date	Application number	Application date
US2009209393 AA	20090820	US20080031505	20080214

Probable Assignee: IBM
Assignee(s):(std): IBM
Assignee(s): INT BUSINESS MACHINES CORP
Inventor(s):(std): MERICLE GRANT S ; RAU BENJAMIN T ; LOPEZ TODD J ; CRATER BRADLEY A
Agent(s): IBM C O RADER FISHMAN AND GRAUER PLLC CORP
International class (IPC 8-9): A63B71/00 (Advanced/Invention); A63B71/00 (Core/Invention)
CPC: A63B24/0084 A63B22/02 A63B22/0242 A63B2071/0644 A63B2071/065 A63B2213/002 A63B2220/12 A63B2220/14 A63B2220/22 A63B2220/30 A63B2220/70 A63B2220/72 A63B2220/75 A63B2220/76 A63B2220/801 A63B2220/803 A63B2225/20 A63B2230/06 G06F19/3481 A63B22/0023 A63B22/0056 A63B22/0076 A63B22/0605 A63B22/0664 A63B71/0622 A63B2071/0638 A63B2071/0691 A63B2220/18 A63B2225/64 A63B2230/207 G01S19/19
European class: A63B22/02 A63B24/00J K63B213/00B2 K63B22/00B4 K63B22/02B2 K63B220/12 K63B220/14 K63B220/22 K63B220/30 K63B220/70 K63B220/72 K63B220/75 K63B220/76 K63B220/80A K63B220/80C K63B225/20 K63B230/06 K63B71/06D2C3 K63B71/06D4
US class: 482/9 482/9P
[Classification Explorer](#)
Cited documents: US6801856 BB, US6468211 BA, US6447424 BA, US6152856 A, US2007004565 AA, US2006030458 AA,
Forward Citations: WO17091730, WO13163044, WO12161976, WO12051654, US9914014, US9849330, US9789354, US9649526, US9636567, US9616278, US9586090, US9533184, US9474926, US9345930, US9028368, US8845493, US8784270, US8758201, US8690735, US8612142, US8533620, US8298123, US8257228, US8251874, US8206268, US8029415, US7981000, US7980996, US7972245, US2014135173, US2013274069, US2013261775, US2012220427, US2012190504, US2012101717, US2011197157, US2011172059, US2011105920, US2011028276, US2010248900, US2010222179, US2010179028, US2010009809, US2009233771, US10293211, US10279212, US10279207, US10272317, US10265573, US10258828, US10252109, US10238910, US10226396, US10220259, US10212994, US10188890, JP6041445, JP2015173916, ITVE20090030, EP2841172, DE102010003344,

Abstract:
A method of implementing a user-defined environment for exercise includes specifying a course route with a course development tool, and designating additional parameters associated with the course route. The course route and additional parameters support simulation of exercise on a course corresponding to the specified court route and additional parameters.



17) Family number: 12318021 (US6077196A)

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Title: Adjustable elliptical exercise apparatus
Priority: US19990411000 19991001
Family:

Publication number	Publication date	Application number	Application date
US6077196 A	20000620	US19990411000	19991001

Probable Assignee: ESCHENBACH PAUL WILLIAM
Assignee(s): ESCHENBACH PAUL WILLIAM
Inventor(s):(std): ESCHENBACH PAUL WILLIAM
International class A63B23/04 (Advanced/Invention);

(IPC 8-9): A63B23/035 (Advanced/Non-invention)
International class A63B22/04 A63B69/16
(IPC 1-7):
CPC: A63B22/001 A63B22/0023 A63B22/0664 A63B2022/067
European class: A63B22/00A6 A63B22/00B4 A63B22/06E K63B22/06E2
US class: 482/51 482/57

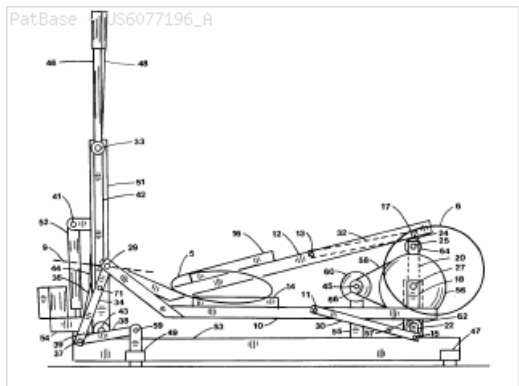
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Cited documents: US5993359 A, US5685804 A, US5562574 A, US5383829 A,

Forward Citations: WO04108225, WO02078791, USD489101, US9604096, US9468795, US9272182, US9248338, US8858403, US8562491, US8454478, US8162805, US8128535, US8062187, US8062185, US8057363, US8025609, US7901330, US7824313, US7815551, US7785235, US7758473, US7736278, US7731634, US7704192, US7604573, US7568999, US7462134, US7455624, US7448986, US7361122, US7341542, US7278955, US7270626, US7267637, US7244217, US7214168, US7201705, US7179201, US7172531, US7169089, US7169088, US7163492, US7097593, US7025710, US6908416, US6726600, US6719665, US6689019, US6648801, US6575877, US6361476, US2015202488, US2015087480, US2014221165, US2011143885, US2011028277, US2010279822, US2010255958, US2010152000, US2009093346, US2009075786, US2009062080, US2008287265, US2008261780, US2008207400, US2007202999, US2007129217, US2007123393, US2006234838, US2006189445, US2006183605, US2006040794, US2006035754, US2006003868, US2005181911, US2004224825, US2003092532, US10293211, US10279212, US10272317, US10258828, US10252109, US10201727, US10188890, US10086227, EP2996780, EP2133123, EP1372794, CN103845185,

Abstract:

The present invention relates to a standup exercise apparatus that simulates walking, jogging and climbing with arm exercise. More particularly, the present invention relates to an exercise machine having separately supported pedals for the feet and arm exercise coordinated with the motion of the feet. Cross trainers guide the feet along a generally elliptical shaped curve to simulate the motions of jogging and climbing. Existing machines often produce user problems such as excessive foot articulation. The present invention is an improved elliptical exercise machine capable of extended exercise with fewer user problems. Further, the cross trainer is adjustable to vary the motion of the elliptical stride from walking to climbing. A non-aligned foot support member is guided by a guide linkage on one end and driven by a crank linkage on the other end. The resulting pedal motion has less severe pedal angles than a simple crank cross trainer. Handles are coupled to the guide linkage for coordinated arm exercise that adjusts with pedal adjustment.



18) Family number: 59547021 (US2018160943A)

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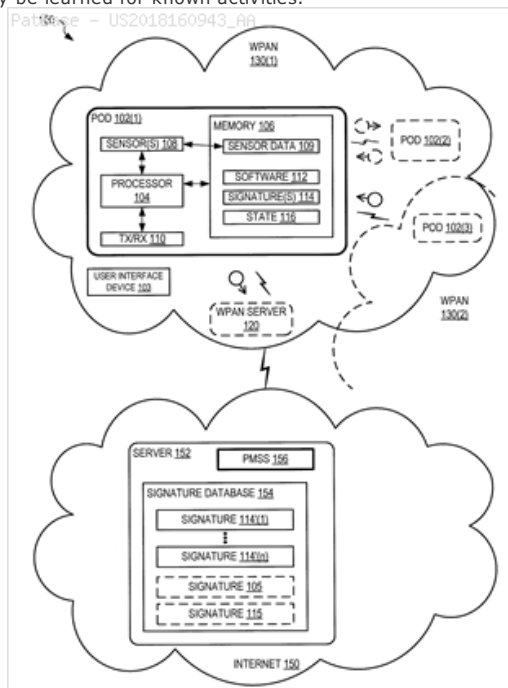
Title: SIGNATURE BASED MONITORING SYSTEMS AND METHODS
Priority: US20130914233P 20131210 WO2014IB03114 20141210
Family:

Publication number	Publication date	Application number	Application date
US2018160943 AA	20180614	US20140102262	20141210
WO15087164 A1	20150618	WO2014IB03114	20141210

Probable Assignee: 4IIII INNOVATIONS INC
Assignee(s):(std): 4IIII INNOVATIONS INC
Inventor(s):(std): FYFE KIJLING ; BRILZ VICTORIA ; WILLIAMS TOM ; MILNE CAITLIN ; BAKSHI VIPIN ; ZACHER DARREN ; FYFE KIJLINIG
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW
International class A61B5/00 A61B5/01 A61B5/024 A61B5/0476 A61B5/0488 A61B5/08 A61B5/11 A61B5/145 A63B24/00
(IPC 8-9): A63B71/06 G01D21/02 (Advanced/Invention)
CPC: A63B71/06 A61B5/0022 A61B5/02416 A61B5/02438 A61B5/0533 A61B5/08 A61B5/083 A61B5/7264 A61B5/7275 A61B5/7278 A61B2560/0223 A61B2560/0242 A61B2562/0204 A61B2562/0219 A63B22/0605 A63B24/0003 A63B24/0006 A63B2024/0025 A63B2024/0065 A63B2024/0068 A63B2024/0071 A63B2024/0093 A63B2071/065 A63B2220/30 A63B2220/72 A63B2220/73 A63B2220/74 A63B2220/78 A63B2220/806 A63B2220/833 A63B2220/836 A63B2230/40 A63B2230/70 A61B5/7246 A61B5/443 A61B5/14542 A61B5/0816 A61B5/4875 A61B5/02405 A61B5/112 A61B5/742 A61B5/746 A63B24/0062 A61B5/7267 A61B2560/0228 A61B2503/40 A63B2220/05 A63B2230/10 A63B2230/202 A61B5/7282 A61B5/1118 A61B5/0024 A61B5/01 A61B5/0476 A61B5/0488 A61B5/1112 A61B5/1123 A61B5/14532 A61B2503/10 A63B2024/0012 A63B2220/40 A63B2225/50 A63B2230/06 A63B2230/50 A63B2230/75 A61B5/1113
US class: 600/301
[Classification Explorer](#)
Cited documents: US8573982 BA, US8568310 BB,
Forward Citations: WO19016573, WO17005130, US9949694, US2017000386, US10310621, US10310620, US10300370, US10285456, US10268321, US10241581, US10222469, US10203763, US10175781, US10155274, US10004408, GB2549813, GB2548176, GB2545769,

Abstract:

A system and a method determine an activity of a user. Sensor data is collected from a sensor within a pod worn by the user. The sensor data is matched to a signature definition corresponding to a known activity and the sensor. When the sensor data matches the signature definition, the activity of the user is determined. Sensed data, signature data, and/or matched signature data may be communicated to and from external devices. Signatures may be learned for known activities.



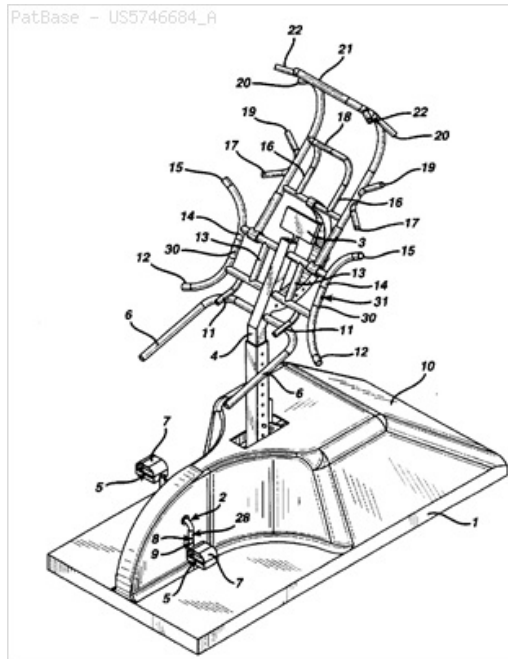
19) Family number: 10783023 (US5746684A)

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Title:	FOUNDATION STAND AND METHOD OF USE			
Priority:	US19960759477 19961205 WO1997US21644 19971125			
Family:	Publication number	Publication date	Application number	Application date
	AU199877362 A1	19980715	AU19980077362	19971125
	US5746684 A	19980505	US19960759477	19961205
	WO9826843 A1	19980625	WO1997US21644	19971125
Probable Assignee:	JAMES LEWIS JORDAN			
Assignee(s):(std):	JORDAN JAMES LEWIS			
Assignee(s):	JAMES LEWIS JORDAN ; JORDAN JAMES L			
Inventor(s):(std):	BENSON ERIC R ; JORDAN JAMES L ; JORDAN JAMES LEWIS			
Inventor(s):	ERIC R BENSON			
Designated states:	AL AM AT AU AZ BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK EE ES FI FR GB GE GH GR HU IE IL IS IT JP KE KG KP KR KZ LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SZ TJ TM TR TT UA UG UZ VN ZW			
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International class (IPC 1-7):	A63B22/08 A63B23/04			
CPC:	A63B2022/0647 A63B22/0605 A63B69/0064			
European class:	A63B22/08 A63B69/00N6 K63B22/06C4P			
US class:	482/57 482/62			
Classification Explorer				
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Abstract:

A rehabilitation and cross train exercise method and apparatus necessary to apply the method, utilizing a cycle ergometer while in a natural upright body stance isotonicly exercising the lower extremities through a natural range of motion, at slow R.P.M.'s, working against a variable resistance, while simultaneously exercising the upper body musculature isometrically, by employing a multiple handhold apparatus and using a sequence of different handhold positions allowing exertion through a wide range of motion. The cardiovascular, aerobic and anaerobic conditioning and flexibility enhancing benefits that can be derived from this method and apparatus create a foundation upon which general physical and specific athletic performance and rehabilitative progress can be built.

**20) Family number: 8433025** (US5290211A)

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Title: Exercise device**Priority:** US19920968196 19921029

WO1993US10254 19931026

US19930163822 19931208

Family:

Publication number	Publication date	Application number	Application date
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CA2148111 C	20050510	CA19932148111	19931026
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US5401226 A	19950328	US19930163822	19931208
WO9409857 A1	19940511	WO1993US10254	19931026

Probable Assignee: STEARNS TECHNOLOGY INC**Assignee(s):(std):** KENNETH W STEARNS ; STEARNS KENNETH W ; STEARNS TECHNOLOGIES INC**Assignee(s):** STEARNS TECHNOLOGY INC**Inventor(s):(std):** STEARNS KENNETH W**Inventor(s):** KENNETH W STEARNS**Agent(s):** GOUDREAU GAGE DUBUC**Designated states:** AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KR KZ LI LK LU MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA VN

International class (IPC 8-9): A63B21/008 A63B22/00 A63B23/035 A63B23/04 (Advanced/Invention);
A63B21/008 A63B23/035 (Advanced/Non-invention);
A63B23/04 (Core/Invention);
A63B21/008 A63B23/035 (Core/Non-invention)

International class (IPC 1-7): A63B22/00

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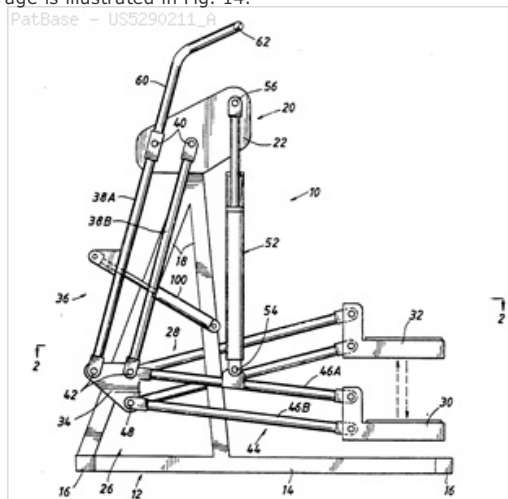
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Abstract:

An exercise device (10) has foot supports (30, 32) on which a user stands for performing a stair stepping exercise alone, or a cross country skiing exercise alone, or simultaneously a stair stepping exercise and a cross country skiing exercise. Linkage support frames (26, 28) each have a first linkage (44) and a second linkage (36) pivotally connected to each other for maintaining foot supports (30, 32) in a horizontal plane. A fluid cylinder (52) provides a mechanism for resisting the vertical movement of the foot supports (30, 32). Manually gripped poles (60) are mounted to move in coordination with generally horizontal movement of foot supports (30, 32). Separate embodiments of the invention are shown in FIGS. 5-13 for performing simultaneously a stair stepping exercise and a cross country skiing or walking exercise. An alternative preferred embodiment of the invention which may be folded downwardly for low vertical profile storage is illustrated in Fig. 14.



21) Family number: 24156026 (US5685804A)

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Title: STATIONARY EXERCISE DEVICE

Priority: WO1997US11032 19970626 US19970967801 19971110 EP19970932280 19970626
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Family:	Publication number	Publication date	Application number	Application date
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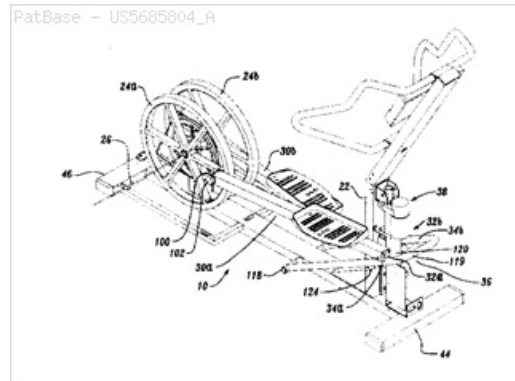
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US6939271 BA	20050906	US20000711740	20001113
WO9749460 A1	19971231	WO1997US11032	19970626

Probable Assignee:	PRECOR INC
Assignee(s):(std):	BARKER PAUL D ; ILLINOIS TOOL WORKS ; ILLINOIS TOOL WORKS INC ; PRECOR INC ; WHAN TONG JANICE ; PASERO PETER ; PRICO INC
Assignee(s):	PRECOR INCORPORATEDUS ; ILLINOIS TOOL WORKS INC GLENVIEW ; PRECOR INC WOODINVILLE ; PRECOR INC BOTHELL ; WHAN TONG JANINE
Inventor(s):(std):	WHAN TONG J ; PASERO P ; BARKER P D ; WHAN TONG JANICE ; BARKER D ; PASERO PETER ; BARKER PAUL D ; WHAN TONG JANINE ; JANICE WHAN TONG ; PD BARKER ; PD BACKER ; P D BARKER ; J WHAN TONG ; P PASERO ; PETER PASERO ; PAUL D BARKER ; J HUIENTON ; BACKER P D ; HUIENTON J
Inventor(s):	P D BACKER
Agent(s):	SMART AND BIGGAR; CHRISTENSEN OCONNOR JOHNSON KINDNESS; OBRIEN TERENCE P; TERENCE P
Designated states:	AL AM AT AU AZ BA BB BE BG BR BY CA CH CN CU CY CZ DE DK EE ES FI FR GB GE GH GR HU IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SL SZ TJ TM TR TT UA UG US UZ VN YU ZW
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US class:	482/51 482/52 482/57 482/70 482/908
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Cited documents:	WO9622814 A1, USD405852 S1, US6482130 BA, US6254514 BA, US6146313 A, US6063008 A, US5916065 A, US5830112 A, US5779598 A, US5772558 A, US5766113 A, US5743834 A, US5738614 A, US5690589 A, US5685804 A, US5683333 A, US5653662 A, US5637058 A, US5620403 A, US5595553 A, US5593372 A, US5593371 A, US5573480 A, US5562574 A, US5549526 A, US5540637 A, US5529555 A, US5529554 A, US5527246 A, US5518473 A, US5499956 A, US5423729 A, US5403255 A, US5401226 A, US5383829 A, US5382209 A, US5352169 A, US5299993 A, US5295928 A, US5290211 A, US5279530 A, US5279529 A, US5269736 A, US5242343 A, US518757 A, US5186697 A, US5169363 A, US5149312 A, US5135447 A, US5131895 A, US5039088 A, US5039087 A, US5038758 A, US5007630 A, US4989857 A, US4986261 A, US4949993 A, US4949954 A, US4911438 A, US4900013 A, US4869494 A, US4842268 A, US4786050 A, US4779863 A, US4733858 A, US4720093 A, US4700946 A, US4679786 A, US4645200 A, US4561318 A, US4555109 A, US4509742 A, US4505473 A, US4456276 A, US4379566 A, US4188030 A, US4185622 A, US4053173 A, US4023795 A, US3824994 A, US3759511 A, US3713438 A, US3566861 A, US3475021 A, US3432164 A, US3316898 A, US2892455 A, US2826192 A, US2641249 A, US2603486 A, US219439 A, US1323004 A, SU1600816 T, RU1600816, EP0138569 A1, DE2919494 A1, CH206208 A,
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Abstract:

An exercise device includes a pair of foot engaging links (30a, 30b). The rearward ends of the foot links are supported for rotational motion about a pivot axis (26), and the forward ends of the foot links reciprocate back and forth along a guide (36). The combination to these two foot link motions permits the users feet to travel along an elliptical path of travel. The inclination and/or elevation of the guide (36) may be selectively altered to vary the nature of the stepping motion experienced by the user. At lower inclinations/elevations of the guide, the stepping motion may resemble cross country skiing. At progressively higher angles of inclination or elevations of the guide (36), the stepping motions may simulate walking, jogging, running and climbing. The connection of the foot links to the pivot axis allow motion in a direction orthogonal to the rotational motion, thus compensating for alignment inconsistencies of the device.



22) Family number: 44342026 (US2010035726A)

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Title: CARDIO-FITNESS STATION WITH VIRTUAL-REALITY CAPABILITY

Priority: US20080188143 20080807

Family:	Publication number	Publication date	Application number	Application date
	US2010035726 AA	20100211	US20080188143	20080807

Probable Assignee: EXPRESSO FITNESS CORP

Assignee(s):(std): FISHER JOHN ; NICOLI LUCA ; THOMPSON KEITH

Assignee(s): TRIPLEPOINT CAPITAL LLC ; EXPRESSO FITNESS CORP

Inventor(s):(std): THOMPSON KEITH ; NICOLI LUCA ; FISHER JOHN

Agent(s): PERKINS COIE LLP

International class A63B22/00 A63B71/00 (Advanced/Invention);
(IPC 8-9): A63B22/00 A63B71/00 (Core/Invention)

CPC: A63B24/0084 A63B21/00069 A63B21/0053 A63B71/0622 A63B2024/009 A63B2071/0625
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A63B2225/105 A63B2230/75 G06F19/3481

European class: A63B22/08 A63B24/00J A63B71/06D2 K63B21/005C K63B21/00F6 K63B220/30 K63B220/36
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K63B71/06D2A K63B71/06D2B K63B71/06D2C K63B71/06D4 K63B71/06H

US class: 482/51 482/51S 482/8 482/8P

[Classification Explorer](#)

Cited documents: US7695406 BB, US7373820 BA, US7364533 BB, US7226393 BB, US7172532 BB, US7166064 BB, US7166062 BA, US7066868 BB, US7060008 BB, US7060006 BA, US7020508 BB, US6997852 BB, US6988739 BB, US6942290 BA, US6921351 BA, US6918858 BB, US6902513 BA, US6786848 BB, US6765726 BB, US6752453 BA, US6749537 BA, US6626799 BB, US6530864 BA, US6513395 BA, US6511402 BB, US6464618 BA, US6458060 BA, US6447424 BA, US6419613 BB, US6283896 BA, US6193631 BA, US6132337 A, US6059692 A, US5931763 A, US5890995 A, US5888172 A, US5795301 A, US5785630 A, US5752879 A, US5645509 A, US5547439 A, US5513895 A, US5492513 A, US5489249 A, US5441327 A, US5433552 A, US5403252 A, US5356356 A, US5310392 A, US5256115 A, US5240417 A, US5213555 A, US5149084 A, US5104120 A, US5044592 A, US5029846 A, US5007675 A, US4962469 A, US4919378 A, US4822032 A, US4772059 A, US4674741 A, US4542897 A, US4512567 A, US4150851 A, US4084810 A, US2278101 A, US2009005220 AA, US2008182723 AA, US2008155077 AA, US2008096726

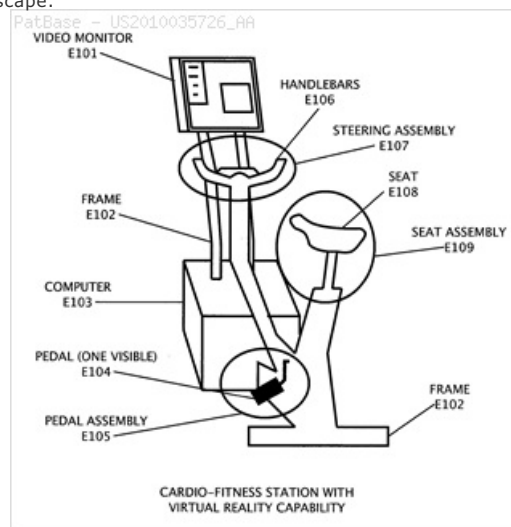
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Forward Citations:

WO18154284, WO14163976, WO12040386, USD845996, USD845995, USD662947, USD662943, USD662514, USD660871, US9996149, US9943718, US9911357, US9861852, US9802081, US9744441, US9737746, US9734184, US9696757, US9645396, US9579544, US9579542, US9579534, US9517383, US9355583, US9345957, US9339691, US9286711, US9269119, US9224311, US9142141, US9123317, US9028368, US8920288, US8864587, US8847988, US8845493, US8795138, US8784270, US8758201, US8690735, US8025607, US7972245, US2017340913, US2017193705, US2017128763, US2017050080, US2016250519, US2016166881, US2016144236, US2016104321, US2016059079, US2016030833, US2015209617, US2014221160, US2014135173, US2014077494, US2013297669, US2013282157, US2013263719, US2013178337, US2013083009, US2013035208, US2012071301, US2011172059, US2011118084, US2011082009, US2011060557, US2011003663, US2010222179, US2010197462, US10293211, US10279212, US10272317, US10258828, US10252109, US10226396, US10220259, US10207175, US10207148, US10204525, US10188890, US10186161, US10115320, US10058736, KR101865520, FR2997631, EP3281088, C2306132, CN106237583, CN106237583, CN106215375, CN106215375, CN106215373, CN106215373, CN104587637, CN104587637, CN103736249,

Abstract:

In one embodiment, a stationary exercise station is provided. The stationary exercise station includes a computer which may run a computer program. The computer program simulates the motion of a first virtual bicycle and a second virtual bicycle. The first virtual bicycle and the second virtual bicycle riding through a predetermined landscape. The computer program simulates moving images seen by the virtual rider of the first virtual bicycle while riding through the predetermined landscape. The stationary exercise station also include a video monitor in communication with the computer. The video monitor displays the moving images seen by the virtual rider of the first virtual bicycle while riding through the predetermined landscape. The stationary exercise station also includes steerable handlebars, rotatable pedals, a force resisting pedal rotation, and a movable gear-shifting member. The motion of the virtual bicycle is determined by the steering of the steerable handlebars, rotation of the rotatable pedals, and motion of the moveable gear-shifting member. The force resisting pedal rotation is proportional to the slope experienced by the virtual bicycle riding through the predetermined landscape.



23) Family number: 42871027 (US2009029831A)

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Title: DEVICE AND METHOD FOR LIMITING TRAVEL IN AN EXERCISE DEVICE, AND AN EXERCISE DEVICE INCLUDING SUCH A LIMITING DEVICE

Priority: US20070909027P 20070330 US20080057964 20080328 US20110050704 20110317
US20120626002 20120925 US20140189061 20140225

Family:	Publication number	Publication date	Application number	Application date
	US2009029831 AA	20090129	US20080057964	20080328
	US2011256988 AA	20111020	US20110050704	20110317
	US2013023383 AA	20130124	US20120626002	20120925
	US2014171269 AA	20140619	US20140189061	20140225
	US8272996 BB	20120925	US20110050704	20110317
	US8663071 BB	20140304	US20120626002	20120925

Probable Assignee: NAUTILUS INC

Assignee(s):(std): NAUTILUS INC ; WEIER KEITH M

Assignee(s): BANK OF WEST ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS

Inventor(s):(std): WEIER KEITH M ; NAUTILUS INC

Agent(s): DORSEY AND WHITNEY LLP INTELLECTUAL PROPERTY DEPARTMENT; DORSEY AND WHITNEY LLP

International class A63B22/02 A63B22/04 A63B22/06 (Advanced/Invention);
(IPC 8-9): A63B22/00 (Core/Invention)

CPC: A63B22/0235 A63B21/0083 A63B22/0056 A63B22/0292 A63B2225/09

European class: A63B22/00P6 A63B22/02B K63B21/008B2 K63B22/02S K63B225/09

US class: 482/52 482/54 482/54P

[Classification Explorer](#)

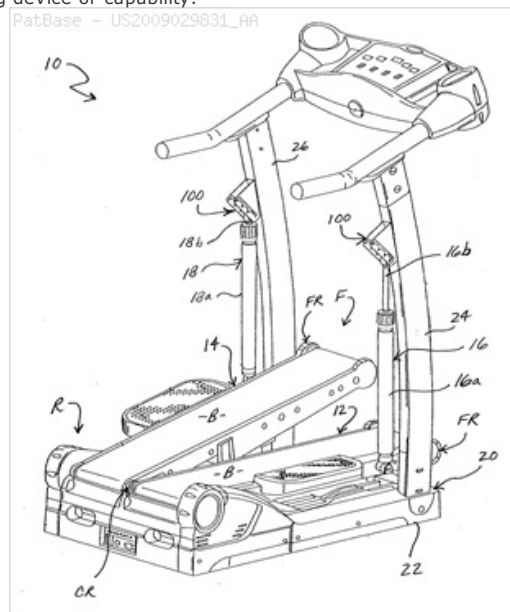
Cited documents: WO9516502 A1, WO04108225, USRE42698 E, USD624975 S1, USD546909 S1, USD534973 S1, USD527060 S1, USD521577 S1, USD482085 S1, USD450792 S1, USD445152 S1, USD424137 S1, USD421779 S1, USD412953 S1, USD406621 S1, USD326491 S1, US964898 A, US8663071 BB, US8439807 BB, US834461 A, US8272996 BB, US8113994 BB, US8002674 BB, US7819779 BB, US7815549 BB, US7811209 BB, US7731636 BB, US7704191 BB, US7645214 BB, US7621850 BB,

US7618346 BB, US7553260 BB, US7517303 BB, US7377882 BB, US7341542 BB, US7316632 BB, US7306546 BB, US7179204 BB, US7166062 BA, US7163493 BA, US7097593 BB, US6923746 BA, US6923745 BB, US6902513 BA, US6893383 BA, US6849034 BB, US6835166 BA, US6824502 BA, US6811519 BB, US6811517 BA, US6761667 BA, US6672994 BA, US6645124 BA, US6626802 BA, US6554749 BB, US6461279 BA, US6454679 BA, US6409633 BA, US6283896 BA, US6264042 BA, US6258012 BA, US6217487 BA, US6179754 B1, US6152859 A, US6135925 A, US6113518 A, US6045490 A, US6042519 A, US6042513 A, US6033344 A, US5993358 A, US5967944 A, US5951449 A, US5919115 A, US5913384 A, US5897461 A, US5897460 A, US5897459 A, US5882281 A, US5879271 A, US5871421 A, US5833584 A, US5816372 A, US5803880 A, US5803874 A, US5803871 A, US5792029 A, US5762587 A, US5749807 A, US5702323 A, US5690582 A, US5679101 A, US5669856 A, US5645512 A, US5643144 A, US5626539 A, US5622527 A, US5607376 A, US5575740 A, US5538489 A, US5518470 A, US5512025 A, US5492517 A, US5490818 A, US5460586 A, US5441467 A, US5431612 A, US5411279 A, US5403252 A, US5385520 A, US5374227 A, US5372564 A, US5372560 A, US5372559 A, US5370592 A, US5338273 A, US5338271 A, US5336146 A, US5336142 A, US5320588 A, US5318490 A, US5318487 A, US5308300 A, US5299993 A, US5282776 A, US5267923 A, US5263910 A, US5238462 A, US5226866 A, US5207621 A, US5199934 A, US5195935 A, US5188577 A, US5180353 A, US5163888 A, US5149084 A, US5139255 A, US5135447 A, US5129873 A, US5117170 A, US5110117 A, US5071115 A, US5062627 A, US5054770 A, US5048821 A, US5039088 A, US5020794 A, US4998725 A, US4976424 A, US4949993 A, US4938475 A, US4842268 A, US4838543 A, US4830362 A, US4796881 A, US4747612 A, US4733858 A, US4659077 A, US4659074 A, US4563001 A, US4555108 A, US4429871 A, US4426077 A, US4423864 A, US4408183 A, US4406451 A, US4374587 A, US4358105 A, US4347993 A, US4344616 A, US4342452 A, US4334676 A, US4323237 A, US4274625 A, US4204673 A, US4126326 A, US4066257 A, US4063726 A, US3970302 A, US3966182 A, US3963101 A, US3848467 A, US3846704 A, US3826491 A, US3814420 A, US3792860 A, US3765245 A, US3747924 A, US3735101 A, US3711090 A, US3650529 A, US3642279 A, US3637206 A, US3580340 A, US3512619 A, US347101 A, US3464601 A, US3437180 A, US3408067 A, US2941834 A, US2661973 A, US2538980 A, US2512904 A, US2117957 A, US2037492 A, US2017128 A, US2013190139 AA, US2013190138 AA, US2013023383 AA, US2012190509 AA, US2012142501 AA, US2011312472 AA, US2011256988 AA, US2011218079 AA, US2010093500 AA, US2010062904 AA, US2009264260 AA, US2009176626 AA, US2009029831 AA, US2008070758 AA, US2006223680 AA, US2005245359 AA, US2005233864 AA, US2005209061 AA, US2005209060 AA, US2005209059 AA, US2005209056 AA, US2005202939 AA, US2004214693 AA, US2004209738 AA, US2004192514 AA, US2004162193 AA, US2003064862 AA, US2001051564 AA, US2001016542 AA, US1652102 A, US1082940 A, TWM249682 Y, TWM249682, TW515306 Y, TW515306, TW472593 Y, TW472593, TW249682, GB2184361, EP1316332, CN2675190 Y, CN2516185 Y, CN2510102 Y,

Forward Citations: USD777850, USD753246, USD745939, USD624975, US9724553, US9682267, US9630048, US9555280, US9555278, US9440107, US9352187, US9314658, US9308415, US9072932, US8734300, US8696524, US8663071, US8597161, US8550962, US8439807, US8272996, US8113994, US7704191, US2014171269, US2009264260, US2005233864, US10293211, US10279212, US10272317, US10258828, US10252109, US10226396, US10220259, US10188890,

Abstract:

A method and/or a device may limit a distance traveled by a treadle assembly in an exercise device. For example, the distance traveled by the treadle assembly may be limited by limiting a distance that a resistance element operably coupled to the treadle assembly may travel. An exercise apparatus may include a travel-limiting device or capability.



24) Family number: 46804027 (US2010227742A)

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Title: EXERCISE APPARATUS AND METHOD
Priority: US20090397414 20090304 US20090582169 20091020

Family:	Publication number	Publication date	Application number	Application date
	US2010227742 AA	20100909	US20090397414	20090304
	US2010227743 AA	20100909	US20090582169	20091020

Probable Assignee: FHK ENTERPRISE LLC
Assignee(s):(std): FHK ENTERPRISE LLC ; JUTTE TODD MICHAEL
Inventor(s):(std): JUTTE TODD MICHAEL
Agent(s): HANCOCK HUGHEY LLP
International class (IPC 8-9): A63B26/00 A63B69/22 A63B69/34 (Advanced/Invention); A63B26/00 A63B69/20 A63B69/34 (Core/Invention)
CPC: A63B69/004 A63B21/16 A63B21/4017 A63B23/0211 A63B23/1218 A63B23/1227 A63B69/201 A63B69/203 A63B2225/093 A63B2225/10

European class: A63B21/16 A63B69/00K A63B69/20B K63B21/14A8 K63B225/09H K63B225/10 K63B23/02A2 K63B23/12A4 K63B23/12A5 K63B69/20C

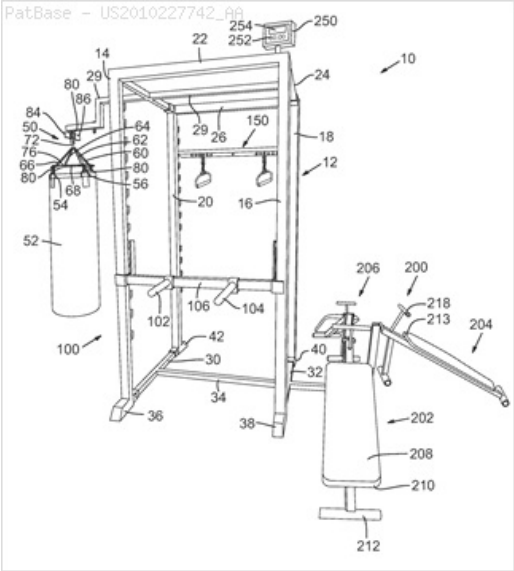
US class: 482/142 482/142S 482/87 482/87P

[Classification Explorer](#)

Cited documents: US7534197 BA, US7455634 BB, US7125371 BB, US7108636 BA, US6726605 BB, US5899835 A, US5299990 A, US5299835 A, US4789152 A, US4721302 A, US4620701 A, US2890049 A, US2709082 A, US2643124 A, US2156831 A, US2008096733 AA, US2004077468 AA, US2003134725 AA, US1575329 A, US1104505 A,

Forward Citations: WO15002721, USD629472, US9925448, US9889363, US9808699, US9669278, US8657726, US8491449, US8257233, US2017056705, US2016346582, US2016232809, US2016008656, US2015352395, US2015273263, US2012295769, US2012165164, US10258818, US10052517, KR200472480, EP3016722, CN104279416,

Abstract:
An exercise apparatus is designed specifically to provide a cross training apparatus for mixed martial arts training. The exercise apparatus combines separate training methodologies and apparatuses that are desirable for mixed martial arts training, then arranges each of those apparatuses into a desired spatial orientation at separate stations. Stations include a close combat station, two stations that are directed upper body strength training, and a core training station. Users of the apparatus go through an exercise routine at each station, then move immediately to the next station and go through a routine for that station. The exercise routines may be timed.



5) Family number: 29087028 (US2003181290A) © PatBase

Title:

Priority:

Family:

Probable Assignee:

Assignee(s):(std):

Inventor(s):(std):

Agent(s):

International class

IPC 8-9):

International class

IPC 1-7):

CPC:

European class:

US class:

Classification Explorer

Cited documents:

Forward Citations:

METHODS AND SYSTEMS FOR PROVIDING QUANTITATIVE ASSESSMENT AND RELAYING OF FIGHTER PERFORMANCE

US20020351499P 20020123 US20020373776P 20020418 US20030351080 20030123

Publication number	Publication date	Application number	Application date
US2003181290 AA	20030925	US20030351080	20030123
US7128692 BB	20061031	US20030351080	20030123

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MICHAEL F; KIRTON AND MCCONKIE

A61B5/22 A63B21/00 A63B69/32 A63B71/06 (Advanced/Invention);
A63B22/00 A63B24/00 A63B69/00 (Advanced/Non-invention);
A61B5/22 A63B21/00 A63B69/20 A63B71/06 (Core/Invention);
A63B22/00 A63B24/00 A63B69/00 (Core/Non-invention)

A63B69/32 A63B71/00

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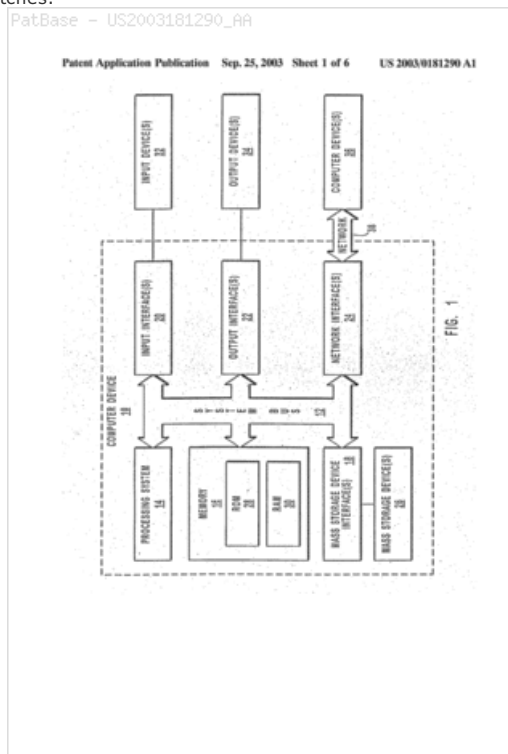
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K63B71/06C K63B71/06D3

482/1 482/8 482/83 482/84 482/9 73/379.04

US6746371 BA, US6611782 BA, US6183365 BA, US6139432 A, US5723786 A, US4763284 A,

WO10065171, WO08004124, US9937402, US9393457, US9120014, US8622795, US8337366, US7959528, US7887460, US7874964, US7794370, US7618345, US7481744, US7123965, US2012108394, US2010144414, US2009176620, US2007213182, US2007032351, US2006259275, US2005288159, US2005167907, US2004092367, US2003204147, US10279212, US10272317, US10226396, US10220259, US10188890, EP1797929,

Abstract:
The present invention features various systems and methods for assessing, measuring, quantifying, and/or relaying athlete performance information, and particularly performance information relating to fighters or boxers. More particularly, the present invention relates to utilizing such technology as modified ergometer based technology, optical sensor and motion analysis technology, accelerometers, and hydraulic meters for the measuring and/or improvement of the performance of fighters, for the



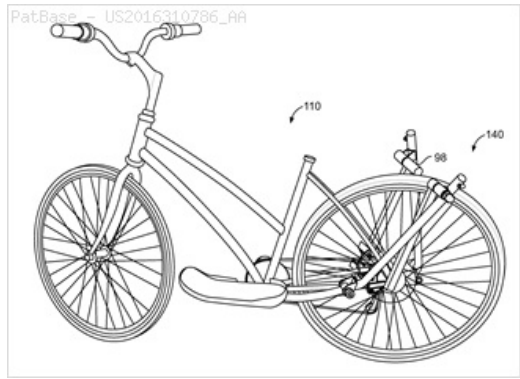
26) Family number: 63860029 (US2016310786A)

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Title:	CYCLE-TYPE EXERCISE EQUIPMENT CONVERSION APPARATUS AND METHODS OF CONVERTING THEREOF																											
Priority:	US20150153289P 20150427		US20160136560 20160422																									
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr><tr><td>US2016310786 AA</td><td>20161027</td><td>US20160136560</td><td>20160422</td></tr><tr><td>US2018333607 AA</td><td>20181122</td><td>US20180048770</td><td>20180730</td></tr><tr><td>US10039953 BB</td><td>20180807</td><td>US20160136560</td><td>20160422</td></tr><tr><td>WO16176123 A1</td><td>20161103</td><td>WO2016US29007</td><td>20160422</td></tr><tr><td>WO16176123 A8</td><td>20170803</td><td>WO2016US29007</td><td>20160422</td></tr></table>				Publication number	Publication date	Application number	Application date	US2016310786 AA	20161027	US20160136560	20160422	US2018333607 AA	20181122	US20180048770	20180730	US10039953 BB	20180807	US20160136560	20160422	WO16176123 A1	20161103	WO2016US29007	20160422	WO16176123 A8	20170803	WO2016US29007	20160422
Publication number	Publication date	Application number	Application date																									
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WO16176123 A8	20170803	WO2016US29007	20160422																									
Probable Assignee:	PROSNITZ SOLUTIONS LLC																											
Assignee(s):(std):	PROSNITZ SOLUTIONS LLC ; PROSNITZ SOLUTIONS LLC																											
Inventor(s):(std):	PROSNITZ JOSEPH H																											
Agent(s):	DRINKER BIDDLE AND REATH LLP; PUPP BRIAN C ET AL; RUPP BRIAN C ET AL																											
Designated states:	AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW																											
International class (IPC 8-9):	A63B22/00 A63B22/06 B62K13/00 B62M1/12 B62M1/24 B62M1/26 (Advanced/Invention)																											
CPC:	A63B22/0605 A63B22/0007 A63B22/0012 A63B2022/0611 A63B2022/0647 A63B2022/067 A63B2022/0682 B62K13/00 B62M1/26																											
US class:	482/61																											
Classification Explorer																												
Cited documents:	WO11157910 A1, WO11065637 A1, USD633416 S1, USD526250 S1, US9260156 BB, US8388004 BB, US8220578 BB, US8181977 BA, US8162337 BB, US8128536 BB, US8128111 BB, US8123242 BB, US8061728 BB, US8029009 BB, US7967313 BA, US7909348 BB, US7797841 BB, US7717446 BB, US7662071 BB, US7651446 BA, US7455623 BB, US7296813 BB, US7191884 BB, US7140626 BA, US6773022 BB, US6663127 BB, US6659486 BB, US6648353 BA, US6572128 BB, US6557657 BB, US6439590 BA, US6431301 BA, US6398244 BA, US6171217 B1, US6090013 A, US5593372 A, US558464 A, US5540637 A, US5511810 A, US5419572 A, US4666173 A, US4577879 A, US4212480 A, US4193324 A, US4141587 A, US4026571 A, US3259398 A, US2014091551 AA, US2012178592 AA, US2009239714 AA, US2008116655 AA, US2007213180 AA, US2006019802 AA, US2005263978 AA, KR20110067080 A, EP1930235 B1, EP0285858 A2, CN202557720 U, CA2434373 C.																											

Abstract:

An apparatus for converting a cycle-type exercise machine into another type of exercise machine includes a stationary frame structure that attaches to a frame of the cycle-type exercise machine, a pair of swing arms pivotally coupled with the stationary frame structure, and a pair of coupler bars pivotally coupled with the pair of swing arms on one end and rotationally attached to a crank bar of the cycle-type exercise machine on an opposite end.



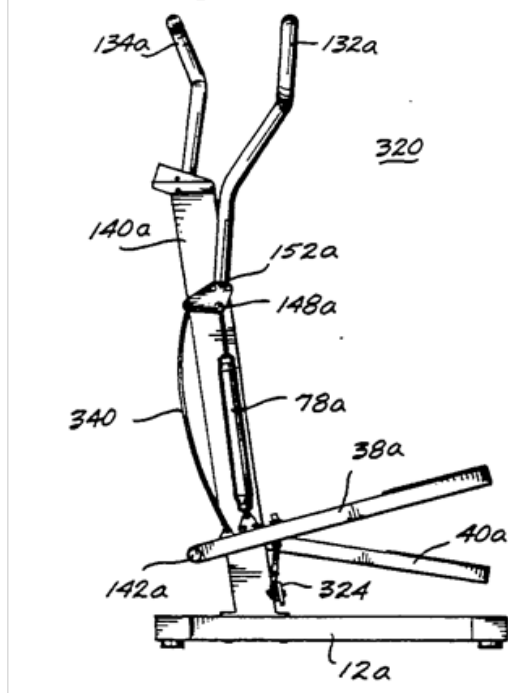
27) Family number: 11596029 (US5129872A)

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Title:	Exercise apparatus																											
Priority:	US19900559633 19900730 CA19912048031 19910729		US19910670329 19910315 US19920864428 19920406																									
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Publication number	Publication date	Application number	Application date																									
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US5129872 A	19920714	US19910713732	19910611																									
US5129873 A	19920714	US19900559633	19900730																									
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Probable Assignee:	PRECOR INC																											
Assignee(s):(std):	PRECOR INC																											
Assignee(s):	ILLINOIS TOOL WORKS INC ; PRECOR INC A DE CORP ; POTTS WILLIAM W ; ARTHUR BRIAN A ; DALTON COLE J ; DUNHAM PAUL T ; GRAF LAWRENCE J ; HENDERSON WILLIAM C																											
Inventor(s):(std):	DALTON COLE J ; GRAF LAWRENCE J ; HENDERSON WILLIAM C ; POTTS WILLIAM W ; DUNHAM PAUL T ; ARTHUR BRIAN A																											
Agent(s):	SMART AND BIGGAR																											
International class (IPC 8-9):	A63B21/00 A63B21/02 A63B21/045 A63B23/04 F16F1/38 (Advanced/Invention); A63B21/008 A63B21/045 A63B23/035 (Advanced/Non-invention); A63B21/00 (Core/Invention)																											
International class (IPC 1-7):	A63B21/00 A63B22/04																											
CPC:	A63B21/0083 A63B21/026 A63B21/045 A63B22/001 A63B22/0056 A63B2208/0204 A63B2225/30 F16F1/3821																											
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US class:	482/125 482/127 482/130 482/52 482/53																											
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Cited documents:	US5129872 A, US5071115 A, US4934690 A, US4838543 A, US4830362 A, US4809976 A, US4798379 A, US4796881 A, US4720093 A, US4712790 A, US4712789 A, US4684126 A, US4657244 A, US4645200 A, US4463945 A, US4188030 A, US3745990 A, US3628791 A, US3024023 A, US2969060 A, US2107449 A, US1872256 A, SU618118 T, DE2442893 A1, DE2243794 A1, DE2145884 A1, DE2134897 A1,																											
Forward Citations:	WO05124058, WO05124058, WO02102471, USRE42698, USD850541, USD742977, USD527060, US9993680, US9968824, US9914009, US9827458, US9682279, US9669257, US9440109, US9364708, US9352187, US9308415, US9050491, US8870716, US8734300, US8734299, US8696524, US8663071, US8574130, US8550962, US8409058, US8292787, US8272996, US8147385, US8051752, US7981001, US7967730, US7896362, US7833134, US7833133, US7811209, US7789801, US7645215, US7645214, US7618346, US7569004, US7553260, US7544153, US7517303, US7513853, US7487944, US7455626, US7377880, US7264576, US7217225, US7097593, US6692414, US6672994, US6659915, US6036622, US5957816, US5921899, US5890996, US5803880, US5762587, US5681244, US5674157, US5632710, US5622527, US5607377, US5605521, US5595556, US5527251, US5505679, US5456644, US5452205, US5419748, US5395294, US5336142, US5318490, US5255188, US5228432, US2016375299, US2015165260, US2015080191, US2015065305, US2012190509, US2011256988, US2011034303, US2010273609, US2010190613, US2010152001, US2010093501, US2010062904, US2009291804, US2009203504, US2009176626, US2009029831, US2008161164, US2007142187, US2007093361, US2007037667, US2006223679, US2005284997, US2005272562, US2005209060, US2005209059, US2005064996, US2005054489, US2005054488, US2004192514, US2002077407, US10293211, US10279212, US10272317, US10258828, US10252109, US10220250, US10188890, US10046197, FR2753497, ES2150349, EP1960062, EP1960062, DE19740995,																											

Abstract:

An exercise apparatus having foot beams (38a, 40a) rotatably mounted to an upright post member (140a) of a frame to rotate about a first axis (322). Hand levers (132a, 134a) are secured to pivot members (152a) pivotally mounted to the upright post member to rotate about a second axis (328). The hand levers are coupled by resilient linkage members (340) to the foot levers so that as each foot lever rotates about the first axis, the corresponding hand lever normally rotates a related distance about the second axis. The linkage members are resiliently deformable to allow discontinuity between the rotation of the foot levers and hand levers when an exerciser exerts a differential force on the hand levers relative to the corresponding foot levers.

