

Search history

Search (Solar or photovoltaic) and (panel+ or cell+) and track+ and clean+ (Results 3370)
1:

Search 1 and (controller or processor or microcontroller or microprocessor or computer or microcomputer) (Results 2709)
2:

Search 2 and GPS (Results 985)
3:

Search 2 and (GPS or locator or global positioning system or global position system) (Results 1108)
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Search TAC=((Solar or photovoltaic) and (panel+ or cell+) and track+ and clean+) (Results 96)
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Search TAC=((Solar or photovoltaic) and (panel+ or cell+)) (Results 202660)
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Search TAC=((Solar or photovoltaic) and (panel+ or cell+) and (track+ or trac* or follow*) and clean+) (Results 567)
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Search 26 and 13 (Results 0)
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Search 26 and 10 (Results 0)
29:

Search 26 and 8 (Results 0)
30:

Search 26 and 7 (Results 0)
31:

Search TAC=((Solar or photovoltaic) and (panel* or cell*) and (track* or trac* or follow*) and clean+) (Results 760)
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Search 32 and (controller or processor or microcontroller or microprocessor or computer or microcomputer or control*) (Results 488)
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34:

Search 34 and PD<20170621 (Results 189)
35:

Search TA=((Solar or photovoltaic) and (panel* or cell*) and (track* or trac* or follow*) and clean+) (Results 370)
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Search 36 and (controller or processor or microcontroller or microprocessor or computer or microcomputer or control*) (Results 156)
37:

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PYRANOMETER OR SOLARIMETER OR ACTINOMETER) OR GYROSCOPE OR SENSOR*) AND MOTOR* (Results 33)

Search 38 and PD<20170621 (Results 27)
39:

Title: SYSTEM AND METHOD FOR CREATING MICRO/NANO WIND ENERGY GATHERING DEVICES

Abstract: Method and system for manufacturing small wind energy gathering devices, for example, of geometrical dimensions tip to 1/8th of an inch (microdevices), employing micro-fabrication techniques. For example, three-dimensional single chemical composition parts of a small wind energy gathering device are manufactured using two-photon three dimensional lithography. Preferably, a plurality of such parts are manufactured in parallel, thereby optimizing the production process. The plurality of parts may be handled and assembled using precision instruments such as micro-tweezers, micro-scissors, and holographic lasers. Nanowires may be used to interconnect a plurality of the microdevices together, or to connect components of a particular microdevice. These nanowires are produced in nanowire arrays and are attached to a common base structure. Additionally, a form of injection molding and polymer materials may be utilized in the manufacturing of the small wind energy gathering devices (microdevices), which provide protective coatings and surfaces of reduced friction.

Classifications:

International (IPC 8-9): B21K25/00 B60K1/00 B60K16/00 B60L8/00 B82B3/00 C02F1/04 C02F1/14 C02F1/16 C02F103/08 C02F9/02 C02F9/10 E01F1/00 F01K7/04 F02D20/12 F03D1/04 F03D11/00 F03D3/02 F03D7/00 F03D9/00 F03D9/02 F03D9/25 F03G4/02 F03G7/00 F03G7/02 F03G7/04 F03G7/05 F03G7/08 F16L1/028 F16L1/06 F24J3/08 F25B30/00 F25D31/00 F28F1/14 G01R21/00 G01R21/133 G02B5/10 G06F17/30 G07B15/00 H01L31/00 H01L31/042 H01L31/05 H02J1/10 H02J3/00 H02J3/38 H02J4/00 H02J7/00 H02J7/14 H02J7/35 H02K7/18 H02N2/18 H02N6/00 H02P9/00 H02P9/04 H05K13/04 H05K3/30 (Advanced/Invention); C02F103/08 H01L25/00 (Advanced/Non-invention); B21K25/00 B60K1/00 B60K16/00 B60L8/00 B82B3/00 C02F1/04 C02F1/14 C02F1/16 C02F9/02 C02F9/08 F01K7/00 F03D1/00 F03D11/00 F03D7/00 F03D9/00 F03G4/00 F03G7/00 F24J3/00 F25B30/00 G01R21/00 G02B5/10 G06F17/30 H01L31/05 H02J1/10 H02J3/00 H02J3/38 H02J4/00 H02J7/14 H02K7/18 H02N2/18 H02N6/00 H02P9/00 H02P9/04 H05K13/04 (Core/Invention); H01L25/00 (Core/Non-invention)

