PatBase - Search results 31 March 2017
Search query (20): 10 OR 18
Results: 9

Search history

Search 1:	TAC=(MOTOR AND (BUOYANT AND FLOAT*)) (Results 992)
Search 2:	SYSTEM AND BUOYANT AND MOTOR (Results 741)
Search 3:	1 AND 2 (Results 383)
Search 4:	SYSTEM AND HIDRAULIC AND GENERATOR AND GRAVITATORY (Results 0)
Search 5:	TAC=(SYSTEM AND HIDRAULIC AND GENERATOR) (Results 1)
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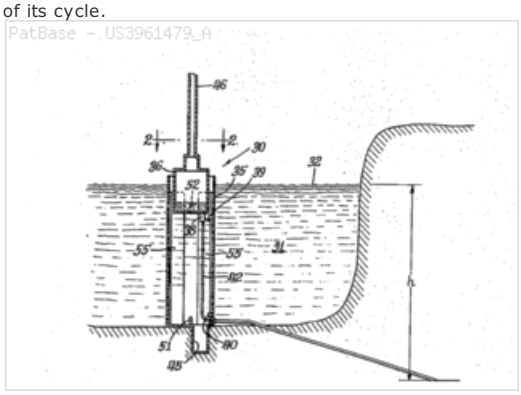
Search 8:	TAC=(MOTOR AND RECIPROCATING AND HYDRAULIC AND SYSTEM AND BATHYSCAPHS) (Results 0)
Search 9:	TAC=(MOTOR AND RECIPROCATING AND HYDRAULIC AND SYSTEM AND BUOYANT) (Results 16)
Search 10:	PN=(US3961479 OR US7956479 OR US2011156395 OR US7012341 OR US2009224548 OR US7765804 OR US20110179784 OR US20110162356 OR US4054031) (Results 9)
Search 11:	TAC=(MOTOR AND (BUOYANT*)) (Results 2024)
Search 12:	TAC=(MOTOR AND (BUOYANT AND FLOAT*)) (Results 992)
Search 13:	TAC=(GRAVITY AND BUOYANCY AND MOTOR) (Results 578)
Search 14:	TAC=((MOTOR AND (BUOYANT AND FLOAT*) AND IPC= F03C5/02)) (Results 1)
Search 15:	TAC=(MOTOR AND (BUOYANT AND FLOAT*) AND GENERATOR AND HIDRAULIC) (Results 0)
Search 16:	RECIPROCATING HYDRAULIC SYSTEM WITH BATHYSCAPHS (Results 0)
Search 17:	ENERGY AND CONVERTING AND HYDRAULIC AND BUOYANT AND MOTOR (Results 41)
Search 18:	PN=(US3961479 OR US7956479 OR US2011156395 OR US7012341 OR US2009224548) (Results 5)
Search 19:	ENERGY AND CONVERTING AND HYDRAULIC AND BUOYANT AND MOTOR (Results 41)
Search 20:	10 OR 18 (Results 9)

1) Family number: 1290814 (US3961479A)

Title: Energy converting hydraulic buoyant motor

Abstract: Source: US3961479A A hydraulic motor for converting the potential energy of a reservoir of water into mechanical or electrical energy and utilizing a reciprocating free floating piston that can be cyclically drained and filled, or floated in a cylinder that can be drained and filled, and including automatically actuated valves to permit the draining and filling, and detention devices for restraining the piston from motion for a portion of its cycle.

Classifications:
International (IPC 8-9): F03B17/02 (Advanced/Invention); F03B17/00 (Core/Invention)
International (IPC 1-7): F03C5/02
CPC: F03B17/025 Y02E10/20
European: F03B17/02B Y02E10/20
US: 60/496



Family:

Publication number	Publication date	Application number	Application date
US3961479 A	19760608	US19740425945	19740131

Priority:

US19730407523 19731018 US19740425945 19740131

Probable Assignee: ANDERSON RAY C

Assignee(s): (std)**:** ANDERSON RAY C

Inventor(s): (std)**:** ANDERSON RAY C

Legal status (INPADOC)

View legal status timeline

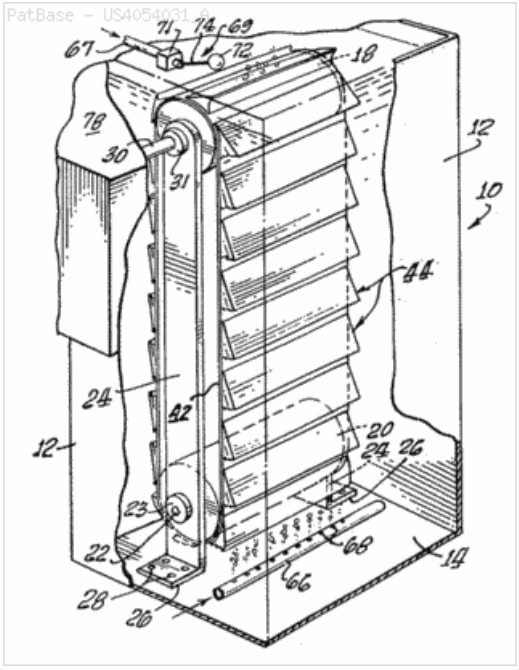
Patent	Date recorded	Event group	Code	Event	Details
US3961479 A	19760608	LSGT	+	granted / extensions (spc, cpc, pte)	