**28) Family number: 12318029** (US6077198A)

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Title: Selective lift cross trainer exercise apparatus**Priority:** US19990385093 19990830**Family:**

Publication number	Publication date	Application number	Application date
US6077198 A	20000620	US19990385093	19990830

Probable Assignee: ESCHENBACH PAUL WILLIAM**Assignee(s):** ESCHENBACH PAUL WILLIAM**Inventor(s):(std):** ESCHENBACH PAUL WILLIAM**International class** A63B23/04 (Advanced/Invention);

(IPC 8-9): A63B23/035 (Advanced/Non-invention)

International class A63B22/04 A63B69/16

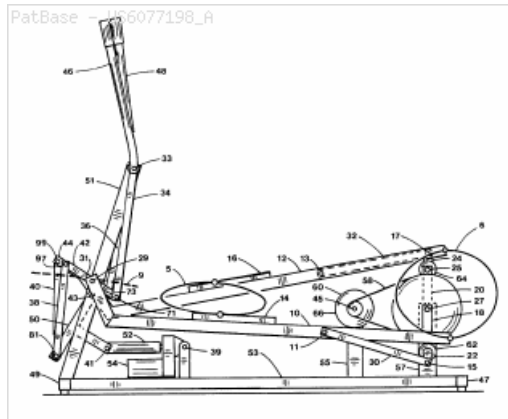
(IPC 1-7):

CPC: A63B22/001 A63B22/0023 A63B22/0664 A63B2022/067**European class:** A63B22/00A6 A63B22/00B4 A63B22/06E K63B22/06E2**US class:** 482/52 482/57[Classification Explorer](#)**Cited documents:** US5993359 A, US5685804 A, US5562574 A, US5383829 A,

Forward Citations: WO04108225, USD489101, US9604096, US9468795, US9272182, US9126078, US9039577, US8858403, US8801580, US8454478, US8449437, US8323155, US8235873, US8162805, US8162338, US8162337, US8128535, US8123242, US8062187, US8062185, US8061728, US8061727, US8057363, US8029009, US8025609, US7918766, US7901330, US7824313, US7811206, US7785235, US7758473, US7736278, US7731634, US7704192, US7695408, US7691035, US7618351, US7604573, US7568999, US7559879, US7462134, US7455624, US7448986, US7361122, US7341542, US7278955, US7270626, US7267637, US7244217, US7214168, US7201705, US7179201, US7172531, US7169089, US7169088, US7097593, US7081069, US7025710, US6994657, US6908416, US6726600, US6715779, US6689019, US6659915, US6659486, US6612969, US6575877, US6440042, US6409632, US6277054, US6220989, US2014371032, US2014221165, US2014080675, US2011218079, US2011143885, US2010298101, US2010295263, US2010295262, US2010255958, US2010244399, US2010244398, US2010219604, US2010219603, US2010219602, US2010219601, US2010152000, US2010041522, US2009312156, US2009209394, US2009062080, US2009011904, US2008287265, US2008261780, US2008242516, US2008207400, US2008051258, US2007202999, US2007129217, US2007123393, US2006234838, US2006189445, US2006040794, US2006035754, US2006003868, US2005181911, US2005164837, US2005096187, US2004224825, US2003092532, US10293211, US10279212, US10272317, US10258828, US10252109, US10201727, US10188890, EP2996780, EP1716891, EP1518589, EP1518589,

Abstract:

The present invention relates to a standup exercise apparatus that simulates walking, jogging and climbing with arm exercise. More particularly, the present invention relates to an exercise machine having separately supported pedals for the feet and arm exercise coordinated with the motion of the feet. Cross trainers guide the feet along a generally elliptical shaped curve to simulate the motions of jogging and climbing. Existing machines often produce user problems such as excessive foot articulation. The present invention is an improved elliptical exercise machine capable of extended exercise with fewer user problems. Further, the cross trainer is adjustable to vary the motion of the elliptical stride from walking to climbing. A foot support member is guided by a guide linkage on one end and driven by a crank linkage on the other end. The resulting pedal motion has less severe pedal angles than a simple crank cross trainer. Handles are coupled to the guide linkage for coordinated arm exercise.



29) Family number: 12318037 (US2004097338A)

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Title: EXERCISE DEVICE

Priority: US19970062577P 19971017 US19980174306 19981016 US20000577914 20000524
US20000596383 20000616 US20030608845 20030627 US20030663380 20030916
US20040860179 20040603

Family:	Publication number	Publication date	Application number	Application date
	US2004097338 AA	20040520	US20030608845	20030627
	US2004162193 AA	20040819	US20030663380	20030916
	US2004229733 AA	20041118	US20040860179	20040603
	US6077202 A	20000620	US19980174306	19981016
	US6620080 BA	20030916	US20000596383	20000616
	US6679813 BA	20040120	US20000577914	20000524
	US7014596 BB	20060321	US20030608845	20030627
	US7097600 BB	20060829	US20040860179	20040603
	US7438670 BB	20081021	US20030663380	20030916

Probable Assignee: TRUE FITNESS TECHNOLOGY INC

Assignee(s):(std): MOON DANIEL ; TRUE FITNESS TECHNOLOGY INC ; STARR ROBERT ; GRAY GARY

Assignee(s): GRAY GARY W

Inventor(s):(std): GRAY GARY W ; STARR ROBERT ; MOON DANIEL ; GRAY GARY

Agent(s): LEWIS RICE AND FINGERSH LC

International class (IPC 8-9): A63B22/00 A63B22/04 A63B23/04 A63B7/00 (Advanced/Invention);
A63B21/00 A63B21/015 A63B21/22 A63B23/035 (Advanced/Non-invention);
A63B23/04 (Core/Invention);
A63B21/00 A63B21/012 A63B23/035 (Core/Non-invention)

International class (IPC 1-7): A63B22/00 A63B22/04 A63B22/06 A63B69/18 A63B71/00

CPC: A63B23/0405 A63B2023/0447 A63B21/157 A63B21/015 A63B21/225 A63B22/0056 A63B22/0058
A63B2022/003 A63B2022/0038 A63B2022/0053 A63B2208/0204 A63B21/4047

European class: A63B22/00P6 A63B22/00P6B A63B23/04B K63B208/02B K63B21/015 K63B21/22F K63B22/00C2P
K63B22/00C8 K63B22/00P4 K63B23/04B4A4

US class: 382/53 482/51 482/51S 482/52 482/52P 482/53 482/57 482/63 482/70 482/70P 482/71 482/71P
482/71S 482/79

[Classification Explorer](#)

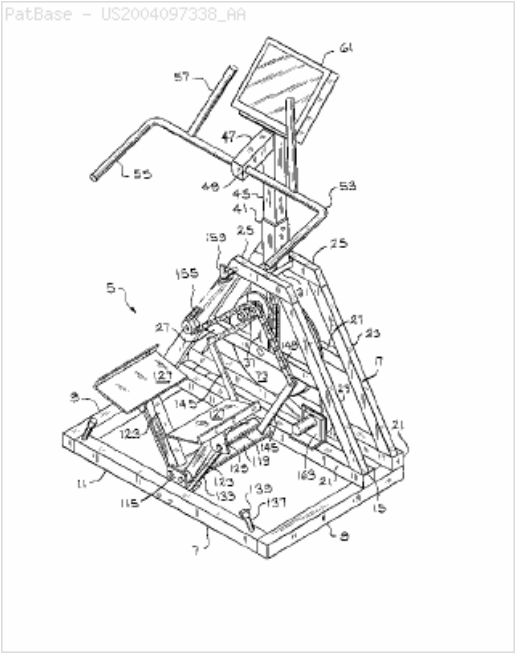
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US1015071 A,

Forward Citations: WO12161752, WO08017046, WO03009912, USD620540, USD589573, US9586078, US9463350,
US9440107, US9352187, US9269119, US9254404, US9224311, US9142141, US9123256, US9072932,
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US7261675, US7108638, US7097600, US7014596, US6641506, US6217484, US2014080677,
US2012058865, US2011177918, US2011021955, US2010144495, US2010093501, US2009264260,
US2009203504, US2009124939, US2009062079, US2008220943, US2008214363, US2008214362,
US2008070758, US2008051686, US2008051260, US2008032869, US2006264301, US2005277520,
US2005277518, US2005277517, US2005272562, US2005236801, US2004266586, US2004229733,
US2004097338, EP1731199, CN105727504, CN103930171, CN103930171, AU2012259467,

Abstract:

The exercise device of the present invention has a base having two side members and front member that extends between the side members. At least one truss member extends from the base. A rotatable shaft is positioned on the truss member and a flywheel is mounted on the shaft. A rotatable drive shaft is mounted on the truss member and a first one-way clutch and a second one-way clutch are mounted on the drive shaft. A means is provided for operatively connecting the drive shaft to the rotatable shaft whereby rotation of the drive shaft causes the rotatable shaft to rotate. A pair of arms have a first end that is pivotally mounted on the base and a second end that extends from the base. A foot pad is positioned on the second end of each of the

arms. The foot pads are disposed to move in an arcuate path towards and away from the side members of the base and the movement of the foot pads is in a direction that is substantially parallel to the front member of the base. A lever is operatively connected to each arm whereby movement of the arms causes a movement of the levers. A means is provided for operatively connecting one of the levers to the first one-way clutch and the other lever to the second one-way clutch whereby movement of the arms towards the base causes the levers to rotate the first and second one-way clutches in a direction that causes the drive shaft to rotate which in turn rotates the shaft upon which the flywheel is mounted. The flywheel provides resistance to movement of the arms and the levers. Movement of the arms away from the base rotates the levers in a direction that does not activate the first and second one-way clutches and does not cause the drive shaft to rotate.



30) Family number: 33124040 (US2006160683A)

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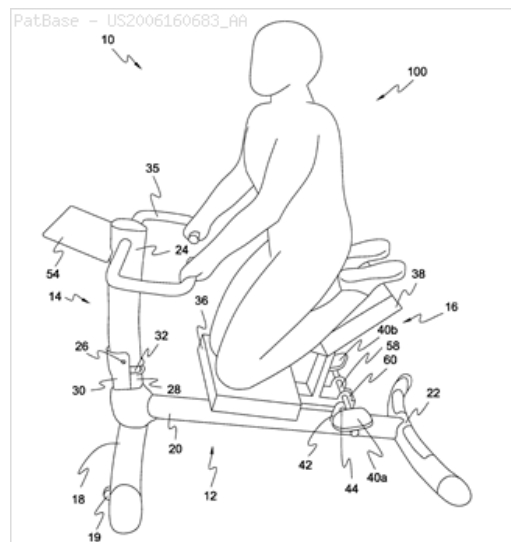
Title:	STRETCHING EXERCISE APPARATUS AND METHODS			
Priority:	US20050034222 20050112			
Family:	Publication number	Publication date	Application number	Application date
	US2006160683 AA	20060720	US20050034222	20050112
	US7294099 BB	20071113	US20050034222	20050112

Probable Assignee:	SCHENK PETER
Assignee(s):(std):	SCHENK PETER
Inventor(s):(std):	SCHENK PETER
Agent(s):	PATE PIERCE AND BAIRD
International class (IPC 8-9):	A63B21/00 A63B23/00 A63B26/00 (Advanced/Invention); A63B21/00 A63B23/00 A63B26/00 (Core/Invention)
CPC:	A63B21/4047 A63B21/045 A63B2023/006
European class:	A63B21/045 A63B21/14M6 K63B23/00B
US class:	482/126 482/142 482/142P 482/148 482/907 482/907S 482/92 482/92S

[Classification Explorer](#)

Cited documents:	US6752745 BA, US6117055 A, US5565002 A, US5527248 A, US5342269 A, US5322489 A, US5299998 A, US5299997 A, US5288130 A, US5184991 A, US5178599 A, US5110121 A, US5108090 A, US4883268 A, US4840372 A, US4819936 A, US4743010 A, US4700946 A, US4632393 A, US4583731 A, US4429871 A, US4084810 A, US3380737 A, US2973029 A, US2544106 A, US2470544 A, US2454656 A, US2405024 A, US2003203791 AA, US2002077221 AA, US1973945 A, DE1929340 A1,
Forward Citations:	WO15119445, USD843518, USD813322, USD794726, USD740380, US9770621, US7614986, US7311645, US2015051054, US2008058173, US2007093367, KR101006379,

Abstract:
An apparatus and method for improving flexibility in a user. The apparatus may include: a base frame having forward lateral, medial, and rear lateral supports; a post having a flexible joint and an upper extremity support; and a user support assembly having forward, rear, foot supports. If desired, the post may provide a plurality of non-fixed, upper extremity positions and recoiling from same. The user support assembly may provide a plurality of non-fixed pivot points for conducting compounded progressive stretching of at least one muscle group.



31) Family number: 34380044 (US7201707B)

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Title: ELLIPTICAL EXERCISE MACHINE WITH ADJUSTABLE STRIDE LENGTH

Priority: US20060330602 20060112

Family:	Publication number	Publication date	Application number	Application date
	US7201707 BA	20070410	US20060330602	20060112
	WO07086951 A2	20070802	WO2006US38036	20060928
	WO07086951 A3	20090430	WO2006US38036	20060928

Probable Assignee: TRUE FITNESS TECHNOLOGY INC

Assignee(s):(std): MOON DANIEL ; TRUE FITNESS TECHNOLOGY INC

Inventor(s):(std): MOON DANIEL R ; MOON DANIEL

Agent(s): LEWIS RICE AND FINGERSH LC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A63B22/00 A63B22/04 (Advanced/Invention); A63B22/00 (Core/Invention)

CPC: A63B22/208 A63B24/00 A63B21/005 A63B21/008 A63B21/012 A63B21/225 A63B22/001 A63B22/0015 A63B22/0664 A63B2022/002 A63B2022/0629 A63B2022/0647 A63B2022/067 A63B2071/009 A63B2225/09

European class: K63B21/005 K63B21/008 K63B21/012 K63B21/22F K63B22/00B2P K63B22/06C2M K63B22/06C4P K63B22/06E2 K63B22/08 K63B225/09 K63B71/00P8

US class: 482/52 482/57

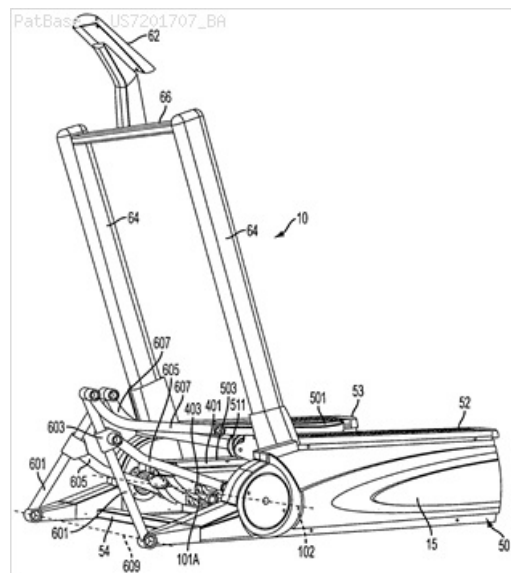
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Forward Citations: US8029417, US7909740, US7874961, US7775940, US7766797, US7740563, US7736279, US7717828, US7674205, US7658698, US7618350, US2011124472, US2010242246, US2009143198, US2008300114, US2008200314, US2008167163, US2008153674, US2008070755, US2007129218, US2006287161, US2006035755, US10293211, US10279212, US10272317, US10258828, US10252109, US10188890,

Abstract:

An elliptical exercise machine and methods for using the machine where the horizontal length of the stride of the ellipse can be adjusted by the user without the user having to alter the vertical dimension of the ellipse by an equivalent amount. The machine provides for alteration using an inverted pendulum arm which is driven by rotation of a rail and which in turn drives a footskate on the rail. The position for the driving of the inverted pendulum arm by the rail and the driving of the footskate by the inverted pendulum arm are adjustable relative to each other so as to provide for multiple different stride lengths in exercising. The machine may allow for this adjustment to occur during the performance of an exercise routine.



32) Family number: 11743046 (US5372564A) © PatBase

Title: Exercise device for exercising the leg abductor, upper arm and postural muscle groups

Priority: US19930056867 19930505

Family:

Publication number	Publication date	Application number	Application date
US5372564 A	19941213	US19930056867	19930505

Probable Assignee: WILLOW GROVE BANK

Assignee(s): SPIRITO PAMELA J ; WILLOW GROVE BANK

Inventor(s):(std): SPIRITO PAMELA J

International class (IPC 8-9): A63B23/035 (Advanced/Invention); A63B21/008 A63B21/05 A63B23/04 (Advanced/Non-invention)

International class (IPC 1-7): A63B21/008

CPC: A63B21/0083 A63B21/0087 A63B21/05 A63B23/03533 A63B23/0355 A63B23/0488

European class: A63B23/035C4 A63B23/035F A63B23/04A2 K63B21/008B2 K63B21/008C2 K63B21/05 K63B23/04E2

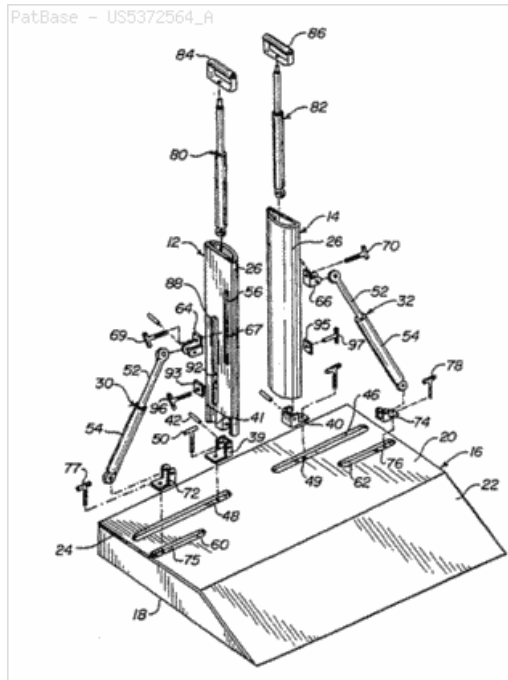
US class: 482/111 482/112 482/142

[Classification Explorer](#)

Cited documents: US5205802 A, US5176601 A, US5108093 A, US5013034 A, US4903966 A, US4830371 A, US4813667 A, US4720099 A, US4478411 A, US4257593 A, US4227689 A, US3634895 A, US3587319 A, US3139282 A,

Forward Citations: WO9915240, WO14201056, WO05032663, WO04073804, US9352187, US9308415, US8979720, US8936538, US8734300, US8663071, US8221295, US7867152, US7753831, US7585253, US7578774, US7438670, US7125365, US7108642, US7097600, US6679813, US6620080, US6406410, US6077202, US5951449, US5951448, US5813952, US5795273, US5769763, US2013288865, US2013023383, US2012309598, US2011263389, US2011143893, US2010248918, US2008234116, US2008194392, US2008171637, US2008119337, US2007254778, US2005272575, US2005037903, US2004229733, US2004162193, US10293211, US10279212, US10272317, US10258828, US10252109, US10226396, US10220259, US10188890, US10076461, EP1750813, EP1750813, EP1750813, EP1520605, CN103402588,

Abstract:
 An exercise device that enables a person to exercise the abductor muscles of the legs, the postural muscles and the muscles of the upper arms. The exercise device includes a base structure and two elongated members, each having an upper end and a lower end, that are joined to the base structure. The lower end of each elongated member is pivotably coupled to the base structure in a manner that enables each of the elongated members to be pivotably moved about its lower end in a direction generally away from the other elongated member. The pivotable movement of each of the elongated members is resisted by the presence of at least one resistance element that extends between each elongated member and the base structure. The presence of the resistance elements biases each elongated member into a set position that is generally perpendicular to the horizontal surface of the base structure. As a result, each of the elongated members can be pivotably moved away from each other by applying a force to an elongated member that is greater than the resistance provided by the resistance element.

**33) Family number: 49131053 (US2011214501A)**

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Title:	SENSOR DEVICE AND METHOD FOR MONITORING PHYSICAL STRESSES PLACED ON A USER					
Priority:	US20080128498	20080528	US20110070649	20110324	EP20110861712	20111206
	WO2011US63535	20111206	US20120585891P	20120112	US20130741294	20130114
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	US20170698023	20170907	US20170726837	20171006		

Family:	Publication number	Publication date	Application number	Application date
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WO15069659 A1	20150514	WO2014US63927	20141104
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Probable Assignee: TEALIUM INC

Assignee(s):(std): MED HAB LLC ; MEDHAB LLC ; ROSS JANICE ; SANGHERA JAGDEEPINDER SINGH ; ROSS JANICE MARIE ; ROSS JR JOHNNY ; SANGHERA JAGDEEPINDER ; TEALIUM INC

Assignee(s): SILICON VALLEY BANK ; MEDHAB LLC MANSFIELD ; MEDHAB

Inventor(s):(std): ROSS JANICE MARIE ; ROSS JR JOHNNY ; SANGHERA JAGDEEPINDER SINGH ; ROSS JANICE ; SANGHERA JAGDEEPINDER ; ROSS JOHNNY ; WILLIAMS BENJAMIN RICHARD II ; BROWNING ADRIAN LESLIE ; LIN IKE S ; WILLIAMS II BENJAMIN RICHARD ; WILLIAMS BENJAMIN RICHARD ; XU LARRY ; GAVIN TYRON ; CURRY TOWNEUPLY O HAGAN FIANN JAMES ; FAURHOLT KEVIN THOMAS ; ANDERSON MICHAEL ; SULIN COLIN DOUGLAS ; GLOMMEN CHARLES ; KOO JASON LAP WING ; GLOMMEN CHARLES SCOTT

Inventor(s): ROSS JANICE MANSFIELD ; SANGHERA JAGDEEPINDER MIDLOTHIAN ; ROSS JOHNNY MANSFIELD

Agent(s): VIERING JENTSCHURA AND PARTNER MBB PATENT U RECHTSANWAELTE; VERHEES GODEFRIDUS JOSEPHUS MARIA; VIERING JENTSCHURA AND PARTNER MBB PATENT U RECHTSANWAELTE; ERIC; KNOBBE MARTENS OLSON AND BEAR LLP; KARICH AND ASSOCIATES; KARICH AND ASSOCIATE; KARICH ERIC; ALTMAN DANIEL E; DELANEY KAROLINE A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A43B17/00 A43B3/00 A43B5/14 A61B5/00 A61B5/01 A61B5/103 A61B5/11 A61B5/22 A63B24/00 G01C22/00 G01K13/00 G01L1/00 G01L1/26 G01L25/00 G01L3/24 G01L5/00 G01P7/00 G06F15/16 G06F15/173 G06F16/957 G06F16/958 G06F17/00 G06F17/21 G06F17/22 G06F17/30 G06F3/0484 G06Q30/02 G06Q50/10 G08B1/08 G08B23/00 H04L12/24 H04L29/06 H04L29/08 H04W4/20 H05K3/02 H05K3/10 (Advanced/Invention); G06F12/00 G06F17/27 H04M1/725 H04W4/02 (Advanced/Non-invention)

CPC: A43B7/00 A61B5/01 G01K13/002 A61B5/6831 A61B2562/046 G06F3/04842 H04L41/22 H04L41/0803 H04L41/50 H04L67/32 G06F3/0484 G06F17/2288 G06Q30/0201 A61B5/0002 A61B5/1118 A61B5/1123 A61B5/221 A61B2560/0223 A61B5/7425 G01P7/00 A61B5/486 A61B2503/10 G01L5/0052 G01L1/18 G01L1/2287 H04L67/42 G06F17/2247 H04L67/2847 A61B5/1112 A61B5/1122 A61B5/7278 A61B2560/0252 A61B2560/0475 A61B2562/166 A63B23/0494 A63B2071/0652 A63B2220/16 A63B2225/20 A63B2225/50 A61B5/112 A61B5/6898 H04L67/146 H04L67/10 A61B5/22 H04L29/08072 H04L67/02 H04L67/20 H04L67/22 H04L67/306 A61B5/1036 A63B24/0062 A63B2220/00 A63B2220/51 G01L3/247 G01L5/0095 G01L25/006 H04W4/029 H04W4/21 A43B5/14 A43B17/00 A61B5/6807 A61B2562/0219 A43B3/0005 A61B5/1038 A61B5/11 A61B5/6811 A61B2562/0247 A61B5/743 A61B2562/12 G01C22/006 G01L1/26 G01L3/24 G01L5/00 G01L25/00 H04M1/7253 G01L5/0038 G01L5/162 Y10T29/49128 G06F16/337 G06F16/958 G06F16/172 G06F16/9574 G06F16/957 G06F17/30702 H04L69/329

European class: A43B3/00E A43B7/00 A61B5/103P2 A61B5/11 A61B5/68B1D3 A61B5/68B3B K61B562/02C

US class: 1/1 29/831 340/539.11 340/539.12 340/573.1 340/573.7 340/665 340/666 340/669 36/1 600/549 600/587 600/592 600/595 702/104 702/41 702/44 705/7.29 707/756 709/203 709/204 709/206 709/213 709/219 709/223 709/227 715/233 715/234 715/235 715/246 715/273 715/277 715/735 715/736 73/172 73/172P

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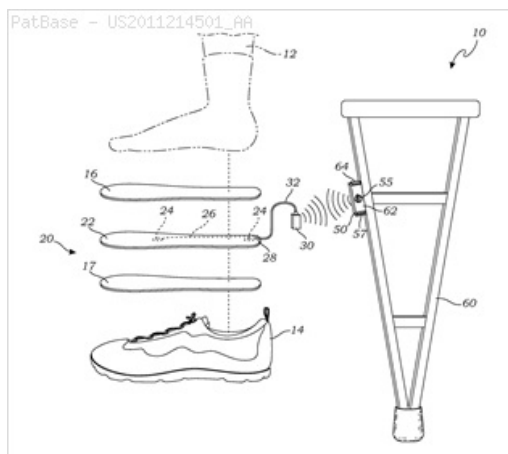
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Abstract:

A sensor device has an insole, a sensor body abutting the insole, pressure sensors operably mounted on the sensor body for generating a pressure data signal, and an accelerometer mounted on the insole for generating a movement data signal indicating the measuring movement of the insole. A transmitter is used for transmitting the pressure data signal and the movement data signal to a reporting device having a receiver for receiving the pressure data signal and the movement data signal. The reporting device further has a processor and a computer-readable medium for storing the pressure data signal and the movement data signal.



34) Family number: 32581054 (US6991588B)

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Title: STANDING SINGLE LEG PRESS EXERCISE MACHINE

Priority: US20030346821 20030118

Family:

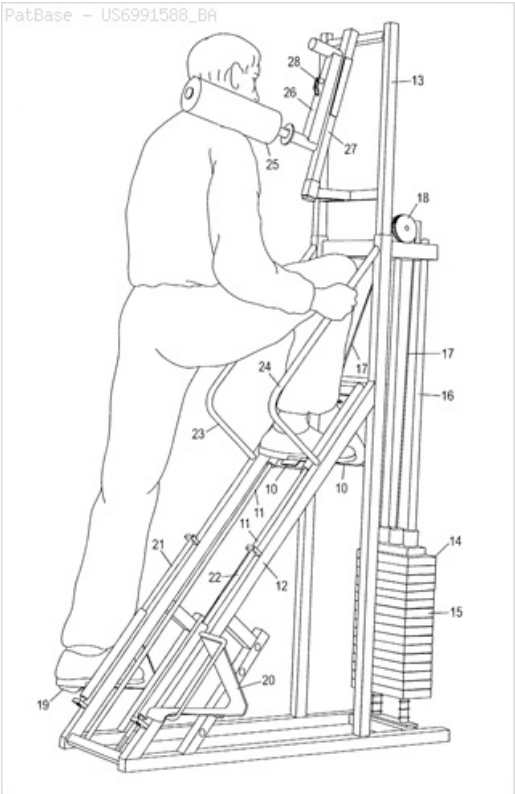
Publication number	Publication date	Application number	Application date
US6991588 BA	20060131	US20030346821	20030118

Probable Assignee: ADAMS FREDERICK R
Assignee(s):(std): ADAMS FREDERICK R
Inventor(s):(std): ADAMS FREDERICK R
Agent(s): JACK
International class (IPC 8-9): A63B22/00 (Advanced/Invention); A63B22/00 (Core/Invention)
CPC: A63B23/03508 A63B23/0417 A63B22/205 A63B2208/0204 A63B2208/0209 A63B21/0628 A63B21/4045
European class: A63B23/04B2 K63B208/02B K63B208/02B2 K63B21/062 K63B22/20T4 K63B23/035A
US class: 482/52 482/71 601/34

[Classification Explorer](#)

Cited documents: US6702724 BB, US5584780 A, US5328427 A, US4900012 A,
Forward Citations: USD620540, USD589573, US7927257, US7771324, US7662075, US7594877, US7481745, US2010197465, US2010099541, US2010093501, US2009203504, US2009163323, US2009029834, US2008039298, US2008020911, US2007238581, US2007219063, US2007093369, US10293211, US10279212, US10272317, US10258828, US10252109, US10188890, EP2789371, CN107583240, CN107583239,

Abstract:
A standing single leg press exercise machine is comprised of a single movable step arranged to move up and down along an inclined path for exercising only one leg at a time. A resistance mechanism is connected to the movable step for providing resistance to movement. Two stationary steps are positioned on either side of the bottom position of the movable step. Hand rails are also positioned on either side of movable step. A shoulder pad is positioned above the movable step. A method for using the leg press is comprised of standing on one of the stationary steps with a stationary leg, and repeatedly operating the movable step up and down with an active leg. The active leg is exercised until it is tired, and the legs are switched to exercise the previously stationary leg while the previously active leg is rested.



35) Family number: 28140055 (US2001044362A)

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Title: System of impact measurement and display
Priority: US20000206004P 20000519 US20010860718 20010518
Family:

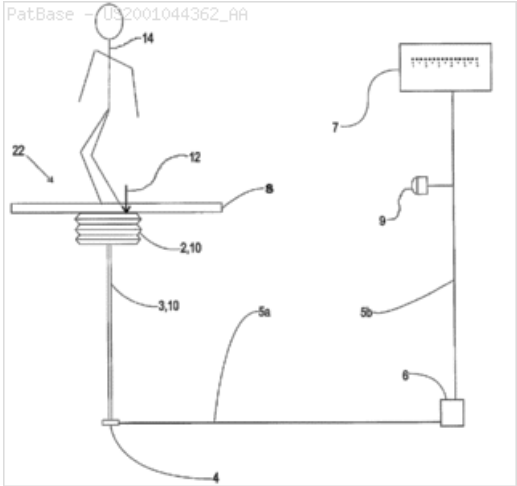
Publication number	Publication date	Application number	Application date
US2001044362 AA	20011122	US20010860718	20010518
US6533706 BB	20030318	US20010860718	20010518

Probable Assignee: PLYO SYSTEMS LLC
Assignee(s):(std): TOMORROW S EXERPRIZES
Assignee(s): TOMORROW S EXERPRIZES LLC ; TOMORROWS EXERPRIZES ; TOMORROW'S EXERPRIZES LLC ; TOMORROWS EXERPRIZES PO BOX ; MORROW GEORGE S ; PLYO SYSTEMS LLC
Inventor(s):(std): MORROW GEORGE S
International class (IPC 8-9): A63B24/00 A63B69/32 (Advanced/Invention); A63B24/00 A63B69/20 (Core/Invention)
International class (IPC 1-7): A63B23/00 A63B71/00
CPC: A63B24/00 A63B69/325 A63B2071/0627 A63B2230/01
European class: A63B24/00 A63B69/32H K63B230/01 K63B71/06D2A2
US class: 482/1 482/14 482/15 482/74 482/8

[Classification Explorer](#)

Cited documents: US6181647 BA, US5343445 A, US5125647 A,
Forward Citations: WO03063119, US8833144, US8727954, US8262548, US8196452, US7198607, US6794989, US2017127997, US2017127996, US2017127995, US2013065739, US2010113230, US2009243128, US2007173379, US2003006903, US10189191, US10165975, US10165974, US10165973, GB2400917, GB2400917, EP1396280, EP1396280,

Abstract:
A system of monitoring impact stress, or acceleration forces on a user while exercising is disclosed. An exercise machine is equipped with sensing apparatus that measures the downward force exerted on the supporting surface by the lower extremities of the user. In this way, the corresponding impact forces are determined as a function of the user's body weight and communicated via a display monitor as "G-forces" or "Earth Gravity Units." This allows the user to keep exercise impact within limits desired by the user, a physical therapist, or other qualified professional.



36) Family number: 42871056 (US2009029835A)

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Title: MOMENT ARM WEIGHT RESISTANCE MECHANISM AND WEIGHT TRAINING MACHINES UTILIZING THE SAME
Priority: US20070828454 20070726 US20100424915P 20101220 US20110179487 20110709
US20110992744 20111219 WO2011US65738 20111219 US20130992744 20130713
US20130967188 20130814 US20140148303 20140106 US20140207020 20140312
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US20160220920 20160727 US20170847159 20171219 US20170848656 20171220

Family:	Publication number	Publication date	Application number	Application date
	AU2011349541 AA	20120628	AU20110349541	20111219
	AU2011349541 BB	20150226	AU20110349541	20111219
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	US2009029835 AA	20090129	US20070828454	20070726
	US2012004081 AA	20120105	US20110179487	20110709
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	US2014121070 AA	20140501	US20140148303	20140106
	US2014371036 AA	20141218	US20140207020	20140312
	US2015151158 AA	20150604	US20140564974	20141209
	US2015367173 AA	20151224	US20150840776	20150831
	US2016332024 AA	20161117	US20160220920	20160727
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	US9770623 BB	20170926	US20140564974	20141209
	US9873016 BB	20180123	US20150840776	20150831
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	WO15138279 A1	20150917	WO2015US19363	20150309
	WO16093907 A1	20160616	WO2015US47845	20150901
	WO16094116 A1	20160616	WO2015US63089	20151201

Probable Assignee: FITNESS TOOLS LLC
Assignee(s):(std): ELLIP I P INC ; ELLIS I P INC ; ELLIS JOSEPH K ; FITNESS TOOLS LLC ; ELLIS JOSPEH K ; ELLIS JOSPEH ; ELLIS JOSEPH ; JOSEPH K ELLIS ; PRODUCT DESIGN INNOVATIONS LLC
Assignee(s): ELLIS IP ; ELLIS IP INC ; ELLIP IP ; ELLIP IP INC
Inventor(s):(std): ELLIS JOSEPH K ; ELLIS JOSPEH K ; JOSEPH K ELLIS ; AGUILAR JOSHUA M

Agent(s): FB RICE; FB RICE PTY LTD; RIDOUT AND MAYBEE LLP; AULICH MARTIN; SMITH GAMBRELL AND RUSSELL; SMITH RISLEY TEMPEL SANTOS LLC; LAURENCE P; SMITH TEMPEL BLAHA LLC; COLTON LAURENCE P

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A63B21/00 A63B21/008 A63B21/012 A63B21/045 A63B21/05 A63B21/06 A63B21/068 A63B21/072 A63B21/075 A63B21/078 A63B21/08 A63B21/22 A63B22/00 A63B22/06 A63B22/20 A63B23/02 A63B23/035 A63B23/04 A63B23/12 A63B26/00 G06F17/20 G06F21/30 G06Q10/08 (Advanced/Invention); A63B21/008 A63B21/012 A63B21/02 A63B21/062 A63B21/16 A63B22/00 A63B22/14 A63B23/035 (Advanced/Non-invention); A63B21/06 (Core/Invention)

International class (IPC 1-7): A63B21/08

CPC: A63B21/0618 A63B21/0728 A63B21/075 A63B21/078 A63B21/154 A63B23/03575 A63B23/0405 A63B23/0494 A63B23/1209 A63B23/1263 A63B222/0094 A63B223/0411 A63B2208/0204 A63B2208/0228 A63B2220/17 A63B21/062 A63B21/06 A63B21/08 A63B21/155 A63B21/0616 A63B21/1609 A63B21/4043 A63B21/152 A63B21/156 A63B21/4015 A63B21/4045 A63B22/203 A63B23/03566 A63B23/0429 A63B23/1281 A63B2208/0233 A63B2208/0238 A63B2208/0247 A63B2225/093 A63B2225/102 A63B23/03516 A63B21/045 A63B22/201 A63B23/0238 A63B23/03583 A63B22/001 A63B21/00185 A63B21/068 A63B21/005 A63B21/023 A63B21/1461 A63B21/1465 A63B21/1484 A63B21/1492 A63B2021/0616 A63B2021/1609 A63B21/4034 A63B21/00072 A63B21/00192 A63B21/0051 A63B21/0058 A63B21/0125 A63B21/0552 A63B21/072 A63B21/0724 A63B21/0726 A63B21/157 A63B21/4039 A63B22/0087 A63B22/208 A63B23/0211 A63B23/0216 A63B23/03541 A63B2208/0214 A63B21/00069 A63B21/00181 A63B21/008 A63B21/0085 A63B21/012 A63B21/02 A63B21/0615 A63B21/0628 A63B21/159 A63B21/4033 A63B21/4035 A63B21/4047 A63B21/4049 A63B22/14 A63B22/205 A63B23/0205 A63B23/0222 A63B23/0227 A63B23/03525 A63B2208/0219 A63B2225/09 A63B22/0664 A63B21/22 A63B22/0023 A63B2022/067 A63B21/4031 A63B21/0088 A63B21/225 A63B22/0017 A63B69/0048 A63B2022/002 A63B2022/0041 A63B2022/0043 A63B2022/0676

European class: A63B21/068 A63B21/06F A63B21/072F A63B21/075 A63B21/078 A63B21/08 A63B21/14K2M A63B21/14K4H A63B21/14M6 A63B21/15F6C A63B21/15L A63B23/035C2 K63B21/06F2 K63B220/17

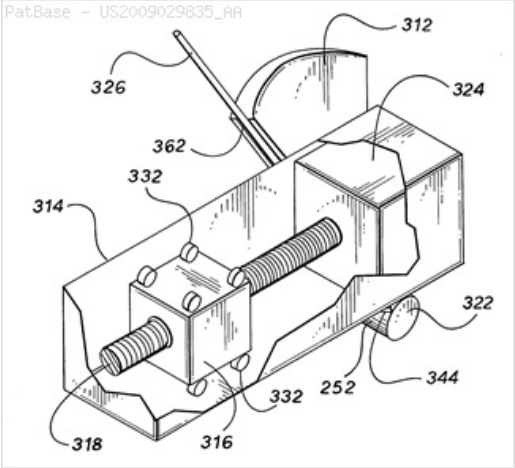
US class: 482/100 482/114 482/127 482/130 482/133 482/142 482/66 482/71 482/72 482/76 482/95 482/96 482/97 482/97P 76/114 76/130 76/97

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Cited documents: WO10139015 A1, US8888661 BB, US8317665 BB, US8172732 BA, US8162807 BA, US7998043 BB, US7963895 BB, US7963890 BB, US7867149 BA, US7833143 BA, US7780585 BA, US7731638 BB, US7727128 BB, US7662076 BA, US7651446 BA, US7611446 BB, US7594880 BB, US7585263 BB, US7455633 BB, US7335140 BB, US7278958 BB, US7278958 B1, US7232404 BB, US7220221 BB, US7104933 BA, US7029426 BA, US7004894 BA, US684488 A, US6287241 BA, US6264588 BA, US6010437 A, US5997447 A, US5846166 A, US5827158 A, US5795270 A, US5776039 A, US5690593 A, US5649885 A, US5643152 A, US5626542 A, US5620402 A, US5616107 A, US5580340 A, US5569132 A, US5554090 A, US5554089 A, US5554086 A, US5554084 A, US5520599 A, US5518483 A, US5484365 A, US5464378 A, US5437589 A, US5429568 A, US5370594 A, US5366432 A, US5358462 A, US5299997 A, US5224909 A, US5135449 A, US5125881 A, US5106080 A, US4923195 A, US4863161 A, US4828254 A, US4743010 A, US4645197 A, US4502681 A, US4452448 A, US4407495 A, US4300760 A, US4257593 A, US4149714 A, US3976058 A, US3859873 A, US3589720 A, US3588101 A, US3235255 A, US2924456 A, US2714507 A, US2642288 A, US2455548 A, US2015151158 AA, US2014371036 AA, US2014121070 AA, US2014100091 AA, US2013123083 AA, US2013095981 AA, US2012115695 AA, US2011039661 AA, US2011028283 AA, US2010311555 AA, US2010048367 AA, US2008070765 AA, US2007293378 AA, US2007054787 AA, US2006217240 AA, US2006105889 AA, US2005233874 AA, US2004166993 AA, US2004116258 AA, US2003232703 AA, US2002013199 AA, DE202011051471 U, CN2448407 Y, CN103706084 A,

Forward Citations: WO18203161, WO16105506, WO16099777, WO16093907, USD813322, USD785732, USD785107, USD784465, USD783741, US9993683, US9919183, US9895570, US9878201, US9873016, US9868023, US9808669, US9782619, US9770623, US9770621, US9750969, US9707448, US9707435, US9694228, US9675834, US9662529, US9566466, US9545540, US9539462, US9533188, US9498674, US9375607, US9272180, US9272179, US2017371157, US2017036052, US2016346581, US2016107019, US2016001123, US2015283425, US2015238801, US2015148200, US2015141207, US2014336013, US2014302972, US2014274590, US2013203558, US10265581, US10212994, US10149999, US10143875, US10086229, TWI562806, RU2579728, JP6382456, JP2018502685, IT201600079097, GB2534352, EP2786787, CN106999751, AU2015363271, AU2015363271,

Abstract:
A weight training machine having a moment arm weight resistance means for creating a weight resistance or weight load.



Title:

STATIONARY EXERCISE EQUIPMENT

Priority:

US20070946568P 20070627

US20080147694 20080627

Family:

Publication number	Publication date	Application number	Application date
US2009011907 AA	20090108	US20080147694	20080627
US7833135 BB	20101116	US20080147694	20080627
WO09003170 A1	20081231	WO2008US68585	20080627

Probable Assignee:

RADOW SCOTT B

Assignee(s):(std):

BLAU DAVID A ; RADOW SCOTT B

Inventor(s):(std):

BLAU DAVID A ; RADOW SCOTT B

Agent(s):

PRICE HENEVELD COOPER DEWITT AND LITTON LLP; DOLCE MARCUS P

Designated states:

AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class

A63B21/22 A63B22/06 A63B22/08 A63B24/00 A63B69/16 (Advanced/Invention);

(IPC 8-9):

A63B21/00 A63B22/06 A63B24/00 (Core/Invention)

CPC:

A63B2022/0658 A63B22/0605 A63B24/0084 A63B2024/009 A63B2220/34 A63B2220/51 A63B2225/107 A63B2225/20 A63B21/0051 A63B21/0053 A63B21/0058 A63B21/015 A63B21/225 A63B22/02 A63B22/04 A63B24/0087 A63B69/0057 A63B71/0622 A63B2024/0093 A63B2024/0096 A63B2071/0638 A63B2071/0644 A63B2220/17 A63B2220/30 A63B2220/40 A63B21/00181 H02K49/046 B62M3/00

European class:

A63B21/00T A63B22/08 A63B24/00J K63B220/34 K63B220/51 K63B225/10S2 K63B225/20 K63B24/00R2

US class:

482/4 482/57 482/57P 482/8

[Classification Explorer](#)

Cited documents:

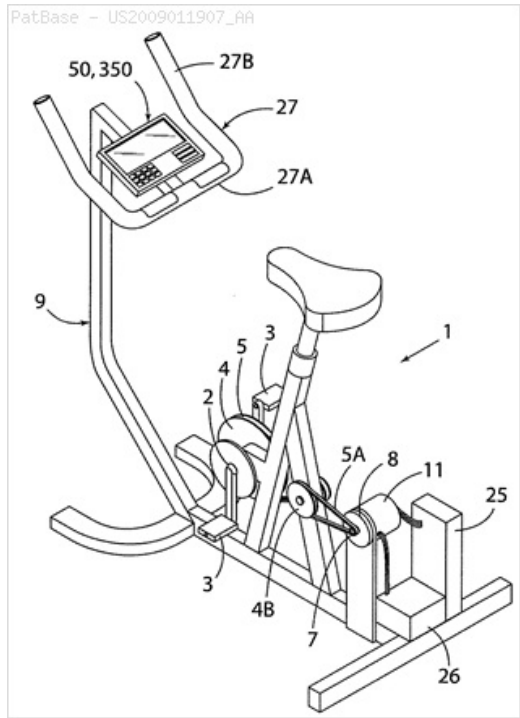
WO9636399, WO0124892 A2, US7354380 BB, US7311640 BB, US7257468 BA, US7220219 BB, US7205981 BB, US7163490 BB, US7158112 BB, US7113166 BA, US7097596 BB, US7094184 BA, US7090620 BA, US7066865 BB, US7050050 BB, US7047817 BB, US7044891 BA, US7039866 BA, US7033176 BB, US7027055 BB, US7004888 BA, US6930590 BB, US6921351 BA, US6918860 BA, US6853965 BB, US6852068 BB, US6827579 BB, US6786848 BB, US6749537 BA, US6736762 BB, US6730003 BA, US6676569 BA, US6659917 BA, US6652425 BA, US6634992 BA, US6607471 BB, US6605021 BB, US6593710 BB, US6572511 BA, US6554252 BB, US6527681 BB, US6527674 BA, US6482128 BA, US6475115 BA, US6464618 BA, US6454679 BA, US6450922 BA, US6436008 BA, US6418797 BA, US6405158 BA, US6366272 BA, US6356848 BA, US6267709 BA, US6251048 BA, US6231527 BA, US6171218 BA, US6171218 B1, US6162189 A, US6162151 A, US6152854 A, US6147674 A, US6142913 A, US6126575 A, US6126571 A, US6066075 A, US6059696 A, US6056670 A, US6050920 A, US6050822 A, US6028593 A, US5984880 A, US5980256 A, US5952796 A, US5947869 A, US5919115 A, US5898599 A, US5888172 A, US5872438 A, US5779596 A, US5768702 A, US5738612 A, US5736612 A, US5704253 A, US5690591 A, US5625576 A, US5587937 A, US5583403 A, US5580249 A, US5577598 A, US5562572 A, US5545112 A, US5492513 A, US5470293 A, US5466203 A, US5382207 A, US5324242 A, US5318487 A, US5312311 A, US5267925 A, US5259611 A, US5256115 A, US5242339 A, US5234392 A, US5230673 A, US5215468 A, US5181904 A, US5163886 A, US5154677 A, US5070816 A, US5067710 A, US5027303 A, US5018726 A, US4998725 A, US4976424 A, US4958831 A, US4941652 A, US4938475 A, US4934692 A, US4891764 A, US4890495 A, US4880230 A, US4869497 A, US4824104 A, US4822037 A, US4822036 A, US4817938 A, US4775145 A, US4709917 A, US4687196 A, US4687195 A, US4678182 A, US4647039 A, US4642070 A, US4613129 A, US4600016 A, US4571680 A, US4542897 A, US4358105 A, US4235437 A, US4084810 A, US4060239 A, US3964742 A, US3903613 A, US3859840 A, US3589193 A, US3375717 A, US2010075806 AA, US2009298651 AA, US2009253558 AA, US2009131224 AA, US2009062080 AA, US2008139307 AA, US2007275831 AA, US2007259756 AA, US2007249468 AA, US2007232465 AA, US2007082788 AA, US2007066918 AA, US2007049461 AA, US2007027583 AA, US2007023244 AA, US2007013655 AA, US2007010772 AA, US2006293617 AA, US2006281606 AA, US2006234840 AA, US2006190093 AA, US2006180225 AA, US2006179837 AA, US2006166790 AA, US2006106326 AA, US2006094569 AA, US2006064223 AA, US2006030383 AA, US2006003872 AA, US2005264527 AA, US2005233285 AA, US2005227823 AA, US2005222830 AA, US2005219228 AA, US2005148432 AA, US2005142525 AA, US2005107221 AA, US2005024331 AA, US2005014610 AA, US2004106916 AA, US2004106502 AA, US2004040805 AA, US2004036721 AA, US2004034795 AA, US2004034302 AA, US2004034283 AA, US2004034282 AA, US2003073546 AA, US2003013995 AA, US2002147079 AA, US2002077221 AA, US2002016236 AA, US2002013197 AA, US2001036883 AA, US2001019985 AA, US2001011052 AA, NL1019154, NL1008474 C, DE3218086 A1, DE20311319 U1,

Forward Citations:

WO18125838, WO16196289, WO16170361, WO16162586, WO14196866, WO13158887, WO13124509, US9994099, US9944349, US9944167, US9943718, US9937783, US9931924, US9922528, US9902252, US9878608, US9815363, US9795872, US9744845, US9738151, US9737746, US9701190, US9669700, US9669699, US9636993, US9636992, US9579534, US9541903, US9514576, US9409622, US9398782, US9341526, US9334013, US9102317, US9090300, US9067099, US9067098, US9064153, US8876663, US8845493, US8786448, US8762168, US8690735, US8641581, US8585561, US8485944, US8142334, US8011242, US7972245, US2017340913, US2017128763, US2016367890, US2016300390, US2016153852, US2015262459, US2015146918, US2015024906, US2014229054, US2014229046, US2014171267, US2014156041, US2014077494, US2014062351, US2013296137, US2013258819, US2013132910, US2013049860, US2012238406, US2012105234, US2012035950, US2011263384, US2011258757, US2011172059, US2011111923, US2010234185, US2010222179, US2010090475, US2010042022, US2010024590, US10308065, US10279212, US10272317, US10259311, US10258828, US10226657, US10226396, US10220259, US10213642, US10188890, US10182722, US10166856, US10124234, US10111589, US10106026, US10023266, US10005317, EP2838624, EP2666524, EP2666524, EP2507123, CN102781768, AU2013249210, AU2012328194,

Abstract:

A control system and method for exercise equipment and the like provides a way to simulate a physical activity in a manner that takes into account the physics of the physical activity being simulated to provide an accurate simulation. According to one aspect of the present invention, the control system and method takes into account the physics of the corresponding physical activity to generate a virtual or predicted value of a variable such as velocity, acceleration, force, or the like. The difference between the virtual or expected physical variable and a measured variable is used as a control input to control resistance forces of the exercise equipment in a way that causes the user to experience forces that are the same or similar to the forces that would be encountered if the user were actually performing the physical activity being simulated rather than using the exercise equipment.