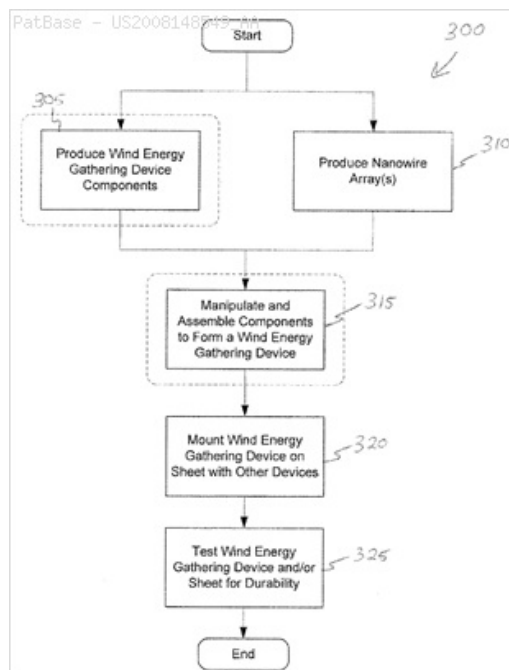
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Family:

Publication number	Publication date	Application number	Application date
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Priority:

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Probable Assignee: TAMIRAS PER PTE LTD LLC

Assignee(s): (std): FEIN GENE ; FEIN GENE S ; GENEDICS CLEAN ENERGY LLC ; GENEDICS LLC ; MERRITT EDWARD ; GLOUSTER APPLIC L L C

Assignee(s): TAMIRAS PER PTE LTD LLC ; ALTERNATIVE ENERGY RESOURCES INC ; SILICON VALLEY BANK ; GLOUSTER APPLICATIONS LLC

Inventor(s): (std): EDWARD MERRITT ; FEIN GENE ; FEIN GENE S ; GENE FEIN ; MERRITT EDWARD

Agent(s): BORDEN LADNER GERVAIS LLP; DRIVER VIRGINIA ROZANNE; HAMILTON BROOK SMITH AND REYNOLDS PC; BRUNDIDGE AND STANGER PC; WAKIMURA MARY LOU ET AL; CARROLL ALICE O 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 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 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

Title: SYSTEMS FOR THE ON-DEMAND PRODUCTION OF POWER AS A SOLE SOURCE OR AIDING OTHER POWER SOURCES, IN THE TRANSPORTATION AND HOUSING FIELD.

Abstract: The system of the invention is a very efficient means for the on-demand production of hydrogen for aid, power, and electricity, operated by a **control** system with a modular, smart, and high-power efficiency arrangement using nanotechnology. A vast number of selections are provided for the user to obtain power production when needed or furthermore with variable delivery. Respecting cleanliness, environmental, and air pollution reduction constraints, the system is devised for use in the areas of housing, transportation, or more generally, any industry producing electricity or heat particularly by hydrocarbon means, or furthermore any environment requiring power for stationary or mobile operation.

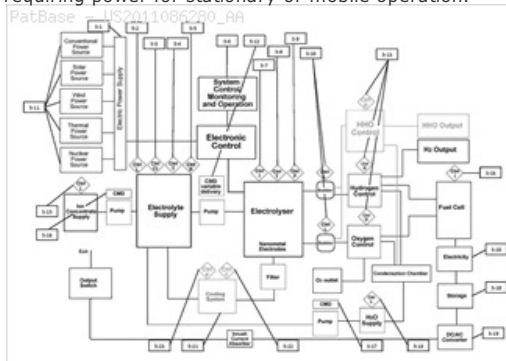
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Family:

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Priority:

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WO2009FR00622	20090528	FR20090003930	20090812	WO2009FR00999	20090812
WO2009FR01382	20091204	FR20100000828	20100301		

Probable Assignee: ALEX ROUSTAEI

Assignee(s): (std): AZRIA MARIE CHRISTINE ; DJEMAI ABDELMADJID ; ROUSTAEI ALEX HR ; ROUSTAEI ALEX
Assignee(s): MARIE CHRISTINE AZRIA ; ALEX HR ROUSTAEI ; ALEX ROUSTAEI
Inventor(s): (std): DJEMAI ABDELMADJID ; ROUSTAEI ALEX ; ROUSTAEI ALEX HR ; AZRIA MARIE CHRISTINE
Inventor(s): ABDELMADJID DJEMAI ; ALEX HR ROUSTAEI ; ALEX ROUSTAEI ; MARIE CHRISTINE AZRIA
Agent(s): ALEX ROUSTAEI; ALEX HR ROUSTAEI; JURISPATENT PARIS; ROUSTAEI ALEX HR
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