2) Family number: 1453061 (US4054031A)

Title: Power unit

Abstract: Source: US4054031A A power unit having an endless belt immersed in a tank of water and disposed on upper and lower rotatable rollers in parallel alignment tightly enough to frictionally engage and rotate the pullies, there being transversely arranged and longitudinally spaced, relative to the belt, collapsible air buckets or air traps on the outwardly facing side of the belt. When operating, the belt has one part continually moving upwardly and an opposite part moving downwardly. The air buckets open downwardly and expand on the upwardly moving part of the belt; and those on the opposite downwardly moving part open upwardly in a collapsed condition. Air is pumped to a horizontally disposed discharge pipe adjacent the lower end of the belt, the pipe having openings for discharge of air into the succeeding lower open buckets to cause the buckets to be filled with air and expand the buckets so as to move buoyantly upwardly. The free edges of the buckets are provided with air chambers to aid in initial opening of the buckets to facilitate entrance of the air from the discharge pipe into the buckets. When the buckets reach the top of the apparatus, they collapse and expell the air and, as they move downwardly on the opposite downwardly moving side of the belt, they are held collapsed by the water so as to offer little resistance. The upper pulley has a driving connection with an air pump, the outlet of which is connected to the air discharge pipe at the lower end of the apparatus. The air buckets have panels fixed to the belt and movable panels hinged thereto. The fixed panels are flexible so that they will conform to the curvature of the rollers as the buckets pass over the rollers. The air-filled buckets or air traps have great buoyancy and produce sufficient force to operate the air pump, and also to operate auxiliary equipment such as, for example, an electric generator or the like for supplying power for various uses. While an outside supply of air under pressure is provided to start the apparatus operating (after which it will be self-operating) the apparatus will start operating when the apparatus is mounted in the tank and the tank is filled with water.

Classifications:
International (IPC 8-9): F03B17/02 F03B9/00 (Advanced/Invention)
International (IPC 1-7): F03B9/00 F03G7/00
CPC: F03B17/02 F05B2210/401 Y02E10/20
European: F03B17/02 R05B210/401 Y02E10/20
US: 415/7 60/496



Family:

Publication number	Publication date	Application number	Application date
US4054031 A	19771018	US19760659590	19760219

Priority:
US19760659590 19760219

Probable Assignee: JOHNSON CHARLES M
Assignee(s): (std): JOHNSON CHARLES M
Inventor(s): (std): JOHNSON CHARLES M

Legal status (INPADOC)

View legal status timeline

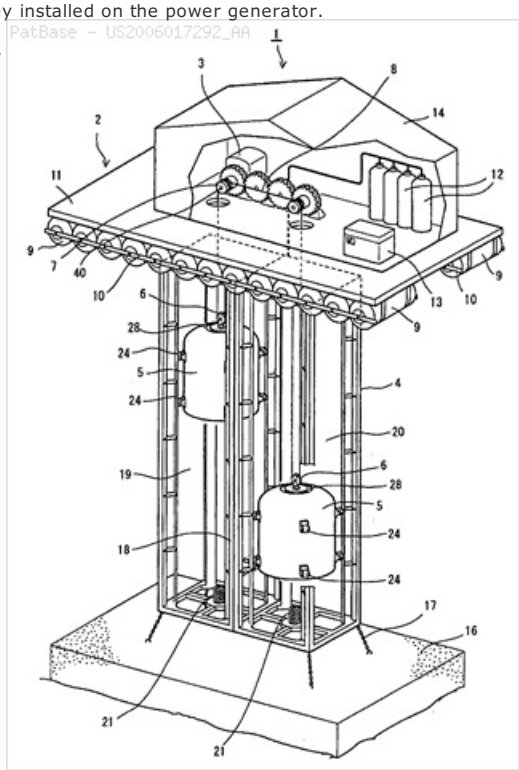
Patent	Date recorded	Event group	Code	Event	Details
US4054031 A	19771018	LSGT	+	granted / extensions (spc, cpc, pte)	

3) Family number: 32454515 (US2006017292A)

Title: ELECTRIC POWER GENERATOR EQUIPMENT

Abstract: Source: US2006017292A In order to obtain an electric power generator equipment capable of efficiently generating electric power and capable of reducing cost, without a water bath and constructive maximum height, the electric power generator equipment comprises a floating member for floating on a water surface, a power generator installed on an upper surface of the floating member, a cage suspended from a lower end of the floating member and held to a water bottom, a pair of floating bodies positioned in the cage which is separated, a wire rope whose both ends are fixed to the cage, and an air filling-up apparatus for filling up air to each of the floating bodies. The wire rope is winded to a pulley installed an end portion of each floating body and is winded to a pulley installed on the power generator.