38) Family number: 12435059 (US5299993A)

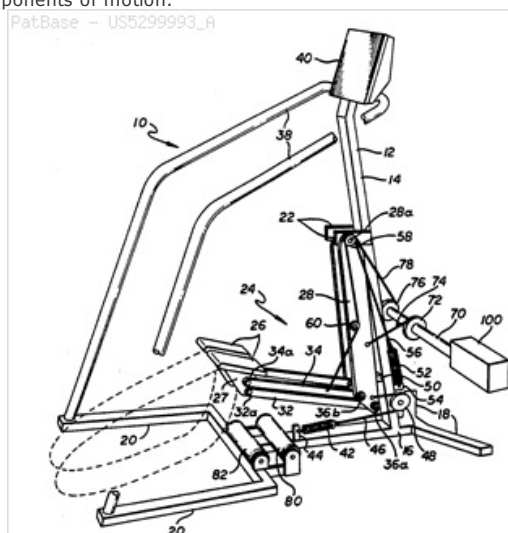
© PatBase

Title:	Articulated lower body exerciser																								
Priority:	US19920984301 19921201		WO1993US11639 19931130		US19940199665 19940222																				
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr><tr><td>AU199457341 A1</td><td>19940622</td><td>AU19940057341</td><td>19931130</td></tr><tr><td>US5299993 A</td><td>19940405</td><td>US19920984301</td><td>19921201</td></tr><tr><td>US5499956 A</td><td>19960319</td><td>US19940199665</td><td>19940222</td></tr><tr><td>WO9412244 A1</td><td>19940609</td><td>WO1993US11639</td><td>19931130</td></tr></table>					Publication number	Publication date	Application number	Application date	AU199457341 A1	19940622	AU19940057341	19931130	US5299993 A	19940405	US19920984301	19921201	US5499956 A	19960319	US19940199665	19940222	WO9412244 A1	19940609	WO1993US11639	19931130
Publication number	Publication date	Application number	Application date																						
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WO9412244 A1	19940609	WO1993US11639	19931130																						
Probable Assignee:	NORDICTRACK INC																								
Assignee(s):(std):	NORDICTRACK INC ; PACIFIC FITNESS CORP																								
Assignee(s):	STEARNS TECHNOLOGIES INC ; WILMINGTON TRUST FSB COLLATERAL AGENT AS ; UNIVERSAL TECHNICAL SERVICES ; BANK OF AMERICA NA ADMINISTRATIVE AGENT AS ; FIRST NATIONAL BANK OF BOSTON ADMINISTRATIVE AG AS ; FIRST NATIONAL BANK OF BOSTON ADMINISTRATIVE AGENT ; FIRST NATIONAL BANK OF BOSTON ADMINISTRATIVE AGENT AS ; FREE MOTION FITNESS INC ; ICON HEALTH AND FITNESS INC ; NORDIC ADVANTAGE INC ; GENERAL ELECTRIC CORP ; GENERAL ELECTRIC CAPITAL CORP ; HF HOLDINGS INC ; ICON ALTRA LLC ; ICON DU CANADA INC ; ICON INT HOLDINGS INC ; ICON IP INC																								
Inventor(s):(std):	HABING THEODORE G ; SPLANE JR ROBSON L ; SPLANE ROBSON L JR																								
Inventor(s):	THEODORE G HABING ; SPLANE ROBSON L ; ROBSON L SPLANE JR																								
Designated states:	AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KR KZ LK LU MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA UZ VN																								
International class (IPC 8-9):	A63B21/00 A63B21/005 A63B21/015 A63B21/055 A63B23/04 (Advanced/Invention); A63B21/00 A63B21/005 A63B21/015 A63B21/055 (Advanced/Non-invention); A63B23/04 (Core/Invention); A63B21/00 A63B21/005 A63B21/012 A63B21/02 (Core/Non-invention)																								
International class (IPC 1-7):	A63B22/00 A63B23/10																								
CPC:	A63B21/0053 A63B21/0058 A63B21/015 A63B21/023 A63B21/0428 A63B21/055 A63B21/153 A63B21/154 A63B22/0664 A63B2022/0038 A63B2022/0676 A63B2208/0204																								
European class:	K63B208/02B K63B21/005C K63B21/005F K63B21/015 K63B21/04B6 K63B21/055 K63B22/00C8 K63B22/06E4																								
US class:	482/51 482/52 482/79																								
Classification Explorer																									
Cited documents:	US5299993 A, US5290211 A, US5242343 A, US5114388 A, US5040786 A, US5039088 A, US5000443 A, US4949993 A, US4708338 A, US3316898 A, DE2919494 A1,																								
Forward Citations:	WO9928001, WO9924121, WO9728848, WO04108223, USRE42698, USRE39904, USRE38803, USD795975, USD795974, USD795973, USD792530, USD742977, USD527060, US9993680, US9987513, US9968824, US9950209, US9876984, US9808667, US9682279, US9636541, US9636540, US9625091, US9440107, US9364708, US9352187, US9308415, US9272182, US9199115, US9072932, US9050491, US8864092, US8858403, US8734300, US8734299, US8724037, US8696524, US8663071, US8550962, US8439807, US8419598, US8409058, US8323155, US8272996, US8147385, US8113994, US8062187, US8002674, US7942787, US7918766, US7909740, US7909739, US7883451, US7841968, US7833134, US7828698, US7819779, US7811211, US7811209, US7811208, US7811206, US7785235, US7775940, US7766797, US7758473, US7749137, US7740563, US7736279, US7731635, US7727125, US7717828, US7708669, US7708668, US7674205, US7658698, US7645215, US7632219, US7618351, US7618350, US7611446, US7608018, US7556591, US7553260, US7544153, US7530926, US7520839, US7517303, US7507184, US7485072, US7462134, US7455626, US7438670, US7341542, US7316633, US7316632, US7267637, US7244217, US7214168, US7201705, US7198590, US7179201, US7172531, US7169090, US7169089, US7169088, US7108644, US7108637, US7097600, US7097593, US7086993, US7025710, US6908416, US6846272, US6752744, US6695749, US6689019, US6679813, US6620080, US6575877,																								

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Abstract:

An exercise machine has a pair of laterally spaced apart foot pedals, each of which is independently coupled to a frame by a respective articulated linkage. Each such linkage has a generally vertical arm that is pivotally coupled to the frame and a generally horizontal arm that is pivotally coupled to its respective foot pedal. These arms are pivotally coupled to one another such that each foot pedal is free to move with in a two-dimensional envelope of motion in a vertical plane. The linkage members are arranged so that the envelope of motion has a generally ovate shape, slightly inclined to the horizontal. The exercises performed with this apparatus may have both vertical and horizontal components of motion.



39) Family number: 32178061 (US6932745B)

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Title: SEATED STEPPER

Priority: US20040757194 20040114

Family:

Publication number	Publication date	Application number	Application date
US6932745 BA	20050823	US20040757194	20040114

Probable Assignee: NORTHLAND IND INC

Assignee(s):(std): NORTHLAND IND INC

Assignee(s): NORTHLAND INDUSTRIES ; NORTHLAND INDUSTRIES INC ; NORTHLAND IND

Inventor(s):(std): ELLIS PATRICK D

Agent(s): ANDRUS SCEALES STARKE AND SAWALL LLP

International class A63B21/00 A63B23/04 A63B69/06 (Advanced/Invention);

(IPC 8-9): A63B21/005 (Advanced/Non-invention);

A63B21/00 A63B23/04 A63B69/06 (Core/Invention);

A63B21/005 (Core/Non-invention)

International class A63B21/00 A63B69/06

(IPC 1-7):

CPC: A63B21/0051 A63B22/0023 A63B22/0664 A63B2022/067 A63B2208/0238 A63B2225/09 A63B2225/68 A63B2225/687

European class: A63B22/00B4 A63B22/06E K63B208/02E4 K63B21/005B K63B22/06E2 K63B225/09 K63B225/68 K63B225/68D

US class: 482/52 482/57

[Classification Explorer](#)

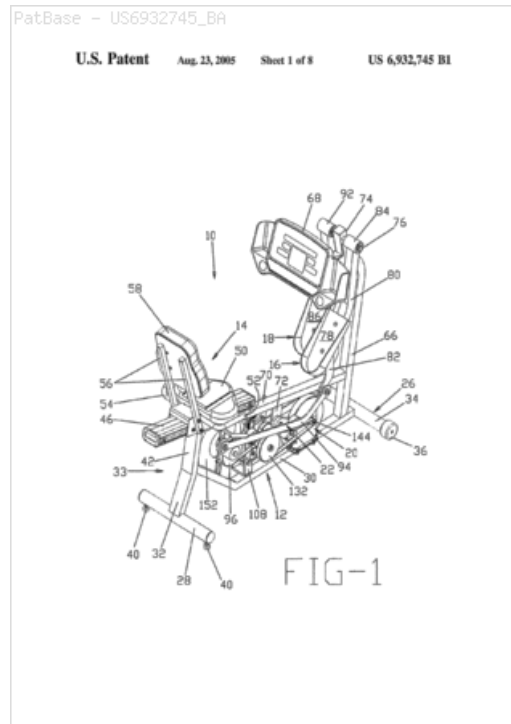
Cited documents: US6602168 BB, US6409635 BA, US6042518 A, US5611758 A, US5514053 A, US5356356 A, US4900013

A, US4757988 A,

Forward Citations: USD610635, US9724589, US9707436, US9694240, US9616280, US9610475, US9579539, US9545538, US9403054, US9272180, US8951168, US8944968, US8628455, US8562491, US8506457, US8348811, US8021277, US7993247, US7815551, US7713176, US7507185, US7497808, US7494448, US7445584, US2016296790, US2012172181, US2011028277, US2009227429, US2009075786, US2009048074, US2008188359, US2008139366, US2008045385, US2007161465, US2007161463, US2007099764, US2006189439, US10293211, US10279212, US10272317, US10258828, US10252109, US10188890, US10137328, US10086227, JP2008237785, GB2430632, ES2435803, EP2188022, CN104922878, CN104922853,

Abstract:

The seated stepper is provided for exercising the lower body. The stepper includes a frame having opposite sides and a longitudinal axis, and a seat attached to the frame. First and second foot lever arrangements are pivotally coupled together on opposite sides of the frame to move alternately in forward and rearward directions towards forward and rearward positions. The foot lever arrangements have linearly moveable right and left foot receptacles adapted to be engaged by an exerciser's feet. First and second motion transfer arrangements are mounted on opposite sides of the frame and coupled to the foot lever arrangements for enabling reciprocating movement of one foot lever arrangement relative to the other foot lever arrangement. A transmission arrangement is mounted on the frame and is operably connected to the first and second motion transfer arrangements. The transmission arrangement includes upper and lower pulley and gear trains in meshing relationship with one another. A resistance structure is mounted to the frame and is operably connected to the transmission arrangement for resisting pivotal movement of each foot lever arrangement in one of the forward and rearward directions. The transmission arrangement enables either of the foot receptacles to be moved and prevents any inertia from the resistance structure from being transferred back to the foot lever arrangements.



40) Family number: 47487062 (US2010317496A)

© PatBase

Title: METHOD AND SYSTEM FOR PERFORMING LINEAR AND CIRCULAR MOVEMENT PATTERNS

Priority: US20090213043P 20090501 US20100771438 20100430

Family:	Publication number	Publication date	Application number	Application date
	US2010317496 AA	20101216	US20100771438	20100430
	US8702574 BB	20140422	US20100771438	20100430
	WO10127337 A2	20101104	WO2010US33358	20100503
	WO10127337 A3	20110210	WO2010US33358	20100503

Probable Assignee: CORE ATTACK ATHLETICS LLC

Assignee(s):(std): ABRANCHESS DAMA CLAUDY ; CORE ATTACK ATHLETICS LLC

Inventor(s):(std): ABRANCHESS DAMA CLAUDY

Agent(s): YOUNG AND THOMPSON; JENSEN ERIC ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A63B21/00 A63B22/18 A63B22/20 A63B23/12 A63B26/00 (Advanced/Invention)

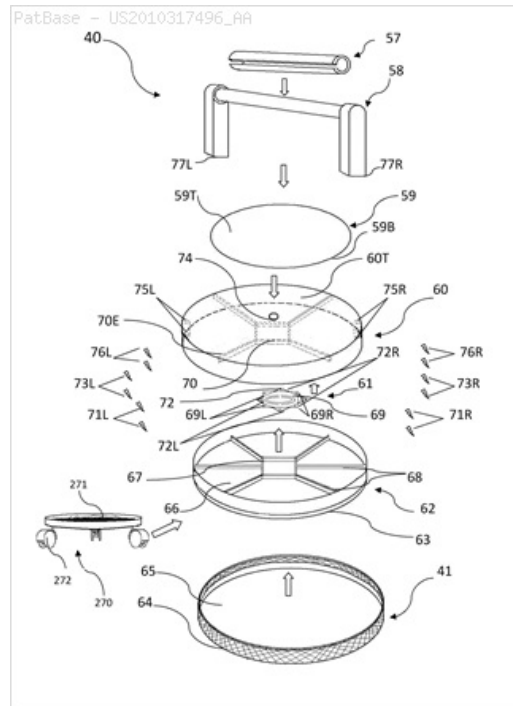
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European class: A63B21/00D A63B22/20 A63B23/035G A63B23/04B A63B23/12 K63B208/02F K63B208/02F4 K63B208/02K K63B208/02M K63B210/50 K63B23/02A2 K63B23/02A8 K63B23/02B K63B23/035 K63B23/12A6 K63B71/00P2

US class: 482/141 482/141P 482/148 482/148S

[Classification Explorer](#)

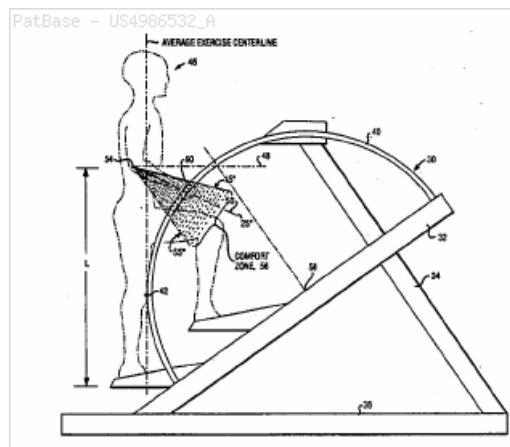
Abstract: A method and system for performing linear and circular movement patterns is provided. The method and the system include a limb-activated linearly and circularly moveable apparatus comprising a rotatable platform coupled to a slideable base. A limb gripping the apparatus can slide the apparatus across a surface while rotating the platform. The apparatus is designed to constantly realign the joints involved in the movements and without straining the joints of the body to maximize productivity and promote joint comfort.



Family:	Publication number	Publication date	Application number	Application date
	US4986532 A	19910122	US19880311068	19880214

CPC: A63B22/205
European class: A63B22/20T4 A63B23/035G
US class: 272/70 482/41 482/52 482/53

Abstract: An arcuate hand rail for exercise equipment accommodates both varying height individuals as well as individuals leaning towards the exercise machine by orienting and positioning the arcuate hand rail such that a vertical tangent thereto lies at or adjacent the average vertical center line of an exercising individual on the exercise apparatus in a stand-up orientation. This placement of the tangent point at or adjacent the average vertical center line of the standing individual permits a wide range of individuals to grasp the hand rail when exercising in a stand-up mode, with elbows bent in a comfort range of 15 DEG -55 DEG to the horizontal while at the same time, as an additional benefit, providing arm-extended grip points for comfortable lean-forward exercise.



42) Family number: 49657063 (US2011237399A)

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Title: EXERCISE APPARATUS

Priority: US20100318085P 20100326 EP20110760336 20110325 US20110072452 20110325
WO2011US30044 20110325 US20150657515 20150313 US20160206003 20160708

Family:	Publication number	Publication date	Application number	Application date
	AU2011230516 AA	20110929	AU20110230516	20110325
	AU2011230516 BB	20161117	AU20110230516	20110325
	CA2794479 AA	20110929	CA20112794479	20110325
	CA2794479 C	20190212	CA20112794479	20110325
	DE602011041739 D1	20171102	DE201160041739T	20110325
	EP2552553 A1	20130206	EP20110760336	20110325
	EP2552553 A4	20150527	EP20110760336	20110325
	EP2552553 B1	20170920	EP20110760336	20110325
	MX2012011190 A1	20130118	MX20120011190	20110325
	MX344666 B	20170104	MX20120011190	20110325
	NZ603206 A	20150327	NZ20110603206	20110325
	SG184253 A1	20121030	SG20120071072	20110325
	US2011237399 AA	20110929	US20110072452	20110325
	US2015182775 AA	20150702	US20150657515	20150313
	US2016317851 AA	20161103	US20160206003	20160708
	US8979709 BB	20150317	US20110072452	20110325
	US9433817 BB	20160906	US20150657515	20150313
	US9694225 BB	20170704	US20160206003	20160708
	WO11119992 A1	20110929	WO2011US30044	20110325

Probable Assignee: SPROING FITNESS LLC

Assignee(s):(std): LENZ STEVE ; PAUL TOBACK ; SPROING FITNESS LLC ; TOBACK PAUL

Assignee(s): TOBACK PAUL BANNOCKBURN

Inventor(s):(std): TOBACK PAUL ; LENZ STEVE

Inventor(s): LENZ STEVE NAPERVILLE ; TOBACK PAUL BANNOCKBURN

Agent(s): GRIFFITH HACK; BERESKIN AND PARR LLP SENCRL SRL; GILLE HRABAL; Makovski Priscilla Mary; MAKOVSKI PRISCILLA MARY; BRINKS GILSON AND LIONE; BARNES AND THORNBURG LLP; SARET LARRY L

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RU RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class A63B21/00 A63B21/008 A63B21/04 A63B21/045 A63B21/055 A63B22/00 A63B22/02 A63B23/02
(IPC 8-9): A63B23/04 A63B24/00 A63B26/00 A63B5/16 A63B6/02 A63B69/00 A63B71/00
A63B71/06 (Advanced/Invention);
A63B22/02 A63B6/02 A63B71/00 A63B71/06 (Advanced/Non-invention);
A63B24/00 (Core/Invention)

CPC: Y10S482/901 A63B21/00069 A63B21/0442 A63B21/0552 A63B21/153 A63B22/0285 A63B23/0211
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European class: A63B21/00F6 A63B21/04C A63B21/055D A63B21/14K4H A63B21/14K6 A63B21/15F4 A63B23/02A2
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K63B220/17 K63B220/20 K63B220/30 K63B220/40 K63B220/51 K63B220/78 K63B230/06 K63B230/75
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US class: 1/1 482/1 482/124 482/130 482/139 482/139S 482/51 482/54 482/8 482/8P 482/9 482/901

[Classification Explorer](#)

Cited documents: WO08153979 A1, WO08153979 A1, WO06062319 A1, WO06062319 A1, USD321734 S1, US8663075 BB, US8257232 BB, US7892151 BB, US7608015 BB, US7335146 BB, US7270628 BB, US7270628 BB, US7217228 BB, US7207930 BB, US7104926 BB, US7104926 BB, US6764429 BA, US6676569 BA, US6652427 BB, US6422983 BA, US6234777 BA, US6162151 A, US6162151 A, US6042516 A, US5860894 A, US5853352 A, US5656000 A, US5656000 A, US4836530 A, US4674160 A, US4391443 A, US4391443

A, US4146222 A, US2014323270 AA, US2014038792 AA, US2012021875 AA, US2010279822 AA, US2007232461 AA, US2006201580 AA, US2006201580 AA, US2006199711 AA, US2006199711 AA, US2005032613 AA, US1837872 A,

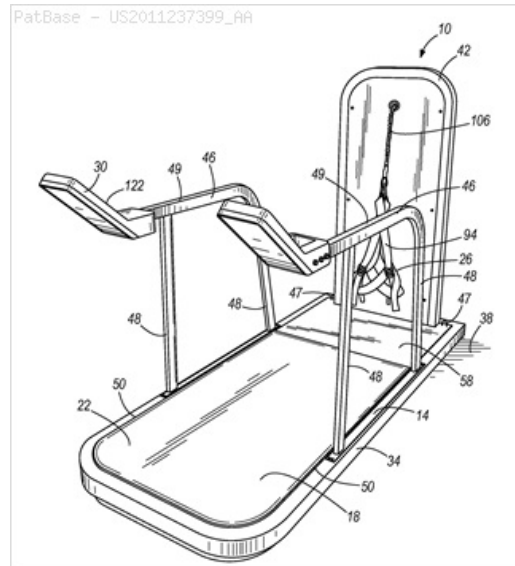
DE202009014468 U1

DE202009014468 U1

Forward Citations: WO19018797, WO17078564, WO14036637, US9914012, US9814921, US9707435, US9675838, US9636536, US9517173, US9433819, US9248336, US8997551, US2017106223, US2016325131, US2016193493, US2015141216, US2014113773, US2014060149, US10293211, US10279212, US10278853, US10272317, US10258828, US10252109, US10207139, US10188890, US10124206, FR3023175, EP3100772, EP3100772, EP2892623, CN106310589, CN106310589,

Abstract:

An exercise apparatus including a frame, and a cushion adjacent to the frame having a surface. The exercise apparatus further includes a harness wearable by the user and a resistance member extending between the harness and the frame and where the tension within the resistance member is variable.



43) Family number: 11695066 (US5354251A)

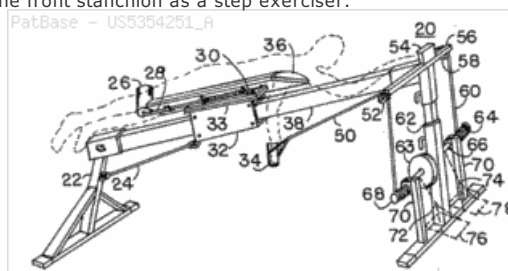
© PatBase

Title:	MULTIFUNCTION EXERCISE MACHINE WITH ERGOMETRIC INPUT-RESPONSIVE RESISTANCE								
Priority:	US19930144336 19931101								
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr><tr><td>US5354251 A</td><td>19941011</td><td>US19930144336</td><td>19931101</td></tr></table>	Publication number	Publication date	Application number	Application date	US5354251 A	19941011	US19930144336	19931101
Publication number	Publication date	Application number	Application date						
US5354251 A	19941011	US19930144336	19931101						
Probable Assignee:	SLEAMAKER ROBERT H								
Assignee(s):(std):	SLEAMAKER ROBERT H								
Inventor(s):(std):	SLEAMAKER ROBERT H								
International class (IPC 8-9):	A63B21/015 A63B69/10 (Advanced/Invention); A63B21/00 A63B21/005 A63B21/008 A63B21/22 A63B23/035 A63B23/04 A63B69/06 (Advanced/Non-invention); A63B21/012 A63B69/10 (Core/Invention); A63B21/00 A63B21/005 A63B21/008 A63B23/035 A63B23/04 A63B69/06 (Core/Non-invention)								
International class (IPC 1-7):	A63B21/00								
CPC:	A63B21/00069 A63B23/03575 A63B23/03525 A63B23/03533 A63B23/03566 A63B21/0051 A63B21/0088 A63B21/015 A63B21/153 A63B21/156 A63B21/157 A63B21/225 A63B21/227 A63B22/0007 A63B22/001 A63B22/0023 A63B22/0056 A63B23/0429 A63B23/0476 A63B23/0494 A63B2022/0041 A63B2022/0051 A63B2022/0652 A63B2208/0233 A63B2208/0257 A63B22/0605 A63B22/0012 A63B69/10 A63B21/008 A63B21/0622 A63B21/4029 A63B21/4031 A63B21/4043 A63B21/4045 A63B21/4047 A63B21/4049 A63B21/068 A63B21/0628								
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US class:	482/142 482/51 482/96								
Classification Explorer									
Cited documents:	US5224909 A, US5158513 A, US5133700 A, US5029848 A, US4911438 A, US4830363 A, FR2356437 A1,								
Forward Citations:	WO18206292, WO17192904, WO12075404, WO12075404, WO06036758, WO04014492, WO03074132, WO03074132, WO03022372, WO0114017, USD660383, USD659777, US9993681, US9937372, US9770622, US9675861, US9630042, US9539462, US9272172, US9259612, US9227105, US9211433, US9102380, US9028374, US8870726, US8702575, US8663074, US8617035, US8523743, US8517899, US8465402, US8371990, US8235877, US8109864, US8092346, US8057360, US8047965, US8029410, US8016730, US8012073, US7918773, US7892159, US7867153, US7846080, US7846079, US7824310, US7674211, US7632222, US7591764, US7524272, US7335143, US7331908, US7303510, US7204790, US7044818, US7044818, US6929587, US6790163, US6692412, US6634996, US6626807, US6569065, US6328677, US6162153, US6106436, US5964684, US5906564, US5803876, US5755645, US5718660, US5628632, US5603676, US5595531, US5593374, US2016129293, US2016107023, US2016082301, US2015328520, US2015141210, US2014353939, US2014296044, US2014194260, US2014121793, US2013281264, US2013217550, US2013217543, US2013217542, US2013217541, US2013130875, US2012001527, US2011263385, US2011218086, US2011218081, US2011143891, US2011136631, US2011039666, US2009215591, US2009163323, US2009138488, US2009118108, US2008280738,								

US2008188361, US2008176716, US2008176714, US2007287601, US2007225136, US2007135272, US2007111866, US2007093369, US2007004565, US2006122042, US2006073944, US2006063446, US2005159278, US2005159277, US2005037902, US2004243039, US2004033866, US2003171192, US2002183172, US2002137605, US2002132710, US2002132706, US10293211, US10279212, US10272317, US10258828, US10252109, US10226664, US10226396, US10220259, US10220235, US10212994, US10188890, US10046192, US10010747, TWI413542, RU2681101, GB2425489, GB2425489, GB2410697, FR2818556, EP2407216, CN107694021, CN106267769, CN106237600, CN106075859, CN103945906,

Abstract:

A roller carriage with paired upper and lower rollers rides on an adjustable inclined monorail. A tension cord connects the carriage to a rear stanchion. Pull cables wind around one-way clutch drivers which drive a rotating shaft, wherein a tension means connected to the one-way clutch drivers rewinds the pull cables to an initial position after extension. The rotating shaft has ergonomic input-responsive resistance devices on the shaft. Choices of resistance include a centrifugal clutch, a variable opening encased vaned flywheel, a band brake, a centrifugal brake, a wind load, a water load, an eddy current load, and a variable speed electric motor resistance. Interchangeable body supports are mounted on the roller carriage. A laterally tilting padded swim bench is used with swim paddles attached to the pull cables. A pair of pivoting leg supports may be attached to the padded swim bench to pull another pair of cables attached to the same system. A nordic seat with thigh pads and a lower foot support is used with ski pole grip handles attached to the pull cables. Additional pull cables may be attached to pivoting foot supports with the nordic seat. A canoe/kayak seat with a horizontally spaced foot support is used with a paddle shaft attached to the pull cables. An upright bicycle seat with a handle bar is used with lower pedals or treadles to which pull cables are attached. A recumbent back-support seat is used with horizontally extending pedals, to which pull cables are attached, to form a simulated recumbent bicycle. Stepper pedals may be attached to pull cables and pivotally mounted to the front stanchion as a step exerciser.



44) Family number: 59074066 (US9017224B)

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Title: LADDER EXERCISER

Priority: US20120613234P 20120320 US20130785890 20130305

Family:	Publication number	Publication date	Application number	Application date
	US9017224 BA	20150428	US20130785890	20130305

Probable Assignee: SINGLEY PAUL E

Assignee(s):(std): SINGLEY PAUL E

Inventor(s):(std): SINGLEY PAUL E

Agent(s): JOHN P

International class A63B22/04 A63B23/035 (Advanced/Invention)
(IPC 8-9):

CPC: A63B22/0005 A63B22/0023 A63B22/02 A63B22/04 A63B69/0048 A63B22/001

US class: 482/52

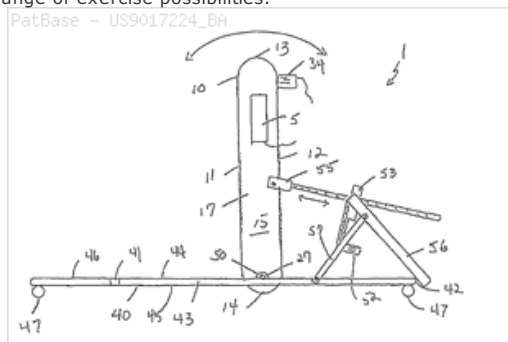
[Classification Explorer](#)

Cited documents: USD369390 S1, USD355228 S1, USD329478 S1, USD323008 S1, USD315937 S1, USD292728 S1, US7572208 BB, US7381154 BA, US7357757 BB, US7195582 BB, US6929587 BB, US6860836 BA, US6231482 BA, US5919117 A, US5803880 A, US5679100 A, US5549195 A, US5490818 A, US5352166 A, US5328422 A, US5328420 A, US5222927 A, US5199932 A, US5145475 A, US5125877 A, US5112043 A, US5007631 A, US5000441 A, US4982952 A, US4958830 A, US4923191 A, US4848737 A, US4822029 A, US3381958 A, US2042764 A, US2014228177 AA, US2011166000 AA, US2008015090 AA, US2004229732 AA,

Forward Citations: US9561398, US2017252594, US2017197132, US10232243, CN106215394, CN106215394, CN106139515,

Abstract:

An exercise ladder having an adjustable inclination angle is provided. The ladder has rungs which are motor driven, driving the rungs downward at a desired speed as well as providing means for retarding and braking. The inclination tilt of the exercise ladder ranges from a negative to a positive tilt thereby providing a wide range of exercise possibilities.



Title: Climbing exercise machine

Priority: US19870122777 19871119 WO1988US04077 19881115 CA19880583451 19881118

Family:

Publication number	Publication date	Application number	Application date
AU198928281 A1	19890614	AU19890028281	19881115
CA1320973 A1	19930803	CA19880583451	19881118
US5040785 A	19910820	US19870122777	19871119
WO8904697 A1	19890601	WO1988US04077	19881115

Probable Assignee: CHARNITSKI RICHARD D

Assignee(s):(std): CHARNITSKI RICHARD D ; RICHARD D CHARNITSKI

Inventor(s):(std): CHARNITSKI RICHARD D

Inventor(s): RICHARD D CHARNITSKI

Agent(s): GOWLING LAFLEUR HENDERSON LLP

Designated states: AT AU BE CH DE DK FI FR GB IT JP KR LU NL NO SE SU

International class (IPC 8-9): A61H1/02 A63B21/012 A63B23/035 A63B23/04 (Advanced/Invention); A61H1/02 A63B21/012 A63B23/035 (Advanced/Non-invention); A63B23/04 (Core/Invention); A61H1/02 A63B21/012 A63B23/035 (Core/Non-invention)

International class (IPC 1-7): A63B1/00 A63B21/00 A63B23/04

CPC: A61H2001/0211 A63B21/012 A63B22/001 A63B22/205 A63B23/03575 A63B23/0417 A63B2022/0043

European class: A63B22/00A6 A63B22/20T4 A63B23/04B2 K61H1/02A10 K63B21/012 K63B22/00C12 K63B23/035G

US class: 272/70 482/51 482/52 482/95 601/29 601/40

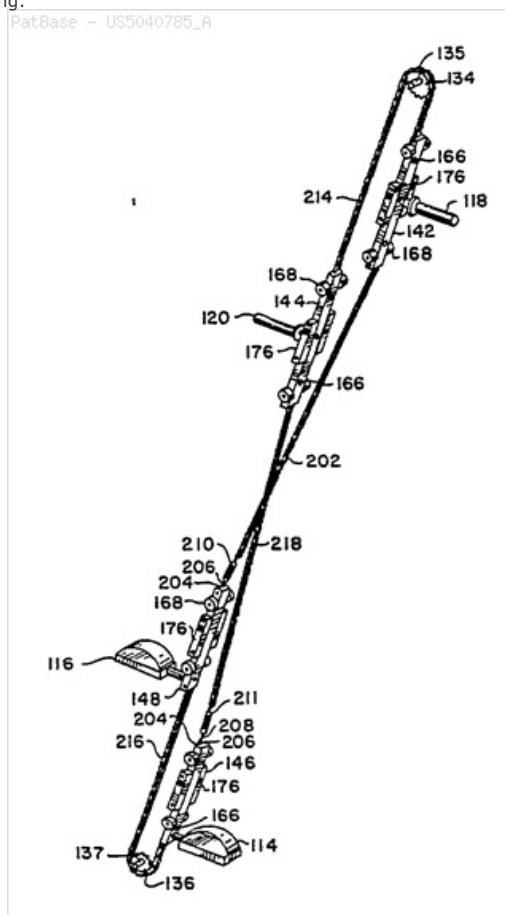
[Classification Explorer](#)

Cited documents: US3582069 A, US3381958 A, US3363335 A, US2079594 A,

Forward Citations: WO9402214, USD842939, USD837907, USD834659, US9339682, US8852062, US8057370, US7553260, US7510512, US7387593, US6951529, US6533708, US5919117, US5803880, US5795269, US5733229, US5679100, US5503610, US5499957, US5492515, US5433690, US5295927, US5000441, US4982952, US2010292057, US2010093501, US2009203504, US2009105050, US2005148437, US10293211, US10279212, US10252109, US10188890, US10179260, EP3470121, CN103861241,

Abstract:

An improved climbing exercise machine which has hand grips and foot pedals mounted to reciprocating separate sliding trucks which move within a track structure, wherein the sliding trucks are connected to each other by chains for mechanically providing co-ordinated leg and arm movements that simulate a vertical climbing action in a "homolateral pattern" and a "cross crawl pattern". A change from a "homolateral pattern" to a "cross crawl pattern" is easily facilitated by a longitudinal opening provided along the center of the track structure whereby the chains linking the right handle to the right foot pedal and the left handle to the left foot pedal, respectively, are interconnected via the longitudinal opening.



Title: FITNESS EQUIPMENT APPARATUS.

Priority: JP19940020519 19940217

Family:	Publication number	Publication date	Application number	Application date
	CA2142571 AA	19950818	CA19952142571	19950215
	EP0674922 A2	19951004	EP19950102297	19950217
	EP0674922 A3	19960327	EP19950102297	19950217
	JP7227439 A2	19950829	JP19940020519	19940217

Probable Assignee: COMBI CO

Assignee(s):(std): COMBI CO

Assignee(s): COMBI CORP ; KONBI KK

Inventor(s):(std): ARAI KAZUHIKO C O COMBI CORPOR ; HATA HIDEO C O COMBI CORPORATI ; TSURUOKA HIDEKI C O COMBI CORP ; TSURUOKA HIDEKI ; HATA HIDEO ; ARAI KAZUHIKO

Inventor(s): HATA HIDEO C O COMBI CORP ; ARAI KAZUHIKO C O COMBI CORP ; TSURUOKA HIDEKI C O COMBI CORPORATION ; HATA HIDEO C O COMBI CORPORATION ; ARAI KAZUHIKO C O COMBI CORPORATION

Designated states: DE ES FR GB IT

International class (IPC 8-9): A63B21/005 A63B21/22 F03G5/00 H02K49/04 (Advanced/Invention);
A63B22/02 A63B23/04 (Advanced/Non-invention);
A63B21/00 A63B21/005 F03G5/00 H02K49/00 (Core/Invention);
A63B22/00 A63B23/04 (Core/Non-invention)

International class (IPC 1-7): A63B21/00 A63B21/005 A63B21/22 F03G5/00 H02K49/04

CPC: A63B21/4043 A63B23/03533 A63B23/03575 A63B23/1209 A63B23/1263 A63B22/0056 A63B21/0052 A63B22/0023 A63B22/0076 A63B22/02 A63B23/1245 A63B2022/0038 A63B2022/0041 A63B2022/0079 H02K49/046

European class: A63B21/005B2 A63B22/00P6 A63B22/02 H02K49/04D K63B22/00B4 K63B22/00C10 K63B22/00C8 K63B22/00R K63B22/00R2 K63B22/02 K63B23/12D

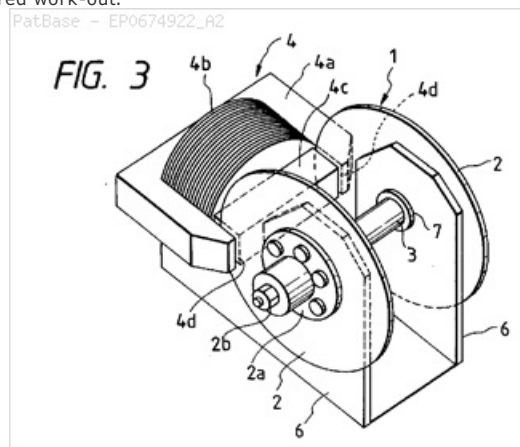
[Classification Explorer](#)

Cited documents: US5194059 A, US4927136 A, US4798378 A, JP62111782 B4, JP59146669 A2, JP59127663 B4, JP54121837 A2, JP5317456 A2, JP5042232 A2, JP5008115 A2, JP4183483 A2, JP4060209 B4, JP3159664 A2, JP2057947 A2, JP2045073 A2, JP1107779 A2, GB2247183 A1, FR1507286 A, FR1456783 A, EP0485981 A2, EP0251919 A1, EP0193286 A2,

Forward Citations: WO9952601, WO16171588, WO05104339,

Abstract:

Fitness equipment is described including a frame part, an operation part, a drive part and a control part. The drive part includes a load device (1) in which a pair of rotary disks (2) are disposed on a rotary load shaft (3) in parallel to each other, and an electromagnet (4) is disposed on the side surface side of the two rotary disks (2). The load device (1) is arranged such that a magnetic flux generated by the electromagnet (4) can be applied to the two rotary disks (2) to thereby apply a brake torque to the rotation of the two rotary disks (2). The drive part, including the load device (1), is connected to the operation part to be operated by an exerciser, and the load of the drive part is controlled by the control part to allow the optimum work-out load to be applied to the exerciser, thereby allowing the exerciser to achieve a desired work-out.



47) Family number: 48743074 (US2011086742A)

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Title: REHABILITATION AND EXERCISE MACHINE

Priority: US20090250718P 20091012 US20100898645 20101005 WO2010US51711 20101006
US20110187382 20110720

Family:	Publication number	Publication date	Application number	Application date
	BR112012008610 A2	20170613	BR20121108610	20101006
	CA2776626 AA	20110421	CA20102776626	20101006
	CA2776626 C	20140819	CA20102776626	20101006
	CN102665827 A	20120912	CN201080053363	20101006
	CN102665827 B	20150513	CN201080053363	20101006
	EP2488260 A1	20120822	EP20100823850	20101006
	EP2488260 A4	20160406	EP20100823850	20101006
	JP2013507224 T2	20130304	JP20120534229T	20101006
	US2011086742 AA	20110414	US20100898645	20101005
	US2011294624 AA	20111201	US20110187382	20110720
	US8007405 BB	20110830	US20100898645	20101005
	US8177688 BB	20120515	US20110187382	20110720
	WO11046789 A1	20110421	WO2010US51711	20101006

Probable Assignee: MADONNA REHABILITATION HOSPITAL

Assignee(s):(std): BURNFIELD JUDITH M ; BUSTER THAD ; MADONNA REHABILITATION HOSPITAL ; SHU YU ; NELSON CARL A ; TAYLOR ADAM ; NUTECH VENTURES ; BOARD OF UNIV OF NEBRASKA ; BUSTER THAD W ; TAYLOR ADAM P ; UNIV NEBRASKA

Assignee(s): BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA ; MADONNA REHABILITATION HOSPITAL5401 SOUTH STREETLINCOLNNE68506US ; BOARD OF UNIV OF NEBRASKA3835 HOLDREGE STREETLINCOLNNE68583US

Inventor(s):(std): SHU YU ; TAYLOR ADAM P ; BURNFIELD JUDITH M ; NELSON CARL A ; BUSTER THAD W ; BUSTER THAD ; TAYLOR ADAM ; ADAM TAYLOR ; THAD BUSTER ; YU SHU ; CARL A NELSON ; JUDITH M BURNFIELD

Inventor(s): NELSON CARL AUS ; TAYLOR ADAMUS ; BUSTER THADUS ; SHU YUUS ; BURNFIELD JUDITH MUS

Agent(s): GOUDREAU GAGE DUBUC ; LAVERY DE BILLY LLP ; DOERRIES HANS ULRICH ; MATT ; CATLETT MATT

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A61H1/02 A61H3/00 A63B21/00 A63B21/005 A63B21/22 A63B22/00 A63B22/06 A63B23/00 A63B23/035 A63B24/00 A63B26/00 A63B69/00 A63B71/00 (Advanced/Invention)

CPC: Y10S482/901 A63B21/4015 A63B21/00178 A63B2071/0018 A63B2071/0072 A63B2208/0204 A63B2220/36 A63B2220/51 A63B2220/805 A63B24/0087 A61H1/0214 A61H3/008 A63B21/00181 A63B21/0058 A63B21/225 A63B22/0046 A63B22/0664 A63B69/0057 A63B69/0064 A63B2022/0038 A63B2022/0094 A63B2022/067 A63B2208/0233 A63B2209/10 A63B2220/58 A63B2225/093 A63B2225/20 A63B2225/50 A63B2230/06

European class: A61H1/02C A63B21/005F A63B21/00P A63B21/00T A63B21/14A7F A63B22/06E A63B24/00R A63B69/00N6 K61H3/00H K63B208/02B K63B208/02E2 K63B209/10 K63B21/005F K63B21/22F K63B22/00C8 K63B22/00D K63B22/00U K63B22/06E2 K63B220/36 K63B220/51 K63B220/58 K63B220/80D K63B225/09H K63B225/20 K63B225/50 K63B230/06 K63B69/00N4 K63B69/00N6 K63B71/00H2 K63B71/00P4

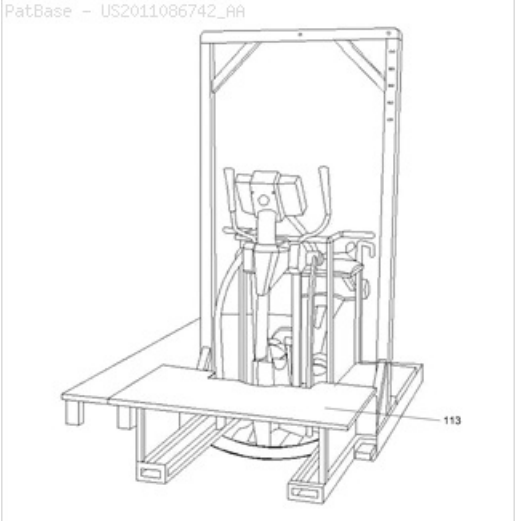
US class: 482/1 482/145 482/145S 482/51 482/52 482/7 482/7P 482/8 482/8S 482/901

[Classification Explorer](#)

Cited documents: WO8901353 A1, US7485080 BA, US7354384 BB, US7163492 BA, US7160230 BB, US7083547 BB, US6220991 BA, US6001071 A, US5941800 A, US5685804 A, US5050865 A, US5027303 A, US4934894 A, US4934694 A, US2009286654 AA, US2007298935 AA, US2005209056 AA, US2005085344 AA, JP2008505689 T2, JP2008161685 A2, JP2006150084 A2, JP2000229108 A2, CN2636905 Y,

Forward Citations: WO16020860, WO15088668, WO14133879, WO14022600, USD731601, USD728710, US9717952, US9616282, US9555276, US9486383, US9415287, US9364714, US9330239, US9308414, US9292935, US9265686, US9248071, US9168418, US9060914, US8986165, US8968163, US8968155, US2015165265, US2014378279, US2014276266, US2014141950, US2013245511, US2013237374, US2013172155, US2013103964, US2012277062, US10293211, US10279212, US10272317, US10258828, US10251109, US10226396, US10220259, US10188890, US10159870, US10159869, US10124209, TWI599386, TWI548438, TWI542384, TWI510269, RU2618104, GB2561604, GB2561603, EP3299003, EP2879764, CN108325153, CN106457025, CN105534679, CN104720818, CN104720818, CN104147751, CN103800167, CN102961854, CN102614626,

Abstract:
An improved rehabilitation and exercise machine is provided which allows a person with physical limitations, disabilities or chronic conditions to use the machine in order to rehabilitate their muscles, improve joint flexibility, and enhance cardiovascular fitness.

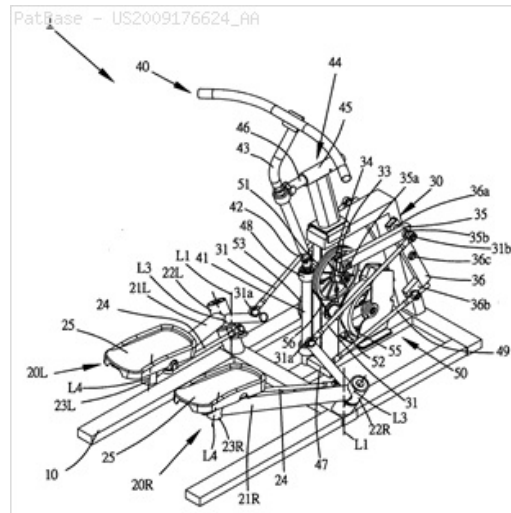


48) Family number: 43491074 (US2009176624A) © PatBase

Title:	EXERCISE APPARATUS			
Priority:	US20080006643 20080107			
Family:	Publication number	Publication date	Application number	Application date
	US2009176624 AA	20090709	US20080006643	20080107
	US7591762 BB	20090922	US20080006643	20080107
Probable Assignee:	JOHNSON HEALTH TECH CO LTD			
Assignee(s):(std):	JOHNSON HEALTH TECH CO LTD			
Assignee(s):	JOHNSON HEALTH TECH CO			
Inventor(s):(std):	CHANG ZIV			
Agent(s):	JOE CHEN / JOHNSON HEALTH TECH; JOE CHEN JOHNSON HEALTH TECH			

International class A63B22/04 (Advanced/Invention);
(IPC 8-9): A63B22/00 (Core/Invention)
CPC: A63B21/225 A63B22/001 A63B2022/0074 A63B2023/003
European class: A63B22/00A6 K63B21/22F K63B22/00P10T4 K63B23/00A
US class: 482/52 482/52P 482/71 482/80
[Classification Explorer](#)
Cited documents: US7338414 BA, US6918861 BB, US6849032 BB, US5284460 A, US2008207400 AA, US2008132385 AA, US2007225130 AA, US2007167289 AA, US2007027001 AA, US2005272562 AA,
Forward Citations: WO14186600, US9884223, US9579537, US9364707, US8167778, US7981007, US2011177920, US2011071006, US2009239713, TW1626073, EP2996780, CN107224699, CN105209131, CN105209131,

Abstract:
An exercise machine comprises a frame, left and right swing mechanisms, left and right driving members, left and right actuating mechanisms, and a handle assembly. The left and right swing mechanisms are pivotally connected to the frame in outward skew modes. The left and right driving levers are respectively jointed between the left and right swing mechanisms and the left and right actuating mechanisms. Furthermore, one of the actuating mechanisms is coupled to a handle assembly which is connected to the frame in an inclined mode.



49) Family number: 48743075 (US2011086743A)

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Title: SIMULATED CLIMBING AND FULL BODY EXERCISE AND METHOD
Priority: US20090578771 20091014

Family:	Publication number	Publication date	Application number	Application date
	US2011086743 AA	20110414	US20090578771	20091014
	US8047968 BB	20111101	US20090578771	20091014

Probable Assignee: SUMMITTRAINER LLC
Assignee(s):(std): LOFGREN MICHAEL SHANE ; STEWART BRIAN CHARLES
Assignee(s): SUMMITTRAINER LLC
Inventor(s):(std): STEWART BRIAN CHARLES ; LOFGREN MICHAEL SHANE

International class A63B21/068 A63B22/04 (Advanced/Invention)
(IPC 8-9):

CPC: A63B22/001 A63B22/0023 A63B22/0664 A63B69/0064 A63B2022/0688

European class: A63B22/00A6 A63B22/00B4 A63B22/06E K63B22/06E6 K63B69/00N6

US class: 482/51 482/52 482/52P 482/95

[Classification Explorer](#)

Cited documents: US7878959 BB, US7837595 BB, US7722508 BB, US7618350 BB, US7594877 BB, US7513853 BA, US7494450 BB, US7357757 BB, US7316633 BB, US6827672 BB, US6592502 BA, US6554747 BA, US6443876 BA, US6361476 BA, US6338700 BA, US6261250 BA, US6244995 BA, US6228004 BA, US5967944 A, US5941800 A, US5857943 A, US5779598 A, US5762588 A, US5632707 A, US5507710 A, US5499959 A, US5453066 A, US5449334 A, US5277680 A, US5145472 A, US4986261 A, US4881732 A, US4717148 A, US4700946 A, US4512567 A, US4372551 A, US4285515 A, US4176836 A, US4043552 A, US3750479 A, US3744794 A, US3662747 A, US2630332 A, US2144206 A, US2011028281 AA, US2008293545 AA, US2008039290 AA, US2006281604 AA, US2006247104 AA, US2006128537 AA,

Forward Citations: WO19011282, US9162104, US8708866, US2013029809, US10265565,

Abstract:
An apparatus and method permitting a user to perform a simulated climbing and full body exercise is provided. The design includes a frame and a pair of lever arms and a pair of foot platforms and a torso support. The frame is configured to place the operator's center of gravity in a position of falling away from the frame, lever arms, foot platforms and providing a torso support enabling the operator to be supported by hanging from the hands and supported by the feet and torso support. The frame may be rotated through varying angles from vertical permitting the operator's center of gravity to fall away from the frame and allow the operator to hang away from the frame further enhancing the climbing experience.



50) Family number: 31848075 (DE10350166B3)

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Title: STEP EXERCISE MACHINE HAS BASE PLINTH AND TWO PEDALS ON HOUSING WITH ACTUATING MEANS WITH PIN ENGAGING IN CENTER SECTION OF HOUSING AND SLIDING THEREIN FOR UP AND DOWN AND SWIVEL MOVEMENT OF PEDALS STEPPER-TRIMMGERAET

Priority: DE20031050166 20031028

Family:	Publication number	Publication date	Application number	Application date
	DE10350166 B3	20050428	DE20031050166	20031028

Probable Assignee: HUANG SHERRY

Assignee(s):(std): HUANG SHERRY

Inventor(s):(std): HUANG SHERRY

International class (IPC 8-9): A63B21/008 A63B22/04 A63B22/14 A63B23/04 (Advanced/Invention); A63B26/00 (Advanced/Non-invention); A63B21/008 A63B22/00 A63B23/04 (Core/Invention); A63B26/00 (Core/Non-invention)

International class (IPC 1-7): A63B22/04

CPC: A63B22/0064 A63B21/0087 A63B22/0066 A63B2023/003

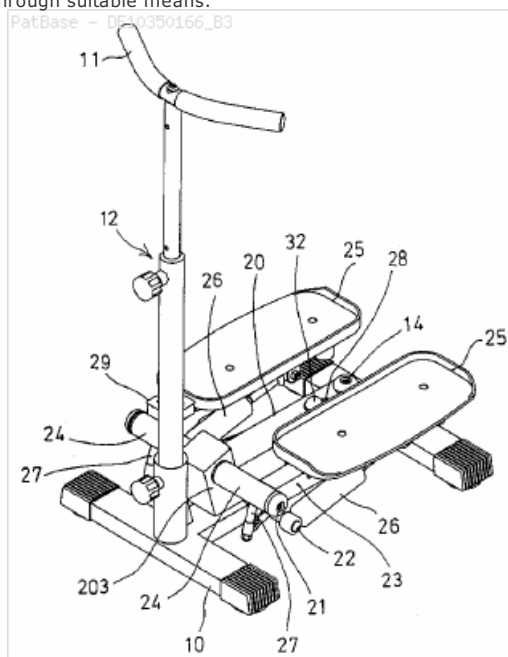
European class: A63B21/008C2 A63B22/00P10 K63B21/008C2 K63B22/00P10D K63B23/00A

[Classification Explorer](#)

Cited documents: US5800313 A, US5545111 A, US5453065 A, DE20120731 U1,

Abstract:

The step exercise machine has a base plinth (10) and housing (20) with two pedals (23). Actuating means (32) interact with the center section of the housing to set the housing in a swing movement relative to the plinth about the shaft (14) when the pedals (23) are actuated. The actuating means have a pin (32) which engages in a channel (28) in the center section of the housing and slides therein. Resistance forces can be exerted against the pedals (23) through suitable means.



Title:	PROSTHETIC AND ORTHOTIC SYSTEMS USABLE FOR REHABILITATION																																																																					
Priority:	US20050649417P 20050202		US20050721622P 20050929		US20060346044 20060202																																																																	
	WO2006US04025 20060202		US20110243921 20110923		US20140512290 20141010																																																																	
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WO06084219 A3	20070222	WO2006US04025	20060202																																																																			
Probable Assignee:	OSSUR HF																																																																					
Assignee(s):(std):	DE ROY KIM ; OESSUR HF ; OSSUR HF ; ROY KIM D ; OSSUR NORTH AMERICA INC ; SSUR HF																																																																					
Assignee(s):	ARION BANK HF ; OSSUR HFGROJTHALS SIS-110REYKJAVIKIS ; NYI KAUPTHING BANK HF																																																																					
Inventor(s):(std):	DE ROY KIM ; KIM DE ROY ; ROY KIM D ; ROY KIM DE																																																																					
Inventor(s):	ROY KIM ; DE ROY KIMBE																																																																					
Agent(s):	SIM AND MCBURNEY; REES KERRY; KNOBBE MARTENS OLSON AND BEAR LLP																																																																					
Designated states:	AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW																																																																					
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European class:	A61F2/60 A61F2/64 A61F2/68 A63B71/00H K61F2/64 K61F2/68F K61F2/70A K61F2/70C K61F2/70D K61F2/72 K61F2/76M K61F2/76M2 K61F2/76MA K61F2/76M99 K61F2/76T																																																																					
US class:	434/274 601/33 601/34 601/5 602/26 602/26S 623/24 623/24P 623/27 623/39 623/39P 623/44 623/44S 623/47 623/53																																																																					

[Classification Explorer](#)

Cited documents: WOWO99029272, WOWO99008621, WOWO99005991, WOWO98038951, WOWO98025552, WOWO97000661, WOWO96041599, WOWO96041598, WOWO95026171, WOWO94006374, WOWO93024080, WOWO2005079712, WOWO2005048887, WOWO2004017873, WOWO2004017872, WOWO2004017871, WOWO03088373, WOWO03003953, WOWO01072245, WOWO01050986, WOWO01017466, WOWO00071061, WOWO00038599, WOWO00030572, WOWO00027318, WO9929272 A1, WO9908621 A2, WO9905991 A2, WO9838951 A1, WO9825552 A1, WO9700661 A1, WO9700661 A1, WO9641599 A1, WO9641598 A1, WO9526171 A1, WO9406374 A1, WO9324080 A1, WO05079712 A2, WO05048887 A1, WO05041819 A2, WO04017873 A1, WO04017872 A1, WO04017871 A2, WO04017871 A2, WO03088373 A2, WO03086245 A2, WO03003953 A1, WO0172245 A2, WO0172245 A2, WO0150986 A1, WO0117466 A2, WO0071061 A1, WO0038599 A1, WO0030572 A1, WO0027318 A1, US9462966 BB, US9345591 BB, US8896927 BB, US8858648 BB, US8617254 BB, US8431737 BB, US8231687 BB, US8109890 BB, US8048172 BB, US8048007 BB, US7942935 BB, US7896927 C1, US7867284 BB, US7811334 BB, US7811333 BB, US7794505 BB, US7785279 BB, US7736394 BB, US7655050 BB, US7641700 BB, US7637959 BB, US7637957 BB, US7531006 BB, US7520904 BB, US7503900 BB, US7462201 BB, US7431737 C1, US7431737 BB, US7410338 BB, US7396337 BB, US7367958 BB, US7314490 BB, US7313463 BB, US7308333 BB, US7295892 BB, US7190141 BA, US7164967 BB, US7147667 BB, US7137998 BB, US7131998 BB, US7118601 BB, US7063727 BB, US7042197 BB, US7029500 BB, US7025792 BB, US6966933 BB, US6966882 BB, US6955692 BB, US6918308 BB, US6876135 BB, US6875241 BB, US6855170 BB, US6770045 BB, US6764520 BB, US6755870 BA, US6743260 BB, US6740123 BB, US6719806 BA, US6695885 BB, US6679920 BB, US6671531 BB, US6663673 BB, US6610101 BB, US6610101, US6602295 BA, US6587728 BB, US6537322 BA, US6517585 BA, US6513381 BB, US6500210 BA, US6494039 BB, US6482236 BB, US6451481 BA, US6443995 BA, US6443993 BA, US6436149 BA, US6430843 BA, US6425925 BA, US6423098 BA, US6409695 BA, US6373152 BA, US6361570 BA, US6350286 BA, US6301964 BA, US6241775 BA, US6206934 BA, US6206932 BA, US6195921 BA, US6187051 BA, US6183425 BA, US6165226 A, US6129766 A, US6113642 A, US6091977 A, US6061577 A, US6007582 A, US5998930 A, US5982156 A, US5972035 A, US5957981 A, US5955667 A, US5919149 A, US5910720 A, US5895430 A, US5893891 A, US5888246 A, US5888213 A, US5888212 A, US5800568 A, US5800561 A, US5779735 A, US5749668 A, US5746774 A, US5728170 A, US5711746 A, US5711746 A, US5704946 A, US5704945 A, US5695527 A, US5662693 A, US5656915 A, US5650704 A, US5586557 A, US5571213 A, US5571212 A, US5571205 A, US5545233 A, US5545232 A, US5504415 A, US5484389 A, US5484389 A, US5476441 A, US5472412 A, US5466213 A, US5443528 A, US5443524 A, US5443521 A, US5422558 A, US5413611 A, US5408873 A, US5408573 A, US5405510 A, US5405410 A, US5405409 A, US5405407 A, US5383939 A, US5376137 A, US5376133 A, US5336269 A, US5252102 A, US5252102 A, US5219365 A, US5217500 A, US5201772 A, US5181931 A, US5153496 A, US5139525 A, US5133774 A, US5133773 A, US5112356 A, US5112296 A, US5092902 A, US5062857 A, US5062856 A, US5044360 A, US4994086 A, US4944755 A, US4892554 A, US4876944 A, US4776852 A, US4711242 A, US4569352 A, US4558704 A, US4521924 A, US4387472 A, US4212087 A, US4209860 A, US4179759 A, US4065815 A, US4030141 A, US3995324 A, US3820168 A, US2568051 A, US2017119552 AA, US2015105700 AA, US2011257764 AA, US2011040216 AA, US2010324699 AA, US2010312363 AA, US2010241242 AA, US2008139975 AA, US2008132383 AA, US2007299371 AA, US2007282228 AA, US2007169152 AA, US2007162152 AA, US2007156252 AA, US2007123997 AA, US2007050045 AA, US2007043449 AA, US2007027557 AA, US2007027555 AA, US2006249315 AA, US2006247095 AA, US2006235544 AA, US2006224247 AA, US2006206214 AA, US2006173552 AA, US2006155385 AA, US2006136072 AA, US2006135883 AA, US2006122711 AA,

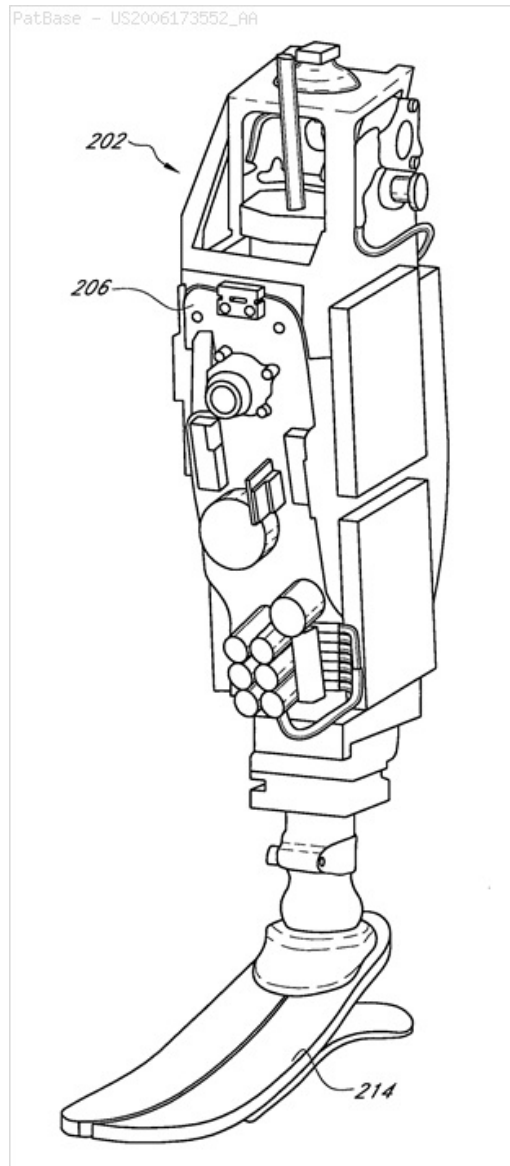
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Forward Citations:

WO18210520, WO12097156, WO12097156, US9975249, US9895240, US9872782, US9839552, US9808357, US9737419, US9717606, US9707104, US9700439, US9693883, US9687377, US9668888, US9649206, US9622884, US9561118, US9554922, US9539117, US9526636, US9526635, US9462966, US9387096, US9358137, US9351900, US9351856, US9345592, US9345591, US9339397, US9333097, US9289316, US9289315, US9271851, US9221177, US9211201, US9180025, US9149370, US9078774, US9066819, US9066818, US9060884, US9060883, US9032635, US9017418, US8986396, US8900325, US8870967, US8869626, US8864846, US8858648, US8852292, US8828093, US8814949, US8808214, US8801802, US8790282, US8734528, US8702811, US8685091, US8657886, US8652218, US8617254, US8551184, US8551029, US8512415, US8500823, US8419804, US8376971, US8323354, US8287477, US8122772, US8057550, US7867285, US7862620, US7811333, US7794505, US7691154, US7455696, US7198071, US2015335450, US2015032225, US2014200680, US2014172120, US2014088727, US2012313745, US2012310370, US2011245931, US2011224803, US2011098606, US2010324698, US2010286796, US2010280629, US2009265018, US2009222105, US2009076419, US2008133009, US2006206215, US2006206214, US2006136072, US10307272, US10307271, US10299943, US10290235, US10285828, US10278883, US10251762, US10195057, US10137011, US10105244, US10080672, US10070974, US10016290, TWI403313, JP2017522102, EP1905388, EP1871308, DE102009052891, CN103271783, CN103271783, CN102724936, CN102724936,

Abstract:

Disclosed are adjustable powered rehabilitation devices and methods for using the same to rehabilitate and/or train a user. The rehabilitation devices preferably have a plurality of selectable power settings that correspond to one or more rehabilitation-oriented actions or functions of the rehabilitation devices. For example, the power of the rehabilitation device may be selected based on a need, ability, muscle-power and/or physiological characteristics of the user. For instance, a rehabilitation device may be operated at a relatively low power setting to allow a patient to use his or her own muscle power when moving with the rehabilitation device. The rehabilitation device may also include an adjustable sensitivity level that corresponds to a user difficulty in triggering a particular rehabilitation-oriented action. The powered rehabilitation device may also temporarily be used to train a user in interacting with a passive or more conventional prosthetic device.



Title: AUTOMATED PRESCRIPTION OF ACTIVITY BASED ON PHYSICAL ACTIVITY DATA

Priority: NZ20130617514 20131108 WO2014NZ50010 20141110

Family:

Publication number	Publication date	Application number	Application date
AU2014347366 AA	20160623	AU20140347366	20141110
EP3066592 A1	20160914	EP20140859524	20141110
EP3066592 A4	20170719	EP20140859524	20141110
US2016263439 AA	20160915	US20140035090	20141110
WO15069124 A1	20150514	WO2014NZ50010	20141110

Probable Assignee: PERFORMANCE LAB TECHNOLOGIES LTD

Assignee(s):(std): PERFORMANCE LAB TECH LTD ; PERFORMANCE LAB TECHNOLOGIES LTD

Inventor(s):(std): ACKLAND JONATHAN EDWARD BELL

Agent(s): AJ PARK; SPRUSON AND FERGUSON; GILL JENNINGS AND EVERY LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A61B5/00 A61B5/0205 A61B5/021 A61B5/024 A61B5/0402 A61B5/08 A61B5/11 A61B5/1455 A63B24/00 G06F17/40 G06F19/00 (Advanced/Invention)

CPC: G06F19/3481 A61B5/1112 A61B5/1114 A61B5/4836 A61B5/4866 G06K9/00342 A63B24/0075 A63B24/0062 A61B5/0402 A61B5/021 A61B5/14552 A61B5/0205 A63B2024/0068 A63B2220/18 A63B2220/73 A63B2220/17 A63B2220/22 A63B2220/72 A63B2220/75 A63B2220/76 A61B5/024 A61B5/02405 A61B5/08 A61B5/1118 A61B2503/10

US class: 434/247

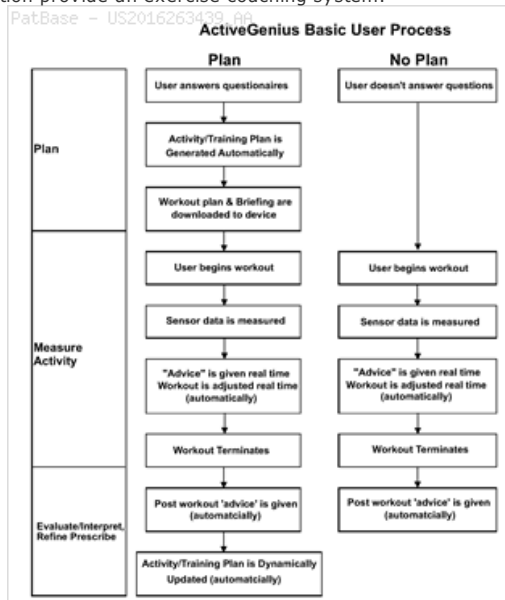
[Classification Explorer](#)

Cited documents: WO11105914 A1, US7717827 BB, US7602301 BA, US2013096403 AA, US2013053990 AA, US2013041590 AA, US2011152696 AA, US2011009240 AA, US2009298650 AA, US2008269644 AA, US2007219059 AA,

Forward Citations: WO18029171, WO17059368, WO17032635, US9949694, US2017365186, US2017361164, US2017354846, US2016300103, US2016196758, US10314520, US10276020, US10271773, US10188905, EP3479759, EP3252633,

Abstract:

The invention provides a method of monitoring an activity session comprising receiving activity data indicative of at least one activity performed during the activity session, the activity data comprising a plurality of measurements associated to a plurality of parameters monitored during the activity session; a processor comparing at least some of the received measurements associated to at least two of the parameters with at least one set of a plurality of sets of measurements stored on a tangible computer readable medium; and a processor generating a training plan based at least partly on a comparison between the received measurements and the stored measurements. Other aspects of the invention provide an exercise coaching system.



Title: ARTIFICIAL CLIMBING TREES AND SUPPORT SYSTEM

Priority: US20040898839 20040726

Family:

Publication number	Publication date	Application number	Application date
US2006019798 AA	20060126	US20040898839	20040726

Probable Assignee: BEATTY WILLIAM H JR

Assignee(s):(std): BEATTY WILLIAM H JR ; CHECKETTS STANLEY J

Inventor(s):(std): BEATTY WILLIAM H JR ; CHECKETTS STANLEY J

Inventor(s): BEATTY WILLIAM HJR ; CHECKETTS STANLEY ; BEATTY WILLIAM ; BEATTY WILLIAM H

Agent(s): RICHARD D CLARKE LAW OFFICE OF RICHARD D CLARKE

International class (IPC 8-9): A63B7/04 A63B9/00 (Advanced/Invention); A63B7/00 A63B9/00 (Core/Invention)

CPC: A62B1/08 A63B9/00 A63B27/00 A63B69/0048

European class: A63B27/00 A63B69/00M K62B1/08 K63B9/00

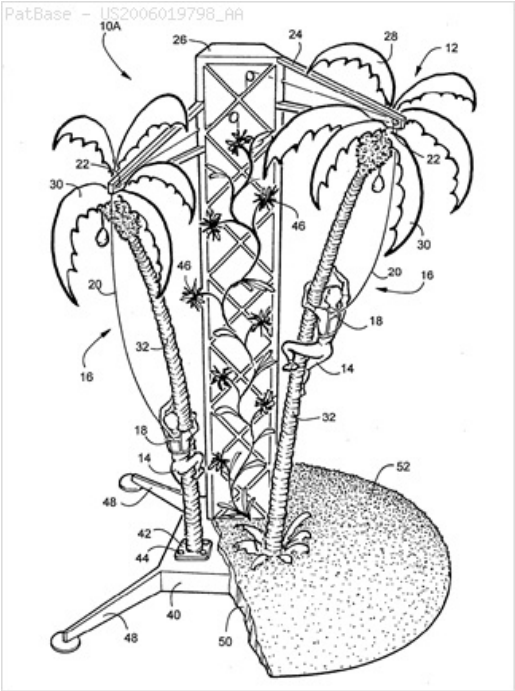
US class: 482/35 482/37

[Classification Explorer](#)

Cited documents: US6849031 BB, US6631885 BB, US6551216 BB, US6443849 BA, US6382355 BA, US4116433 A,

Forward Citations: USD823714, US7819778, US7727118, US2015343288, US2013171376, US2006128530,

Abstract:
An artificial climbing tree assembly consisting of one or more artificial climbing trees will be constructed of a steel pipe or tubular framework, in segments or welded together, covered with molded segments having the outward appearance of a natural tree trunk texture. The trees will be attached to a base plate with a central support tower housing a safety belaying and repelling system. The unique safety incorporated into the invention is created by the inclination of the trees away from the top of the central support tower. A tether line attaches from the back of the climber to the top of the tree through a pulley system in the extension arm to the safety belaying and repelling system housed by the central support tower. The climbers are required to climb the face of the trees, where if they let go, they will fall away from the tree and will be slowly lowered by the safety belaying and repelling system to the foam-cushioned pad below. Varying degrees of climbing difficulty will be added to the trees by changing the textured surface, the shape of the tree trunks, and/or the inclination angle of the tree away from the top of the central support tower.



54) Family number: 34354079 (WO07035477A1)

© PatBase

Title: EXERCISE DEVICE AND A METHOD THEREOF APPAREIL D'EXERCICE ET PROCEDE ASSOCIE

Priority: US20050717273P 20050915 US20060816417P 20060626 WO2006US36017 20060915

Family:

Publication number	Publication date	Application number	Application date
CA2621028 AA	20080229	CA20062621028	20060915
WO07035477 A1	20070329	WO2006US36017	20060915

Probable Assignee: SPORTCRAFT LTD

Assignee(s):(std): LEA JAMES F ; NALLY MICHAEL J ; PILOSI PAUL ; POLK LOUIS ; SPORTCRAFT LTD ; STICKLER GEORGE ; WEEKS RICHARD ALAN ; WHITEHOUSE RYAN ; THEISEN PAUL

Inventor(s):(std): LEA JAMES F ; NALLY MICHAEL J ; PILOSI PAUL ; POLK LOUIS ; STICKLER GEORGE ; THEISEN PAUL ; WEEKS RICHARD ALAN ; WHITEHOUSE RYAN

Agent(s): PIASETZKI AND NENNIGER LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A63B22/00 A63B22/06 (Advanced/Invention)

CPC: A63B21/225 A63B22/001 A63B22/0046 A63B22/0664 A63B2022/067 A63B2022/185 A63B2071/025

European class: A63B22/00A6 A63B22/06E K63B21/22F K63B22/00D K63B22/06E2 K63B22/18S K63B71/02S1R

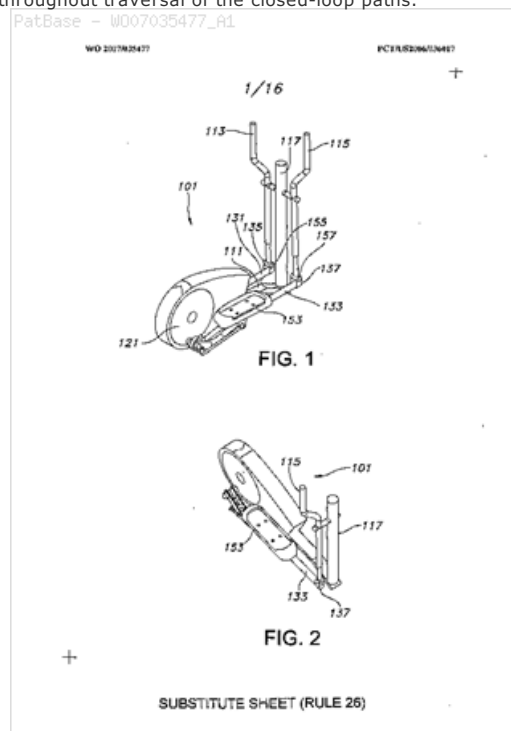
[Classification Explorer](#)

Cited documents: US6846272 BB, US6672992 BA, US5803871 A,

Forward Citations: US9108081,

Abstract:
An exercise device is provided which includes a frame, first and second foot links, each foot link having a first end and a second end, the first end being movably coupled to the frame, first and second foot rests coupled respectively to the first and second foot links, each foot rest having a foot resting surface for supporting a foot of a user, and a rotatable member coupled to the frame so

as to be rotatable about a rotation axis. Further, the second end of the first foot link and the second end of the second foot link are both coupled to the rotatable member such that both the second ends are rotatable about the rotation axis. With rotation of the first and second ends about the rotation axis, the foot rests traverse respectively closed- loop paths, the foot resting surfaces of the first and second foot rests being continuously generally horizontal throughout traversal of the closed-loop paths.



55) Family number: 11115079 (US5201694A)

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Title: Squat-pull exercise apparatus

Priority: US19910792035 19911113

Family:

Publication number	Publication date	Application number	Application date
US5201694 A	19930413	US19910792035	19911113

Probable Assignee: ZAPPEL JOSEPH

Assignee(s):(std): ZAPPEL JOSEPH

Inventor(s):(std): ZAPPEL JOSEPH

International class
(IPC 8-9): A63B23/04 (Advanced/Invention);
A63B21/00 (Advanced/Non-invention);
A63B21/00 (Core/Non-invention)

International class
(IPC 1-7): A63B21/00

CPC: A63B21/00181 A63B21/00072 A63B21/023 A63B21/0421 A63B21/154 A63B23/0405 A63B2023/0411

European class: A63B21/00F6L A63B21/00T A63B21/15F6 A63B23/04B K63B21/02B K63B21/04B4 K63B23/04B1S

US class: 482/133 482/21 482/96

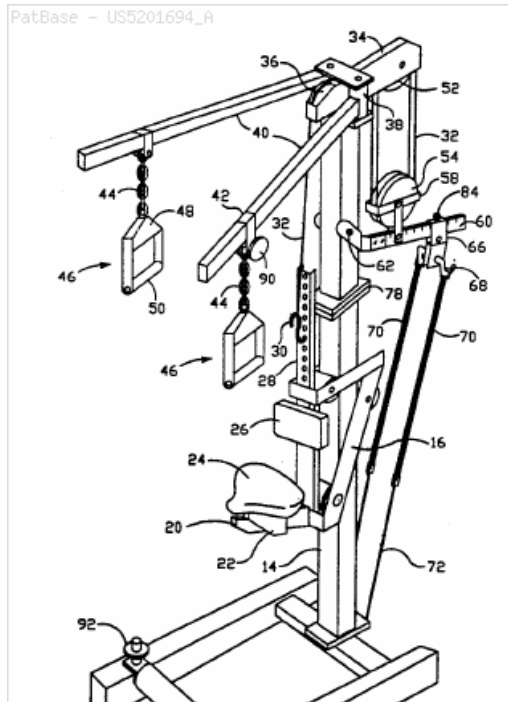
[Classification Explorer](#)

Cited documents: US935854 A, US5120289 A, US4426077 A, US4341380 A, US4101124 A, US3787048 A, US3716231 A, US3420522 A, US3140869 A, US2201036 A, US1662875 A, US1470403 A, US1075309 A,

Forward Citations: US9776043, US9669251, US9649524, US9643051, US9586089, US9375607, US9302136, US8926480, US8876674, US8845498, US8696528, US8647239, US8568279, US8550964, US8323157, US8016729, US7922635, US7892155, US7766801, US7556593, US7534197, US7503880, US7455634, US7247128, US6702724, US6676573, US6632160, US6387023, US6312365, US6102836, US5951444, US5733229, US5626548, US5554083, US5468202, US5387171, US5362296, US5352171, US2018318646, US2018056133, US2017014663, US2016114205, US2015360083, US2015094193, US2013157816, US2011224057, US2011028281, US2011009249, US2010311550, US2010234193, US2009181834, US2008227609, US2008081749, US2007203004, US2006189462, US2006160676, US2005227826, US2004185988, US2004097353, US2002183173, US10293211, US10279212, US10272317, US10258828, US10252109, US10220247, US10188890, US10150003, US10109216, US10058726, US10016655, JP4317141, JP2006198035, IT201600093772, GB2559125, GB2559125, EP3295998, EP2991740, EP2021081, EP2021081,

Abstract:

An aerobic exercise device featuring a vertically movable seat counter-balanced mainly by a spring. As a user, supported by the seat, executes a squatting exercise the seat will urge the user toward an initial position. The seat moves vertically along an upright column having a pulley at its top. A cable connects the seat to a spring at the back side of the column via the pulley. Handles are suspended from arms at the top of the column to help a user support his or her weight.

**56) Family number: 10031080** (US5577981A)

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Title: VIRTUAL REALITY EXERCISE MACHINE AND COMPUTER CONTROLLED VIDEO SYSTEM
Priority: US19940183522 19940119 US19950513671 19950804

Family:	Publication number	Publication date	Application number	Application date
	US5577981 A	19961126	US19950513671	19950804
	WO9705926 A1	19970220	WO1996US12369	19960729

Probable Assignee: JARVIK ROBERT

Assignee(s):(std): JARVIK ROBERT

Inventor(s):(std): JARVIK ROBERT

Designated states: AT BE CA CH DE DK ES FI FR GB GR IE IT JP LU MC NL PT SE

International class A63B21/00 A63B24/00 G06F3/00 G06F3/01 (Advanced/Invention)
(IPC 8-9):

International class A63B24/00 A63B69/00 G09B9/00
(IPC 1-7):

CPC: A63B21/154 A63B24/00 A63B71/0622 A63B2071/0641 A63B2071/0644 A63B2071/0666 A63B2220/30 G06F3/011 G06F3/016 G06F2203/012 Y10S482/902

European class: A63B21/15F6 A63B24/00 A63B71/06D2 G06F3/00B8 G06F3/00B8T G06F3/01B G06F3/01F

US class: 434/247 482/4 482/902 73/379.01

[Classification Explorer](#)

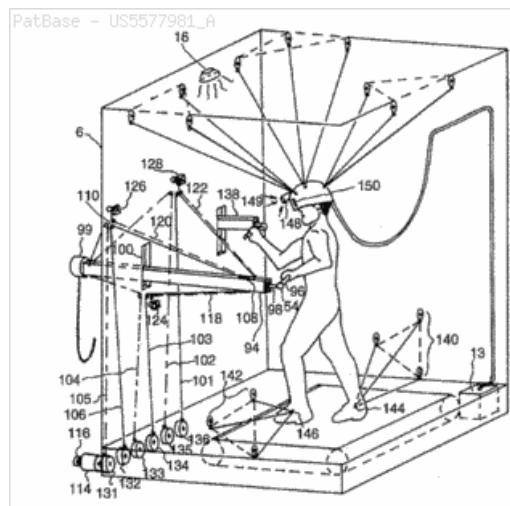
Cited documents: US5362069 A, US5320538 A, US5308296 A, US5229756 A, US5227985 A, US5213555 A, US5185561 A, US5184319 A, US4934694 A, US4919418 A, US4906192 A, US4735410 A, US4558864 A, US4489938 A, US4408613 A, DE3404539 A1,

Forward Citations: WO9925430, WO9744775, WO9730420, WO19046942, WO18195344, WO17184785, WO17125428, WO17095529, WO13034981, WO13034981, WO12106978, WO11025466, WO06008704, WO04045725, WO0187152, WO0170340, WO0170340, USRE44396, USRE39906, USRE37374, USD507311, USD505460, USD493855, USD493500, USD489778, US9983684, US9971491, US9959459, US9958952, US9953426, US9953213, US9943755, US9940553, US9910509, US9906981, US9898675, US9857470, US9848106, US9842405, US9836590, US9829715, US9824480, US9824260, US9823339, US9821465, US9821226, US9821224, US9788032, US9787943, US9769459, US9764213, US9746984, US9724600, US9720089, US9696427, US9679390, US9674563, US9662391, US9659377, US9656162, US9652042, US9649469, US9646340, US9641825, US9628844, US9619561, US9607213, US9597587, US9596643, US9594430, US9586141, US9582717, US9582178, US9578224, US9569005, US9560967, US9557836, US9557574, US9551914, US9539500, US9535563, US9529566, US9524024, US9522328, US9519989, US9519970, US9519828, US9508385, US9504788, US9501955, US9498718, US9491226, US9489053, US9484065, US9480918, US9478057, US9472116, US9470778, US9468848, US9465980, US9462253, US9454244, US9449150, US9443310, US9442186, US9440134, US9427659, US9421456, US9400559, US9400548, US9384329, US9383823, US9377857, US9375629, US9372544, US9358361, US9349040, US9345947, US9342139, US9318030, US9313376, US9311560, US9298287, US9298263, US9292083, US9291449, US9289680, US9282927, US9280205, US9280203, US9278287, US9274747, US9274606, US9268404, US9264807, US9262673, US9259643, US9256282, US9251590, US9247238, US9244533, US9242171, US9239906, US9224304, US9223400, US9215478, US9210401, US9208571, US9195305, US9191570, US9182814, US9176584, US9171264, US9168418, US9159151, US9154837, US9147253, US9144709, US9141193, US9137463, US9135516, US9123316, US9123255, US9117281, US9108106, US9100685, US9098873, US9098493, US9098110, US9092657, US9075434, US9069381, US9067136, US9064036, US9063001, US9056254, US9054764, US9052746, US9052382, US9039528, US9031103, US9028368, US9026369, US9019201, US9015638, US9013489, US9008355, US9007417, US9001118, US8994718, US8988508, US8988437, US8988432, US8983233, US8982151, US8976986, US8971612, US8970487, US8968091, US8963829, US8959541, US8953844, US8942917, US8942428, US8938431, US8933884, US8930208, US8929668, US8929612, US8928579, US8926475, US8926431, US8920241, US8917240, US8908091, US8905844, US8898687, US8897495, US8897493, US8897491, US8896721, US8892495, US8892219, US8891827, US8891067, US8888331, US8887547, US8885890, US8884968, US8882310, US8879831, US8876688, US8869072, US8867820, US8866889, US8864581, US8861839, US8861091,

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Abstract:

This invention relates to computer controlled exercise machines and provides the user with a wide variety of interactive exercise options controlled by software. A virtual reality hybrid of virtual and real environments is provided which permits the user to perform significant physical exertion by applying forces to the machine while viewing images on a head mounted display. The invention permits the user to view his own hands and body superimposed over a computer generated image of objects that are not actually present while maintaining parts of the exercise machine that the user physically contacts, such as a handle, superimposed over the computer generated image. As the user exerts forces against the machine (such as the handle) he perceives that he is exerting forces against the objects the images represent. The invention includes a video camera and computer adapted to record images from the real world which may be combined with computer generated images while retaining the proper spacial orientation to produce a composite virtual reality environment. Virtual reality exercise regimens adapted to the user's individual capabilities, virtual reality exercise games, virtual reality competitive sports, and virtual reality team sports are disclosed.



57) Family number: 31848083 (DE10357740B3)

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Title: STEP EXERCISE MACHINE HAS ACTUATING ELEMENTS MOUNTED ROTATABLE ON LOWER CROSS ROD OF RUN-ON ELEMENT AND EACH WITH PIVOT ADJOINING ONE OF STOPS OF PLINTH TO PIVOT RUN-ON ELEMENT WHEN ACTUATING ELEMENTS ARE TURNED STEPPER MIT SCHWENKMECHANISMUS

Priority: DE20031057740 20031210

Family:	Publication number	Publication date	Application number	Application date
	DE10357740 B3	20050428	DE20031057740	20031210

Probable Assignee: CHUANG JIN CHEN

Assignee(s):(std): CHUANG JIN CHEN

Inventor(s):(std): CHUANG JIN CHEN

International class (IPC 8-9): A63B22/04 A63B23/035 A63B23/04 (Advanced/Invention); A63B23/035 (Advanced/Non-invention); A63B22/00 A63B23/035 A63B23/04 (Core/Invention); A63B23/035 (Core/Non-invention)

International class (IPC 1-7): A63B22/04 A63B23/035

CPC: A63B22/0064 A63B22/001 A63B22/0066

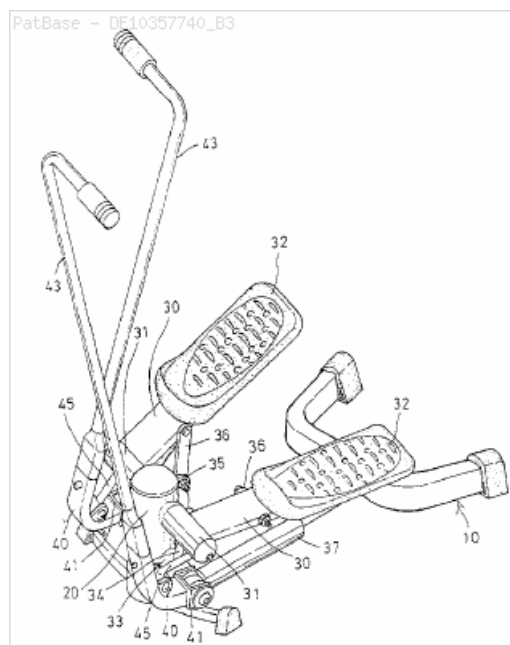
European class: A63B22/00A6 A63B22/00P10 K63B22/00P10D

[Classification Explorer](#)

Cited documents: US5800313 A, DE29609970 U1,

Abstract:

The step exercise machine has a base plinth (10) with two stops connected to foot supports (30) through a coupling device (33, 35, 36) which has two actuating elements mounted rotatable on a one or two part cross rod of the run-on element (20). The coupling device is configured so that the actuating elements are turned about the cross rod when the foot supports are moved up and down relative to the plinth. Each actuating element has a pivot (34) adjoining one of the stops to swivel the run-on element relative to the plinth.



Title:	HELICAL DRIVE BICYCLE			
Priority:	US19960771982 19961223	US19970041924P 19970407	US19970042963P 19970407	
	US19970042964P 19970407	US19970043762P 19970408	US19970043762P 19970408	
	US19970044137P 19970416	US19970044462P 19970417	US19970044462P 19970417	
	US19970044462P 19970417	US19970044462P 19970417	US19970045326P 19970501	
	US19970048693P 19970606	US19970049101P 19970609	US19970049506P 19970609	
	US19970049507P 19970609	US19970049509P 19970609	US19970049102P 19970609	
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	US19970897618 19970721	US19970897620 19970721	US19970922330 19970903	
	WO19971B01655 19971222	WO19981B00597 19980406	WO19981B00598 19980406	
	WO19981B00628 19980406	WO19981B00603 19980406	WO19981B00605 19980406	
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Family:	Publication number	Publication date	Application number	Application date
	AU199857755 A1	19980717	AU19980057755	19971222
	AU199867427 A1	19981030	AU19980067427	19980406
	AU199867428 A1	19981030	AU19980067428	19980406
	AU199867430 A1	19981030	AU19980067430	19980406
	AU199867431 A1	19981030	AU19980067431	19980406
	AU199867433 A1	19981030	AU19980067433	19980406
	AU199868493 A1	19981030	AU19980068493	19980406
	AU199868494 A1	19981030	AU19980068494	19980406
	AU199868495 A1	19981030	AU19980068495	19980406
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	CA2286029 C	20061024	CA19982286029	19980406
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	US6213487 BA	20010410	US19970897618	19970721
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	WO9845163 A3	19981217	WO19981B00627	19980406
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	WO9845164 A3	19981217	WO19981B00629	19980406
	WO9845165 A1	19981015	WO19981B00597	19980406
	WO9845166 A1	19981015	WO19981B00605	19980406
	WO9845167 A1	19981015	WO19981B00603	19980406
	WO9845170 A1	19981015	WO19981B00602	19980406
	WO9845621 A1	19981015	WO19981B00598	19980406

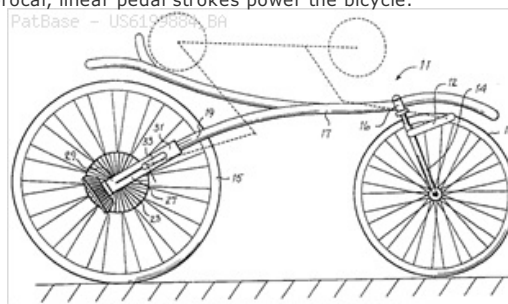
Probable Assignee:	744353 ALBERTA LTD
Assignee(s):(std):	744353 ALBERTA LTD ; 7444353 ALBERTA LTD ; DOROFTEI ; DOROFTEI MIGHEL ; HELIXSPHERE TECHNOLOGIES INC ; HELICAL DYNAMICS INT INC ; HELICAL DYNAMICS INTERNAT INC
Assignee(s):	HELICAL DYNAMICS INT ; HELICAL DYNAMICS INT INC DOROFTEI MIGHEL ; PILLSBURY MADISON AND SUTRO LLP ; HELICAL DYNAMICS INTERNATIONAL INC
Inventor(s):(std):	DOROFTEI MIGHEL ; DOROFTEL MIGHEL
Inventor(s):	MIGHEL DOROFTEI
Agent(s):	BORDEN LADNER GERVAIS LLP
Designated states:	AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GE GH GN GR GW HU ID IE IL IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT UA UG US UZ VN YU ZW
International class (IPC 8-9):	A01K87/00 A01K89/015 A61G5/02 A63B21/00 A63B21/005 A63B21/015 A63B22/00 A63B23/035 A63B23/04 A63B24/00 B62K3/00 B62K3/10 B62M1/00 B62M1/04 B62M1/14 B62M1/16 B62M1/24 B62M17/00 B62M9/00 B63H16/18 B63H20/14 F16H25/08 F16H25/12 F16H27/02 (Advanced/Invention); A63B21/00 A63B23/035 A63B23/04 A63B24/00 (Advanced/Non-invention); A61G5/02 A63B21/005 A63B21/012 A63B22/00 B63H20/00 F16H25/00 F16H27/00 (Core/Invention); A63B21/00 A63B23/035 A63B23/04 A63B24/00 (Core/Non-invention)
International class (IPC 1-7):	A61G5/02 B62H1/24 B62M1/00 B62M1/04 B62M1/16 B62M23/00 B62M9/00 B63H16/00 B63H20/14 F16H25/08 F16H27/02
CPC:	A63B22/0076 B63H16/14 A63B21/00069 A63B69/06 A63B21/005 A63B21/015 A63B21/072 A63B21/078 A63B23/03533 A63B23/0417 A63B2022/0652 A63B2208/0233 A63B2208/0295 B62K3/005 Y10T74/1556 A63B22/0005 A61G5/042 A61G5/045 A63B22/0002 A63B2022/0041 A63B2071/0018 B62M9/00 A61G5/02 A63B21/0056 A63B21/15 A63B21/157 A63B22/205 A63B2022/0038 A63B2024/0009 A63B2220/13 A63B2220/12 A63B2225/30 A63B2230/06 A63B2230/42 B62M1/30 B62M17/00 F16H25/12 B62K3/10 B62M1/14 A01K87/00 B62M1/24 A01K89/0183 A63B24/0006
European class:	A01K89/015 A61G5/02 A63B21/005D A63B21/015 A63B21/15 A63B21/15G A63B22/20T4 A63B23/035C4 A63B24/00A1 A63B69/06 B62K3/00 B62K3/10 B62M1/14 B62M1/24 B62M1/30 B62M17/00 B62M9/00 B63H16/14 F16H25/12 K61G5/04A2 K61G5/04A6 K63B208/02E2 K63B208/02M K63B21/005 K63B21/005D K63B21/072 K63B21/078 K63B22/00A K63B22/00A2 K63B22/00C10 K63B22/00C8 K63B22/00R K63B22/06C4R K63B22/20T4 K63B220/12 K63B220/13 K63B225/30 K63B23/04B2 K63B230/06 K63B230/42 K63B24/00A1A K63B69/06 K63B71/00H2 R16H25/12
US class:	280/250.1 280/252 280/253 280/288.1 440/21 440/25 74/143
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Cited documents:	USRE33058 E, US994359 A, US944064 A, US931656 A, US882845 A, US87630 A, US860953 A, US850953 A, US829279 A, US771864 A, US733836 A, US713633 A, US690835 A, US651316 A, US651244 A, US646085 A, US641906 A, US622780 A, US618330 A, US617762 A, US597621 A, US579218 A, US5785337 A, US578269 A, US5577412 A, US555242 A, US5542340, US5542335,

US5540456, US552910 A, US5514053 A, US5496051 A, US549397 A, US5486016, US5472320, US5452647, US5451070, US5443279 A, US5403027 A, US5335927, US5310202, US5299819 A, US5295927, US5290054, US5280936, US5242181, US5236211, US5228354 A, US5209190, US5182962, US51815 A, US5180351 A, US5172926, US5167168, US5156412, US5151071 A, US5125677 A, US5016871 A, US5007655 A, US5007631, US5002043 A, US4958830, US4942936, US4865152 A, US4861055, US4858483 A, US4829841, US4828284, US4796430, US4770433, US4763544 A, US4758013 A, US4702486, US4657273, US465100 A, US465099 A, US4630839, US4625580, US4597302, US4560181, US4536130, US4519263 A, US450997 A, US4493614, US4473236, US4462345, US443347 A, US4421334, US4411443 A, US4411442, US4400999, US4386743 A, US4303255 A, US4277706, US4276003, US4272096, US4248448 A, US4227712, US4186934, US4169609, US4161328, US4154414 A, US4145166, US408745 A, US4084836, US4081155, US4052912, US4029334, US4019230, US4004299, US3998469, US3994509, US3991736, US398899 A, US3984129 A, US3954282 A, US395099 A, US3937309 A, US3922005 A, US3916866 A, US3908807 A, US3891235 A, US3886807 A, US3877725 A, US3834733 A, US3828627 A, US381160 A, US3809195 A, US3771918 A, US3670856 A, US3646822 A, US3633938 A, US3588144 A, US3299720 A, US3194089 A, US3192783 A, US3166171 A, US3122226 A, US3114442 A, US3113652 A, US3113472 A, US3107541 A, US3102436 A, US2988186 A, US2895576 A, US2613468 A, US2612312 A, US2588524 A, US2578559 A, US2425813 A, US2411438 A, US2389918 A, US2321828 A, US2301852 A, US2296164 A, US2245457 A, US2193394 A, US2153870 A, US2143798 A, US2137649 A, US2084321 A, US2041319 A, US2028311 A, US2023889 A, US1955973 A, US1813468 A, US1799458 A, US1780398 A, US1776331 A, US1736822 A, US1736507 A, US1734649 A, US1713219 A, US1709952 A, US1699687 A, US1559578 A, US1482689 A, US1413036 A, US1389039 A, US1316558 A, US1232202 A, US1122376 A, US1122085 A, US1108392 A, US1076179 A, US1072701 A, US1047509 A, US1025989 A, US1019637 A, US1005690 A, GB6855, GB6855, GB2339177 A1, GB20936, FR631286, CH236146 A,

Forward Citations: WO16071554, WO11080544, WO05009830, US9796464, US9115785, US8973519, US8915319, US8651505, US8496080, US8162346, US6904655, US6746034, US6655515, US6213487, US2010289246, US2010140898, US2009224508, US2006138742, US10115545, GB2528678, GB2379198, GB2379198, ES2245185, EP3018672, EP3018672, EP1287801, EP1287801, DE10057394, DE10057394, CN103948476, CN103948476, AU2012205159,

Abstract:

A bicycle with a drive mechanism using reciprocal rectilinear pedal motion to propel a pinion gear against a crown gear face associated with a rear bicycle wheel, rotating the rear wheel. The pinion gear receives motion from a helical member surrounded by a slider. Each pedal is united with the slider which moves linearly along a guide or track, forcing rotation of the helical member as the slider is pushed rearwardly by a pedal. A freewheel or overrunning clutch permits power transfer only when the pedal moves rearwardly and allows freewheeling when the pedal is reset. Reciprocal, linear pedal strokes power the bicycle.