Classifications:
International (IPC 8-9): F03B13/00 F03B13/10 F03B17/02 F03B17/04 H02P9/04 (Advanced/Invention);
F03B13/00 F03B17/00 H02P9/04 (Core/Invention)
International (IPC 1-7): F03B17/02
CPC: F03B17/025 Y02E10/20
European: F03B17/02B Y02E10/20
US: 290/42 290/43 290/52 290/54 310/11 405/78



Family:

Publication number	Publication date	Application number	Application date
CN100342130 C	20071010	CN200410079304	20040924
CN1724865 A	20060125	CN200410079304	20040924
JP2006029277 A2	20060202	JP20040212403	20040721
JP3708947 B1	20051019	JP20040212403	20040721
US2006017292 AA	20060126	US20040973417	20041027
US7012341 BB	20060314	US20040973417	20041027

Priority:
JP20040212403 20040721

Probable Assignee:	MATSUBARA TADAHIRO
Assignee(s): (std):	HIDEO MATSUBARA ; MATSUBARA HIDEO
Assignee(s):	MATSUBARA TADAHIRO
Inventor(s): (std):	HIDEO MATSUBARA ; MATSUBARA HIDEO
Agent(s):	BERENATO WHITE AND STAVISH LLC

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN100342130 C	20071010	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1724865 A	20060125	LSPB	+	published / reissued	
CN1724865 A	20060125	LSPB	+C06	PUBLICATION	
CN1724865 A	20071010	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1724865 A	20080102	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	OWNER NAME : MATSUBARA KUANGYU DESCRIPTION : FORMER OWNER: MATSUHARA EIO EFFECTIVE DATE : 20071130

CN1724865 A	20080102	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
CN1724865 A	20101006	LSLE	-C17	CESSATION OF PATENT RIGHT	
JP2006029277 A2	20060202	LSPB	+	published / reissued	
JP3708947 B1	20051019	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3708947 B1	20050719	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP3708947 B1	20050726	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20050726
JP3708947 B1	20050811	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20050804
JP3708947 B1	20050812	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R150
JP3708947 B1	20070808	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R313113
JP3708947 B1	20070820	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20080812 YEAR OF FEE PAYMENT : 3
JP3708947 B1	20071121	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R350
JP3708947 B1	20080701	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20090812 YEAR OF FEE PAYMENT : 4
JP3708947 B1	20090616	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20100812 YEAR OF FEE PAYMENT : 5
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JP3708947 B1	20120710	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20130812 YEAR OF FEE PAYMENT : 8
JP3708947 B1	20130730	LSFE	+R250	RECEIPT OF ANNUAL FEES	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R250
JP3708947 B1	20140812	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
US2006017292 AA	20060126	LSPB	+	published / reissued	
US7012341 BB	20060314	LSGT	+	granted / extensions (spc, cpc, pte)	
US7012341 BB	20070904	LSAS	AS	ASSIGNMENT	OWNER NAME : MATSUBARA, TADAHIRO, JAPAN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MATSUBARA, HIDEO; REEL/FRAME:019773/0792

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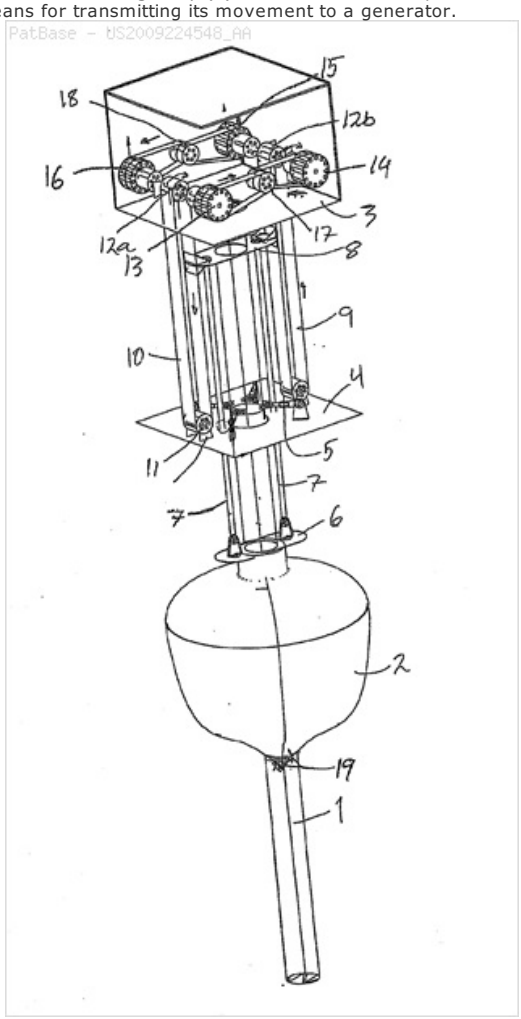
US7012341 BB	20070925	LSAS	AS	ASSIGNMENT	OWNER NAME : MATSUBARA, TADAHIRO, JAPAN DESCRIPTION : CORRECTIVE ASSIGNMENT TO CORRECT THE ADDRESS OF THE ASSIGNEE PREVIOUSLY RECORDED ON REEL 019773 FRAME 0792; ASSIGNOR:MATSUBARA, HIDEO; REEL/FRAME:019872/0126 EFFECTIVE DATE : 20070823
US7012341 BB	20100314	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US7012341 BB	20100504	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20100314