59) Family number: 8410091 (US5290210A)

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Title: Aquatic step exercise apparatus
Priority: US19920884424 19920515 WO1993US04526 19930512
Family:

Publication number	Publication date	Application number	Application date
AU199342476 A1	19931213	AU19930042476	19930512
CA2135910 AA	19941115	CA19932135910	19930512
EP0646034 A1	19950405	EP19930911288	19930512
EP0646034 A4	19950823	EP19930911288	19930512
JP8500263 T2	19960116	JP19940503729T	19930512
MX9302844 A1	19940228	MX19930002844	19930514
US5290210 A	19940301	US19920884424	19920515
WO9323118 A1	19931125	WO1993US04526	19930512

Probable Assignee: AQUA STEP CORP
Assignee(s):(std): AQUA STEP CORP
Assignee(s): GOLDSTEIN ERIC ; HAND PETER H ; LOCKWOOD J CHARLES ; SAUNDERS WILLIAM J ; WATSON JAMES B ; ALSUP J DOUGLAS
Inventor(s):(std): GOLDSTEIN ERIC ; HAND PETER H ; ALSUP J DOUGLAS ; LOCKWOOD J CHARLES ; SAUNDERS WILLIAM J ; WATSON JAMES B
Inventor(s): WILLIAM J SAUNDERS ; ALSUP J ; PETER H HAND ; ERIC GOLDSTEIN ; J CHARLES LOCKWOOD ; J DOUGLAS ALSUP ; JAMES B WATSON ; LOCKWOOD J
Agent(s): FB RICE; FB RICE PTY LTD; INFLAYSON AND SINGLEHURST
Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KR KZ LI LK LU MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA VN
International class (IPC 8-9): A47C9/10 A63B23/00 A63B23/04 A63B26/00 A63B5/00 A63B9/00 (Advanced/Invention); A63B23/00 (Advanced/Non-invention); A63B23/00 A63B23/04 (Core/Invention)
International class (IPC 1-7): A47C9/10 A63B21/00 A63B22/14 A63B23/00 A63B23/04 A63B26/00 A63B5/00 A63B9/00
CPC: A63B23/0458 A63B2225/60
European class: A63B23/04B6 K63B225/60
US class: 482/51

[Classification Explorer](#)

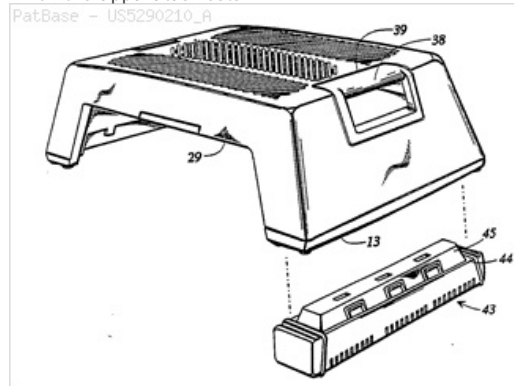
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US3393940 A,

Forward Citations: WO16111836, WO11130607, US9656110, US9486658, US9192813, US9089732, US8915825, US8696523, US8348812, US7922624, US7699760, US7601101, US7575540, US6920652, US6908417, US6558301, US6524355, US6447434, US6117051, US5697870, US5562575, US2013045840, US2011207583, US2010180371, US2007184947, US2006052220, US2004002411, US2003134715, US10252103, RU182571, EP2558169, EP2558169,

Abstract:

Step exercise apparatus primarily intended for use in an aquatic environment such as a pool or the like. The apparatus includes a step platform maintained in elevated relation above a foundation surface by a pair of support members. The apparatus has a specific gravity greater than one so as to sink within a body of water, and slots extend through the platform to prevent entrapment of air bubbles when the platform is placed in a pool. Handles in the sides and ends of the apparatus assist the user in manipulating the apparatus while exercising in the water. Removable extension feet selectively increase the step distance between the platform and the pool bottom or other foundation surface on which the apparatus rests.



60) Family number: 12416091 (US5496238A)

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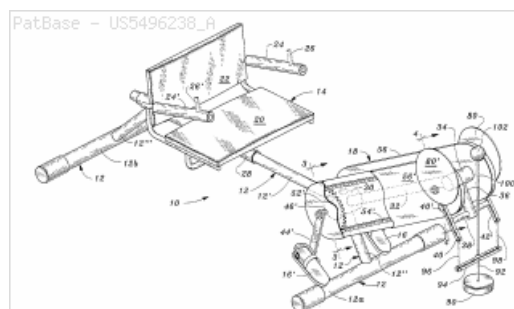
Title: PHYSICAL CONDITIONING APPARATUS
Priority: US19920979640 19921119 US19930109975 19930819
Family:

Publication number	Publication date	Application number	Application date
US5496238 A	19960305	US19930109975	19930819

Probable Assignee: TAYLOR DOUGLAS B
Assignee(s):(std): TAYLOR DOUGLAS B
Inventor(s):(std): TAYLOR DOUGLAS B
International class (IPC 8-9): A63B21/008 A63B22/08 (Advanced/Invention); A63B21/00 A63B21/06 A63B22/06 (Advanced/Non-invention); A63B21/008 A63B22/06 (Core/Invention); A63B21/00 A63B21/06 (Core/Non-invention)
International class (IPC 1-7): A63B22/06
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European class: A63B21/008B2 A63B21/14A7F A63B21/14M8 A63B21/15F6C A63B22/08 K63B208/02E2 K63B208/02E4 K63B208/02F4S K63B21/06F K63B22/06C2D
US class: 482/57 482/63 482/908 482/97 74/594.6
[Classification Explorer](#)
Cited documents: US5256115 A, US5254067 A, US5190511 A, US5139255 A, US5114389 A, US5106081 A, US5102121 A, US5066004 A, US5016871 A, US4982955 A, US4955599 A, US4878663 A, US4872668 A, US4854577 A, US4842269 A, US4753435 A, US4712791 A, US4673178 A, US4606241 A, US4563003 A, US4550906 A, US4548406 A, US4519603 A, US4509742 A, US4477072 A, US4254949 A, US4149714 A, US3759511 A, US3743282 A, US3572699 A, US3213852 A, US3112108 A, DE2301808 A1,
Forward Citations: WO9726948, WO02102471, US9839808, US9685827, US9584056, US8614529, US8212445, US8106563, US7758475, US7727125, US7530932, US7377884, US7294095, US7104936, US7049708, US6943459, US6930403, US6852070, US6849960, US6663127, US6280363, US6234939, US6146314, US5935046, US5779598, US5735774, US5573481, US2010019593, US2009156371, US2008139370, US2006116248, US2006094569, US2006040800, US2006033392, US2005250626, US2005160639, US2005124470, US2005116472, US2005107221, US2004242383, US2004150230, US10293211, US10279212, US10272317, US10258828, US10252109, US10188890, FR3022793, EP1588743,

Abstract:

Physical conditioning apparatus which includes a left foot pedal, a right foot pedal, a binder for binding the user's left foot onto the left foot pedal, a binder for binding the user's right foot onto the right foot pedal, support means for supporting the user, and resistance producing means for resisting upward movement of the foot pedals but producing little or no resistance to downward movement of the foot pedals.



61) Family number: 64829093 (US9561418B)

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Title: PHYSICAL FITNESS DEVICE WHICH SIMULATES HORSEBACK RIDING AND ALSO FACILITATES UPPER BODY AND LOWER BODY EXERCISE

Priority: US20150741165 20150616 US20170424726 20170203 US20170425885 20170206

Family:

Publication number	Publication date	Application number	Application date
US9561418 BA	20170207	US20150741165	20150616
US9802098 BA	20171031	US20170424726	20170203
US9861872 BA	20180109	US20170425885	20170206

Probable Assignee: HUPA INT INC

Assignee(s):(std): HSIUNG BOB ; HUPA INT INC

Inventor(s):(std): HSIUNG BOB

Agent(s): THOMAS I

International class (IPC 8-9): A63B21/00 A63B21/015 A63B21/22 A63B22/00 A63B22/06 A63B23/035 A63B69/04 (Advanced/Invention)

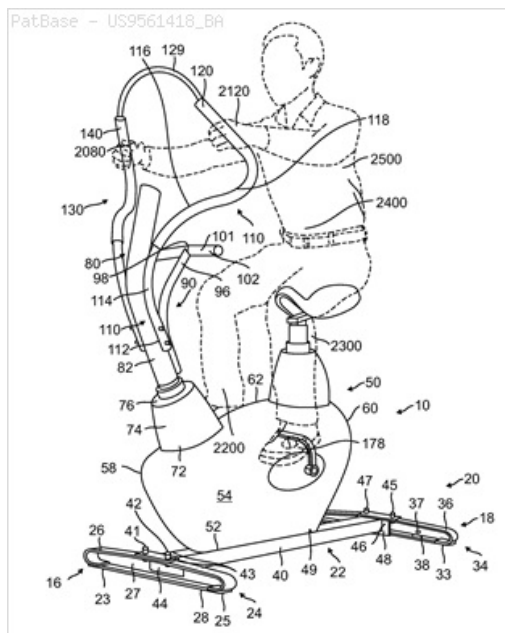
CPC: A63B69/04 A63B22/0605 A63B21/015 A63B21/151 A63B23/0222 A63B2022/0617 A63B2022/0623 A63B2022/0635 A63B2225/093 A63B2022/0641 F16B7/105 A63B2022/0611 A63B26/003 A63B21/225 A63B22/001 A63B21/4034 A63B21/4035 A63B22/0046 A63B23/03575

[Classification Explorer](#)

Cited documents: US7393308 BA, US5453066 A, US2010248902 AA, US2010130331 AA, US2004198561 AA,

Abstract:

A physical fitness device that simulates the motion of horseback riding. Innovative features of the present invention include a horseback riding simulation post which extends both vertically, at a vertical angle toward a rider seated on the device, and an upwardly extending longitudinal section which extends toward a rider on the exercise device seat and terminates in a transverse handle which enables the user to grasp the handle with both hands or one hand. There are a pair of parallel crank arms with a respective one of the crank arms adjacent opposite sides of the exercise device with each crank arm having an upwardly extending section extending forwardly or rearwardly.

**62) Family number: 42437094** (US2001000782A)

© PatBase

Title: DEVICE FOR STIMULATING MUSCLES

Priority: DE19961034396 19960826 DE19961034397 19960826 DE19975007437 19970816
DE19975009108 19970816 WO1997EP04475 19970816 WO1997EP04482 19970816
US19990231360 19990113 US20000734679 20001213

Family:

Publication number	Publication date	Application number	Application date
AT218317 E	20020615	AT19970938913T	19970816
AT230621 E	20030115	AT19970938915T	19970816
CA2264163 AA	19990226	CA19972264163	19970816
CA2264629 AA	19990226	CA19972264629	19970816
CA2264629 C	20061121	CA19972264629	19970816
DE19634396 A1	19980305	DE19961034396	19960826
DE19634396 B4	20080327	DE19961034396	19960826
DE19634397 A1	19980305	DE19961034397	19960826
DE59707437 D1	20020711	DE19975007437	19970816
DE59709108 D1	20030213	DE19975009108	19970816
EP0929284 A1	19990721	EP19970938913	19970816
EP0929284 B1	20020605	EP19970938913	19970816
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ES2176774 T3	20021201	ES19970938913T	19970816
JP2000516826 T2	20001219	JP19980511235T	19970816
JP2001500400 T2	20010116	JP19980511233T	19970816
JP4153996 B2	20080924	JP19980511233T	19970816
JP4153997 B2	20080924	JP19980511235T	19970816
US2001000782 AA	20010503	US20000734679	20001213
US6217491 BA	20010417	US19990231360	19990113
US6659918 BB	20031209	US20000734679	20001213
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WO9808571 A1	19980305	WO1997EP04482	19970816

Probable Assignee: SCHIESL HANS

Assignee(s):(std): SCHIESL HANS ; SCHIESSL HANS

Assignee(s): SCHIESL HANS 75177 PFORZHEIM DE

Inventor(s):(std): SCHIESSL HANS ; SCHIESL HANS

Inventor(s): SCHIESL HANS 75177 PFORZHEIM DE

Agent(s): KIRBY EADES GALE BAKER

Designated states: AT BE CA CH CN DE DK ES FI FR GB GR IE IT JP KR LI LU MC NL PT SE US

International class (IPC 8-9): A61H1/00 A61H1/02 A61H23/02 A63B21/072 A63B22/06 A63B22/16 A63B23/04 (Advanced/Invention); A61H23/02 A63B21/00 (Advanced/Non-invention); A61H1/00 A61H1/02 A61H23/02 A63B21/06 A63B22/00 A63B22/06 A63B23/04 (Core/Invention); A61H23/02 A63B21/00 (Core/Non-invention)

International class (IPC 1-7): A61H1/00 A61H1/02 A61H23/02 A63B21/072 A63B21/22 A63B22/06 A63B22/14 A63B23/04

CPC: A61H2201/164 A61H2201/1678 A61H2201/1215 A61H2201/1635 A61H2205/062 A61H2201/1418 A63B22/16 A61H1/003 A61H1/005 A61H23/0254 A61H2203/0406 A63B21/00196 A63B21/072 A63B21/0726

European class: A61H1/00C2 A61H1/00D A63B21/00Z A63B21/072 A63B22/16 K61H203/04B K61H23/02R K63B21/072D

US class: 482/110 482/146 482/146P 482/147 482/147S 482/148 482/92 601/23 661/23

[Classification Explorer](#)

Cited documents: US850938 A, US5755651 A, US5500002 A, US5468215 A, US5443439 A, US5429562 A, US5298002 A, US5273028 A, US5112045 A, US4989857 A, US4151839 A, US3817243 A, US3774597 A, US3667453 A, US3625203 A, US3617056 A, US3581739 A, US3540436 A, US3373738 A, US3307534 A, US3140711 A, US3077869 A, US2629373 A, US2349743 A, US2235183 A, US1709410 A, US1058786 A, US1013782 A, SU1664339, SU1623671, RU1344356, JP9201429, DE29603537 U1, DE29603537 U, DE19532254 C1, DE1075797 B, DE1075797,

Forward Citations: WO14173545, WO12056483, WO09062700, WO09000487, WO07103414, WO07103414, WO07024103, WO06070429, WO06054814, WO06001044, WO05000188, WO03057321, US9763581, US9408774, US9050483, US8795210, US8740749, US8608625, US8603017, US8092347, US8065014, US8057366, US7756585, US7705500, US7563235, US7416518, US7413528, US7390287, US7354406, US7338457, US7322948, US7294095, US7214170, US7166067, US7137929, US6878122, US2013079196, US2013035617, US2011152731, US2011015696, US2010279836, US2010234774, US2010234187, US2010234179, US2010184568, US2009281466, US2009048075, US2008318732, US2008281145, US2008214971, US2008171639, US2008169715, US2008139370, US2008125679, US2008114275, US2008058167, US2008015477, US2007213179, US2007207900, US2007185419, US2007179561, US2007173376, US2007149375, US2007135738, US2006252610, US2006160668, US2006155221, US2006148623, US2006068980, US2005250626, US2005239611, US2005181918, US2005165332, US2005033203, US2004215290, US2004192510, US2004067833, US2003144614, US10220239, US10195097, US10149646, US10016328, NL1036943, NL1028374, NL1023542, NL1018340, KR100745662, KR100721004, KR100632775, JP2008517679, JP2008307381, JP2007533358, ITRM20100569, GB2483621, EP2269701, EP2260821, EP1927332, EP1683505, EP1670553, EP1541112, EP1447071, DE202013010263, DE202013003859, DE202009008083, DE202009006985, DE202008012420, DE202008010328, DE202007014078, DE10306817, DE102013007131, DE102013007131, DE102010012676, DE102008016344, DE102008004057, DE102007055060, DE102007055060, DE102007029311, CN104492031, CN102573750, AT513954, AT513954, AT411732,

Abstract:

A device and method is shown for invoking a muscle's natural involuntary, reflexive response or stretch reflex by imparting a sudden increase in load on the muscle over a defined period of time from a predetermined base load at which the muscle has assumed a baseline tonus, and over a predetermined amplitude of motion. The muscle is stimulated by cycling the load with a frequency of between 1 and 60 Hz, or more preferably between 10 and 30 Hz, and an amplitude of displacement of the muscle between 2 and 50 mm, or more preferably between 5 and 10 mm. The force input to the muscle can be provided by either the mass of the body to which the muscle is connected or by an external mass or resistance to motion. A seesaw platform can be oscillated in a vertical direction at the correct frequency and amplitude. Alternatively, a surface adapted to be fixed to a portion of the body can be oscillated relative to an external mass or other element that resists motion due to gravitational, frictional or inertial forces.

FIG. 1A

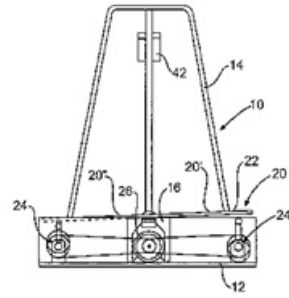
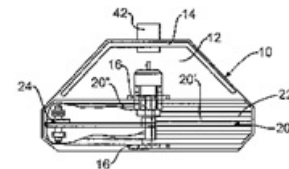


FIG. 2A

**63) Family number: 47034095 (US2010255969A)**

© PatBase

Title: COMBINED PUSH PAD AND FIXED HANDLE ACCESSORY FOR USE WITH ELLIPTICAL CROSS TRAINING EXERCISE MACHINE

Priority: US20090167187P 20090407 US20100755901 20100407

Publication number	Publication date	Application number	Application date
US2010255969 AA	20101007	US20100755901	20100407
US7998044 BB	20110816	US20100755901	20100407

Probable Assignee: LONG CASEY L

Assignee(s):(std): LONG KIM

Assignee(s): LONG CASEY L

Inventor(s):(std): LONG KIM

Agent(s): JOSEPH S HEINO ESQ DAVIS AND KUELTHAU SC; JOSEPH S; PATRICK M

International class (IPC 8-9): A63B26/00 (Advanced/Invention)

CPC: A63B22/001 A63B22/0664 A63B69/0057 A63B2022/067 A63B2225/093

European class: A63B22/06E A63B69/00N4 K63B22/00A6 K63B22/06E2 K63B225/09H

US class: 482/141 482/141P

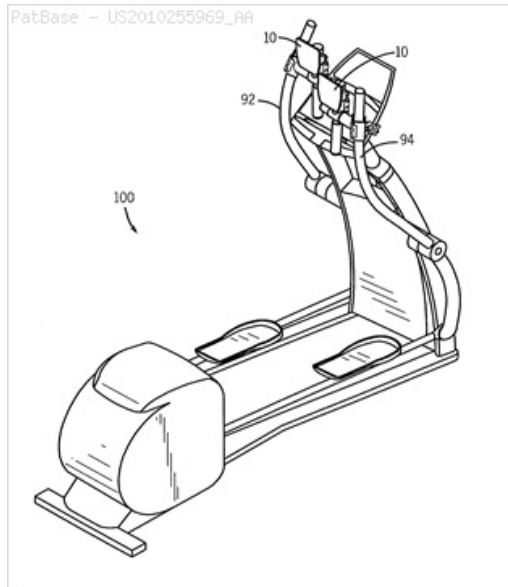
[Classification Explorer](#)

Cited documents: US7172535 BB, US7172535 B1, US6500099 BA, US5755652 A, US5143372 A, US4836531 A, US4720103 A, US4614338 A, US4508341 A, US2521649 A, US2010216616 AA, US2010197466 AA, US1548849 A,

Forward Citations: USD801451, US9352183, US8529416, US2015065310, US2010216616,

Abstract:

An accessory device for use with an elliptical cross training machine comprises two like-configured attachments, each of which generally comprises a handle attachment bracket, a substantially horizontal stabilizer bar, a combined palm push pad/handle attachment bracket, a fixed handle, and a push palm pad. The fixed handle and the palm pad are fully and rotatably movable around and about the stabilizer bar. Each is also longitudinally movable along the stabilizer bar to provide inward and outward movement of the fixed handle and the push palm pad relative to the original handle positions of the elliptical cross trainer to which they are attached. The accessory device allows the user to have a combined platform to push from, in a form that is similar to doing a push up from the floor, as well as a fixed point handle that presents to the user at a more natural shoulder angle.



64) Family number: 30981097 (US2001036886A)

© PatBase

Title: Variable stride elliptical exercise apparatus

Priority: US19920971194 19921104 US19970871371 19970609 US19990246889 19990208
US19990416122 19991012 US20000693195 20001023 US20000733712 20001211
US20010886696 20010622

Family:	Publication number	Publication date	Application number	Application date
	US2001036886 AA	20011101	US20010886696	20010622
	US2002019298 AA	20020214	US20000733712	20001211
	US5295892 A	19940322	US19920971194	19921104
	US5957814 A	19990928	US19970871371	19970609
	US6024676 A	20000215	US19990246889	19990208
	US6168552 BA	20010102	US19990416122	19991012
	US6422977 BA	20020723	US20000693195	20001023
	US6440042 BB	20020827	US20000733712	20001211
	US6612969 BB	20030902	US20010886696	20010622

Probable Assignee: JANIN GROUP INC

Assignee(s):(std): SHOW ME BALLOONS

Assignee(s): SHOW ME BALLONS INC ; CONVERTIDORA INDUSTRIAL DE CV RI DE LA LOZA SA ; CONVERTIDORA INDUSTRIAL SA DE CV ; EAGLE BANK AND TRUST CO ; ESCHENBACH PAUL WILLIAM ; JANIN GROUP INC ; KOLODY FRANKLIN

Inventor(s):(std): ESCHENBACH PAUL WILLIAM ; FELTON RICK L

International class A63B22/12 A63B23/04 A63H27/10 (Advanced/Invention);
(IPC 8-9): A63B21/005 A63B23/035 (Advanced/Non-invention)

International class A63B22/00 A63B22/04 A63B26/00 A63B69/16 A63H3/06
(IPC 1-7):

CPC: A63B21/0053 A63B22/001 A63B22/0015 A63B22/0023 A63B22/0664 A63B2022/002 A63B2022/0676
A63B2022/06 A63B22/205 A63H27/10 A63H2027/1025 A63H2027/1041 A63H2027/1083

European class: A63B22/00A6 A63B22/00B A63B22/00B4 A63B22/06E A63H27/10 K63B21/005C K63B22/00B
K63B22/00B2P K63B22/06E4 K63B22/20T4 K63B22/20T6 K63H27/10F K63H27/10H K63H27/10V

US class: 446/220 446/224 482/142 482/142P 482/51 482/51P 482/52 482/52S 482/57

[Classification Explorer](#)

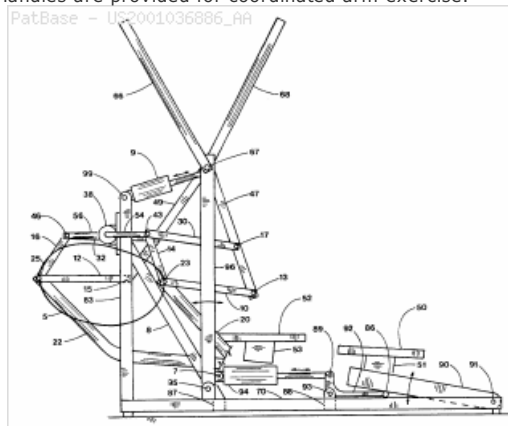
Cited documents: WO7900569 A1, US6409632 BA, US6254514 BA, US6146313 A, US6077198 A, US6045488 A, US6042512 A, US5997445 A, US5993359 A, US5957814 A, US5893820 A, US5865712 A, US5836854 A, US5800315 A, US5788610 A, US5766113 A, US5743834 A, US5692994 A, US5685804 A, US5611758 A, US5611756 A, US5593372 A, US5562574 A, US5529555 A, US5423729 A, US5383829 A, US5299993 A, US5290211 A, US5279529 A, US5242343 A, US5188558 A, US5108339 A, US4983138 A, US4917646 A, US4842007 A, US4837955 A, US4758198 A, US4708167 A, US4674532 A, US3822720 A, US3664058 A, US3491791 A, US3113551 A,

Forward Citations: WO9738252, WO9713566, WO18125840, WO17091441, WO15100426, WO14146130, WO09065177, WO08017046, WO07096701, WO07096701, WO07056136, WO07055937, WO06113282, WO05000416, WO05000416, WO04108225, WO04108224, WO0100280, WO0100280, WO0062865, USRE45963, USRE39904, USD850541, USD792530, USD633827, USD633416, USD493201, USD489101, USD478365, US9987513, US9950209, US9937378, US9937377, US9937376, US9907996, US9901774, US9868022, US9849332, US9808667, US9757609, US9724566, US9724559, US9717947, US9649529, US9643099, US9610475, US9604098, US9604096, US9597540, US9566466, US9522300, US9511255, US9511253, US9498672, US9468797, US9468795, US9457222, US9415321, US9352187, US9339685, US9339684, US9308415, US9278250, US9272182, US9248339, US9248338, US9199115, US9126654, US9108081, US9067094, US9039582, US9017223, US9011291, US8864631, US8858403, US8801580, US8795210, US8764616, US8740754, US8734299, US8696524, US8628454, US8603017, US8556779, US8454478, US8449437, US8419598, US8403815, US8376913, US8349417, US8323155, US8272997, US8235873, US8162805, US8162338, US8162337, US8147385, US8133159, US8128535, US8123707, US8123242, US8114036, US8092349, US8062188, US8062187, US8062185, US8061728, US8061727, US8057363, US8033961, US8029009, US8025609, US8021274, US8012073, US7985191, US7985165, US7976435, US7972248, US7955225, US7942787, US7938754, US7922625, US7909740, US7909739, US7901330, US7887465, US7874963, US7862482, US7833133, US7824313, US7811209, US7811206, US7794362, US7789841, US7785235, US7780577, US7775940, US7766797, US7758473, US7749137, US7744508,

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Abstract:

The present invention relates to a standup exercise apparatus that simulates walking, jogging and climbing with arm exercise. More particularly, the present invention relates to an exercise machine having separately supported pedals for the feet and arm exercise coordinated with the motion of the feet. Elliptical trainers guide the feet along a generally elliptical shaped curve to simulate the motions of jogging and climbing. Existing elliptical trainers consume excessive floorspace and often lack adjustable pedal motion. The present invention is an improved elliptical exercise machine capable of extended exercise with adjustable pedal motion. Adjustment can be automatic during operation or manual. Handles are provided for coordinated arm exercise.



65) Family number: 60953098 (US9199116B)

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Title: EXERCISE DEVICE PROVIDING ADJUSTABLE PACE LENGTH

Priority: TW20140129132 20140825

Family:

Publication number	Publication date	Application number	Application date
EP2995355 A1	20160316	EP20140187888	20141007
TW201607585 A	20160301	TW20140129132	20140825
TWI542382 B	20160721	TW20140129132	20140825
US9199116 BA	20151201	US20140497025	20140925

Probable Assignee: DYACO INT INC

Assignee(s):(std): DYACO INT INC

Inventor(s):(std): HUANG HSUAN FU ; LIU HAN LIN

Agent(s): KARAKATSANIS GEORGIOS; DONALD E; STOUT UXA AND BUYAN LLP

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

International class (IPC 8-9): A63B22/00 A63B22/04 A63B22/06 A63B22/12 A63B22/18 (Advanced/Invention); A63B21/22 A63B22/20 (Advanced/Non-invention)

CPC: A63B22/001 A63B21/225 A63B22/0015 A63B22/0664 A63B22/203 A63B2022/0676

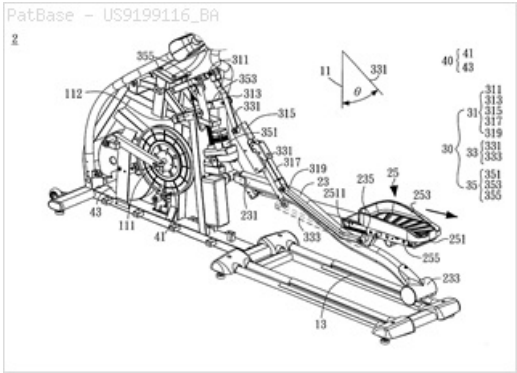
US class: 1/1

[Classification Explorer](#)

Cited documents: US8840529 BB, US8419598 BB, US8162337 BB, US7927258 BB, US7811205 BB, US7621848 BA, US6689019 BB, US6113518, US5947872 A, US5611758 A, US3432164 A, US2012322624 AA, US2008300114, US2007238580 AA, US2007042871 AA, TWM479778, TWM466686, TWM458233 Y, TWM403355 Y, TWM284406 Y, TWI294294, EP2537566 A1, DE202014101840 U1, CN203763774 U, CN201921387 U, CN201572487 U,

Forward Citations: WO18128891, TWI621463,

Abstract:
An exercise device comprises a frame, a rotational mechanism, a left and a right coupling mechanism, and a pace-adjusting mechanism. A supporting structure is upwardly extended from the front end of the frame. The rotational mechanism is arranged at the supporting structure. The left and right coupling mechanisms are arranged at a side of the supporting structure, respectively. One end of the left and right coupling mechanism couples to the rotational mechanism, and the other end respectively comprise a left and a right pedal assembly for making a moving path. The pace-adjusting mechanism comprises a left and a right linkage assembly, a left and a right swing assembly, and a driving device. The pace-adjusting mechanism can alter the pace length of the left and right pedal assembly.



66) Family number: 2356098 (DE2500591A1) © PatBase

Title: MEDICAL EXERCISING DEVICE - HAS ADJUSTABLE HEIGHT FOOT BOARD MOUNTED BETWEEN TWO SUPPORT COLUMNS

Priority: DE19752500591 19750109

Family:

Publication number	Publication date	Application number	Application date
DE2500591 A1	19760715	DE19752500591	19750109

Probable Assignee: TESTA

Assignee(s):(std): TESTA

Assignee(s): ET TESTA

International class (IPC 8-9): A63B23/04 (Advanced/Invention); A63B23/04 (Core/Invention)

International class (IPC 1-7): A63B21/04

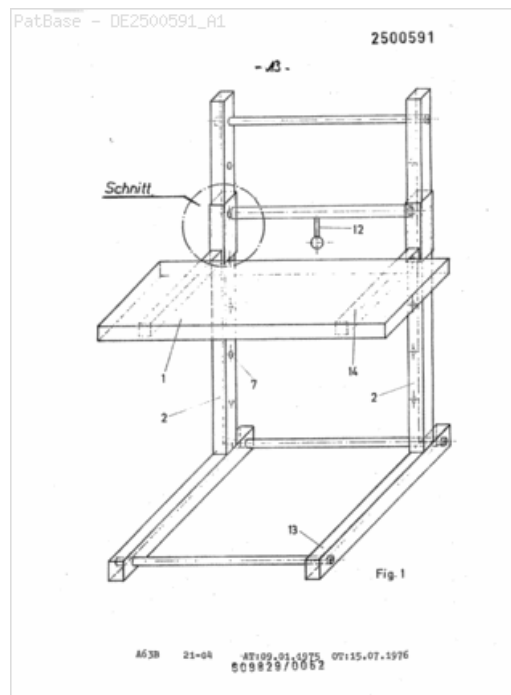
CPC: A63B23/0458

European class: A63B23/04B6

[Classification Explorer](#)

Forward Citations: US4648593, US4561652, EP0477909, CN105879296,

Abstract:
An exercising device for use medical examination are undertaken, having two parallel vertical support beams at a distance from one another having a series of holes cut into the sides of the support beams which face each other such that a foot board or step can be mounted up between the support beams in a variety of positions, has the foot board (1) constructed with guide pieces which can be attached to the support columns at a variety of heights. The guides are attached to the columns by means of stop devices which fit into the cut out holes.



67) Family number: 3250098 (FR2252108A)

© PatBase

Priority: FR19730042645 19731123

Family:	Publication number	Publication date	Application number	Application date
	FR2252108 A1	19750620	FR19730042645	19731123

Probable Assignee: REY JEAN

Assignee(s):(std): REY JEAN

Assignee(s): REY JEAN FR

International class (IPC 8-9): A61H3/00 A63B22/02 (Advanced/Invention);
A61H3/00 A63B22/00 (Core/Invention)

International class (IPC 1-7): A63B23/06

CPC: A63B21/00181 A63B22/0023 A63B22/0235 A63B69/0064 A63B2022/0094 A63B2210/50 A63B2225/09
A63B21/4005 A63B21/4007 A63B22/025

European class: A61H3/00H A63B22/02 K63B22/02B2A

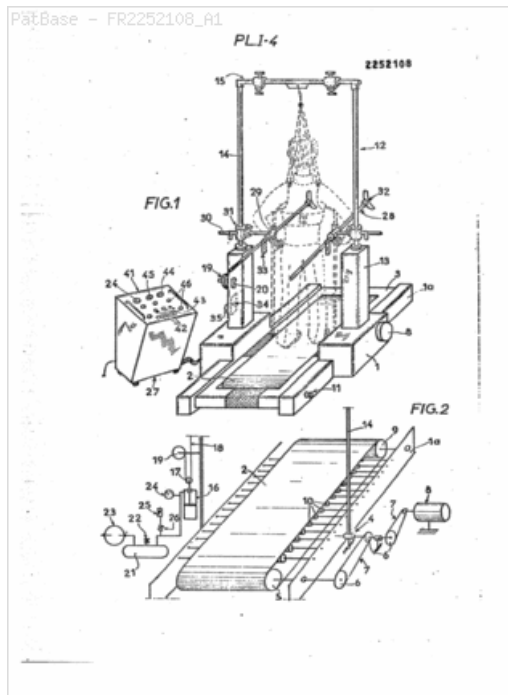
[Classification Explorer](#)

Forward Citations: WO9314733, WO9305847, US6348025, US6273844, US6146315, US5830162, US5667461, US5626540, US5273502, FR2645753, FR2501502, EP0394146, EP0304538, EP0304538, EP0272786, EP0002188, AU681072,

Abstract:

Source: FR2252108A [FR] (Claim 1) 1 - Appareil de redaction musculaire, de traitement et d'entrainement du corps humain, caracterise en ce qu'il comprend un batt; un tapis sans fin sur lequel se place le patient en position debout, le dit tapis etant monte sur des rouleaux ou moyens analogues porteurs et entraineurs, avec un systeme moteur d'entrainement a vitesse regulable; un systeme support a cable ou moyen analogue et poulie de renvoi, une extremite du cable etant equipee pour soutenir -le patient en allégeant a volonte la charge de corps en appui sur le tapis au moyen d'un systeme pneumatique progressif et regulable qui agit en tension controlee sur le cable. -

Machine translation: (Claim 1) 1 - Reducer unit muscle, treatment and training of the human body, characterized in that it comprises a batt, an endless belt on which to place the patient in an upright position, the said belt being mounted on rollers or the like carriers and coaches, with a system of motor adjustable speed drives, has a support system or the like cable and pulley, one end of the cable is equipped to support the patient- reducing the burden of a willingness to support the body on the mat with a progressive and adjustable pneumatic system which acts on the controlled tension cable. -

**68) Family number: 922100** (US3529474A)

© PatBase

Title: CARDIAC EXERCISER**Priority:** US19680781492 19681205

Family:	Publication number	Publication date	Application number	Application date
	US3529474 A	19700922	US19680781492	19681205

Probable Assignee: ALBERT M OLSON**Assignee(s):(std):** ALBERT M OLSON ; EVERETT H JOHNSON**Inventor(s):(std):** JOHNSON EVERETT H ; OLSON ALBERT M**Inventor(s):** ALBERT M OLSON ; EVERETT H JOHNSON**International class**
(IPC 8-9): A63B21/008 A63B23/04 (Advanced/Invention);
A63B23/035 (Advanced/Non-invention)**International class**
(IPC 1-7): G01L5/02**CPC:** A61B5/0402 A61B5/222 A63B21/008 A63B21/0083 A63B22/205 A63B69/0057 A63B2071/0633
A63B2208/0204 A63B2220/56 A63B2230/04 A63B2230/75**European class:** A61B5/22B2 A63B21/008B2 A63B22/20T4 K61B5/0402 K63B208/02B K63B21/008 K63B220/56
K63B230/04 K63B230/75 K63B69/00N4 K63B71/06D2A6**US class:** 482/113 73/379.09[Classification Explorer](#)**Cited documents:** US747294 A, US3375717 A, US3323366 A, US3301553 A, US2784591 A,**Forward Citations:** WO9325281, WO8602008, USRE42698, USRE34959, USRE34212, USD527060, US7645214, US7553260,
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US4493485, US4146222, US3970302, US3758112, US2008051684, US2005209060, FR2713096,
EP0155415, EP0073744, EP0057609,**Abstract:****ABSTRACT OF THE DISCLOSURE**

An exercising ergometer. A pair of handrails and a central column are supported on a base. In the column are a pair of hydraulic cylinders, each having a piston and a connecting rod, and a pedal on each side of the column 15 is connected to one connecting rod. There is means for limiting the stroke of each piston and of the pedal associated therewith. An hydraulic circuit connects the two cylinders and includes (a) load valve means for controlling the pressure transmitted, for causing one pedal 20 to rise when the other is depressed and (b) means for measuring the work expended in moving the pedals.

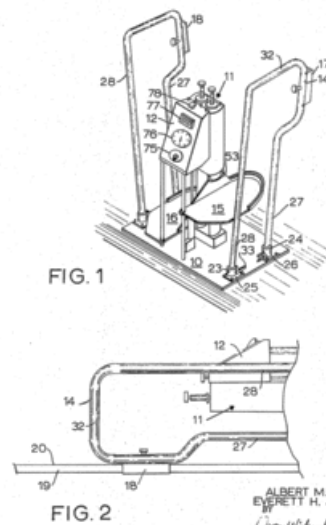
Sept. 22, 1970

A. M. OLSON ET AL
CARDIAC EXERCISER

3,529,474

Filed Dec. 8, 1968

3 Sheets-Sheet 1


 INVENTOR
 ALBERT M. OLSON
 EVERETT H. JOHNSON
 ATTORNEYS
69) Family number: 34208101 (US2007037667A)

© PatBase

Title: EXERCISE DEVICE

Priority: US20050707026P 20050811 US20060501780 20060810 US20090591672 20091127
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Family:

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Probable Assignee: EXERCITING LLC

Assignee(s):(std): EXERCITING LLC ; GORDON JOEL D ; OLSCHANSKY SCOTT M ; ROSS GLENN D ; OLSCHANSKY BRAD R ; ABELBECK KEVIN G

Assignee(s): EXERCITING LLC ; EXERCITING LLC MARIETTA

Inventor(s):(std): JOEL D GORDON ; SCOTT M OLSCHANSKY ; KEVIN G ABELBECK ; BRAD R OLSCHANSKY ; GLENN D ROSS ; OLSCHANSKY BRAD R ; ABELBECK KEVIN G ; OLSCHANSKY SCOTT M ; ROSS GLENN D ; GORDON JOEL D

Inventor(s): GORDON JOEL ; GORDON JOEL D OWINGS MILLS ; ABELBECK KEVIN G FORT COLLINS ; ROSS GLENN D CANTON ; OLSCHANSKY SCOTT M MARIETTA ; OLSCHANSKY BRAD R MARIETTA

Agent(s): ADE AND CO INC; VOSSIUS AND PARTNER PATENTANWAELTE RECHTSANWAELTE MBB; Vossius & Partner; VOSSIUS AND PARTNER PATENTANWAELTE RECHTSANWAELTE MBB; CLT PATENT AND TRADEMARK HK LTD; ROSENBERG KLEIN AND LEE; SHERRILL LAW OFFICES PLLC; SHERILL LAW OFFICES PLLC; LEE JUN Y ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

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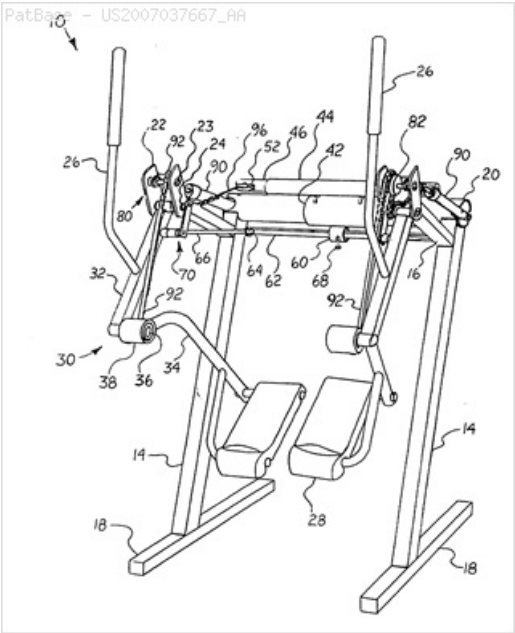
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Forward Citations: WO19011716, WO18164822, WO17116765, WO16191581, WO16092498, WO15134693, WO12120299, WO12056454, WO12056454, WO11140216, USD850541, USD795975, USD795974, USD795973, USD742977, US9993680, US9968824, US9937380, US9931257, US9907721, US9901774, US9776034, US9757614, US9691304, US9682279, US9682277, US9579537, US9421144, US9364708, US9358420, US9272180, US9144705, US9050491, US8992390, US8740755, US8409058, US8171570, US8109861, US8093731, US8060945, US8013457, US7993247, US7887464, US7833134, US7780577, US7747355, US7591772, US7559882, US7445583, US2018221708, US2017340914, US2017274248, US2017266487, US2017144016, US2017087403, US2017053569, US2016151664, US2016008195, US2015202489, US2015141207, US2015051519, US2014287887, US2012277064, US2011039662, US2010152001, US2009124472, US2008294080, US2008287850, US2008200316, US2008157636, US2008157635, US2008157615, US2008157536, US2008150495, US2008150493, US2008150378, US2008093517, US2008020902, US2008004163, US10299981, US10293211, US10279212, US10272317, US10258828, US10252109, US10251805, US10220250, US10207148, US10188890, US10143877, US10105569, US10052516, US10052515, US10052513, US10046197, TWI649109, TWI511761, RU2606944, KR101265918, JP2014507239, EP3086866, EP2842610, EP2842610, EP2842610, EP2289602, CN105167965, CN105167965, CN104606850, CN104606850, CN103533992, CN103533992, CN103025389, CN103025389, AU201226547,

Abstract:
An exercise device upon which a user generally standing upright supported by foot platforms suspended from a frame via linkages in which the linkage lengths and pivot points correspond generally to the users upper and lower legs and hip and knee joints. This device not only allows natural free and spontaneous leg movement, able to simulate such exercises as walking, jogging, running, stepping, skiing or gliding, bicycling, climbing, reverse action and various isolated leg exercises, where the exercises can be performed at random generally without the need to reconfigure the device. This device preferably includes an isolation system capable of simulating natural forces throughout the entire range of movement in the horizontal and/or vertical plane. A safety/suspension system can be provided, alone or in combination with the isolation system, to resist sudden foot movement in the same direction, yet allows a slow and controlled tilting of the linkages whereby the user may simulate uphill and

downhill travel.



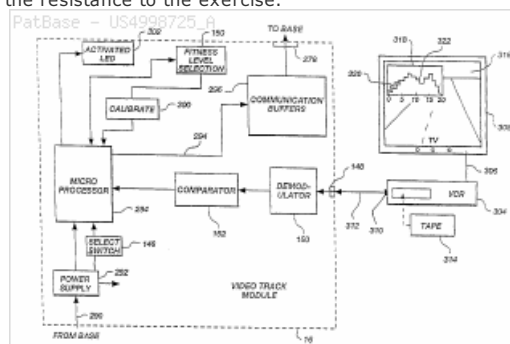
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Probable Assignee:	ICON IP INC				
Assignee(s):(std):	PROFORM FITNESS PRODUCTS INC ; ICON HEALTH AND FITNESS INC ; PROFORM FITNESS PROD INC				
Assignee(s):	ICON ALTRA LLC ; ICON DU CANADA INC ; ICON INT HOLDINGS INC ; UNIVERSAL TECHNICAL SERVICES ; ICON IP INC ; ICON IP INC A DELAWARE CORP ; WILMINGTON TRUST FSB COLLATERAL AGENT AS ; PROFORM FITNESS PRODUCTS INC A CORP OF UTAH ; PROFORM FITNESS PRODUCTS INC A OF UT CORP ; PROFORM FITNESS PRODUCTS INC A CORP UTAH ; PROFORM FITNESS PRODUCTS INC A CORP OF UT ; BACK BAY CAPITAL FUNDING LLC ; BANK OF AMERICA NA ; BANK OF AMERICA NA ADMINISTRATIVE AGENT AS ; CITICORP NORTH AMERICA INC ; FIRST NATIONAL BANK OF BOSTON ; GENERAL ELECTRIC CAPITAL CORP ; CITICORP NORTH AMERICA INC A DE CORP ; GENERAL ELECTRIC CAPITAL AGENT AS CORP ; GENERAL ELECTRIC CAPITAL INDIVIDUALLY AND AGENT FO ; GENERAL ELECTRIC CAPITAL INDIVIDUALLY AND AGENT FOR LENDERS AS CORP ; FREE MOTION FITNESS INC ; HF HOLDINGS INC				
Inventor(s):(std):	BINGHAM CURT C ; BINGHAM CURT G ; BREWER DANE P ; WATTERSON SCOTT R ; STANDING DONALD J ; ROWLEY DAVID R ; ROBERTSON LEE ; DALEBOUT WILLIAM T ; BURK MICHAEL ; BERSONNET GEORGE B				
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US2008077489, US2008064571, US2008051261, US2008051256, US2007281828, US2007243974, US2007232455, US2007232453, US2007232451, US2007232450, US2007225120, US2007225119, US2007207447, US2007203004, US2007167292, US2007167291, US2007161466, US2007149364, US2007117680, US2007093360, US2007060898, US2007042868, US2007027003, US2006240947, US2006223681, US2006205569, US2006189440, US2006183602, US2006160667, US2006079800, US2006073449, US2006046905, US2006035774, US2006009332, US2006003872, US2005238182, US2005233861, US2005215397, US2005209061, US2005209056, US2005209052, US2005187704, US2005164839, US2005164838, US2005159712, US2005148443, US2005148442, US2005131319, US2005075213, US2005054492, US2005037898, US2004248713, US2004229730, US2004214693, US2004171465, US2004162189, US2004162188, US2004127335, US2004117214, US2004116899, US2004054350, US2003224337, US2003211916, US2003171192, US2003153436, US2002165067, US2002151413, US2002077219, US2002045519, US2002016235, US2001049320, 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Abstract:

A control console for exercise machines such as treadmills and stationary cycles having a microprocessor to generate signals to control the exercise and to regulate the heart rate of the user by varying the resistance to the exercise.