4) Family number: 40893326 (US2009224548A)

Title: DEVICE FOR CONVERTING WAVE ENERGY

Abstract: Source: US2009224548A Device for absorption of wave energy, comprising a floating body (2) adapted to move as a result of influence from waves, and energy transmission means transmitting movement of the floating body to a generator, characterized by that it further comprises an immersed vessel (32), the upper part thereof containing gas and lower part thereof containing water, where the interior of the vessel (32) has pressure communication with the surrounding water, so that the volume of the gas in the vessel (32) depends on the pressure surrounding the vessel and thus affects the weight of the vessel (32) and its contents, the vessel (32) having such a connection to the rest of the device that it moves mainly vertically and in anti-phase in relation to the vertical movement of the floating body (2) when waves moves past the device, where the vessel (32) is connected to energy transmitting means for transmitting its movement to a generator.

Classifications:
International (IPC 8-9): F03B13/10 F03B13/18 F03B13/20 (Advanced/Invention); F03B13/18 F03B13/20 (Advanced/Non-invention); F03B13/00 (Core/Invention); F03B (Subclass/Invention)
International (IPC 1-7): F03B13/18
CPC: F03B13/1855 F03B13/20 Y02E10/38
European: F03B13/18D6 F03B13/20 Y02E10/38
US: 290/53



Family:

Publication number	Publication date	Application number	Application date
AU2007268363 AA	20071206	AU20070268363	20070531
BRPI0711729 A2	20111129	BR2007PI11729	20070531
CA2655167 AA	20081201	CA20072655167	20070531
CN101460734 A	20090617	CN200780020359	20070531
CN101460734 B	20110202	CN200780020359	20070531
EP2027389 A1	20090225	EP20070747651	20070531
IN04949KN2008 A	20090320	IN2008KN04949	20081205
JP2009539024 T2	20091112	JP20090513082T	20070531
KR20090021297 A	20090302	KR20087032086	20081230
NO20062486 A	20071203	NO20060002486	20060531
NO325962 B1	20080825	NO20060002486	20060531
US2009224548 AA	20090910	US20070302874	20070531
US7759814 BB	20100720	US20070302874	20070531
WO07139396 A1	20071206	WO2007NO00192	20070531
ZA200810367 A	20100127	ZA20080010367	20080101

Priority:
NO20060002486 20060531 WO2007NO00192 20070531

Probable Assignee: FOBOX AS

Assignee(s): (std): FOBOX AS ; OEIGARDEN HANS

Assignee(s): OIGARDEN HANS

Inventor(s): (std): HANS OIGARDEN ; OEIGARDEN HANS ; OIGARDEN HANS

Agent(s): GRIFFITH HACK; BLAKE CASSELS AND GRAYDON LLP; TOFTING ARILD; BIRCH STEWART KOLASCH AND BIRCH; BIRCH STEWART KOLASCH AND BIRCH LLP

Designated states: AE AG AL AM 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

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Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2007268363 AA	20071206	LSPB	+	published / reissued	
AU2007268363 AA	20110609	LSLE	-MK1	APPLICATION LAPSED SECTION 142(2)(A) - NO REQUEST FOR EXAMINATION IN RELEVANT PERIOD	
BRPI0711729 A2	20111129	LSPB	+	published / reissued	
BRPI0711729 A2	20120605	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	DESCRIPTION : REFERENTE A 5A ANUIDADE.
BRPI0711729 A2	20121113	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	DESCRIPTION : NAO APRESENTADA A GUIA DE CUMPRIMENTO DE EXIGENCIA. REFERENTE A 5A ANUIDADE.
CA2655167 AA	20081201	LSPB	+	published / reissued	
CA2655167 AA	20081201	LSNP	+AFNE	NATIONAL PHASE ENTRY	
CA2655167 AA	20120531	LSLE	-FZDE	DEAD	
CA2655167 AA	20120726	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20120531
CN101460734 A	20090617	LSPB	+	published / reissued	
CN101460734 A	20090617	LSPB	+C06	PUBLICATION	
CN101460734 A	20110202	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101460734 A	20120725	LSLE	-C17	CESSATION OF PATENT RIGHT	
CN101460734 B	20110202	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2027389 A1	20090225	LSPB	+	published / reissued	
EP2027389 A1	20090225	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081221
EP2027389 A1	20120620	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20111201
IN04949KN2008 A	20090320	LSPB	+	published / reissued	
JP2009539024 T2	20091112	LSPB	+	published / reissued	
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JP2009539024 T2	20130109	LSRV	-A02	DECISION OF REFUSAL	DESCRIPTION : JAPANESE