71) Family number: 51593104 (US2012190513A)

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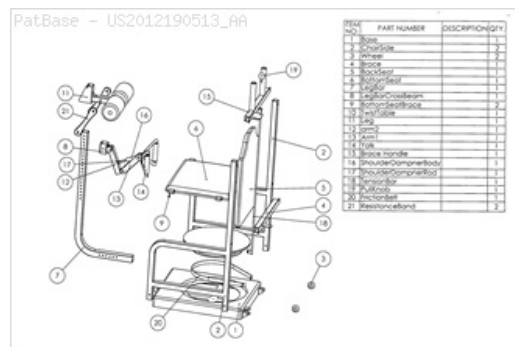
Title: ACTIVE ACTIVATOR A
Priority: US20110461678P 20110121 US20120356091 20120123
Family:

Publication number	Publication date	Application number	Application date
US2012190513 AA	20120726	US20120356091	20120123

Probable Assignee: BONDS JERRY
Assignee(s):(std): BONDS JERRY
Inventor(s):(std): BONDS JERRY
International class (IPC 8-9): A63B21/012 (Advanced/Invention)
CPC: A63B23/0405 A63B21/008 A63B21/4031 A63B21/4033 A63B23/03516 A63B23/085 A63B2210/50 A63B2225/09 A63B2230/04
European class: A63B21/008 A63B21/14K2M A63B21/14K4 A63B23/035C A63B23/04B A63B23/08B K63B210/50 K63B225/09 K63B230/04
US class: 482/114 482/114P
[Classification Explorer](#)
Cited documents: US8512210 BB, US7621860 BB, US2013157818 AA, US2011105277 AA,
Forward Citations: US9713738, US9687693, US2016089564, US2016016033,

Abstract:

The present invention provides a new innovated exercise machine comprising a universal exercise machine designed with extreme ergonomic designs with dimensions less than 34 inches square and no high than 6 inches when compacted and a total weight under 60 pounds. The device is cleverly designed for easy and quick break down for storage under the bed, closet or in any corner of any room.

**72) Family number: 12416106** (US5496241A)

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Title: EXERCISE MACHINE
Priority: US19940279911 19940725
Family:

Publication number	Publication date	Application number	Application date
US5496241 A	19960305	US19940279911	19940725

Probable Assignee: SELLERS TYRONE D
Assignee(s):(std): SELLERS TYRONE D
Inventor(s):(std): SELLERS TYRONE D
International class (IPC 8-9): A63B21/22 A63B22/08 (Advanced/Invention); A63B21/00 A63B21/015 A63B69/06 (Advanced/Non-invention); A63B21/00 A63B22/06 (Core/Invention); A63B21/012 A63B69/06 (Core/Non-invention)
International class (IPC 1-7): A63B21/015 A63B22/00 A63B69/06 A63B69/18
CPC: A63B22/0605 A63B69/182 A63B21/015 A63B21/157 A63B21/225 A63B22/0012 A63B22/0056 A63B22/0076 A63B22/203 A63B23/12 A63B2022/0038 A63B2210/50
European class: A63B21/15G A63B21/22F A63B22/00A6S A63B22/00P6 A63B22/00R A63B22/08 A63B22/20T2 A63B69/18C K63B21/015 K63B210/50 K63B22/00C8 K63B23/12
US class: 482/110 482/119 482/123 482/142 482/51 482/53 482/64 482/70 482/73
[Classification Explorer](#)

Cited documents:

WO8601735 A1, US5401226 A, US5299992 A, US5290211 A, US5195937 A, US5160305 A, US5135458 A, US5112287 A, US5110118 A, US5108093 A, US5090694 A, US4934695 A, US4911436 A, US4880227 A, US4856775 A, US4801139 A, US4796882 A, US4792135 A, US4733858 A, US4728101 A, US4717148 A, US4709923 A, US4709918 A, US4705267 A, US4684121 A, US4564193 A, US4537396 A, US4509742 A, US4479646 A, US4257593 A, US4140312 A, US4082264 A, US4072309 A, US4023795 A, US3966201 A, US3494616 A, US3387843 A,

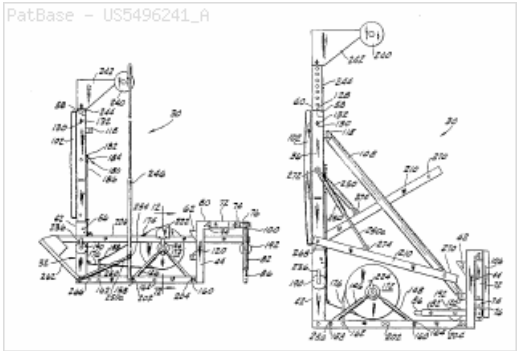
Forward Citations:

USD637664, USD477040, US8012073, US7927257, US7862489, US7104939, US7008358, US6702722, US5961423, US2014274621, US2010099541, US2009239714, US2008300113, US2008207406, US2008015095, US2007211980, US2003181298, FR2840881,

Abstract:

An exercise machine of the present invention is transformable between a first mode for simulating an activity such as skiing or rowing involving reciprocating linear motion and a second mode for simulating a cycling activity. The exercise machine comprises a frame, a shaft operatively connected to the frame for rotation about a shaft axis, a flywheel secured to the shaft and rotatable

therewith, and a runner. A drive roller is operatively connected to the frame and is engageable with the runner such that forward or rearward movement of the runner causes the drive roller to rotate. A one-way clutch operatively connects the drive roller to the shaft so that the drive roller when rotated in a first direction causes rotation of the flywheel, and is free wheeling when rotated in a second opposite direction. A pair of offset cranks are operatively connectable to the shaft and a pair of foot pedals are connected to the cranks. The exercise machine is operable in the first mode such that rearward movement of the runner causes rotation of the flywheel and forward movement of the runner rotates the roller independent of the rotation of the flywheel. Rotation of the cranks in the first mode causes rotation of the flywheel.



73) Family number: 40798107 (US2007258329A)

Title:

METHOD AND APPARATUS FOR THE EXPLOITATION OF PIEZOELECTRIC AND OTHER EFFECTS IN CARBON-BASED LIFE FORMS

Priority:

US20050044961 20050127 US20060518614 20060713

Family:

Publication number	Publication date	Application number	Application date
US2007258329 AA	20071108	US20060518614	20060713

Probable Assignee:

WINEY TIMOTHY

Assignee(s):(std):

WINEY TIMOTHY

Inventor(s):(std):

WINEY TIMOTHY

Agent(s):

BROWN AND MICHAELS PC, 400 M AND T BANK BUILDING; BROWN AND MICHAELS PC 400 M AND T BANK BUILDING

International class (IPC 8-9):

B06B1/06 (Advanced/Invention); B06B1/06 (Core/Invention)

CPC:

A63B53/10 A63B53/04 A63B60/00 A63B2209/00

European class:

A63B53/04 A63B53/10 B06B1/06 K63B209/00

US class:

367/140 367/140P

Classification Explorer

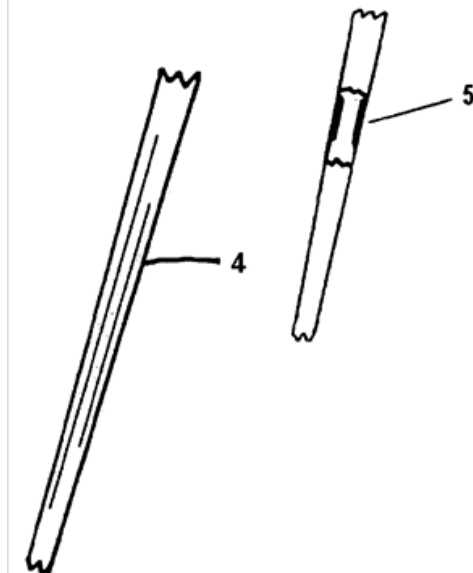
Cited documents:

US6845552 BB, US5601501 A, US2008254911 AA, US2008051213 AA, US2007155535 AA,

Forward Citations:

WO15016959, WO10126669, WO10126669, WO10052660, US9987743, US9974594, US9873196, US9862092, US9861830, US9840003, US9724531, US9717926, US9636518, US9555145, US9532826, US9526679, US9504845, US9463331, US9446515, US9426946, US9406421, US9364950, US9288886, US9287091, US9272359, US9176602, US9028656, US8994270, US8878434, US8834462, US8711146, US8690705, US8666547, US8575843, US8241648, US8222822, US7839147, US2016058680, US2015157871, US2014362025, US2011208036, US2011004968, US2010292836, US2010246901, US2009105525, US2009102480, US2008213324, US10244114, US10224136, US10213921, US10166675, US10155925, US10130044, US10128568, US10102955, US10091358, US10083786, US10069972, US10008319, RU2618444, RU2555662, CN102176349,

Abstract:
The invention promotes piezoelectric effects in carbon-based life forms using specific geometries, ratios, frequencies and combinations therein using associated vibrational states functioning in part, as bi-directional holographic transducers between the acoustic and electromagnetic domains.

**74) Family number: 41911108** (US2008139366A)

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Title: RECUMBENT ELLIPTICAL EXERCISE DEVICE WITH APPARATUS FOR ELONGATED STRIDE
Priority: US20060874279P 20061212 US20070726147 20070321

Family:

Publication number	Publication date	Application number	Application date
US2008139366 AA	20080612	US20070726147	20070321

Probable Assignee: SCIFIT SYSTEMS INC

Assignee(s):(std): BORN LAWRENCE L ; DISLER RICHARD C

Assignee(s): SCIFIT SYSTEMS INC

Inventor(s):(std): BORN LAWRENCE L ; DISLER RICHARD C

Agent(s): WILLIAM S DORMAN 830 BEACON BUILDING

International class A63B22/04 (Advanced/Invention);
 (IPC 8-9): A63B22/00 (Core/Invention)

CPC: A63B22/0046 A63B22/0664 A63B22/16 A63B2022/0676 A63B2208/0204 A63B2208/0238

European class: A63B22/06E K63B208/02B K63B208/02E4 K63B22/00D K63B22/06E4 K63B22/16

US class: 482/52

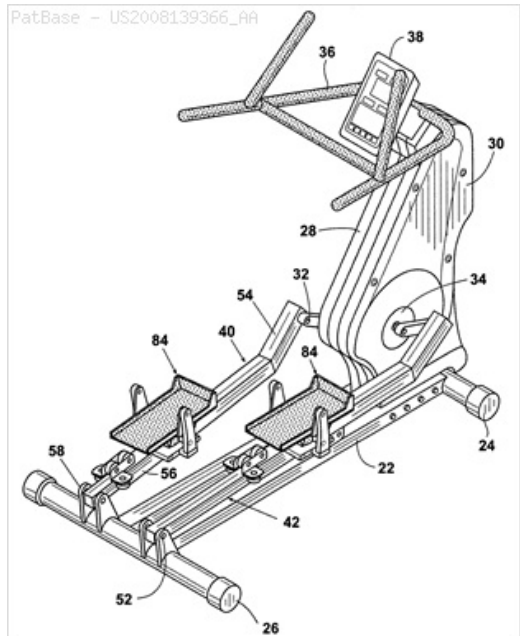
[Classification Explorer](#)

Cited documents: US7226392 BB, US7179201 BB, US7169089 BB, US7169088 BB, US7147287 BB, US7041036 BA, US6932745 BA, US6908416 BB, US6277056 BA, US6168553 BA, US6159132 A, US6042518 A, US5957814 A, US5916065 A, US5611758 A, US5518473 A, US2004259692 AA, US2002155927 AA,

Forward Citations: US9974998, US9610475, US9539464, US9468797, US9289647, US8562491, US7771324, US7594877, US2015343265, US2015065303, US2014038789, US2011028277, US2007219063, US10086227, EP2241302, EP2241302, CN105080049, CN103100186, CN103100186,

Abstract:

An aerobic exerciser with elongated stride comprising a frame, a seat supported from the frame, a bell crank, a left telescoping pedal rail rotatably attached to the left side of the bell crank at one end and pivotally attached to the frame at the other end, and a right telescoping pedal rail rotatably attached to the right side of the bell crank at one end and pivotally attached to the frame at the other end. In operation, under the weight of the user, each pedal, supported by a pedal rail follows a generally elliptical path in response to rotation of the bell crank. Vertical movement of a telescoping pedal rail is accommodated by the pivot and horizontal movement of the pedal rail results in extension and retraction of the pedal rail.



75) Family number: 11237111 (US5230674A)

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Title: COMBINATION EXERCISER AND BAGGAGE CARRIER

Priority: US19920992380 19921217 US19920992432 19921217

Family:	Publication number	Publication date	Application number	Application date
	US5230674 A	19930727	US19920992380	19921217
	US5230676 A	19930727	US19920992432	19921217

Probable Assignee: TERAUDS JURIS

Assignee(s):(std): TERAUDS JURIS

Inventor(s):(std): TERAUDS JURIS

International class (IPC 8-9): A45C 13/38 A63B23/04 (Advanced/Invention);
A45C 13/26 A63B21/008 A63B21/02 A63B21/05 A63B21/055 A63B22/02 A63B23/035 A63B71/02 (Advanced/Non-invention);
A45C 13/00 A63B23/04 (Core/Invention);
A63B21/008 A63B21/02 A63B22/00 A63B23/035 A63B71/02 (Core/Non-invention)

International class (IPC 1-7): A63B22/04

CPC: A63B21/4043 A63B21/4047 A63B21/0004 A63B21/0083 A63B21/023 A63B21/028 A63B21/0421 A63B21/0442 A63B21/05 A63B21/055 A63B21/154 A63B23/0355 A63B23/03575 A63B23/0429 A63B2208/0228 A63B21/0552 A45C 13/262 A45C 13/385 A63B21/4035 A63B22/0012 A63B22/0056 A63B22/0076 A63B22/02 A63B23/03541 A63B23/047 A63B23/1209 A63B23/1263 A63B2022/0079 A63B2071/025 A63B2208/0204 A63B2208/0238 A63B2210/50 A63B2225/30

European class: A45C 13/38R A63B21/00D A63B21/00D2 A63B21/055D A63B21/14M2 A63B21/14M6 A63B21/15F6 A63B22/00A6S A63B22/00P6 A63B22/00R A63B22/02 A63B23/035G A63B23/04B10 A63B23/04B4 A63B23/12D K45C 13/26W K63B208/02B K63B208/02E K63B208/02E4 K63B21/008B2 K63B21/02B K63B21/02F K63B21/04B4 K63B21/04C K63B21/05 K63B21/055 K63B210/50 K63B22/00R2 K63B22/02 K63B225/30 K63B23/035F K63B23/035G K63B71/02S1R

US class: 482/148 482/52 482/53 482/79

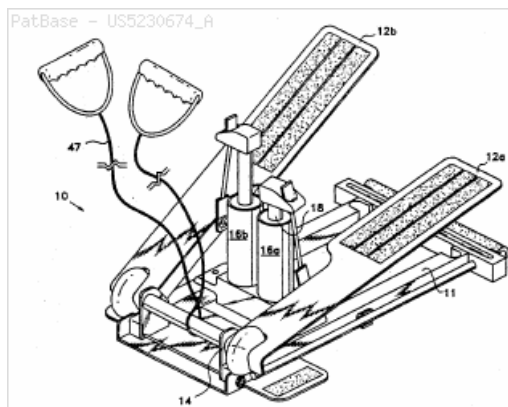
[Classification Explorer](#)

Cited documents: US4824167 A, US4570958 A, US4563001 A, US4426099 A, US4371160 A, US4248453 A, US3970302 A, US3814420 A, US3792860 A, US3758112 A, US3756595 A, US3747924 A, US3628791 A, US3572758 A, US3511500 A, US3295847 A, US3197226 A, US3022071 A, US1909190 A, FR2002808 A1, EP0073744 A1, DE2428515 A1, DE2261989 A1, CA923517 A1,

Forward Citations: WO17052592, WO09042255, USD684222, USD561849, USD519583, USD514635, USD496700, USD481085, USD466567, USD465001, USD461211, USD456052, USD431619, US9649522, US9016000, US8979712, US8550243, US8246522, US8167620, US8052581, US7901331, US7824315, US7775936, US7771327, US7713182, US7713178, US7628743, US7614978, US7520840, US7503883, US7198592, US7169094, US7156776, US7115079, US6585274, US5916065, US5690597, US5676627, US5632708, US5575742, US5409449, US5348520, US2014162860, US2014113774, US2013231228, US2013219816, US2012108397, US2011015043, US2010300906, US2009270230, US2009163325, US2009011906, US2008248937, US2008103031, US2008045386, US2007254783, US2007155600, US2007054789, US2006258519, US2006199703, US2006135330, US2006089240, US2005124471, US2004220019, US2004204294, US2004072663, US2004043873, US2003216221, RU2670696, RU2670696, GB2494404, EP2620185, EP2620185, EP1855764, EP1855764,

Abstract:

A combination exerciser and baggage carrier having a rigid, main frame (11), force resistive pistons (17), force engaging plates (12a-b), handle portion (37), wheels (36), and a load supporting plate (32), is capable of selective engagement of either operational mode. The exerciser may be embodied as any number of cardiovascular workout devices, including stair stepping simulator (10), rowing machine simulator (40), walking/running simulator (50), and weight lifting machine (60). The baggage carrier is of the type used in areas catering to mass transportation travels, such as airports, and bus and train depots, and may similarly vary in embodiments, from standard two-wheeled carrier (30) to a multiple wheeled, horizontal push cart. The exerciser/baggage carrier is designed to tote one's baggage conveniently, then when such service is no longer required it is capable of space saving compaction, until when an opportunity arises, such as in a hotel room, office, park, etc., the present invention may be converted to an exerciser suitable for facilitating a substantial cardiovascular workout.



76) Family number: 60449114 (US9144706B)

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Title: EXERCISE APPARATUS

Priority: US2011051881P 20110512 US20120469225 20120511

Family:	Publication number	Publication date	Application number	Application date
	US9144706 BA	20150929	US20120469225	20120511

Probable Assignee: MARESH JOSEPH D

Assignee(s):(std): MARESH JOSEPH D ; STEARNS KENNETH W

Inventor(s):(std): MARESH JOSEPH D ; STEARNS KENNETH W

Agent(s): NICK A

International class (IPC 8-9): A63B22/00 A63B22/04 A63B22/06 (Advanced/Invention)

CPC: A63B22/04 A63B22/0664 A63B22/067 A63B21/00069 A63B21/0083 A63B21/0085 A63B21/012 A63B21/225 A63B22/001 A63B22/0017 A63B22/0056 A63B24/0087 A63B22/002

US class: 1/1

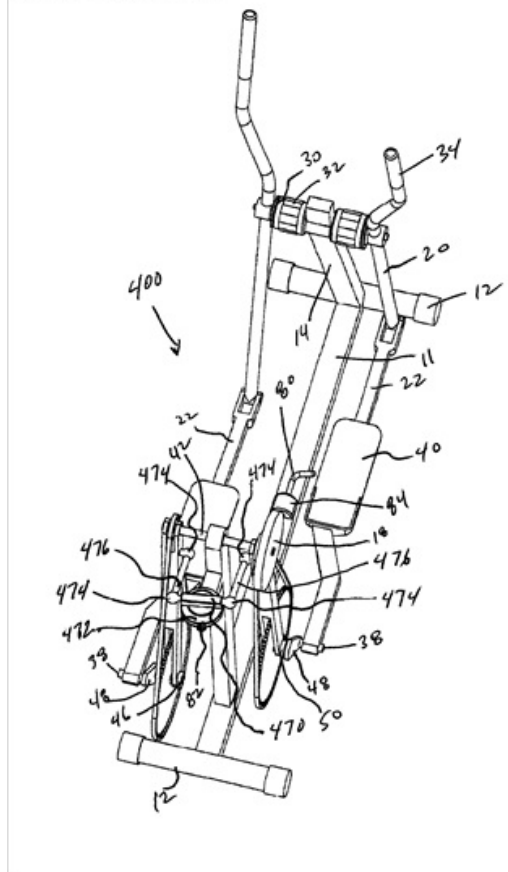
[Classification Explorer](#)

Cited documents: US8292789 BB, US7918766 BB, US7670268 BA, US7344480 BB, US7341542 BB, US7153239 BA, US7112161 BB, US7033305 BA, US6846273 BA, US6544146 BA, US6206804 BA, US5935046 A, US5735774 A, US5279529 A, US2648330 A, US2009291808 AA, US2009209395 AA, US2009048077 AA, US2006247103 AA, US2005043148 AA, US2002094914 AA,

Forward Citations: US9827461,

Abstract:

An exercise apparatus may provide a novel linkage assembly suitable for linking circular motion to relatively more complex, generally elliptical motion. Left and right rocker links may be rotatably mounted on a frame rotatable about a first axis. Left and right rocker linkages may be mounted on the frame rotatable about a second axis. Left and right force receiving members may be movably connected between respective rocker links and rocker linkages in such a manner that the force receiving members move through paths of motion which are fixed, adjustable or variable.

**77) Family number: 12396119** (US5492515A)

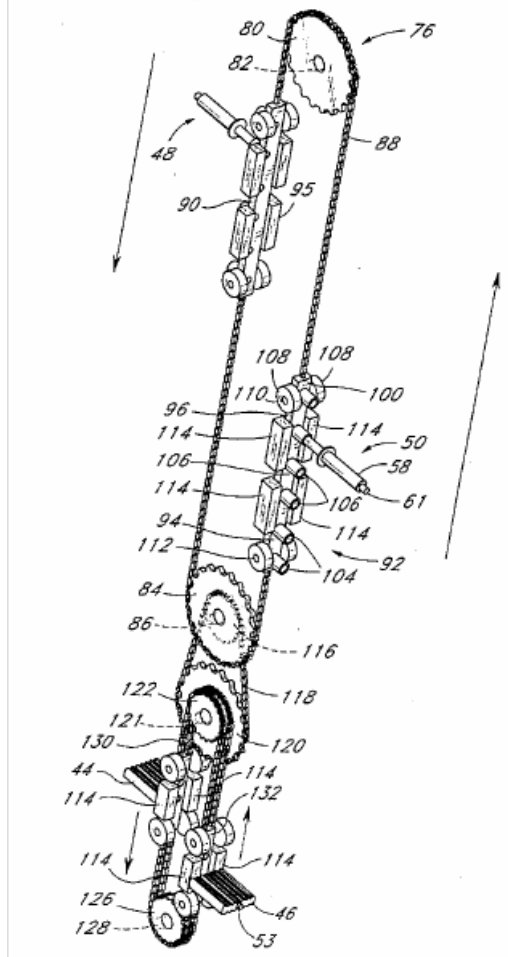
© PatBase

Title: Climbing exercise machine**Priority:** US19950396550 19950301 US19950576130 19951221

Family:	Publication number	Publication date	Application number	Application date
	US5492515 A	19960220	US19950396550	19950301
	US5679100 A	19971021	US19950576130	19951221
	WO9626763 A1	19960906	WO1996US02425	19960223

Probable Assignee: CHARNITSKI RICHARD D**Assignee(s):(std):** CHARNITSKI RICHARD D**Inventor(s):(std):** CHARNITSKI RICHARD D**Designated states:** AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE**International class**
(IPC 8-9): A63B22/12 A63B23/04 (Advanced/Invention);
A63B23/035 (Advanced/Non-invention)**International class**
(IPC 1-7): A63B1/00 A63B21/00 A63B22/12**CPC:** A63B22/001 A63B22/205 A63B2022/0043**European class:** A63B22/00A6 A63B22/20T4 K63B22/00C12**US class:** 482/37 482/51[Classification Explorer](#)**Cited documents:** WO9206746 A2, US5492515 A, US5490818 A, US5342262 A, US5256117 A, US5224909 A, US5054770 A, US5040785 A, US5000441 A, US4958830 A, US4934690 A, US4900013 A, US4830362 A, US3582069 A, US3381958 A, US3363335 A, US3216722 A, US3213852 A, US2079594 A,**Forward Citations:** WO9626763, WO11094649, USD842939, USD838789, USD837907, USD834659, USD802688, USD759169, USD438268, US9409050, US9017224, US8540609, US8348811, US8021285, US7534197, US7387593, US7294095, US6929587, US6702722, US6623406, US6296597, US6155959, US5928115, US5679100, US2015238806, US2010204018, US2010125032, US2010093501, US2009203504, US2009137370, US2009075784, US2009048074, US2008139370, US2007238583, US2005250626, US2005148437, US2005037902, US2003087730, US2002128121, US10293211, US10279212, US10252109, US10188890, US10179260, TWI650157, KR101280218, ITMC20130026, EP3470121, DE19960912, DE19921322, CN104998389,**Abstract:**

An exercise machine for simultaneous upper body exercise and lower body exercise is provided. The exercise machine has handles and pedals for climbing that move in synchronized motions in generally the same plane to simulate a vertical climbing action. The handles and pedals are interconnected such that the user of the exercise machine moves in a coordinated, synchronized climbing motion. The range of the arm movement is different than the range of the leg movement such that the exercise or work of the upper body may be different or adjustable relative to the exercise or work of the lower body.

**78) Family number: 66270124** (US2017189743A)

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Title: PEDAL ASSEMBLY FOR EXERCISE MACHINE**Priority:** US20150986068 20151231 WO2016US67268 20161216

Family:	Publication number	Publication date	Application number	Application date
	CN108697919 A	20181023	CN201680081846	20161216
	EP3397360 A1	20181107	EP20160882340	20161216
	US2017189743 AA	20170706	US20150986068	20151231
	WO17116765 A1	20170706	WO2016US67268	20161216

Probable Assignee: NAUTILUS INC**Assignee(s):(std):** NAUTILUS INC**Assignee(s):** JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS**Inventor(s):(std):** SMITH JOSHUA S ; BUSH PJ M**Agent(s):** MILLER JAMES LIONEL WOOLVERTON; WETZEL ELEN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A63B21/00 A63B22/00 A63B22/06 A63B22/12 A63B23/035 A63B23/04 (Advanced/Invention)

CPC: A63B22/0015 A63B21/4034 A63B22/001 A63B22/0046 A63B22/0664 A63B22/0676 A63B21/00069 A63B21/0051 A63B21/0058 A63B21/0088 A63B21/023 A63B21/028 A63B21/225 A63B21/4047 A63B22/203 A63B23/08 A63B71/0619 A63B2071/0694 A63B2225/68

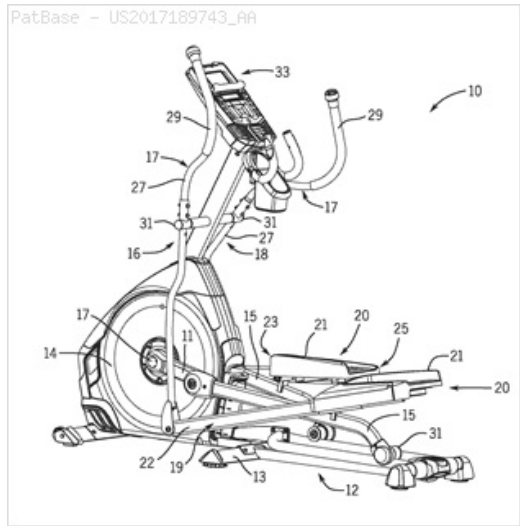
[Classification Explorer](#)

Cited documents: US7377879 BA, US6500096 BA, US5336142 A, US3628791 A, US2016296790 AA, US2011275487 AA, US2010152001 AA, US2007135268 AA, US2004266588 AA,

Forward Citations: US9849332,

Abstract:

An adjustable pedal assembly for an exercise machine, such as an elliptical trainer, may include a link and a pedal pivotally connected to the link. The pedal assembly may further include a damping assembly, which may provide dynamic damping to the pedal during use of the exercise machine. The damping assembly may be adjustable such that a user can select the level of damping. The damping assembly may include at least one resilient member configured to engage the pedal for damping pivotal movement of the pedal, and an actuator operable to select a level of damping provided to the pedal by the at least one resilient member.



79) Family number: 15007125 (US6042512A)

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Title: Variable lift cross trainer exercise apparatus

Priority: US19990361328 19990727 US20000488593 20000124 US20000550914 20000417

Family:	Publication number	Publication date	Application number	Application date
	US6042512 A	20000328	US19990361328	19990727
	US6210305 BA	20010403	US20000488593	20000124
	US6361476 BA	20020326	US20000550914	20000417

Probable Assignee: STMICROELECTRONICS SRL

Assignee(s): ESCHENBACH PAUL WILLIAM ; STMICROELECTRONICS SRL ; STMICROELECTRONICS SRL VIA C OLIVETT

Inventor(s):(std): ESCHENBACH PAUL WILLIAM

International class A63B22/12 A63B23/04 (Advanced/Invention);
(IPC 8-9): A63B23/035 (Advanced/Non-invention)

International class A63B21/00 A63B22/04 A63B22/12 A63B69/16
(IPC 1-7):

CPC: A63B22/001 A63B22/0023 A63B22/0664 A63B2022/067 A63B22/0015 A63B2022/002 A63B2022/206

European class: A63B22/00A6 A63B22/00B A63B22/00B4 A63B22/06E K63B22/00B2P K63B22/06E2 K63B22/20T6

US class: 482/51 482/52 482/57 482/70

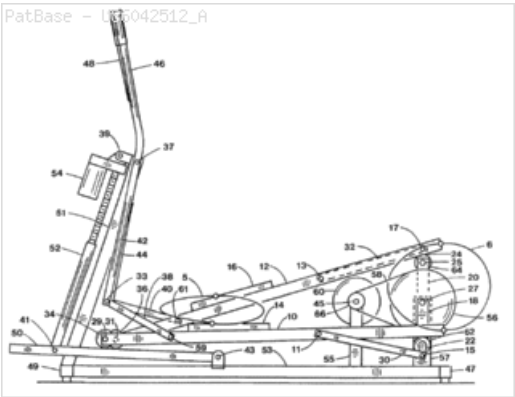
[Classification Explorer](#)

Cited documents: US6090014 A, US6077196 A, US6042512 A, US6027431 A, US5997445 A, US5993359 A, US5921894 A, US5919118 A, US5895339 A, US5893820 A, US5857941 A, US5848954 A, US5836854 A, US5788610 A, US5779599 A, US5743834 A, US5685804 A, US5242343 A,

Forward Citations: WO16195322, WO16145403, WO09036347, WO04108225, WO02078791, USD836710, USD489101, US9993684, US9724566, US9700755, US9649529, US9643045, US9636540, US9604096, US9597540, US9511255, US9498672, US9468795, US9457230, US9352187, US9308415, US9272182, US9248338, US9126654, US9108081, US9095741, US9039577, US9011291, US8858403, US8840529, US8808148, US8740754, US8734299, US8696524, US8562491, US8556779, US8454478, US8419598, US8323155, US8162805, US8128535, US8062188, US8062187, US8062185, US8057363, US8047968, US8033961, US8025609, US8012073, US7985165, US7955240, US7955225, US7942787, US7922625, US7918766, US7909740, US7901330, US7887465, US7874963, US7871356, US7833133, US7824313, US7815551, US7785235, US7775940, US7766797, US7758473, US7749137, US7740564, US7740563, US7736279, US7736278, US7731635, US7717828, US7704192, US7699754, US7682293, US7674205, US7670267, US7658698, US7632219, US7618350, US7604573, US7591761, US7582043, US7568999, US7494447, US7462134, US7455624, US7448986, US7425189, US7377881, US7361122, US7341542, US7316632, US7303509, US7278955, US7270626, US7267637, US7264576, US7244217, US7229386, US7223209, US7214168, US7201705, US7179201, US7172531, US7169089, US7169088, US7131935, US7097593, US7097592, US7097591, US7052438, US7025711, US7025710, US7022049, US6991587, US6976940, US6908416, US6758790, US6749211, US6726600, US6689019, US6672992, US6659915, US6612969, US6575877, US6440042, US6422977, US6361476, US6210305, US6196948, US2018290014, US2018122342, US2017128772, US2017072256, US2016375301, US2015202488, US2014371032, US2014221165, US2013244837, US2013210585, US2013079200, US2013053218, US2012190509, US2012190508, US2011218079, US2011172062, US2011143885, US2011086743, US2011028277, US2010317497, US2010279822, US2010255958, US2010242246, US2010204017, US2010197466, US2010152000, US2010041522, US2009312157, US2009176625, US2009075786, US2009062081, US2009054212, US2009048077, US2008318736, US2008300114, US2008287265, US2008261780, US2008242516, US2008220943, US2008214362, US2008207400, US2008200314, US2008194388, US2008167163, US2008161164, US2008153674, US2008125291, US2008081741, US20077298936, US2007238582, US2007238580, US2007202999, US2007179023, US2007129218, US2007129217, US2007123393, US2007087907, US2007087906, US2007054779, US2006287161, US2006281604, US2006234838, US2006223679, US2006217235, US2006189447, US2006183605, US2006172864, US2006172863, US2006172862, US2006094570, US2006058159, US2006040795, US2006040794, US2006035755, US2006035754, US2006003868, US2005250621, US2005245361, US2005245358, US2005202939, US2005181912, US2005181911, US2005164835, US2005026752, US2004248710, US2004248709, US2004248708, US2004248707, US2004248706, US2004248704, US2004224825, US2004132583, US2004097339, US2003092532, US2003022763, US2002177510, US2002155927, US10311840, US10293211, US10279212, US10272317, US10258828, US10252109, US10213644, US10201727, US10188890, US10086227, KR101933180, KR101593069, KR101018286, KR101018283, FR2869550, FR2869549, EP3388114, EP2996780, EP2188022, EP2018897, EP1372794, EP1247547, CN106512301, CN106512300, CN103656993,

Abstract:

The present invention relates to a standup exercise apparatus that simulates walking, jogging and climbing with arm exercise. More particularly, the present invention relates to an exercise machine having separately supported pedals for the feet and arm exercise coordinated with the motion of the feet. Cross trainers guide the feet along a generally elliptical shaped curve to simulate the motions of jogging and climbing. Existing machines often produce user problems such as excessive foot articulation. The present invention is an improved elliptical exercise machine capable of extended exercise with fewer user problems. Further, the cross trainer is adjustable to vary the motion of the elliptical stride from walking to climbing. A foot support member is guided by a roller on one end and driven by a crank linkage on the other end. The resulting pedal motion has less severe pedal angles than a simple crank cross trainer. Handles are coupled to the foot support member with connector links for coordinated arm exercise.



80) Family number: 5023126 (US5114388A) © PatBase

Title:

Stair simulator exerciser with adjustable incline

Priority:

US19910736724 19910726

Family:

Publication number	Publication date	Application number	Application date
US5114388 A	19920519	US19910736724	19910726

Probable Assignee:

TRUE FITNESS TECHNOLOGY INC

Assignee(s):(std):

TRUE FITNESS TECHNOLOGY INC

Inventor(s):(std):

TRULASKE JAMES A

International class

A63B23/04 (Advanced/Invention);

IPC 8-9):

A63B21/00 A63B21/015 A63B21/04 A63B21/055 A63B21/22 A63B23/035 (Advanced/Non-invention)

International class

A63B23/04

IPC 1-7):

CPC:

A63B21/015 A63B21/023 A63B21/04 A63B21/0428 A63B21/055 A63B21/154 A63B21/157 A63B21/225 A63B22/0015 A63B22/0023 A63B22/0056 A63B71/0009 A63B71/0622 A63B2022/0053 A63B2208/0204 A63B2225/30

European class:

A63B21/02B A63B21/15F6 A63B21/15G A63B22/00B A63B22/00P6

US class:

482/52

[Classification Explorer](#)

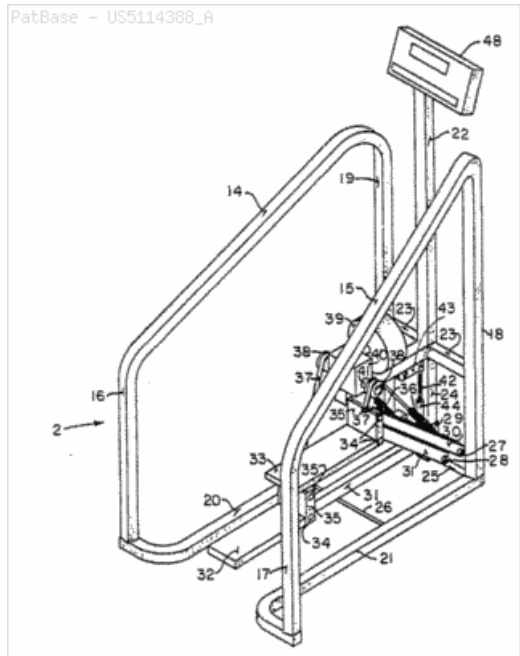
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US5004224 A, US4949993 A, US4938474 A, US4913396 A, US4886266 A, US4848737 A, US4844449 A, US4792134 A, US4749181 A, US4720093 A, US4708338 A, US4704886 A, US4685669 A, US4685666 A, US4681316 A, US4519603 A, US4496147 A, US4477072 A, US4470597 A, US4358105 A, US3970302 A, US3592466 A,

Forward Citations:

WO9412244, WO15038732, USRE42698, USD546909, USD527060, US9981155, US9937380, US9757614, US9457230, US9144705, US9132314, US7553260, US7544153, US7455626, US7097593, US6500096, US5626539, US5336146, US5322491, US5263909, US5226866, US2009221544, US2004192514, US10293211, US10279212, US10272317, US10258828, US10252109, US10201728, US10188890, US10105569, US10004935, EP3308838, EP3173132, EP3156108, EP3041589, EP0666766, EP0666766, CN107961522, CN107789794, CN107281733, CN105764579, CN105764579, AU2014318735,

Abstract:
A stair simulator exerciser for use in maintaining personal fitness including a frame member, the frame member having a column provided at its frontal portion, the column may incline rearwardly, a pivotal assembly is mounted for approximate vertical adjustment upon the column, and a pair of pivotally disposed foot platforms connect with the assembly. When the assembly is raised upon the column, the foot platforms undertake a particular arc of movement with respect to the frame member, but that when the pivotal assembly is arranged downwardly, upon the column, the angle of the arc of shifting of the foot platforms differ from the previous setting. Structure is provided for regulating the degree of resistance to the downward movement of the foot platforms during performance of an exercising function.



81) Family number: 55902129 (US2014066201A)

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Title: MOBILE AND ADAPTABLE FITNESS SYSTEM

Priority: US20120696068P 20120831 US20130012879 20130828 US20150846966 20150907
US20160310568P 20160318 US20160330602P 20160502 US20160330642P 20160502
US20160175043 20160607 US20160187787 20160621 US20160193112 20160627
US20160219115 20160725 WO2016US50584 20160907 WO2017US23235 20170320
WO2017US30697 20170502 WO2017US38425 20170621 US20170853746 20171223
US20180661220P 20180423 US20180992108 20180529 US20180011394 20180618
US20180697973P 20180713 US20180176511 20181031 US20190223034 20190123
US20190255641 20190123

Family:	Publication number	Publication date	Application number	Application date
	CN107921303 A	20180417	CN201780002997	20170502
	CN108140006 A	20180608	CN201680059987	20160907
	CN108475073 A	20180831	CN201780004166	20170320
	CN109416679 A	20190301	CN201780037774	20170621
	EP3380945 A1	20181003	EP20160844989	20160907
	EP3430488 A1	20190123	EP20170767706	20170320
	EP3452183 A1	20190313	EP20170793193	20170502
	EP3472716 A1	20190424	EP20170816094	20170621
	US2014066201 AA	20140306	US20130012879	20130828
	US2016279514 AA	20160929	US20160187787	20160621
	US2016287989 AA	20161006	US20160193112	20160627
	US2016317866 AA	20161103	US20160219115	20160725
	US2017065880 AA	20170309	US20150846966	20150907
	US2017269680 AA	20170921	US20160175043	20160607
	US2018117398 AA	20180503	US20170853746	20171223
	US2018264318 AA	20180920	US20180992108	20180529
	US2018290017 AA	20181011	US20180011394	20180618
	US2019060708 AA	20190228	US20180176511	20181031
	US2019143172 AA	20190516	US20190223034	20190123
	US2019143173 AA	20190516	US20190255641	20190123
	US9766696 BA	20170919	US20160175043	20160607
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	US10155133 BB	20181218	US20180011394	20180618
	US10265578 BB	20190423	US20170853746	20171223
	WO17044505 A1	20170316	WO2016US50584	20160907
	WO17161375 A1	20170921	WO2017US23235	20170320
	WO17192628 A1	20171109	WO2017US30697	20170502
	WO17223134 A1	20171228	WO2017US38425	20170621

Probable Assignee: BLUE GOJI LLC

Assignee(s):(std): BLUE GOJI CORP ; BLUE GOJI LLC ; BLUEGOJI LLC

Inventor(s):(std): FUNG COLEMAN F ; MAYNARD GLENN F ; HUANG CHARLES ; LARKIN CHRISTOPHER A ; PORTER KOLEY C ; TOH STEVEN S L ; FUNG COLEMAN

Agent(s): HUMPHREY EVANS EDWARD JOHN; GRIMM SIEGFRIED; RAGOT SEBASTIEN PIERRE; BRIAN R; GALVIN PATENT LAW LLC; GALVIN BRIAN R

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW

SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
(IPC 8-9):

A61B5/00 A61B5/11 A63B21/00 A63B22/00 A63B22/02 A63B22/06 A63B23/04 A63B24/00 A63F13/00 A63F13/04 A63F13/20 A63F13/211 A63F13/212 A63F13/214 A63F13/24 A63F13/26 A63F13/31 A63F13/35 A63F13/40 A63F13/42 A63F13/65 A63F13/816 G05D3/12 G06F1/16 G06F15/16 G06F15/80 G06F3/00 G06F3/01 G06T19/00 (Advanced/Invention); H04W84/18 (Advanced/Non-invention)

CPC:

A63F2300/1012 A63F2300/1018 A63F2300/1043 A63F2300/105 A63F2300/6027 A63F2300/6045 G06F19/3481 A63F13/428 A63B24/0003 A63F13/04 A63B22/0285 A63B22/0292 A63B22/0046 A63B23/04 G06F1/163 H04W84/18 A63F13/24 G06F3/017 A63F13/211 A63F13/42 A63F13/26 A63F13/31 A63F13/35 A63F13/816 G06F3/011 A61B5/1114 A61B5/6823 G06F3/016 A61B2503/12 A63F13/212 A63F13/214 A63F13/65 A63B22/0664 A63B22/0048 A63B22/0242 A63B24/0087 A63B69/0057 A63B69/0059 A63B71/0622 A63B2022/067 A63B2022/206 A63B2024/009 A63B2024/0096 A63B2071/0625 A63B2071/0638 A63B2071/0655 A63B2220/13 A63B2220/20 A63B2220/24 A63B2220/30 A63B2220/40 A63B2220/52 A63B2220/805 A63B2225/50 A63B2225/685 A63F2300/8082 G08C2201/93 A61B5/1071 G06T19/006 H04L67/38 H04W4/029 H04W4/80 A63F13/00 A63F13/40 A63B22/06 A63F13/218 A63F13/235 A63F13/335 A63F13/352 A63F13/67 A63F13/79 A63B2022/0647 A63B2022/0652 G05G1/52 A63F13/06

US class:

463/31 463/36 482/8

[Classification Explorer](#)

Cited documents:

US9414784 BA, US9402578 BB, US9224311 BB, US9098614 BA, US8892219 BB, US8861091 BB, US8740705 BB, US8287434 BB, US8025607 BB, US8012107 BB, US7815549 BB, US7811200 BB, US7699755 BB, US7113166 BA, US6916273 BB, US6705972 BA, US6270414 BB, US6131075 A, US5070816 A, US4410852 A, US2473401 A, US2016300390 AA, US2015238817 AA, US2015074047 AA, US2014365593 AA, US2014274564 AA, US2014248996 AA, US2014066201 AA, US2014025768 AA, US2013194175 AA, US2013171596 AA, US2011275432 AA, US2011086707 AA, US2011034300 AA, US2011009241 AA, US2011008670 AA, US2010113222 AA, US2010009752 AA, US2009256800 AA, US2009163262 AA, US2009023553 AA, US2008214305 AA, US2008191864 AA, US2008021430 AA, US2007171199 AA, US2007123390 AA, US2007042868 AA, US2006063645 AA, US2006003838 AA, US2005212753 AA, US2001003712 AA,

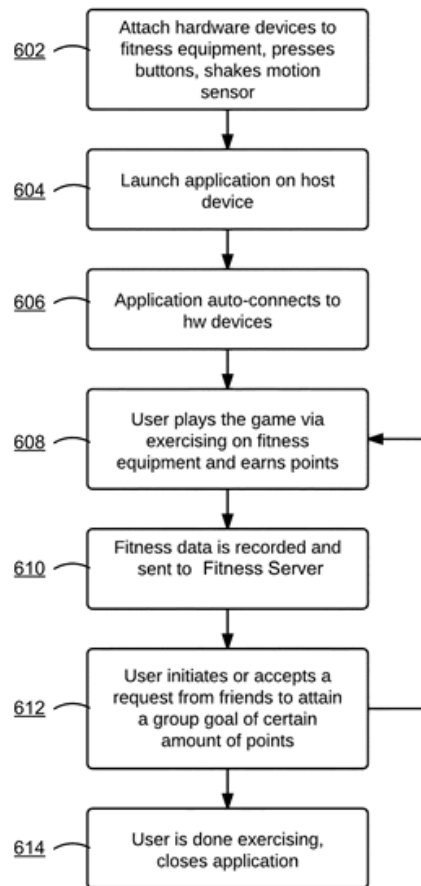
Forward Citations:

WO18122107, WO18115439, WO17223134, WO17192628, US9996153, US2018050257, US2016113550, US2016035228, US10279212, US10272317, US10265578, US10226396, US10220259, US10192454, US10188890, US10124255, EP3340012, DE102017003967, CN106823270, CN105536246,

Abstract:

A mobile and adaptable fitness system allows a fitness device to be used to control an application running on a host device. The system includes one or more controllers, a motion sensing device, and a host device. The hand controllers may be mounted on the handlebars of the fitness device or held in a user's hands and include buttons that the user can press. The motion sensing device may be mounted on the user or on a moving part of the fitness device and contains sensors that capture motion performed by the user. The host device receives input data from the hand controllers and the motion sensing device and generates an activity vector representing the intensity at which the user performs a fitness activity. Based on the activity vector, the host device controls an object in an application, such as a character, based on the input data.

PatBase - US2014066201_AA



PROGRAM FOR CHARACTER RECOGNITION PROCESSING

Priority: JP20060132655 20060511 US20070709796 20070223 US20070709759 20070223
CA20082620963 20080212 EP20080002501 20080212

Family:	Publication number	Publication date	Application number	Application date
	CA2620963 AA	20080823	CA20082620963	20080212
	CA2620963 C	20111129	CA20082620963	20080212
	CN101417172 A	20090429	CN200810080549	20080222
	CN101417172 B	20110907	CN200810080549	20080222
	EP1961461 A1	20080827	EP20080002501	20080212
	JP2007304864 A2	20071122	JP20060132655	20060511
	US2007263930 AA	20071115	US20070709796	20070223
	US2008207416 AA	20080828	US20070709759	20070223
	US7803089 BB	20100928	US20070709759	20070223
	US8059896 BB	20111115	US20070709796	20070223

Probable Assignee: BRUNSWICK CORP

Assignee(s):(std): BRUNSWICK CORP ; DALY JULIETTE ; DANOWSKI THOMAS J ; FUJI XEROX CO LTD ; LAZAR CORY H ; ROIMICHER MARCOS D ; HOLIK RACHEL L ; WHITE ERIC ; OLSON JOHN C ; IMMORDINO JOSEPH ; ITO ETSUKO

Assignee(s): BRUNSWICK COMMERCIAL AND GOVERNMENT PRODUCTS INC ; JPMORGAN CHASE BANK NA ; LAND N SEA DISTRIBUTING INC ; LUND BOAT CO ; TRITON BOAT CO LP ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS ; BRUNSWICK COMMERCIAL AND GOVERNMENT PRODUCTS INC ; BRUNSWICK FAMILY BOAT CO INC ; BRUNSWICK LEISURE BOAT CO LLC ; ATTWOOD CORP ; BANK OF NEW YORK MELLON TRUST CO ; BANK OF NEW YORK MELLON TRUST CO NA ; BOSTON WHALER INC ; BRUNSWICK BOWLING AND BILLIARDS CORP ; FUJI XEROX CO

Inventor(s):(std): DALY JULIETTE ; DANOWSKI THOMAS J ; HOLIK RACHEL L ; IMMORDINO JOSEPH ; ITO ETSUKO ; LAZAR CORY H ; OLSON JOHN C ; ROIMICHER MARCOS D ; WHITE ERIC ; JULIETTE DALY ; JOSEPH IMMORDINO ; ERIC WHITE

Agent(s): RICHES MCKENZIE AND HERBERT LLP; SCHMID WOLFGANG; OLIFF AND BERRIDGE PLC; MICHAEL B MCMURRY; MICHAEL B

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK TR

International class (IPC 8-9): A63B22/00 A63B22/04 A63B22/06 A63B23/00 A63B23/04 G05G1/30 G06K9/00 G06K9/20 G06K9/34 G06K9/72 (Advanced/Invention); B62M3/08 (Advanced/Non-invention); A63B22/00 A63B22/06 A63B23/00 A63B23/04 G05G1/14 G06K9/20 G06K9/34 (Core/Invention)

CPC: Y10T74/2168 B62M3/08 A63B22/0046 A63B22/16 A63B2071/0063 A63B2071/0072 A63B2225/62 G06K2209/01 G06K9/38 G06K9/2063 G06K9/346 G06K2209/011

European class: B62M3/08 G06K9/20R1 G06K9/34R G06K9/38 K63B22/00D K63B22/16 K63B225/62 K63B71/00P2 K63B71/00P4 S06K209/011

US class: 382/176 382/177 382/177P 382/178 382/229 382/321 482/148 482/148P 482/51 482/52 482/79 74/594.4

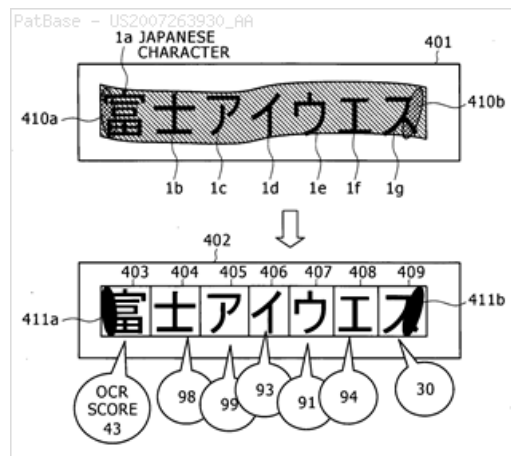
[Classification Explorer](#)

Cited documents: WO0172380 A1, WO0107280 A1, USRE30758 E, USD383813 S1, US7646921 BB, US7300387 BB, US7207930 BB, US7175567 BB, US7131934 BB, US7101316 BB, US7031519 BB, US6953418 BA, US6796928 BA, US6723026 BB, US6705975 BB, US6661919 BB, US6582344 BB, US6572513 BA, US6500096 BA, US6413194 BA, US6360630 BB, US6327382 BA, US6260434 BA, US6241639 BA, US6238319 BA, US6168551 BA, US6168551 B1, US6132340 A, US6123650 A, US6003408 A, US5928113 A, US5906565 A, US5901617 A, US5821929 A, US5819247 A, US5805747 A, US5764799 A, US5692995 A, US5665039 A, US5645516 A, US5624356 A, US5621818 A, US5619592 A, US5579407 A, US5535642 A, US5491760 A, US5455872 A, US5454772 A, US5449332 A, US5413543 A, US5359673 A, US5336144 A, US5297541 A, US5256118 A, US5186700 A, US5116295 A, US5077805 A, US5069445 A, US4639710 A, US4502680 A, US4279415 A, US4146222 A, US4111416 A, US3942791 A, US3442522 A, US2008248934 AA, US2008161166 AA, US2007191196 AA, US2007135269 AA, US2007135268 AA, US2007135267 AA, US2006199703 AA, US2006172862 AA, US2005277518 AA, US2005227817 AA, US2004266588 AA, US2004048722 AA, US2002165069 AA, US2002132707 AA, US2002067859 AA, US2002031263 AA, US2002015524 AA, US2002006220 AA, US2001020401 AA, US1587749 A, JPB22991779, JP8125878 A2, JP7264390 A2, JP6205175 A2, JP5233705 A2, JP2991779 B2, JP22991779, DE19514492 A1,

Forward Citations: WO10102289, USD695856, US9977957, US9811749, US9235499, US8971620, US8942420, US8891872, US8620081, US8452095, US8385651, US8254721, US8036463, US2014112526, US2014086483, US2013231221, US2012170845, US2012114230, US2011157658, US2010303382, US2010239166, US2010008587, US2008063273, JP6102156, JP5826081, JP2014071696, JP2013196369, FR2985194, EP2963584, EP2713313,

Abstract:

A character recognition processing system includes a character recognition confidence evaluating unit that evaluates whether confidence of character recognition of a plurality of areas are low or high, a character area classification unit that classifies a first area evaluated low by the character recognition confidence evaluating unit into a plurality of components, a character separation unit that separates the components classified by the character area classification unit into a character component and non-character components, according to information relating to a second area evaluated high by the character recognition confidence evaluating unit, and a first character recognition unit that performs character recognition processing for the character component separated by the character separation unit.



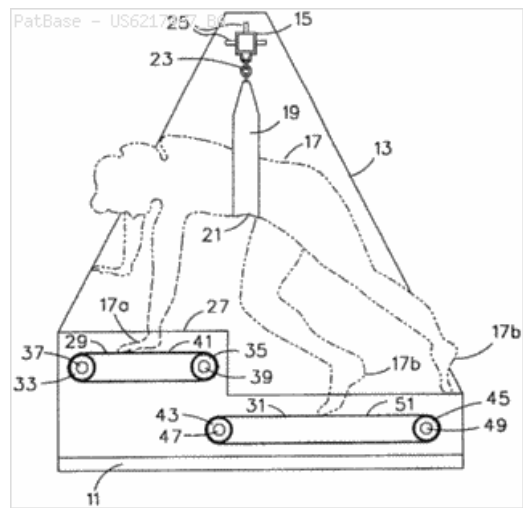
83) Family number: 15025129 (US6217487B)

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Title:	QUADRUPED-TYPE EXERCISE APPARATUS FOR HUMANS AND METHOD OF EXERCISING								
Priority:	US19980139464 19980825								
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr><tr><td>US6217487 BA</td><td>20010417</td><td>US19980139464</td><td>19980825</td></tr></table>	Publication number	Publication date	Application number	Application date	US6217487 BA	20010417	US19980139464	19980825
Publication number	Publication date	Application number	Application date						
US6217487 BA	20010417	US19980139464	19980825						
Probable Assignee:	REINERT RICHARD W								
Assignee(s):	REINERT RICHARD W								
Inventor(s):(std):	REINERT RICHARD W								
International class (IPC 8-9):	A63B22/02 A63B23/035 (Advanced/Invention); A61H1/02 (Advanced/Non-invention); A63B22/00 A63B23/035 (Core/Invention); A61H1/02 (Core/Non-invention)								
International class (IPC 1-7):	A63B22/00								
CPC:	A63B22/001 A61H2001/0211 A61H2203/0468 A61H2203/0481 A63B22/0005 A63B22/0012 A63B22/0023 A63B22/02 A63B22/0235 A63B22/0292 A63B69/0064 A63B2022/0041 A63B2208/0261 A63B2208/0295 A63B2208/12								
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US class:	482/54								
	Classification Explorer								
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Forward Citations:	WO15183119, WO10128507, WO09156998, WO09156998, US9868022, US9643040, US9440107, US9352187, US9072932, US9039582, US8986179, US8764616, US8740756, US8734300, US8696524, US8663071, US8608624, US8588971, US8550962, US8439807, US8272996, US8113994, US8002674, US7967730, US7717830, US7621850, US6443876, US2013157811, US2012122638, US2011308868, US2011111936, US2010075812, US2010062904, US2010010668, US2009264260, US10293211, US10279212, US10272317, US10258828, US10252109, US10188890, US10118068, EP2303217, CN105055124, AT507688,								

Abstract:

An apparatus and method is provided for quadrupedal exercise, i.e. exercise by walking or running on all fours in a manner similar to four-footed animals. The apparatus is composed essentially of a forward continuous tread and a rear continuous tread, in which the forward continuous tread is disposed at a higher level than the rear continuous tread, the relative heights of the two being adjusted so that when the hands of the user are placed upon the forward tread and the feet are placed on the rear tread, the angle of the body through the spine will be essentially horizontal, or a little greater than horizontal. In most cases, the tread for the hands or support of the upper portion of the body will be divided into two parallel treads while the tread for support of the feet will be a single tread positioned more or less in a central position with respect to the forward tread. A method of exercising involving movement relative to a two-level track is also disclosed.



84) Family number: 43837130 (US2009255531A)

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Title: PORTABLE SYSTEM FOR ASSISTING BODY MOVEMENT

Priority: US20080010034P 20080107 US20080131919 20080613 US20080131919P 20080613
 US20090319463 20090107 US20090456196 20090612 WO2009US03535 20090612
 US20110626749P 20111003 US20120573692 20121003 US20130748322 20130123
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 US20150884353 20151015

Family:	Publication number	Publication date	Application number	Application date
	CN105579014 A	20160511	CN201480028304	20140314
	CN105579014 B	20181127	CN201480028304	20140314
	EP2300304 A1	20110330	EP20090762926	20090612
	EP2300304 A4	20150422	EP20090762926	20090612
	EP2968049 A2	20160120	EP20140762800	20140314
	EP2968049 A4	20161207	EP20140762800	20140314
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	US2010000547 AA	20100107	US20090456196	20090612
	US2013211295 AA	20130815	US20130748322	20130123
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	US2014123984 AA	20140508	US20140155733	20140115
	US2016166454 AA	20160616	US20150884353	20151015
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	WO17066751 A1	20170420	WO2016US57320	20161017

Probable Assignee: LITE RUN INC

Assignee(s):(std): HAUCK JOHN A ; JOHNSON DOUGLAS E ; JOHNSON MARK T ; LITE RUN INC ; LITE RUN LLC ; OSLAND ODD

Inventor(s):(std): HAUCK JOHN A ; JOHNSON MARK T ; JOHNSON DOUGLAS E ; OSLAND ODD ; BOBGAN PETER M

Agent(s): HALLYBONE HUW GEORGE; CARPMAELS AND RANSFORD LLP; GLEN E SCHUMANN C O MOSS AND BARNETT; MOSS AND BARNETT; DEWITT ROSS AND STEVENS SC; BIEK DAVID L

Designated states: AU AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CE CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A41D1/00 A41D1/06 A41D13/002 A61D3/00 A61F5/01 A61F5/24 A61F5/28 A61G7/10 A61G99/00 A61H1/00 A61H1/02 A61H3/00 A61H3/04 A61H9/00 A63B21/00 A63B21/008 A63B69/00 B62D51/04 (Advanced/Invention); A41D13/00 A61B5/11 A61H1/02 A63B21/055 A63B21/068 A63B22/00 A63B22/02 A63B22/20 A63B23/04 A63B69/00 A63B69/16 A63B71/00 (Advanced/Non-invention); A41D1/00 A41D1/06 A61F5/01 A61G99/00 A63B21/008 B62D51/00 (Core/Invention)

CPC: A61F5/24 A63B21/0088 A61D3/00 A61H3/008 A41D13/0007 A41D13/0025 A61H2003/007 A63B2208/056 A61B5/112 A61F5/0102 A61H1/024 A61H1/0266 A61H9/0078 A61H2201/1616 A61H2201/1621 A61H2201/163 A61H2201/1642 A61H2201/165 A61H2201/5071 A61H2203/03 A61H2205/08 A61H2205/10 A61H2209/00 A63B21/00069 A63B21/00181 A63B21/0552 A63B21/068 A63B21/154 A63B21/4009 A63B21/4011 A63B21/4025 A63B21/4035 A63B22/02 A63B22/20 A63B23/0405 A63B23/047 A63B23/0482 A63B69/0028 A63B69/0064 A63B71/0009 A63B71/0054 A63B2022/0094 A63B2071/0018 A63B2208/05 A63B2208/053 A63B2208/14 A63B2209/10 A63B2225/09 A63B2225/62 A63B69/16 A61H3/00 A61H2201/0103 A61H2201/1647 A63B21/153 A63B22/0056 A63B22/0235 A63B2220/56 B32B5/04 B32B5/26 B32B2307/51 B32B2307/724 B32B2307/7242 B32B2437/00 B32B2535/00 A61G5/14 A61H2003/043 A61H2003/046 A61H2201/0192 A61H2201/0214 A61H2201/0242 A61H2201/1207 A61H2201/1253 A61H2201/1628 A61H2201/164 A61H2201/1652 A61H2201/50 A61H2201/5082 A61H3/04 A61H9/0057

European class: A61F5/24 A61H3/00H A61H9/00P6 A63B21/00T K61H201/16A20 K61H201/50S8 K61H203/03 K61H205/08 K61H205/10 K61H209/00 K61H3/04 K63B208/05 K63B208/14 K63B22/02 K63B22/20 K63B69/00N6

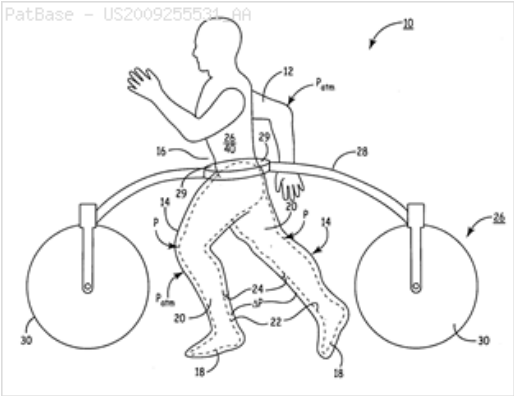
US class: 1/1 128/845 128/99.1 128/99.100P 2/227 2/227S 2/69 2/69S 280/1.5 482/78 601/23 601/34 601/36 601/6 601/7

[Classification Explorer](#)

Cited documents: WO09151630 A1, US8840572 BB, US7896825 BB, US7591795 BB, US7381163 BB, US7363931 BB, US7341543 BB, US6821233 BA, US6757916 BB, US6695762 BA, US6589194 BA, US6460195 BB, US6302828 BA, US6273844 BA, US6093024 A, US6045519 A, US6027464 A, US5997465 A, US5873768 A, US5865722 A, US5704881 A, US5560056 A, US5537686 A, US5512029 A, US5503143 A, US5478310 A, US5398678 A, US5372561 A, US5356361 A, US5273502 A, US5176597 A, US5133339 A, US5029579 A, US5007893 A, US4959047 A, US4844452 A, US4691695 A, US4577622 A, US4557257 A, US4509513 A, US4455685 A, US4421109 A, US4343302 A, US4257407 A, US4230114 A, US4211223 A, US4151612 A, US4039039 A, US4003371 A, US3823712 A, US3823711 A, US3778052 A, US3744491 A, US3589366 A, US3355230 A, US2976840 A, US2825327 A, US2762047 A, US2675856 A, US2507704 A, US2012238921 AA, US2012023892 AA, US2011120567 AA, US2011098157 AA, US2010000547 AA, US2009082700 AA, US2009018571 AA, US2009014004 AA, US2009003535, US2008247837 AA, US2007181121 AA, US2007179421 AA, US2007157651 AA, US2007054783 AA, US2006189899 AA, US2006156517 AA, US2006135889 AA, US2006049611 AA, US2005183759 AA, US2005101448 AA, US2005070405 AA, US2004063550 AA, US2003216672 AA, US2003137119 AA, US2003032904 AA, US2002116741 AA, US2002025889 AA, US1629108 A, GB190306431 A, EP09762926, CN2082126 U,

Forward Citations: WO19018246, WO18161074, WO14144158, WO14144158, WO14138876, USD844160, US9981421, US9951904, US9914003, US9855181, US9801777, US9789023, US9770617, US9757254, US9741216, US9739567, US9675838, US9675514, US9656117, US9642764, US9610212, US9592176, US9561149, US9554964, US9480619, US9474632, US9433814, US9422023, US9421144, US9421143, US9393173, US9375603, US9370680, US9364735, US9351900, US9339396, US9327156, US9239616, US9233275, US9180330, US9149938, US9149224, US9056240, US8986177, US8857377, US8801651, US8790292, US8464716, US2017185401, US2017087043, US2016129298, US2016067061, US2016030272, US2016016355, US2016008206, US2015102577, US2014276264, US2014213951, US2014194252, US2014121062, US2013281261, US2013237378, US2013025542, US2011120567, US2011111932, US2011098615, US2010179470, US10299981, US10292891, US10278883, US10265565, US10265237, US10227102, US10154937, US10124205, US10105281, US10064782, US10032347, US10028697, US10010744, US10004937, US10004656, JP5995585, JP2014023783, EP2968049, CN107467876, CN105579014, CN104758143, CN104546384,

Abstract:
The present invention provides a differential pressure body suit with external support against body suit migration. In its preferred embodiment, such body suit may comprise a close-fitting, multi-layered suit sealed against a mammal's skin to contain the differential pressure, or a looser-fitting suit that bends at the mammal's joints with minimal force. External support means include either fixed or movable mechanical supports attached to the body suit, extraordinary air pressure levels for making the body suit rigid, or exoskeletons attached to the body suit. A cyclic control system can turn the differential pressure condition within the body suit on and off on a selective basis to accommodate the movement of the legs of the mammal. This differential pressure body suit provides a portable and convenient system for, e.g., rehabilitating a skeletal joint injury or training the mammal for injury prevention or athletic performance. The pressurization reduces the weight of the body to greater or lesser extents, and offloads the weight to the ground through the external support means.



85) Family number: 15025130 (US5851166A) © PatBase

Title:	LOWER EXTREMITY REHABILITATION AND TONING EXERCISE APPARATUS AND METHOD			
Priority:	US19950509206 19950731 US19980218184 19981222			
Family:	Publication number	Publication date	Application number	Application date
	US5851166 A	19981222	US19950509206	19950731
	US6217488 BA	20010417	US19980218184	19981222

Probable Assignee: FORWARD IND AND TECHNOLOGIES CORP

Assignee(s): BERNARDSON PETER S ; FORWARD IND ; FORWARD IND AND TECHNOLOGIES CORP

Inventor(s):(std): BERNARDSON PETER S

International class (IPC 8-9): A63B22/16 (Advanced/Invention); A63B21/008 A63B21/02 A63B21/05 A63B21/055 A63B23/035 (Advanced/Non-invention); A63B22/00 (Core/Invention); A63B21/008 A63B21/02 A63B23/035 (Core/Non-invention)

International class (IPC 1-7): A63B23/04

CPC: A61H2209/00 A63B22/16 A63B21/00061 A63B21/0083 A63B21/023 A63B21/026 A63B21/028 A63B21/0421 A63B21/05 A63B21/0552 A63B23/03533 A63B2071/027 A63B2208/0233

European class: A63B22/16 A63B23/035C4 A63B23/04H K63B208/02E2 K63B21/008B2 K63B21/00F2 K63B21/02B K63B21/02D K63B21/02F K63B21/04B4 K63B21/05 K63B21/055D K63B71/02S1W2

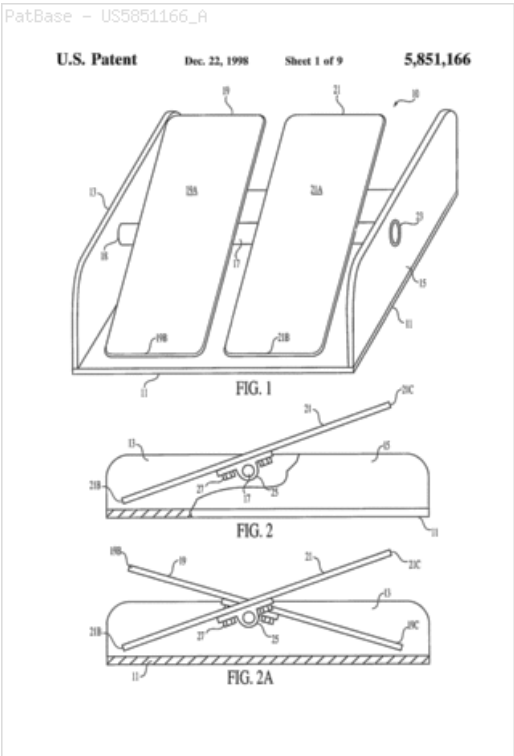
US class: 482/79

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Forward Citations: WO11135144, WO10115437, WO06130765, WO06130765, WO04062434, WO03074132, WO03074132, WO03024356, WO03024356, USD795364, USD729886, USD729885, USD726844, USD684222, USD629852, USD507311, USD505460, USD493855, USD493500, USD489778, USD471637, US9868029, US9687401, US9603768, US9586084, US9474937, US9282786, US9132308, US9132051, US9125785, US9038218, US8956313, US8858409, US8574134, US8360940, US8328699, US8262593, US7931567, US7908978, US7883451, US7862490, US7775952, US7686751, US7648444, US7566291, US7465253, US7438672, US7354384, US7344483, US7306548, US7300392, US7169098, US7131934, US7112168, US7008359, US7008357, US7004895, US6966883, US6419611, US6360630, US6217488, US6168551, US6042521, US2017043211, US2016206910, US2014287896, US2014287895, US2012022412, US2011224049, US2011143898, US2011124473, US2011028870, US2010279835, US2010227741, US2010113230, US2010022360, US2009105057, US2007243979, US2007202943, US2007155591, US2007155495, US2007149374, US2007037672, US2006276310, US2006100077, US2006073941, US2005251067, US2005164844, US2005101444, US2004224824, US2004121888, US2004106883, US2003195096, US2003125173, US2003060339, US2003036462, US2002077221, GB2376640, GB2376191, GB2374025, FR2928092, FR2836834, ES2374351, ES2162727, EP1342460, EP1342460, DE102008036433, DE10113916, DE10113916, CN103784293, AT504299,

Abstract:
A rocking-type foot and lower leg exercising apparatus incorporates one or two centrally pivoted pedals mounted upon a base in a position facilitating the placement of the feet of the user upon such pedals while seated in a chair and rocking of the pedals with the foot positioned upon them to provide a soothing motion that will maintain the tone of the muscles of the legs and encourages blood circulation in the feet and legs. The pivot point of the pedals may be located at any vertical position between the base and the pedal, but is located longitudinally between about one fourth to one half of the distance from the end of the heel position on the pedals.



86) Family number: 31461131 (US2005009668A) © PatBase

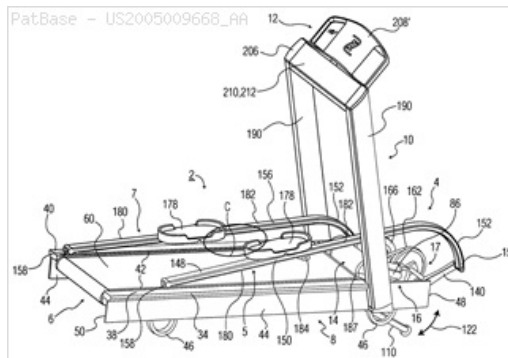
Title:	ELLIPTICAL/TREADMILL EXERCISE APPARATUS			
Priority:	US20030486058P 20030710		US20040876128 20040624	
Family:	Publication number	Publication date	Application number	Application date
	US2005009668 AA	20050113	US20040876128	20040624
Probable Assignee:	JONES KENNETH R			
Assignee(s):	JONES KENNETH R ; MOHAMED DEAN M ; SAVETTIERE GREG			
Inventor(s):(std):	SAVETTIERE GREG ; JONES KENNETH R ; MOHAMED DEAN M			
Inventor(s):	MOHAMED DEAN ; JONES KENNETH			
Agent(s):	CARELLA BYRNE BAIN GILFILLAN CECCHI STEWART AND OLSTEIN			
International class	A63B22/02 A63B23/04 (Advanced/Invention);			
(IPC 8-9):	A63B22/00 A63B23/04 (Core/Invention)			
International class	A63B22/02			
(IPC 1-7):				
CPC:	A63B22/0023 A63B21/225 A63B22/0235 A63B22/0664 A63B22/203 A63B2022/0676			
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US class:	482/54 482/54S 482/66 482/66P			
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Cited documents:	US6482130 BA, US6398695 BB, US6340340 BA, US6312362 BA, US6302825 BA, US6277055 BA, US6238321 BA, US6217486 BA, US6190289 BA, US6176814 BA, US6165107 A, US6149551 A,			

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Forward Citations: WO09113049, US9956450, US9713739, US9192810, US8202201, US8039769, US7909740, US7896782, US7775940, US7766797, US7740563, US7736279, US7717828, US7713178, US7674205, US7658698, US7618350, US7448986, US7361122, US7270626, US2014274577, US2014274576, US2010242246, US2009227428, US2009124466, US2008300114, US2008200314, US2008194386, US2008167163, US2008153674, US2008066988, US2008045386, US2007284881, US2007129218, US2006287161, US2006035755, US2005181911, US2005164835, US10293211, US10279212, US10272317, US10265566, US10258828, US10252109, US10252102, US10238911, US10226396, US10220259, US10188890, US10080918, EP3159049, EP2265340, DE102005025444, CN106611525,

Abstract:

A common frame and display is employed for use as a treadmill and elliptical exercise apparatus. Interlock switches are used to lock out one system electrically while the other is in use. The elliptical system employs folding pedal arms which engage switches in a folded stowed state to disable or enable each system according to the folded state of the pedal arms. When the arms are folded, the treadmill mode is enabled and the elliptical mode is disabled and when unfolded, the elliptical system is enabled and the treadmill system is disabled. The display displays speed, elevation, and distance traveled in each mode and includes a resistance in each mode to vary the work load on the user.



87) Family number: 31385133 (US2004248704A)

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Title:	COMPACT VARIABLE PATH EXERCISE APPARATUS			
Priority:	US20030476548P 20030606	US20030476548P 20030706	US20030486333P 20030711	
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Family:	Publication number	Publication date	Application number	Application date
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	CA2528524 C	20130108	CA20042528524	20040607
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	CN1822883 B	20100526	CN200480020039	20040607
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WO04108224 A1	20041216	WO2004US18176	20040607
WO04108225 A1	20041216	WO2004US18177	20040607

Probable Assignee: RODGERS JUN

Assignee(s):(std): RODGERS JR ; RODGERS JR ROBERT E ; RODGERS JUN ; RODGERS ROBERT E JR

Assignee(s): RODGERS JUN ROBERT E ; RODGERS ROBERT E

Inventor(s):(std): RODGERS ROBERT E ; RODGERS ROBERT E JR ; RODGERS JR ; RODGERS JR ROBERT E

Inventor(s): RODGERS ROBERT ; RODGERS ; JR ROBERT E ; RODGERS ROBERT EJ R

Agent(s): GOUDREAU GAGE DUBUC; HOFFMANN EITL E; DALLAS OFFICE OF FULBRIGHT AND JAWORSKI LLP; FULBRIGHT AND JAWORSKI LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class (IPC 8-9): A63B22/00 A63B22/04 A63B22/06 A63B22/08 A63B22/12 A63B23/035 A63B23/04 A63B69/16 (Advanced/Invention); A63B23/035 A63B23/04 A63B69/16 (Core/Invention)

International class (IPC 1-7): A63B22/04 A63B22/08 A63B22/12 A63B23/04 A63B69/34

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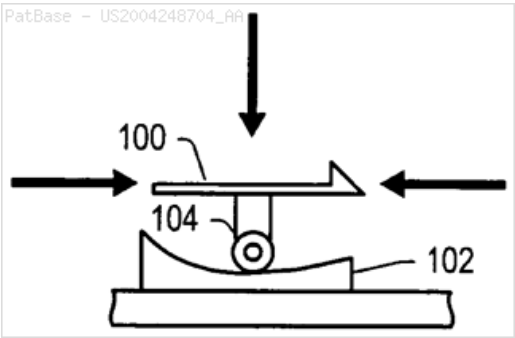
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Forward Citations: WO19011716, WO17171931, WO16145218, WO11130561, WO11130561, WO10027836, WO08061232, USRE42698, USD792530, USD660383, USD659777, US9987513, US9974998, US9950209, US9931534, US9914014, US9907996, US9901774, US9849330, US9808667, US9789354, US9757613, US9757609, US9724566, US9649529, US9649526, US9597540, US9566467, US9545535, US9533184, US9522300, US9511255, US9511253, US9498672, US9474926, US9468797, US9457223, US9457222, US9440107, US9375606, US9370679, US9352187, US9339685, US9308415, US9272182, US9272180, US9199115, US9072932, US9050485, US9011291, US8961373, US8870726, US8858403, US8740754, US8734300, US8734299, US8696524, US8663071, US8562491, US8556779, US8550962, US8439807, US8419598, US8376913, US8323155, US8272996, US8162338, US8162337, US8147385, US8123242, US8079937, US8062187, US8061728, US8061727, US8029009, US8021275, US7942787, US7922625, US7901330, US7887465, US7874963, US7841968, US7833133, US7819779, US7815549, US7811209, US7811208, US7811206, US7794362, US7789806, US7785235, US7771324, US7758473, US7749137, US7736278, US7717828, US7708668, US7704191, US7678025, US7670266, US7666122, US7658698, US7645214, US7641598, US7632219, US7621850, US7621849, US7611445, US7604573, US7601102, US7594877, US7591761, US7585263, US7578770, US7553260, US7544152, US7517303, US7507184, US7494447, US7485079, US7462134, US7455633, US7455624, US7448986, US7361122, US7341542, US7270626, US7244217, US7214168, US7201705, US7179201, US7172531, US7169089, US7169088, US7097593, US2017319898, US2017106231, US2017056717, US2017056709, US2017028250, US2017028249, US2017028248, US2016151664, US2015141207, US2014243157, US2014121065, US2014051552, US2013210585, US2012190509, US2012142501, US2012077645, US2011218079, US2011172062, US2011152036, US2011034303, US2011028277, US2010298101, US2010295263, US2010295262, US2010285928, US2010255958, US2010248899, US2010244399, US2010244398, US2010219604, US2010219603, US2010219602, US2010219601, US2010204017, US2010173754, US2010137110, US2010093499, US2010041522, US2010004103, US2009247371, US2009176626, US2009156370, US2009124463, US2009105049, US2009093346, US2009011904, US2008312045, US2008207400, US2008188357, US2008161166, US2008161164, US2008161163, US2008139366, US2008132385, US2008125291, US2008070766, US2008070765, US2008058168, US2008051260, US2008032869, US2007284881, US2007219063, US2007219062, US2007219061, US2007161464, US2007149370, US2006252607, US2006234838, US2006217234, US2006189447, US2006172865, US2006079381, US2006003868, US2005209060, US2005209059, US2005202939, US2005181912, US2005049117, US2004248711, US2004248709, US2004248708, US2004248706, US2004248704, US2004077463, US10300328, US10293211, US10279212, US10279207, US10272317, US10272286, US10265573, US10258828, US10252109, US10252102, US10252101, US10238910, US10212994, US10207147, US10201727, US10188890, US10105567, US10086227, US10080918, US10046196, GB2452323, GB2452323, EP3086866, EP2633890, EP2452723, EP2223722, EP2208514, EP2208514, EP2208513, EP2208513, EP2127704, EP2033691, CN106457018, CN105338944, CN104606850, CN104606850, CN101822890, CN101773716,

Abstract:
A variable stride exercise apparatus is described. A variable stride exercise apparatus may include a frame. A crank system may be coupled to the frame. A movable member may be coupled to the crank system. The movable member may travel in a substantially curvilinear path during use of the apparatus. A foot member may be coupled to the movable member. The foot member and the movable member may allow a user of the apparatus to selectively control the path of the foot member. The foot of the user may travel in a substantially curvilinear path during use of the apparatus. At least a portion of the apparatus may remain substantially stationary during use.



88) Family number: 11547133 (US6123650A) © PatBase

Title:	INDEPENDENT ELLIPTICAL MOTION EXERCISER			
Priority:	US19980185385 19981103 WO1999US25878 19991103			
Family:	Publication number	Publication date	Application number	Application date
	AU200014649 A1	20000522	AU20000014649	19991103
	AU200014649 A5	20000522	AU20000014649	19991103
	US6123650 A	20000926	US19980185385	19981103
	WO0025694 A1	20000511	WO1999US25878	19991103
Probable Assignee:	PRECOR INC			
Assignee(s):(std):	PRECOR INC			
Inventor(s):(std):	BIRRELL JAMES S			
Inventor(s):	JAMES S BIRRELL			
Designated states:	AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW			
International class (IPC 8-9):	A63B21/22 A63B23/035 A63B23/04 (Advanced/Invention); A63B21/22 A63B23/035 (Advanced/Non-invention); A63B23/04 (Core/Invention); A63B21/00 A63B23/035 (Core/Non-invention)			
International class (IPC 1-7):	A61B22/00 A61B22/12 A63B22/04 A63B69/16			
CPC:	A63B22/0017 A63B21/157 A63B21/225 A63B22/0664 A63B2022/0038 A63B2022/067			
European class:	K63B21/22F K63B22/00B2 K63B22/00C8 K63B22/06E2			
US class:	482/51 482/52 482/70			

Cited documents:

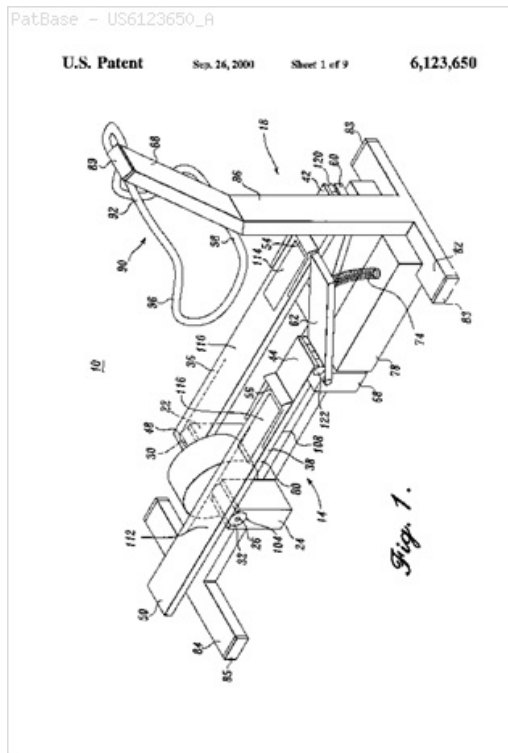
USD410978, USD409477, USD372282, USD330236, USD299369, US5857941 A, US5848954 A, US5685804 A, US5562574 A, US5549526 A, US5540637 A, US5529554 A, US5527246 A, US5518473 A, US5499956 A, US5423729 A, US5403255 A, US5401226 A, US5383829 A, US5352169 A, US5299993 A, US5295928 A, US5290211 A, US5279530 A, US5279529 A, US5269736 A, US5242343 A, US518757 A, US5186697 A, US5169363 A, US5149312 A, US5135447 A, US5131895 A, US5039088 A, US5039087 A, US5038758 A, US4989857 A, US4986261 A, US4949993 A, US4949954 A, US4900013 A, US4869494 A, US4842268 A, US4786050 A, US4779863 A, US4720093 A, US4700946 A, US4679786 A, US4645200 A, US4561318 A, US4555109 A, US4509742 A, US4505473 A, US4456276 A, US4379566 A, US4188030 A, US4185622 A, US4053173 A, US4023795 A, US3824994 A, US3759511 A, US3713438 A, US3566861 A, US3475021 A, US3432164 A, US3316898 A, US2892455 A, US2826192 A, US2641249 A, US2603486 A, US219439 A, US1323004 A, US1273906 A, SU1600816 T, DE2919494 A1, CH206208 A,

Forward Citations:

WO17184100, USRE42699, USD802062, USD801454, USD801451, USD798399, USD798398, USD797870, USD797219, US9597540, US9586085, US9108081, US8540609, US8105213, US8021275, US7955225, US7935027, US7909740, US7833133, US7811208, US7811205, US7803089, US7785235, US7775940, US7766797, US7758473, US7740563, US7736279, US7717828, US7708668, US7678025, US7674205, US7658698, US7641598, US7621849, US7618350, US7553260, US7507184, US7462134, US7448986, US7425188, US7361122, US7341542, US7316632, US7303509, US7270626, US7267637, US7264576, US7244217, US7214168, US7201705, US7179201, US7172531, US7169089, US7169088, US7169087, US7097593, US7033306, US7025710, US6908416, US6689019, US6659915, US6575877, US2011028275, US2010173754, US2010137110, US2009156370, US2008280731, US2008207416, US2008161164, US2007219062, US2007219061, US2007184937, US2007123394, US2007087907, US2007087906, US2006293154, US2006223679, US2006217235, US2006217234, US2005009668, US2004259692, US2004248709, US2004248708, US2004248706, US2004248704, US2004209740, US2004162191, US2004077463, US2004072655, US2004058784, US2003166434, US10293211, US10279212, US10272317, US10258828, US10252109, US10188890, EP2996780,

Abstract:

An exerciser (10) includes a floor engaging frame (14) and a forward upright post structure (18). Towards the rear of the frame (14) are attached left and right axle mount supports (22) and (24) which house a transverse axle (26). The axle (26) is bifurcated allowing the two halves to rotate independently of one another and connect to left and right drive wheels (30) and (32) respectively. Left and right foot link members (36) and (38) rollably engage the drive wheels at the link member's rear end portions (48) and (50). The forward end portions (42) and (44) of the foot link members rollably engage left and right inclinable guide ramps (60) and (62). The inclinable guide ramps (60) and (62) are biased rotationally upwardly, to resist downward forces, by biasing members, such as springs (74). Left and right foot support portions (54) and (56) are mounted on the foot link members. As the foot link members reciprocate forwardly and rearwardly along the inclinable guide ramps, the interaction of the oscillating weight of a running or walking user, together with the independently upwardly biased inclinable guide ramps (60) and (62), causes the foot support portions to travel along an elliptical path.

**89) Family number: 11479133 (US5879271A)**

© PatBase

Title: Exercise method and apparatus**Priority:** US19970838068 19970415

Family:	Publication number	Publication date	Application number	Application date
	US5879271 A	19990309	US19970838068	19970415

Probable Assignee: MARESH JOSEPH D**Assignee(s):** MARESH JOSEPH D ; STEARNS KENNETH W**Inventor(s):(std):** MARESH JOSEPH D ; STEARNS KENNETH W

International class (IPC 8-9): A63B23/04 (Advanced/Invention); A63B23/035 (Advanced/Non-invention)

International class (IPC 1-7): A63B22/04 A63B69/16

CPC: A63B22/001 A63B22/0012 A63B22/0015 A63B22/0023 A63B22/0664 A63B2022/002 A63B2022/067

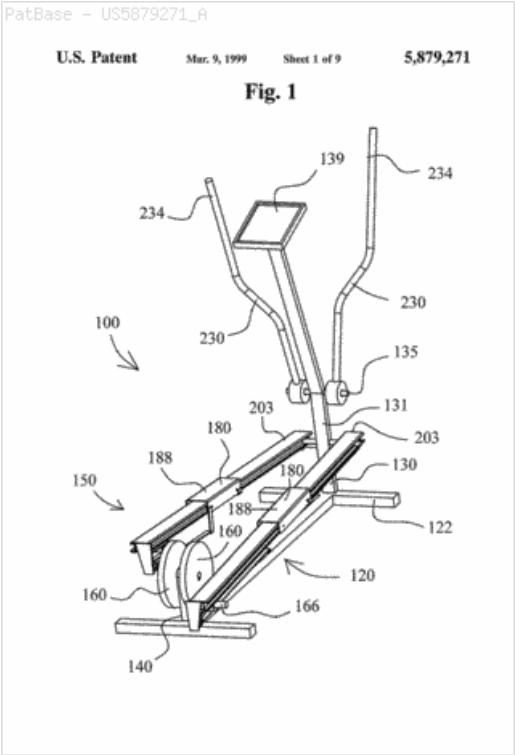
European class: A63B22/00A6 A63B22/00A6S A63B22/00B A63B22/00B4 A63B22/06E K63B22/00B2P K63B22/06E2
US class: 482/51 482/57 482/70

[Classification Explorer](#)

Cited documents: US5690589 A, US5563662 A, US5593372 A, US5573480 A, US5562574 A, US5549526 A, US5540637 A, US5529555 A, US5529554 A, US5518473 A, US5383829 A, US5352169 A, US5295928 A, US5279529 A, US5039088 A, US4786050 A, US4185622 A,

Forward Citations: WO14137513, WO0145802, USD489101, US9610475, US9440107, US9352187, US9308415, US9283425, US9138614, US9114275, US9072932, US9050498, US8734300, US8734299, US8696524, US8663071, US8550962, US8454478, US8439807, US8272996, US8162805, US8147385, US8128535, US8113994, US8062187, US8062185, US8057363, US8025609, US8002674, US7824313, US7819779, US7811209, US7785235, US7758473, US7749137, US7736278, US7632219, US7568999, US7540827, US7517303, US7462134, US7448986, US7361122, US7344480, US7341542, US7278955, US7270626, US7267637, US7244217, US7214168, US7201705, US7179201, US7172531, US7169089, US7169088, US7137927, US7097593, US7025710, US6926646, US6849033, US6783481, US6761665, US6689021, US6689019, US6626802, US6575877, US6500100, US6302825, US6220989, US6183398, US6171215, US6126574, US6099439, US6063008, US5989163, US5947872, US2013035212, US2011143885, US2011034303, US2010255958, US2010152000, US2010075812, US2009264260, US2009176626, US2008287265, US2008261780, US2008125291, US2007298936, US2007202999, US2007129217, US2007123393, US2006223680, US2006100066, US2006100065, US2006040794, US2006035754, US2006003868, US2005250621, US2005245358, US2005209059, US2005202939, US2005181911, US2005164835, US2005026752, US2004224825, US2004132583, US2004058784, US2003092532, US2002155927, US10293211, US10279212, US10272317, US10258828, US10252109, US10188890, EP2996780, EP2208513, EP2208513, EP1718373, EP1718373,

Abstract:
An exercise apparatus includes a support member that is movable relative to a frame, and a force receiving member that is movable relative to the support member. A first end of the support member is pivotally connected to the frame, and a second, opposite end of the support member is supported on a crank. A flexible link is interconnected between the crank and the force receiving member. The crank, the roller, the support member, and the link cooperate to move the force receiving member in a desired path.



90) Family number: 4774135 (US5050861A)

© PatBase

Title: Adjustable bench-step
Priority: US19900628183 19901214
Family:

Publication number	Publication date	Application number	Application date
US5050861 A	19910924	US19900628183	19901214

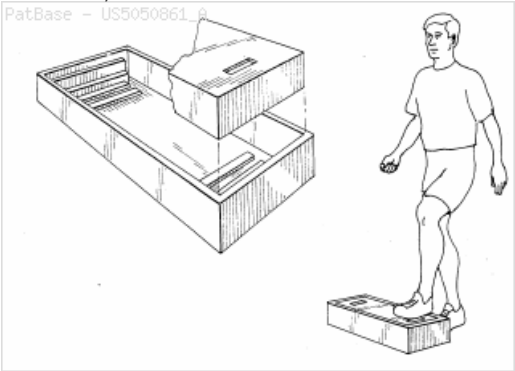
Probable Assignee: NICHOLAS ROBERT W
Assignee(s):(std): NICHOLAS ROBERT W ; THOMAS LAURIE
Inventor(s):(std): NICHOLAS ROBERT W ; THOMAS LAURIE
International class (IPC 8-9): A63B23/04 (Advanced/Invention)
International class (IPC 1-7): A47B57/34 A47B9/00 A63B23/04 F16M11/00
CPC: A63B23/0458
European class: A63B23/04B6
US class: 108/107 108/19 108/96 182/228.1 248/149 248/157 272/70 482/51 482/52

[Classification Explorer](#)

Cited documents: US4903614 A, US4648593 A, US4624341 A, US4453472 A, US4340218 A, US4301745 A, US4237795 A, US3904158 A, US3743283 A, US2850081 A, US2809875 A, US2619154 A, US2599020 A, US2527505 A, SU1227210 T, FR2611508 A1, DE124432 A,

Forward Citations: WO9309851, WO9309851, USD502022, US9192813, US7601101, US7231740, US7169098, US6908417, US6558301, US6117051, US6012185, US5697870, US5683331, US5638913, US5591105, US5558603, US5476103, US5472390, US5470292, US5382209, US5354247, US5316528, US5213554, US5176596, US5154678, US2018339191, US2013045840, US2010029443, US2009111669, US2006225372, US2006052220, US2004221517, US2004002411, US10286252,

Abstract:
An adjustable bench-step for use in exercising, having an upper platform that is easily and securely insertable into a base, with the upper platform further being both adjustable vertically and approachable from any horizontal axis.



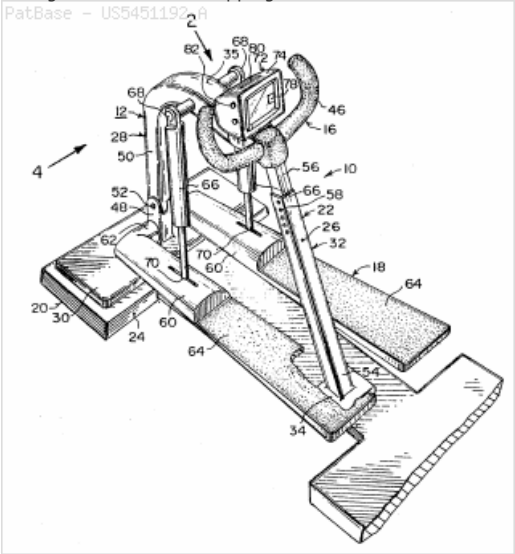
91) Family number: 12158135 (US5451192A) © PatBase

Title: Adjustable exercise device for a child
Priority: US19940210495 19940321
Family:

Publication number	Publication date	Application number	Application date
US5451192 A	19950919	US19940210495	19940321

Probable Assignee: HEFELE SHERYN B
Assignee(s):(std): HEFELE SHERYN B
Inventor(s):(std): HEFELE SHERYN B
International class (IPC 8-9): A63B23/04 (Advanced/Invention); A63B21/02 A63B21/04 A63B23/035 (Advanced/Non-invention)
International class (IPC 1-7): A63B23/04
CPC: A63B23/03533 A63B21/023 A63B21/04 A63B22/0056 A63B2022/0051 A63B2208/12
European class: A63B22/00P6 A63B23/035C4 A63B23/035G K63B208/12 K63B21/02B K63B21/04 K63B22/00P2
US class: 482/52
[Classification Explorer](#)
Cited documents: US5071115 A, US3724845 A,
Forward Citations: US9509269, US8088042, US7867141, US7586032, US7577522, US7542816, US7519537, US7489979, US5890995, US5785630, US5690582, US2009069157, US2008146416, US2008108481, US2008032870, US2007281831, US2007275826, US2007135264, US2006020174,

Abstract:
An adjustable exercise device is provided for a child, which consists of a stationary support stand to be positioned on a flat surface. A handlebar assembly is mounted on the stationary support stand. A mechanism for simulation stepping motion is mounted to the stationary support stand. A child can grip the handlebar assembly with the hands and place the feet on the simulation stepping motion mechanism, so as to exercise by manually activating the simulation stepping motion mechanism.