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KR20090021297 A	20090302	LSPB	+	published / reissued	
KR20090021297 A	20120701	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
NO20062486 A	20071203	LSPB	+	published / reissued	
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NO325962 B1	20111227	LSLE	-MM1K	LAPSED BY NOT PAYING THE ANNUAL FEES	
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US2009224548 AA	20090116	LSAS	AS	ASSIGNMENT	OWNER NAME : FOBOX AS, NORWAY DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OIGARDEN, HANS; REEL/FRAME:022121/0948 EFFECTIVE DATE : 20090105
US7759814 BB	20100720	LSGT	+	granted / extensions (spc, cpc, pte)	
US7759814 BB	20090116	LSAS	AS	ASSIGNMENT	OWNER NAME : FOBOX AS, NORWAY DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OIGARDEN, HANS; REEL/FRAME:022121/0948 EFFECTIVE DATE : 20090105
US7759814 BB	20090116	LSAS	AS	ASSIGNMENT	OWNER NAME : FOBOX AS,NORWAY DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OIGARDEN, HANS; REEL/FRAME:22121/948 EFFECTIVE DATE : 20090105
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US7759814 BB	20140909	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20140720
WO07139396 A1	20071206	LSPB	+	published / reissued	
WO07139396 A1	20081127	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007268363 COUNTRY OF REF DOCUMENT : AU
WO07139396 A1	20081127	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009513082 COUNTRY OF REF DOCUMENT : JP
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WO07139396 A1	20081202	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO07139396 A1	20081204	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 573380 COUNTRY OF REF DOCUMENT : NZ
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WO07139396 A1	20090116	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12302874 COUNTRY OF REF

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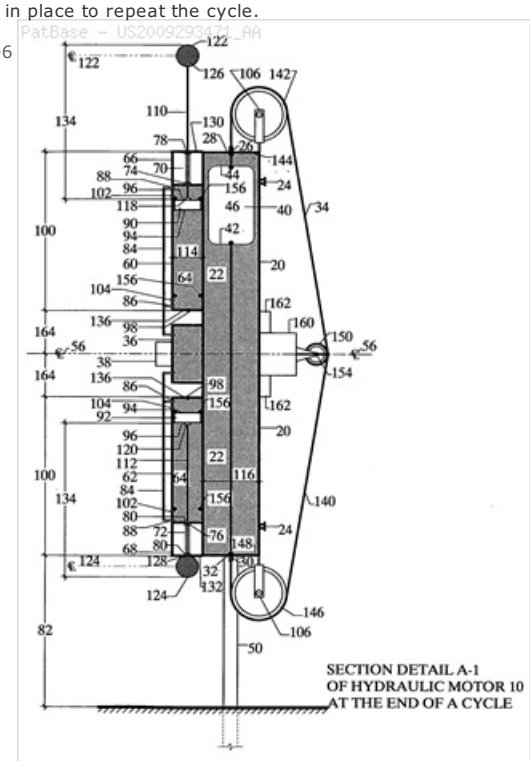
WO07139396 A1	20111129	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0711729 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 EFFECTIVE DATE : 20081201
ZA200810367 A	20100127	LSGT	+	granted / extensions (spc, cpc, pte)	

5) Family number: 44048563 (US2009293471A)

Title: HYDRAULIC MOTOR USING BUOYANT AND GRAVITATIONAL FORCES TO GENERATE KINETIC ENERGY

Abstract: Source: US2009293471A A motor mounted on a structural support with a pivot at its center line which comprises a cylindrical vessel for holding a fluid in a closed system and in which a buoyant cylinder containing a lighter fluid is allowed to free float so that a cable attached to either end of the buoyant cylinder may be used to transfer energy to a energy storage unit, a crank or a generator. Two moment arms having a weight attached at the exterior end and inside attachably connected to the surface of two drive pistons that operate in pressure tanks which force a compressed gas against the pistons through pre-sequenced automatic activated valves to extend or retract the moment arms at the end of a cycle. The motor then becomes top heavy and rotates 180 degrees by gravity and relocks in place to repeat the cycle.

Classifications:
International (IPC 8-9)**:** F02B63/04 F03B17/00 F03B17/02 F03B17/06 F03G3/00 F03G7/08 F16D31/02 H02K7/18 (Advanced/Invention); F02B63/00 F03B17/00 F03G3/00 F03G7/00 F16D31/02 H02K7/18 (Core/Invention)
CPC: Y02E10/28 F03B17/00 Y02E10/20
European: F03B17/00 Y02E10/20
US: 185/33 185/7 290/1R 60/398 60/495 60/495P 60/640 60/721 604/95



Family:

Publication number	Publication date	Application number	Application date
US2009293471 AA	20091203	US20080156614	20080603
US2010319339 AA	20101223	US20100802749	20100614
US7765804 BB	20100803	US20080156614	20080603
US8307642 BB	20121113	US20100802749	20100614

Priority:
US20080156614 20080603 US20100802749 20100614

Probable Assignee: DAVIS STEPHEN E
Assignee(s): (std)**:** DAVIS STEPHEN E
Inventor(s): (std)**:** DAVIS STEPHEN E
Agent(s): STEPHEN E DAVIS

Legal status (INPADOC)

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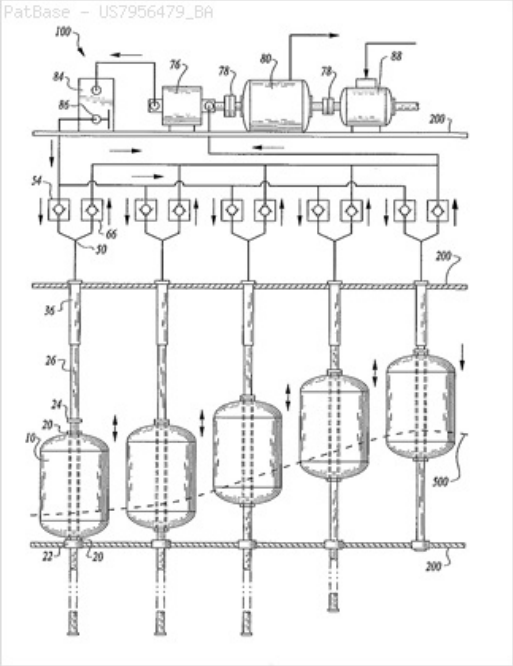
Patent	Date recorded	Event group	Code	Event	Details
US2009293471 AA	20091203	LSPB	+	published / reissued	
US2010319339 AA	20101223	LSPB	+	published / reissued	
US7765804 BB	20100803	LSGT	+	granted / extensions (spc, cpc, pte)	
US7765804 BB	20140403	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8307642 BB	20121113	LSGT	+	granted / extensions (spc, cpc, pte)	
US8307642 BB	20160403	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

6) Family number: 49012568 (US7956479B)

Title: ELECTRICAL POWER GENERATION FROM RECIPROCATING MOTION OF FLOATS CAUSED BY WAVES

Abstract: Source: US7956479B An apparatus, system and method for generating electricity by using the reciprocating motion of floats caused by waves includes a plurality of cylindrical floats each traveling on a cylinder push rod. The wave motion through the floats forces hydraulic fluid in a closed loop hydraulic system into a hydraulic motor, and converts the kinetic energy of the linear float motion to rotary motion to drive electrical generators.

Classifications:
International (IPC 8-9): F03B13/00 (Advanced/Invention)
CPC: F03B13/187 F05B2260/406 Y02E10/38
European: F03B13/18D10 R05B260/406 Y02E10/38
US: 290/53



Family:

Publication number	Publication date	Application number	Application date
US7956479 BA	20110607	US20090639793	20091216

Priority:

US20090175895P 20090506 US20090639793 20091216

Probable Assignee: BERGMAN ERNEST
Assignee(s): (std): BERGMAN ERNEST
Inventor(s): (std): BERGMAN ERNEST
Agent(s): CHARLES L

Legal status (INPADOC)

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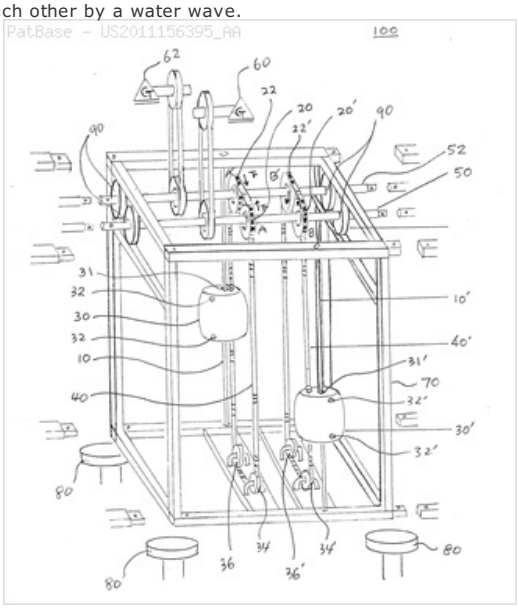
Patent	Date recorded	Event group	Code	Event	Details
US7956479 BA	20110607	LSGT	+	granted / extensions (spc, cpc, pte)	
US7956479 BA	20111115	LSRE	CC	CERTIFICATE OF CORRECTION	
US7956479 BA	20150607	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US7956479 BA	20150728	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20150607