92) Family number: 43649137 (US2009247370A) © PatBase

Title: EXERCISE METHODS AND APPARATUS

Priority: US20080066287P 20080219 US20090389370 20090219 US20090628208 20091130
US20100399312P 20100710 US20100902136 20101011 US20110135680 20110711
US20130902780 20130524

Family:

Publication number	Publication date	Application number	Application date
US2009247370 AA	20091001	US20090389370	20090219
US2011136628 AA	20110609	US20100902136	20101011
US7811207 BB	20101012	US20090389370	20090219
US8147384 BB	20120403	US20100902136	20101011
US8449437 BA	20130528	US20090628208	20091130
US8801580 BA	20140812	US20130902780	20130524
US8864631 BA	20141021	US20110135680	20110711
WO09105240 A1	20090827	WO2009US01073	20090219

Probable Assignee: MARESH JOSEPH D

Assignee(s):(std): MARESH JOSEPH D ; STEARNS KENNETH W

Inventor(s):(std): MARESH JOSEPH D ; STEARNS KENNETH W

Agent(s): NICK A NICHOLS JR; NICK A; NICHOLS NICK A JR

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A63B21/00 A63B21/22 A63B22/00 A63B22/04 A63B71/00 (Advanced/Invention); A63B22/00 A63B71/00 (Core/Invention)

CPC: A63B2022/0688 A63B24/0087 A63B2024/0093 A63B2220/51 A63B21/225 A63B2220/16 A63B2220/805 A63B22/0664 A63B22/001 A63B2022/067 A63B22/0017

European class: A63B22/00A6 A63B22/06E K63B22/00B2 K63B22/06E2

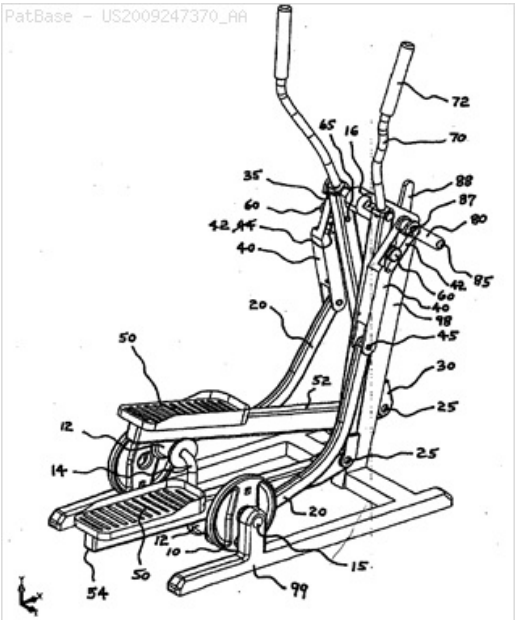
US class: 482/51 482/52 482/52P 482/57 482/62 482/63 482/70

[Classification Explorer](#)

Cited documents: US8449437 BA, US7811207 BB, US7682288 BA, US7608018 BB, US7455624 BB, US7201706 BA, US7104929 BA, US7060004 BB, US6994656 BB, US6672992 BA, US6645125 BA, US6620079 BB, US6612969 BB, US6454682 BA, US6440042 BB, US6277054 BA, US6206804 BA, US6077198 A, US5305648 A, US5167159 A, US5027303 A, US4934692 A, US4909086 A, US4221275 A, US4141245 A, US2012115685 AA, US2010317494 AA, US2010248899 AA, US2009111663 AA, US2009048077 AA, US2009013804 AA, US2008261778 AA, US2008227602 AA, US2007298936 AA, US2007265143 AA, US2006166791 AA, US2005181911 AA,

Forward Citations: USD850541, US9764187, US9566467, US9468798, US9457223, US9457222, US9375606, US9339685, US9302145, US9248339, US8974352, US8840527, US8801580, US8147384, US8113995, US2018290014, US2017319905, US2015375030, US2015182788, US2015182781, US2015119201, US2014148311, US2014121065, US2012277063, US2011136628, US10272286, US10265581, US10213644, KR101385165,

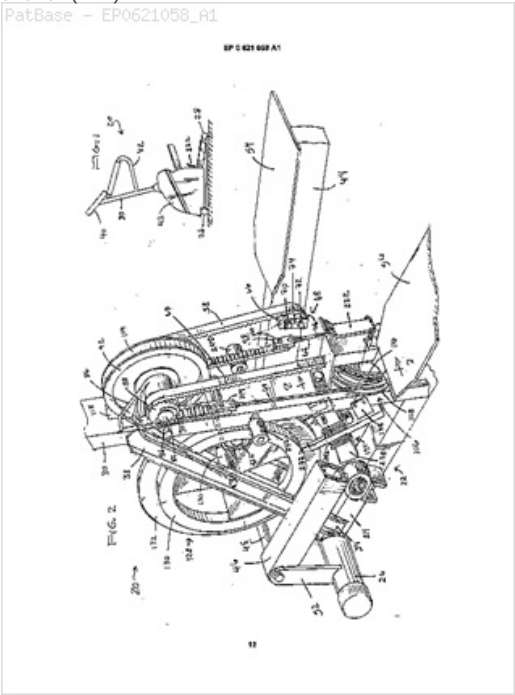
Abstract:
An exercise apparatus links rotation of a crank to generally elliptical motion of a foot supporting member. A foot supporting linkage is movably connected between a rocker and a crank in such a manner that the foot supporting member moves through paths of motion which are fixed, adjustable or variable.



93) Family number: 9114139 (EP0621058A1) © PatBase				
Title:	Step exercise apparatus. Vorrichtung zum ueben des Treppensteigens. Appareil pour s'entra			
Priority:	US19930050933 19930421	US19930050933 19930422	CA19942121857 19940421	
Family:	Publication number	Publication date	Application number	Application date
	CA2121857 AA	19941023	CA19942121857	19940421
	EP0621058 A1	19941026	EP19940302826	19940420

Probable Assignee: LIFE FITNESS
Assignee(s):(std): LIFE FITNESS
Assignee(s): NIEMOTKA MICHAEL ADAM ; RYAN AL ; SHIVDE SANJAY ; SHUPE RONALD G ; TWERY SHERWIN ; TERMION MARK C ; THUM DAVID J ; BACALZO DEAN
Inventor(s):(std): BACALZO DEAN ; BACALZO DEAN CONRAD ; NIEMOTKA MICHAEL A ; NIEMOTKA MICHAEL ADAM ; RYAN AL ; RYAN ALLEN LEROY ; SHIVDE SANJAY ; SHIVDE SANJAY ASHOK ; SHUPE RONALD G ; SHUPE RONALD GEORGE ; TERMION MARK C ; TERMION MARK CHRISTOPHER ; THUM DAVID J ; THUM DAVID JOSEPH ; TWERY SHERWIN ; TWERY SHERWIN LYLE
Agent(s): RICHES MCKENZIE AND HERBERT LLP
Designated states: DE ES FR GB GR IT NL SE
International class (IPC 8-9): A63B21/005 A63B22/04 A63B23/04 A63B69/16 (Advanced/Invention)
International class (IPC 1-7): A63B21/005 A63B22/04 A63B23/04 A63B69/16
CPC: A63B21/0051 A63B21/225 A63B22/0056 A63B2022/0038 A63B2208/0204
European class: A63B21/005B A63B22/00P6 K63B208/02B K63B21/22F K63B22/00C8
[Classification Explorer](#)
Cited documents: US5180351 A, US5013031 A, US4900013 A,
Forward Citations: WO11010941, US9393475, US9381396, EP2859922, EP2859922, CN105935478, AU694721,

Abstract:
A step exercise apparatus comprises a first foot operated pulley (108), a second foot operated pulley (110) and a user selectable lever (222) adapted to operate a resiliently biased connector (182) having pins (184,186) for disengagably entering in apertures (148,150,152;158,160,162) in the pulleys (108,110) so that the pulleys (108,110) are locked together for cooperative rotative movement in an interdependent operative mode at one position of the lever (222) and the pulleys (108,110) are disengaged one from another for independent rotative movement upon withdrawal of the pins (184,186) from the apertures (148,150,152; 158,160,162) in an independent operative mode at a second position of the lever (222).



94) Family number: 10303139 (US4770411A)

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Title: EXERCISE APPARATUS ERGOMETER
Priority: US19870102202 19871002
Family:

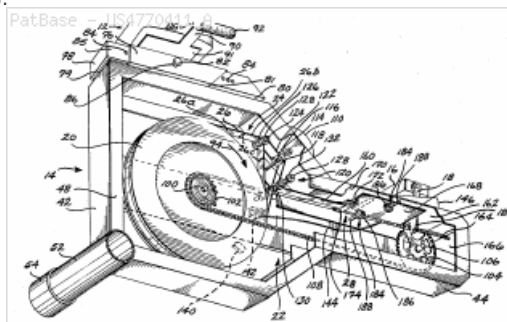
Publication number	Publication date	Application number	Application date
US4770411 A	19880913	US19870102202	19871002

Probable Assignee: PRECOR INC 20001 NORTH CREEK PARKWAY NORTH BOTHELL WA 98011 A CORP OF DE
Assignee(s):(std): PRECOR INC
Assignee(s): PRECOR INC 20001 NORTH CREEK PARKWAY NORTH BOTHELL ; PRECOR INC 20001 NORTH CREEK PARKWAY NORTH BOTHELL WA 98011 A CORP OF DE
Inventor(s):(std): ARMSTRONG TIMOTHY O ; GRAF LARRY J ; POTTS WILLIAM W
International class (IPC 8-9): A63B22/08 (Advanced/Invention); A63B21/22 (Advanced/Non-invention); A63B22/06 (Core/Invention); A63B21/00 (Core/Non-invention)
International class (IPC 1-7): A61B5/22 A63B21/00
CPC: Y10S482/901 Y10S482/909 A63B21/225 A63B2022/0652 A63B22/0605
European class: A63B22/08 K63B21/22F
US class: 272/73 272/DIG.5 482/64 482/901 482/909 73/379 73/379.07
[Classification Explorer](#)
Cited documents: US4630818 A, US4558861 A, US3833216 A, US2510973 A,

Forward Citations: US9480877, US9327799, US8628455, US5971893, US5873804, US5833581, US5738611, US5697869, US5643146, US5486148, US5067710, US4961571, US4953850, US2015174447, US2012172181, US10279212, US10272317, US10226396, US10220259, US10188890,

Abstract:

An ergometer (28) is employed on an exercise cycle (10) having a flywheel (20) rotated by pedals (16). A selectively tensionable endless belt (26) extends around the perimeter of flywheel (20) and a separate strap (160) is attached to the endless belt (26) to extend tangentially from the flywheel (20). The opposite end of strap (160) is connected to one end of an indicator plate (162) with the other end of the indicator plate attached to one end of an extension spring (164). The extension spring (164) imparts a tensile load on strap (160) equal to the opposing tensile load on the strap (160) imposed by the frictional force acting between endless belt (26) and the flywheel (20). This force level is sensed by the movement of the indicator plate (162) which coincides with the extension of spring (164), which plate movement corresponds to the workout level being achieved. The workout level in terms of calories per minute is displayed by indicia disposed on the upper side of the indicator plate (162) visible through a window (30) formed in the frame structure (40) of the exercise cycle (10).



95) Family number: 22438140 (US2002042329A)

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Title: EXERCISE APPARATUS FOR SIMULATING SKATING MOVEMENT
Priority: US20000237387P 20001004 US20010909020 20010720 CA20042466543 20040507
US20040873254 20040623 EP20050735814 20050419 WO2005CA00599 20050419
US20060511422 20060829

Family:	Publication number	Publication date	Application number	Application date
	AT527034 E	20111015	AT20050735814T	20050419
	CA2466543 AA	20051107	CA20042466543	20040507
	CA2466543 C	20120821	CA20042466543	20040507
	CN1984697 A	20070620	CN200580023080	20050419
	CN1984697 B	20100630	CN200580023080	20050419
	DE602005030392 D1	20111208	DE200560030392T	20050419
	EP1793901 A1	20070613	EP20050735814	20050419
	EP1793901 A4	20080409	EP20050735814	20050419
	EP1793901 B1	20111005	EP20050735814	20050419
	US2002042329 AA	20020411	US20010909020	20010720
	US2004241631 AA	20041202	US20040873254	20040623
	US2006287168 AA	20061221	US20060511422	20060829
	US6786850 BB	20040907	US20010909020	20010720
	US7115073 BB	20061003	US20040873254	20040623
	US7556592 BB	20090707	US20060511422	20060829
	WO05107889 A1	20051117	WO2005CA00599	20050419

Probable Assignee: TECHNOGYM INTERNAIONAL BV
Assignee(s):(std): AMSTERDAM MANNO BRANCH OF TECHNOCHIM INTERNAT PRIVATE CO LTD ; NIZAM NASH ; SKATESTRIDER INC ; TECHNOGYM INTERNAT B V AMSTERD ; TECHNOGYM INT BV ; TECHNOGYM INTERNAT B V ; TECHNOGYM INTERNAT B V AMSTERDAM MANNO BRANCH
Assignee(s): TECHNOGYM INTERNATIONAL B V AMSTERDAM MANNO BRANCH ; TECHNOGYM INT AMSTERDAM MANNO BRANCH BV ; TECHNOGYM INTERNAIONAL BV ; TECHNOGYM INT ; TECHNOGYM INTERNATIONAL B V ; NIZAMUDDIN NASH ; AMSTERDAM MANNO BRANCH OF TECHNOCHIM INTERNATIONAL PRIVATE CO LTD ; NASH NIZAM was NIZAMMUDIN ; NASH NIZAM WAS NIZAMMUDIN..
Inventor(s):(std): NIZAM NASH ; NASH NIZAM ; NIZAMUDDIN NASH
Inventor(s): NIZAM NASH THORNHILL
Agent(s): CASSAN MACLEAN; CASSAN MACLEAN IP AGENCY INC; LIEBETANZ MICHAEL; RICHES MCKENZIE AND HERBERT LLP; BROWDY AND NEIMARK PLLC
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
International class (IPC 8-9): A63B21/22 A63B22/00 A63B22/14 A63B22/16 A63B23/04 A63B69/00 A63B69/18 A63B71/00 A63C3/00 (Advanced/Invention); A63B21/00 A63B21/018 A63B21/055 A63B21/22 A63B23/035 A63B69/18 (Advanced/Non-invention); A63B21/00 A63B22/00 A63B23/04 A63B69/00 A63B69/18 A63C3/00 (Core/Invention); A63B21/00 A63B21/012 A63B23/035 (Core/Non-invention)
International class (IPC 1-7): A63B22/00 A63B22/06 A63B69/00 A63B69/18 A63C3/00
CPC: A63B21/018 A63B21/153 A63B21/055 A63B21/0435 A63B21/0552 A63B21/157 A63B21/225 A63B22/00 A63B22/0046 A63B22/0056 A63B22/0061 A63B22/0069 A63B22/203 A63B22/205 A63B23/0488 A63B69/0022 A63B71/0622 A63B2022/0028 A63B2022/003 A63B2022/0038 A63B2022/0051 A63B2022/0053 A63B2022/0071 A63B2022/206 A63B2208/0204
European class: A63B21/055 A63B21/15F4 A63B21/15G A63B21/22F A63B22/00 A63B22/00P10T A63B22/00P6 A63B22/00P8 A63B22/20 A63B22/20T2 A63B22/20T4 A63B23/04E2 A63B69/00G K63B208/02B

K63B21/018 K63B21/04B8 K63B21/055D K63B21/22F K63B22/00C2 K63B22/00C2P K63B22/00C8
K63B22/00D K63B22/00P10T2 K63B22/00P2 K63B22/00P4 K63B22/20T6 K63B23/04E2 K63B71/06D2
434/253 434/253P 482/110 482/116 482/135 482/51 482/51P 482/51S 482/70 482/71 482/71P 482/79

US class:

[Classification Explorer](#)

Cited documents:

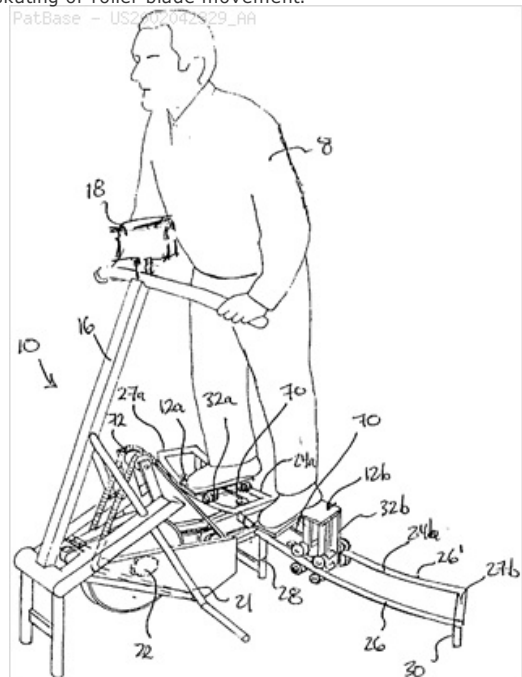
WO9612528 A1, US7115073 BB, US7014595 BB, US7014595 BA, US6786850 BB, US6786850 BA, US6718658 BB, US6695749 BB, US6695749 BA, US6514180 BA, US6234935 BA, US6106442 A, US5911650 A, US5855538 A, US5718658 A, US5713794 A, US5692995 A, US5665033 A, US5643153 A, US55637060 A, US5536225 A, US5520598 A, US5503609 A, US5496239 A, US5391130 A, US5328427 A, US5304106 A, US5284460 A, US5279532 A, US5222928 A, US4915373 A, US4911430 A, US4869496 A, US4811941 A, US4781372 A, US4744557 A, US4669723 A, US4645202 A, US4396189 A, US4340214 A, US4328427 A, US3756595 A, US3591172 A, US2005272562 AA, US2005079956 AA, US2005014613 AA, US2003216222 AA, US2002155926 AA, US2002145926 AA, SU1443908 T, CH673092, CA2407758 AA,

Forward Citations:

WO17165393, WO15200767, WO14005035, WO12023984, WO09078943, WO08017046, WO07117530, WO07053930, WO05035077, WO05035077, USD724678, USD626186, USD624135, USD620540, USD589573, US9962592, US9884223, US9868011, US9776062, US9623282, US9610475, US9586085, US9579555, US9492705, US9339712, US9259604, US9242138, US9227105, US9192802, US9108081, US9017236, US8992390, US8986167, US8944973, US8678981, US8465402, US8444580, US8167778, US8100815, US8057362, US8043195, US7998043, US7959544, US7935032, US7922626, US7896781, US7892152, US7887463, US7850578, US7846073, US7819780, US7806808, US7798943, US7780585, US7780577, US7771324, US7744507, US7717828, US7713182, US7713181, US7713178, US7686741, US7682289, US7658698, US7654937, US7645218, US7637849, US7601102, US7594877, US7556592, US7473210, US7438670, US7425189, US7338414, US7303511, US7303508, US7125367, US7115073, US7014595, US2018250573, US2018021655, US2018015322, US2017209728, US2017165555, US2017113094, US2017100621, US2016361587, US2016325137, US2016317863, US2016296791, US2016059070, US2015360113, US2015165264, US2014329645, US2013310231, US2013217550, US2013053227, US2012277075, US2012053019, US2011300996, US2011294633, US2011136088, US2011118096, US2011098161, US2011039667, US2011039666, US2010261588, US2010248919, US2010227739, US2010216614, US2010190621, US2010151999, US2010093497, US2010075813, US2010062912, US2010022370, US2010010397, US2009298657, US2009280962, US2009203502, US2009176625, US2009176623, US2008220943, US2008132385, US2008090708, US2008051260, US2008045386, US2008032869, US2008020902, US2007287602, US2007259763, US2007254781, US2007238583, US2007219063, US2007171199, US2006287168, US2006281604, US2006247105, US2006189454, US2006063646, US2006009329, US2005272562, US2005266964, US2005137062, US2005079956, US2004242381, US2004241631, US2004162193, US10293211, US10279212, US10272317, US10258828, US10252109, US10232218, US10201729, US10201724, US10188890, US10124232, US10124202, US10092789, US10065062, KR100953493, JP5770714, JP5351392, JP2012523919, JP2008018241, EP3269429, EP2349500, EP2349500, EP2161057, EP1878476, EP1747804, EP1598095, DE202012003093, DE102008017027, CN107261411, CN105327486, CN104623869, CN104428040, CN103752000, CN103752000, CN103252060,

Abstract:

An exercise apparatus used to simulate skating or roller blading movement in a user includes a pair of sleds or shuttles which include a pedal adapted to support the foot of a user standing thereon. The shuttles are movable along a respective guide assembly consisting of one or more rails which curve away from each other extending from proximate forwardmost ends, outwardly and rearwardly. The rail assemblies are provided in a substantially mirror arrangement and curve downwardly from their respective forwardmost ends to a lowermost distal portion. A guide member is provided to assist in positioning and maintaining the shuttles in sliding movement along each guide assembly, whereby the reciprocal sliding movement of the shuttles along an associated guide assembly acts to guide the feet of the user in skating or roller blade movement.



96) Family number: 11628142 (US5328420A)

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Title: STAIR STEP EXERCISE MACHINE

Priority: US19930093023 19930719

Family:

Publication number	Publication date	Application number	Application date
US5328420 A	19940712	US19930093023	19930719

Probable Assignee: ALLEN TEMPLE W

Assignee(s):(std): ALLEN TEMPLE W

Inventor(s):(std): ALLEN TEMPLE W

International class (IPC 8-9): A63B22/04 (Advanced/Invention); A63B21/015 (Advanced/Non-invention); A63B22/00 (Core/Invention); A63B21/012 (Core/Non-invention)

International class (IPC 1-7): A63B22/04

CPC: Y10S482/908 A63B22/0023 A63B21/015 A63B22/04

European class: A63B22/00B4 A63B22/04 K63B21/015

US class: 482/37 482/52 482/908

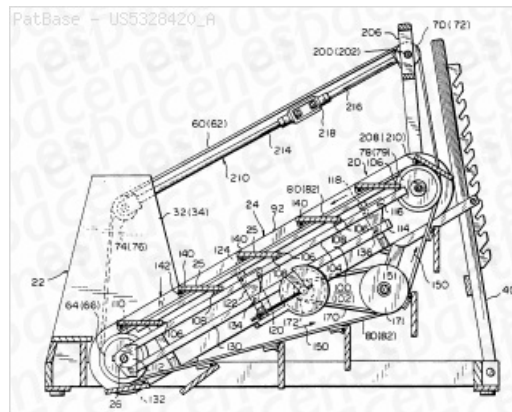
[Classification Explorer](#)

Cited documents: US5195935 A, US5145475 A, US5120050 A, US4687195 A, US3497215 A,

Forward Citations: USRE47331, US9795828, US9789355, US9623281, US9561398, US9381397, US9238158, US9216317, US9028368, US9017224, US8974353, US8876668, US8784270, US8758201, US8702571, US8690735, US8298123, US8251874, US8029415, US7985164, US7981000, US7980996, US7927257, US7862483, US7862478, US7857731, US7789800, US7731632, US7713171, US7645213, US7645212, US7637847, US7628730, US7625315, US7575536, US7556590, US7549947, US7540828, US7537549, US7537546, US7510509, US7455622, US7192388, US7166064, US7166062, US7101317, US7060006, US6997852, US6918858, US6761667, US6626799, US6458060, US6447424, US6348024, US5769759, US5556352, US2017014673, US2015141201, US2011152039, US2010197465, US2010099541, US2010016126, US2009137367, US2004171465, US2004038780, US2004038779, US2002165067, US2002016235, US10300330, US10293211, US10279212, US10272317, US10258828, US10252109, US10226396, US10220259, US10188890, US10105568, EP3072558, EP3072558, CN107303419, CN107303419, CN106730608, CN106730608, CN106139515, CN106139515, CN103656991, CN103656991,

Abstract:

A stair step exerciser is mounted on a frame having horizontal and vertical components. A carriage comprised of a pair of side plates is pivoted to one end of a horizontal component and is retained at the other end in one of a series of vertical stops to selectively determine the angle of the carriage with respect to the frame. The carriage has pulleys at both ends which support the belts on which treads are pivoted at one end. The other end of the treads rest on one rail of a four bar linkage, which linkage expands as the carriage angle is decreased and collapses as the carriage angle is increased so as to always maintain the treads horizontal. A pair of hand cables are provided which move at substantially the same speed as the treads. The hand cables are mounted so as to be closer to the treads as the angle of the carriage increases and so as to move away from the treads as the angle of the carriage decreases.



97) Family number: 31873143 (US2005096196A)

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Title: SHOULDER PRESS EXERCISE MACHINE

Priority: US20030699992 20031103 US20070960447 20071219

Family:

Publication number	Publication date	Application number	Application date
US2005096196 AA	20050505	US20030699992	20031103
US2008132389 AA	20080605	US20070960447	20071219
US7331911 BB	20080219	US20030699992	20031103
US7717832 BB	20100518	US20070960447	20071219

Probable Assignee: HOIST FITNESS SYSTEMS INC

Assignee(s):(std): HOIST FITNESS SYSTEMS ; HOIST FITNESS SYSTEMS INC ; MEREDITH JEFFREY O ; WEBBER RANDALL T

Inventor(s):(std): WEBBER RANDALL T ; MEREDITH JEFFREY O

Inventor(s): MEREDITH JEFFREY ; WEBBER RANDALL

Agent(s): GORDON AND REES LLP; PROCOPIO CORY HARGREAVES AND SAVITCH LLP

International class (IPC 8-9): A63B21/06 A63B21/062 A63B21/08 A63B23/02 A63B23/12 (Advanced/Invention); A63B23/035 (Advanced/Non-invention); A63B21/06 A63B23/00 A63B23/035 (Core/Invention)

International class (IPC 1-7): A63B21/06 A63B21/08

CPC: A63B21/4047 A63B21/0615 A63B23/03575 A63B2208/0233 A63B21/4035 A63B21/4045 A63B23/03525 A63B23/03533 A63B23/1209 A63B21/0628

European class: A63B21/062 A63B21/14M6 A63B23/12D K63B208/02E2 K63B21/06F K63B23/035G

US class: 482/100 482/135 482/137 482/142 482/94 482/94P 482/96 482/97 482/97S

[Classification Explorer](#)

Cited documents: USD372509 S1, USD357041 S1, US7468024 BB, US7384381 BB, US7361125 BB, US7357768 BB, US7335140 BB, US7331911 BB, US7322906 BB, US7229389 BB, US7223213 BB, US7220221 BB, US7141008 BB, US7141003 BB, US7108641 BB, US7070545 BB, US7052446 BB, US7052444 BB, US6971978 BB, US6966872 BB, US6916278 BB, US6913565 BB, US6855098 BB, US6811522 BA, US6752748 BA, US6605024 BB, US6491609 BB, US6394937 BA, US6387020 BA, US6312366 BA,

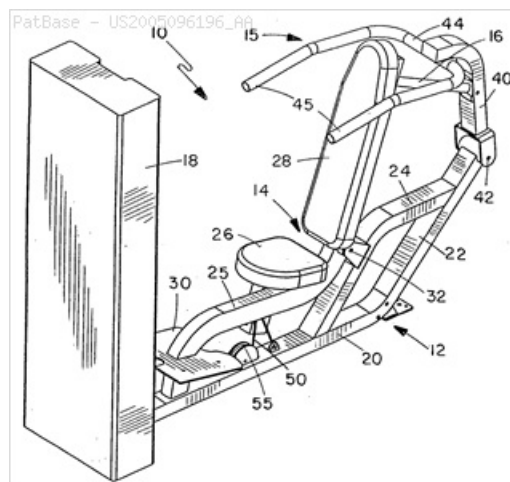
US6302832 BA, US6264588 BA, US6254516 BA, US6251047 BA, US6244995 BA, US6162153 A, US6142914 A, US6135930 A, US6120419 A, US6086521 A, US6080091 A, US6074328 A, US6071216 A, US6004247 A, US5997446 A, US5971901 A, US5967954 A, US5961427 A, US5944641 A, US5938570 A, US5899836 A, US5897467 A, US5876095 A, US5827158 A, US5810701 A, US5810698 A, US5803882 A, US5749813 A, US5733232 A, US5733229 A, US5722918 A, US5720695 A, US5702328 A, US5695434 A, US5690593 A, US5683334 A, US5676626 A, US5674161 A, US5672142 A, US5669865 A, US5658227 A, US5643152 A, US5643147 A, US5626542 A, US5616105 A, US5603678 A, US5597375 A, US5582563 A, US5580341 A, US5580340 A, US5573482 A, US5562577 A, US5554089 A, US5554086 A, US5549530 A, US5547444 A, US5540639 A, US5533953 A, US5527250 A, US5527249 A, US5527243 A, US5520599 A, US5507710 A, US5503608 A, US5499959 A, US5478298 A, US5458553 A, US5453066 A, US5447480 A, US5437589 A, US5421796 A, US5417634 A, US5356358 A, US5356357 A, US5354248 A, US5352171 A, US5346447 A, US5342270 A, US5342269 A, US5334120 A, US5330405 A, US5330404 A, US5322489 A, US5299997 A, US5267930 A, US5263914 A, US5254067 A, US5250013 A, US5165105 A, US5108095 A, US5106081 A, US5100128 A, US5050873 A, US5011139 A, US4949958 A, US4949951 A, US4944641 A, US4844456 A, US4822038 A, US4793608 A, US4743010 A, US4700946 A, US4641833 A, US4632390 A, US4441708 A, US4300760 A, US4231568 A, US4111414 A, US3707285 A, US3640528 A, US3592465 A, US3446503 A, US248121 A, US2252156 A, US2145940 A, US2008248929 AA, US2008242517 AA, US2008234110 AA, US2008220950 AA, US2008214367 AA, US2008214365 AA, US2008182732 AA, US2008153677 AA, US2008058176 AA, US2007293378 AA, US2007293377 AA, US2007232462 AA, US2006276313 AA, US2006247107 AA, US2005096198 AA, US2005096197 AA, US2005032611 AA, US2004005966 AA, US2003199362 AA, US2002187879 AA, US2002103058 AA, US2002013199 AA, SU1674874 T, CA2075331 AA,

Forward Citations:

WO12143343, USD785732, USD785107, USD784465, USD783741, USD641436, US9993683, US9919183, US9878201, US9861850, US9833656, US9789347, US9750969, US9707448, US9682276, US9662531, US9545540, US9517379, US9205298, US9126081, US8870720, US8784286, US8734304, US8702573, US8652015, US8641587, US8562496, US8523744, US8328698, US8177693, US8162807, US8012073, US8002679, US7993251, US7988603, US7981011, US7981010, US7976440, US7963890, US7938760, US7909743, US7901337, US7901335, US7878953, US7815555, US7794371, US7766802, US7731638, US7727128, US7717832, US7670269, US7662075, US7654940, US7654938, US7641605, US7601187, US7594880, US7563209, US7549949, US7361125, US7335140, US2017216649, US2016114210, US2016082312, US2016082300, US2014364283, US2013109542, US2012058866, US2011287911, US2011224058, US2011207584, US2011130252, US2010323853, US2010016128, US2009124469, US2009029834, US2008248929, US2008242517, US2008234110, US2008227606, US2008220950, US2008214367, US2008214365, US2008182732, US2008153677, US2008132389, US2008058181, US2008058177, US2008058176, US2008039296, US2007293378, US2007293377, US2007232462, US2007037673, US2006040810, US2005096198, US2005096197, US2005032611, US10293211, US10279212, US10252109, US10188890, US10143875, ITMC20110021, EP3398663, EP3356000, EP2695644, EP2695644, EP2653196,

Abstract:

A shoulder press exercise machine has a main frame, a user support pivotally mounted on the frame for supporting a user in a seated position, at least one exercise arm movably mounted on the frame and movable between a start position in which handles are located in front of the shoulders of a user on the user support frame and an end position in which the handles are located above the head of the user. A connecting linkage connects movement of the exercise arm to movement of the user support, so that movement of the exercise arm from the start to the end position simultaneously rotates the user support. A load resists movement of at least one of the moving parts of the machine. The combined motion of the user, user support frame and exercise arm between the start and end position substantially replicates the natural movement of the upper part of a human body when performing a free weight shoulder press exercise.



98) Family number: 8329143 (WO9218204A1)

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Title: EXERCISE DEVICE

Priority: US19910686532 19910417 WO1992US03131 19920416

Family:	Publication number	Publication date	Application number	Application date
	AU199218757 A1	19921117	AU19920018757	19920416
	WO9218204 A1	19921029	WO1992US03131	19920416

Probable Assignee: EXERHEALTH INC

Assignee(s):(std): EXERHEALTH INC

Inventor(s):(std): LAMBERT LLOYD

Inventor(s): LLOYD LAMBERT

Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CS DE DK ES FI FR GA GB GN GR HU IT JP KP KR LK LU MC MG ML MR MW NL NO PL RO RU SD SE SN TD TG

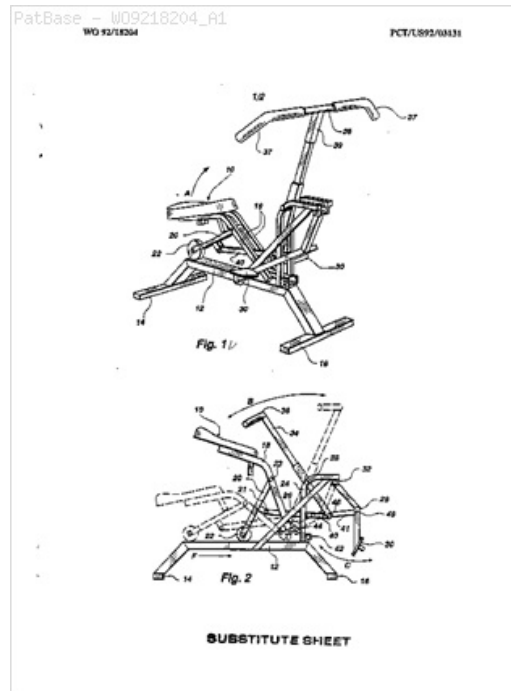
International class (IPC 8-9): A63B21/068 (Advanced/Invention); A63B21/06 (Core/Invention)

International class (IPC 1-7): A63B21/068 A63B22/06

CPC: A63B21/068
European class: A63B21/068
[Classification Explorer](#)
Cited documents: US4300760 A, US2924456 A, US2642288 A, US2470544 A,
Forward Citations: US7294096, US5733229, US5672142, US5647825, US5586959, US5478298, US5464378, US5458553, GB2425969, GB2425969, GB2281218, GB2281218,

Abstract:

An exercise machine including a base (12, 14, 16) for supporting the apparatus above the underlying surface and a seat (10) for supporting the user's body is disclosed. Structures which permit the seat to be smoothly raised and lowered in relation to the base are also provided. A pair of grips (37), mounted on a handlebar (36), are positioned forward of the seat (10) and are configured to be grasped by the user. A pair of pedals (30), each of the pedals positioned forward of the seat (10) and each configured to rest the foot of the user upon, are also included. Structures are provided which permit the grips (37) and pedals (30) to move in a back-and-forth reciprocating fashion are also included. A mechanical linkage (20, 41) for transferring the reciprocating movement of the pair of grips and the pair of pedals to the seat is provided such that as the user moves the pair of grips and the pair of pedals in a reciprocating fashion, the seat (10) is raised and lowered in proportion to the movement. Thus, as the user pulls with his arms and pushes with his legs, he raises his body which, as carried out repeatedly, results in a muscle and cardiovascular conditioning exercise.



99) Family number: 31873144 (US2005096197A)

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Title: RIGID ARM PULL DOWN EXERCISE MACHINE
Priority: US20030699995 20031103 US20070746430 20070509
Family:

Publication number	Publication date	Application number	Application date
US2005096197 AA	20050505	US20030699995	20031103
US2007232462 AA	20071004	US20070746430	20070509
US7361125 BB	20080422	US20030699995	20031103
US7601187 BB	20091013	US20070746430	20070509

Probable Assignee: HOIST FITNESS SYSTEMS
Assignee(s):(std): HOCKRIDGE BRUCE ; HOIST FITNESS SYSTEMS INC ; MEREDITH JEFFREY O ; WEBBER RANDALL T
Assignee(s): HOIST FITNESS SYSTEMS
Inventor(s):(std): WEBBER RANDALL T ; HOCKRIDGE BRUCE ; MEREDITH JEFFREY O
Inventor(s): WEBBER RANDALL ; MEREDITH JEFFREY
Agent(s): GORDON AND REES LLP; PROCOPIO CORY HARGREAVES AND SAVITCH LLP
International class (IPC 8-9): A63B21/00 A63B21/06 A63B21/062 A63B21/08 A63B23/12 (Advanced/Invention); A63B21/062 (Advanced/Non-invention); A63B21/00 A63B21/06 A63B23/035 (Core/Invention)
International class (IPC 1-7): A63B21/06 A63B21/062
CPC: A63B21/0628 A63B21/4017 A63B23/1218 A63B2208/0233 A63B2208/12 A63B23/1209 A63B21/4033 A63B21/4035 A63B21/4047 A63B23/03525 A63B23/03533 A63B23/1263
European class: A63B23/12D K63B208/02E2 K63B208/12 K63B21/062 K63B21/14A8 K63B23/12A4
US class: 48/72 482/130 482/92 482/92S 482/93 482/93P 482/94 482/94P 482/95 482/96 482/99 482/99S

[Classification Explorer](#)

Cited documents: USD372509 S1, USD357041 S1, US7468024 BB, US7384381 BB, US7361125 BB, US7357768 BB, US7335140 BB, US7331911 BB, US7322906 BB, US7229389 BB, US7223213 BB, US7220221 BB, US7141008 BB, US7141003 BB, US7108641 BB, US7070545 BB, US7052446 BB, US7052444 BB, US6971978 BB, US6966872 BB, US6916278 BB, US6913565 BB, US6855098 BB, US6811522 BA, US6752748 BA, US6605024 BB, US6491609 BB, US6394937 BA, US6387020 BA, US6312366 BA, US6302832 BA, US6264588 BA, US6254516 BA, US6251047 BA, US6244995 BA, US6162153 A, US6086521 A, US6080091 A, US6074328 A, US6071216 A, US6004247 A, US5997446 A, US5971901 A, US5967954 A, US5961427 A, US5944641 A, US5938570 A, US5899836 A, US5897467 A, US5876095 A,

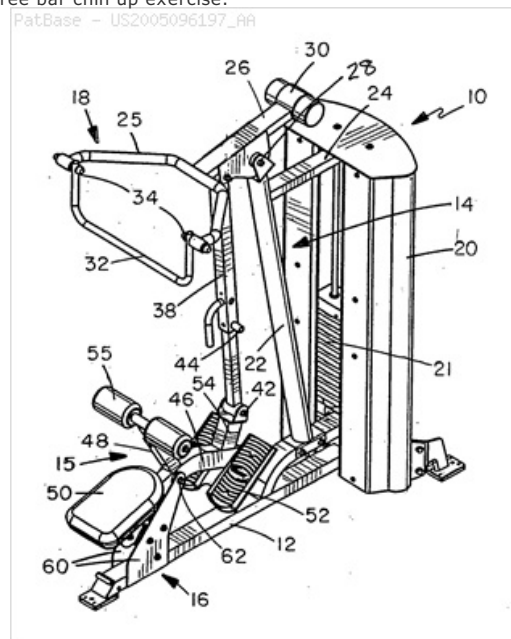
US5827158 A, US5810701 A, US5810698 A, US5803882 A, US5749813 A, US5733232 A, US5733229 A, US5722918 A, US5720695 A, US5702328 A, US5695434 A, US5690593 A, US5683334 A, US5676626 A, US5674161 A, US5672142 A, US5669865 A, US5658227 A, US5643152 A, US5643147 A, US5626542 A, US5603678 A, US5597375 A, US5582563 A, US5580341 A, US5580340 A, US5573482 A, US5562577 A, US5554089 A, US5554086 A, US5549530 A, US5547444 A, US5540639 A, US5533953 A, US5527249 A, US5527243 A, US5520599 A, US5507710 A, US5503608 A, US5499959 A, US5478298 A, US5458553 A, US5453066 A, US5447480 A, US5437589 A, US5421796 A, US5417634 A, US5356358 A, US5356357 A, US5354248 A, US5352171 A, US5346447 A, US5342269 A, US5334120 A, US5330405 A, US5330404 A, US5322489 A, US5299997 A, US5267930 A, US5263914 A, US5254067 A, US5250013 A, US5108095 A, US5106081 A, US5100128 A, US5050873 A, US5011139 A, US4949958 A, US4949951 A, US4944641 A, US4844456 A, US4822038 A, US4793608 A, US4743010 A, US4700946 A, US4641833 A, US4632390 A, US4441708 A, US4300760 A, US4231568 A, US4111414 A, US3707285 A, US3640528 A, US3592465 A, US3446503 A, US248121 A, US2252156 A, US2145940 A, US2008248929 AA, US2008242517 AA, US2008234110 AA, US2008220950 AA, US2008214367 AA, US2008214365 AA, US2008182732 AA, US2008153677 AA, US2008132389 AA, US2008058176 AA, US2007293378 AA, US2007293377 AA, US2006276313 AA, US2006247107 AA, US2005096198 AA, US2005096196 AA, US2005032611 AA, US2004005966 AA, US2003199362 AA, US2002187879 AA, US2002103058 AA, CA2075331 AA,

Forward Citations:

WO18026885, WO17164763, WO12177513, WO11149535, WO07034968, USD675266, US9999797, US9878195, US9861850, US9682276, US9604086, US9504872, US9126081, US9114271, US9017238, US8870720, US8864635, US8784286, US8734304, US8702573, US8574137, US8562496, US8505144, US8177693, US8162807, US8002679, US7993251, US7988603, US7981011, US7981010, US7976440, US7963890, US7938760, US7927262, US7901337, US7901335, US7892153, US7878953, US7867144, US7794371, US7766802, US7731638, US7717832, US7686746, US7670269, US7654940, US7654938, US7641602, US7601187, US7594880, US7575538, US7563209, US7549949, US7335140, US7331911, US2017368402, US2014336004, US2012040807, US2011287911, US2011224058, US2011207584, US2010323853, US2010204022, US2010087295, US2010016128, US2009291812, US2009258761, US2009205148, US2008248929, US2008242517, US2008234110, US2008220950, US2008214367, US2008214365, US2008182732, US2008153677, US2008132389, US2008058181, US2008058177, US2008058176, US2007293378, US2007293377, US2007287607, US2007232462, US2007155595, US2005096198, US2005096196, US10307630, US10293211, US10279212, US10272317, US10258828, US10252109, US10212994, US10188890, US10004933, US0999797, RU2632757, KR101943260, JP5990222, JP2014195724, JP2007301073, JP2007082946, EP3409331, EP3356000, EP2723456, EP2575974, EP2575974, EP2575974, DE102014016535, CN105080041, CN104922855,

Abstract:

An exercise machine for performing lat pull down exercises has a main frame having a user support pivot mount, a user support pivotally mounted on the user support pivot mount for supporting a user in a seated position, and an exercise arm having handles for gripping by a user movably mounted on the frame for movement between a start position located above the head of a user in a seated position on the user support and an end position lower than the start position and generally below the user's chin. A connecting linkage connects movement of the exercise arm to movement of the user support. A load resists movement of at least one of the moving parts of the machine. The combined motion of the user support frame and exercise arm substantially replicates the natural movement of the human body when performing a free bar chin up exercise.



100) Family number: 29755144 (US2003216228A)

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Title:	SYSTEMS AND METHODS OF SPORTS TRAINING USING SPECIFIC BIOFEEDBACK			
Priority:	US20020381730P 20020518	US20020413199P 20020923	US20030440555 20030517	
	US20030670432 20030923			
Family:	Publication number	Publication date	Application number	Application date
	US2003216228 AA	20031120	US20030440555	20030517
	US2005264472 AA	20051201	US20030670432	20030923
Probable Assignee:	RAST RODGER H			
Assignee(s):(std):	RAST RODGER H			
Inventor(s):(std):	RAST RODGER H			
Inventor(s):	RAST RODGER			
Agent(s):	RODGER H RAST			
International class	A63B21/008 A63B47/02 A63B69/20 A63B69/32 A63B69/36 G09G3/00 G09G3/32 (Advanced/Invention);			
(IPC 8-9):	A63B24/00 (Advanced/Non-invention);			
	A63B21/008 A63B47/00 A63B69/20 A63B69/36 G09G3/00 G09G3/32 (Core/Invention);			

	A63B24/00 (Core/Non-invention)
International class (IPC 1-7):	A63B69/32 A63B69/34 A63B71/00 G09G3/00
CPC:	G09G3/14 G09G3/3233 G09G3/3283 G09G2300/06 G09G2300/08 G09G2300/0842 G09G2310/0272 A63B69/201 A63B21/0087 A63B21/0783 A63B47/021 A63B69/32 A63B69/3635 A63B2047/022 A63B2071/0625 A63B2220/53
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Cited documents:	US6611782 BA, US6593919 BA, US6583775 BA, US6508747 BA, US6448718 BA, US6435937 BA, US6280351 BA, US6157898 A, US6032530 A, US5971398 A, US5921896 A, US5904726 A, US5823878 A, US5733193 A, US5718642 A, US5672115 A, US5620376 A, US5605336 A, US5582551 A, US5553860 A, US5542667 A, US5443266 A, US5372365 A, US5368042 A, US5290037 A, US5277428 A, US5232368 A, US5184831 A, US5184826 A, US5181723 A, US5174577 A, US5082281 A, US5065783 A, US5005835 A, US4974833 A, US4953868 A, US4941660 A, US4940228 A, US4883271 A, US4824107 A, US4761005 A, US4684133 A, US4634116 A, US4577868 A, US4417728 A, US4384723 A, US4208048 A, US4108428 A, US4084811 A, US4027535 A, US2003142047 AA,
Forward Citations:	WO18191559, WO12158863, WO12158863, WO11147934, WO09137416, WO09108708, WO09108708, WO09001286, WO09001286, WO08127874, WO08086227, WO08086227, WO08076849, WO08076849, WO08010204, WO07127214, WO07127214, WO07082389, WO05077115, WO05077115, WO05068028, WO05068026, USD709976, US9999806, US9997501, US9997100, US9991423, US9991163, US9987521, US9980341, US9962111, US9952590, US9937402, US9931539, US9925448, US9899465, US9891607, US9886032, US9884238, US9878228, US9878214, US9871345, US9868034, US9841758, US9836046, US9829882, US9827487, US9818725, US9808678, US9805549, US9791858, US9782652, US9782637, US9766620, US9764201, US9760195, US9759738, US9757624, US9741785, US9736439, US9716082, US9710612, US9705042, US9698308, US9694241, US9671073, US9645165, US9630062, US9625485, US9592428, US9561420, US9555292, US9545542, US9526964, US9483876, US9481410, US9468808, US9457730, US9456781, US9429940, US9412496, US9406196, US9395725, US9394016, US9393457, US9389612, US9375620, US9352207, US9342073, US9314685, US9302170, US9292758, US9290220, US9285241, US9280717, US9261445, US9242142, US9227128, US9218316, US9211920, US9193404, US9150263, US9114838, US9093571, US9090214, US9087159, US9085205, US9084923, US9050932, US9032107, US9027415, US9021857, US8808101, US8791897, US8786460, US8764553, US8758172, US8751063, US8747241, US8736590, US8736538, US8734159, US8705733, US8702430, US8690711, US8684802, US8641511, US8615456, US8611840, US8593298, US8571781, US8562422, US8552846, US8536829, US8514169, US8512129, US8493822, US8487174, US8419538, US8405684, US8360904, US8358090, US8344997, US8319703, US8310441, US8246521, US8238585, US8221290, US8219023, US8131618, US8128237, US8119898, US8115596, US8113844, US8113038, US8111209, US8106860, US8106854, US8088000, US8081141, US8080819, US8038589, US8021280, US8020316, US8011222, US8010289, US7984003, US7959528, US7937309, US7927253, US7909749, US7890396, US7874964, US7858913, US7857729, US7855658, US7850514, US7835520, US7805150, US7801784, US7653480, US7636664, US7634379, US7602375, US7592975, US7479094, US7460095, US7450109, US7436394, US7383728, US7310776, US7308818, US7271780, US7253710, US7177740, US6769286, US2018236333, US2018021651, US2016332064, US2016303449, US2016073069, US2016061427, US2015116976, US2015066346, US2015018112, US2014366645, US2014207646, US2014206504, US2014201395, US2014180534, US2014015512, US2013324369, US2013314240, US2013190903, US2013172153, US2013083941, US2013076648, US2013075738, US2013018494, US2012295740, US2012295725, US2012242645, US2012220430, US2012217925, US2012210845, US2012197418, US2012168240, US2012166325, US2012133588, US2012053016, US2011294101, US2011237401, US2011224008, US2011224007, US2011219939, US2011137783, US2011045736, US2010204615, US2010130329, US2010128068, US2010120587, US2010075806, US2010073481, US2009286655, US2009273939, US2009273596, US2009221388, US2009220827, US2009179852, US2009176632, US2009176620, US2009154732, US2009063290, US2009048069, US2009044625, US2009027305, US2009002270, US2008311993, US2008288200, US2008236453, US2008158800, US2008148825, US2008147488, US2008145830, US2008143502, US2008136640, US2008098797, US2008076636, US2008065319, US2008047176, US2008021852, US2007247595, US2007245821, US2007191141, US2007167286, US2007155277, US2007130522, US2007093307, US2007038543, US2007015611, US2006287088, US2006205371, US2006187081, US2006146470, US2006046234, US2006044229, US2006012568, US2006012561, US2005287904, US2005283366, US2005264173, US2005222750, US2005212202, US2005134189, US2005062695, US2004165725, US2003066365, US10293239, US10293233, US10289252, US10281915, US10279212, US10272317, US10262966, US10256389, US10255834, US10248118, US10230048, US10226396, US10224460, US10224231, US10223962, US10220259, US10217730, US10199546, US10197224, US10193025, US10192310, US10188890, US10181507, US10170535, US10168701, US10164404, US10153257, US10153256, US10139089, US10133426, US10132930, US10130841, US10074244, US10066819, US10062297, US10056791, US10022643, US10012985, US10008483, US10008465, US09999806, TWI652659, TWI473530, TWI450120, TWI399713, TWI308079, RU2492895, EP3052995, EP2918316, EP2918316, EP2389992, CN103001494,
Abstract:	
Apparatus for providing biofeedback sports training are described to improve training in a convenient form. Aspects include a sparring device that converts impact and training rates into audio streams following human speech patterns. A device is described for coaching swings such as in golf. Another aspect of the invention is a strength training device utilizing a multicylinder piston device.	