7) Family number: 49133583 (US2011156395A)

Title: WATER WAVE POWER PLANT SYSTEM

Abstract: Source: US2011156395A A water wave power plant system includes a first guide rail, a first clockwise freewheel, a first counterclockwise freewheel, a first buoy queued through the through-hole by the first guide rail, first right and left roller, a first chain belt having engaging the first clockwise freewheel, the first counterclockwise freewheel, the first right roller, and the first left roller on the first plane, and corresponding second set of equivalent elements to tap the water wave energy in an opposite direction. The first buoy and the second buoy are disposed on the first chain belt and the second chain belt, such that the first and the second buoy move oppositely from each other by a water wave.

Classifications:
International (IPC 8-9): F03B13/10 F03B13/12 F03B13/16 H02P9/04 (Advanced/Invention)
CPC: F03B13/1845 F05B2240/40 Y02E10/38 F03B13/1865 F05B2240/932
European: F03B13/18D F03B13/18D8 R05B240/40 R05B240/932 Y02E10/38
US: 290/42 290/53 290/53P



Family:

Publication number	Publication date	Application number	Application date
US2011156395 AA	20110630	US20090648643	20091229
US2012161445 AA	20120628	US20120409670	20120301
US8324752 BB	20121204	US20090648643	20091229
US8610302 BB	20131217	US20120409670	20120301

Priority:

US20090648643 20091229 US20120409670 20120301

Probable Assignee: LEE KYE YOUNG
Assignee(s): (std): LEE KYE YOUNG
Inventor(s): (std): LEE KYE YOUNG
Agent(s): PARK LAW FIRM; JOHN K

Legal status (INPADOC)

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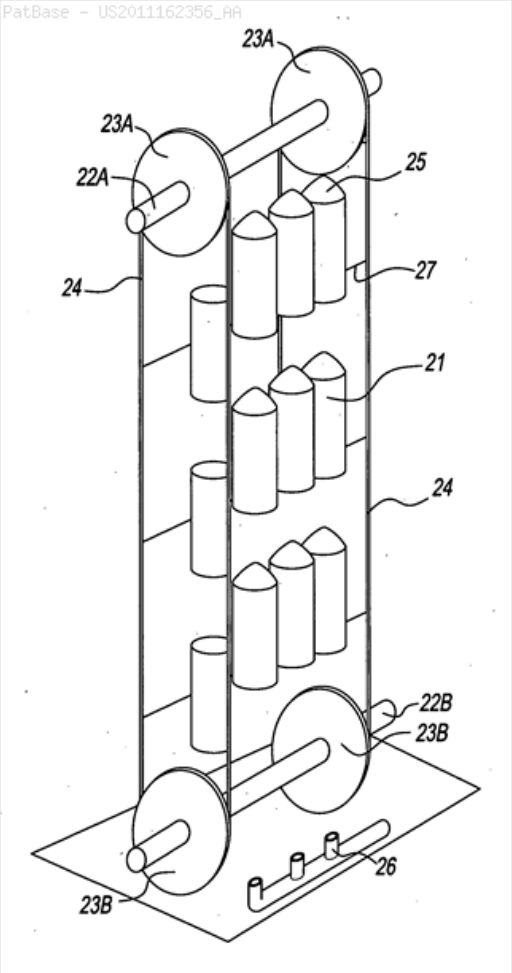
Patent	Date recorded	Event group	Code	Event	Details
US2011156395 AA	20110630	LSPB	+	published / reissued	
US2012161445 AA	20120628	LSPB	+	published / reissued	
US8324752 BB	20121204	LSGT	+	granted / extensions (spc, cpc, pte)	
US8324752 BB	20160202	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8610302 BB	20131217	LSGT	+	granted / extensions (spc, cpc, pte)	
US8610302 BB	20170302	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

8) Family number: 49157976 (US2011162356A)

Title: ROTATIONAL GRAVITY/BUOYANCY POWER GENERATOR

Abstract: Source: US2011162356A The rotational gravity/buoyancy power generator relates to the generation of power by harnessing the gravitational and buoyant forces which act on an apparatus in a natural or man-made liquid medium and converting such forces into mechanical energy. More specifically, the rotational gravity/buoyancy power generator improves on operably different, fluid medium power generators by efficiently utilizing the gravitational force as efficiently as the buoyant force is harnessed. The rotational gravity/buoyancy power generator includes methods, systems and devices for a plurality of weighted containers with a movable closure means on one or both ends, attached to one or more chains, belts or conveyances with one or more rotating sprockets or pulleys on horizontally aligned shafts which form a continuous loop in primarily a vertical arrangement comprising ascending and descending phases upon such apparatus in a continuous and flowing movement (Fig. 1). In the descent phase the containers are open on both ends (Fig. 2) and have greater density than the volume of liquid they displace causing them to rapidly sink through the liquid medium due to the force of gravity. In the ascent phase the containers have either their upper ends sealed, both ends sealed or are filled by internal bladders when, in any embodiment, a volume of gas is introduced such that the overall volume of the containers have a lesser density than the liquid displaced causing the containers to rise through the liquid medium due to the buoyant force. The chains, belts or conveyances to which the containers are attached rotate the sprockets or pulleys and their associated shafts creating mechanical power. Such power can be used to turn electrical generators or other mechanical machines which necessitate such power input.

Classifications:
International (IPC 8-9)**:** F03B17/02 (Advanced/Invention)
CPC: F03B17/04 F03B17/02
European: F03B17/02 F03B17/04 Y02E10/20
US: 60/495 60/495P



Family:

Publication number	Publication date	Application number	Application date
US2011162356 AA	20110707	US20100803229	20100622

Priority:
US20090269747P 20090629 US20100803229 20100622

Probable Assignee: HASTINGS DOUGLAS REYNOLDS
Assignee(s): (std)**:** HASTINGS DOUGLAS REYNOLDS
Inventor(s): (std)**:** HASTINGS DOUGLAS REYNOLDS

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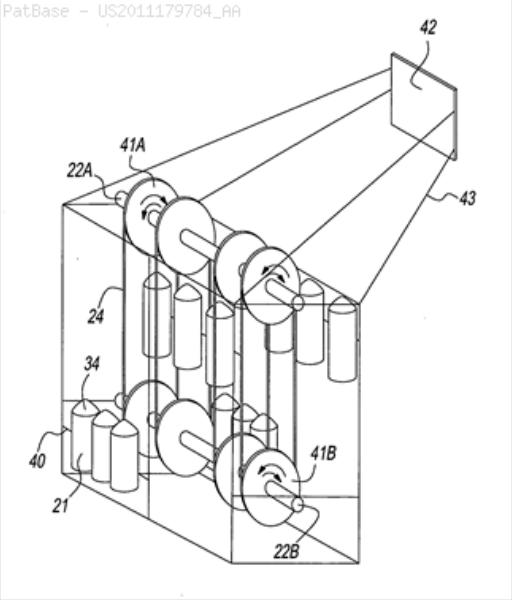
Patent	Date recorded	Event group	Code	Event	Details
US2011162356 AA	20110707	LSPB	+	published / reissued	

9) Family number: 49332531 (US2011179784A)

Title: VERTICAL GRAVITY/BUOYANCY POWER GENERATOR

Abstract: Source: US2011179784A The vertical gravity/buoyancy power generator relates to the generation of power by harnessing the gravitational and buoyant forces which act on an apparatus in a natural or man-made liquid medium and convert such forces into mechanical energy. More specifically, the vertical gravity/buoyancy power generator improves on operably different, fluid medium power generators by efficiently utilizing the gravitational force as efficiently as the buoyant force is harnessed. The vertical gravity/buoyancy power generator includes methods, systems and devices for a plurality of weighted containers which ascend and descend in a primarily vertical plane and which drive one or more chains, belts or conveyances with rotating sprockets or pulleys on horizontally aligned shafts in primarily a vertical arrangement upon such apparatus. In the descent phase the containers are open on both ends (Fig. 1) and have greater density than the volume of liquid they displace causing them to rapidly descend through the liquid medium due to the gravitational force. In the ascent phase the containers are filled by bladders (Fig. 5), have both ends closed, or are closed on their upper end when, in any embodiment, a volume of gas is introduced such that the overall volume of the containers have a lesser density than the liquid displaced causing the containers to rise through the liquid medium due to the buoyant force. The chains, belts or conveyances driven by the containers rotate the sprockets or pulleys (Fig. 1) and their associated shafts creating mechanical power. Such power can be used to turn electrical generators or other mechanical machines which necessitate such power input.

Classifications:
International (IPC 8-9)**:** F03B13/00 F03B17/02 F03G7/08 (Advanced/Invention)
CPC: F03B17/025 F05B2210/401 Y02E10/20
European: F03B17/02B R05B210/401 Y02E10/20
US: 290/1.00R 290/1R 60/495 60/495P 60/496



Family:

Publication number	Publication date	Application number	Application date
US2011179784 AA	20110728	US20100803210	20100622
US8011182 BB	20110906	US20100803210	20100622

Priority:

US20090269749P 20090629 US20100803210 20100622

Probable Assignee: HASTINGS DOUGLAS REYNOLDS
Assignee(s): (std)**:** HASTINGS DOUGLAS REYNOLDS
Inventor(s): (std)**:** HASTINGS DOUGLAS REYNOLDS

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2011179784 AA	20110728	LSPB	+	published / reissued	
US8011182 BB	20110906	LSGT	+	granted / extensions (spc, cpc, pte)	
US8011182 BB	20150906	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US8011182 BB	20151027	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20150906