Title: CHARGING COMPARTMENT AND PHOTOVOLTAIC PANEL CLEANING EQUIPMENT HAVING SAME

Abstract: A charging compartment adapted for use on a body of a photovoltaic panel cleaning equipment for recharging of battery power of the photovoltaic panel cleaning equipment is provided, in which the charging compartment includes a charging and stopping rack and a telescopic supporting rack. The charging and stopping rack is used for stopping a body and charging the body, and the telescopic supporting rack is used for supporting the charging and stopping rack. The charging and stopping rack and a photovoltaic panel to be cleaned are enabled and configured to be on a same plane by adjusting the angle of the charging and stopping rack. By adopting the charging compartment, the photovoltaic panel cleaning equipment is facilitated to allow the body to remain stationary while being together with the photovoltaic panels which are undergoing cleaning, as well as same time recharging battery power of the photovoltaic panel cleaning equipment.

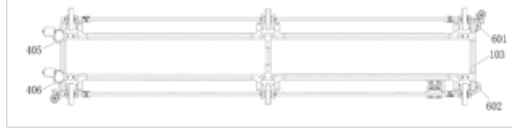
Classifications:

International (IPC 8-9): A46B11/06 A46B13/00 A46B13/02
A46B5/00 A47L1/00 B08B1/00 B08B1/04 B08B11/04 B08B13/00
B08B3/02 B08B3/04 H02J7/00 H02J7/35 H02S40/10
H02S40/32 (Advanced/Invention)

CPC: B08B1/008 B08B3/024 B08B13/00 A46B13/02 A46B2200/30
B08B7/04 B08B2203/0223 B08B2220/01 F16H1/16 F16M11/06
F16M11/18 F16M11/32 F16M2200/021 B08B11/04 B08B1/04

B08B1/02 Y02E10/40 Y02P90/50 A46B5/0095 A46B11/063 A46B13/001 H02J7/0045 F24S40/20 H02J7/355 A62B35/0081
B08B1/002 B08B3/04 H02S30/00 H02S40/10

PatBase - US2017331324_AA



Family:

Publication number	Publication date	Application number	Application date
CN105834143 A	20160810	CN201610320301	20160513
CN105834143 B	20170329	CN201610320301	20160513
CN105834144 A	20160810	CN201610320310	20160513
CN105834144 B	20170329	CN201610320310	20160513
CN105834188 A	20160810	CN201610320382	20160513
CN105834188 B	20170322	CN201610320382	20160513
CN205762512 U	20161207	CN201620439243U	20160513
US2017331324 AA	20171116	US20170447143	20170302
US2017331417 AA	20171116	US20170436871	20170220
US2017331424 AA	20171116	US20170449999	20170305
US9831823 BA	20171128	US20170449999	20170305

Priority:

CN201610320301	20160513	CN201610320310	20160513	CN201620439243U	20160513
CN201610320382	20160513	CN201610320340	20160513	CN201610320322	20160513
US20170436871	20170220	US20170445920	20170228	US20170445994	20170301
US20170447143	20170302	US20170449887	20170303	US20170449999	20170305

Probable Assignee: BOSON ROBOTICS LTD

Assignee(s): (std): BOSON ROBOTICS LTD ; CEC BEIJING BOSHUN INTELLIGENT EQUIPMENT TECH CO LTD

Assignee(s): CEC BEIJING BOSHUN INTELLIGENT EQUIPMENT TECHNOLOGY CO ; BEIJING BO INTELLIGENT POWER EQUIPMENT CO

Inventor(s): (std): QIAN ZHIHONG ; WANG GUANYU ; ZHANG JINGGONG

Agent(s): DING YU

Title: METHOD AND APPARATUS FOR ACHIEVING WORLDWIDE REDUCTION OF CARBON DIOXIDE EMISSIONS AND DEFORESTATION

Abstract: Method and apparatus enabling worldwide reduction of carbon dioxide emissions and/or deforestation, personal **clean** energy system providing for cooking and/or electricity needs, earning emission credits, monetizing values of tradable emission rights/credits accruing from emissions avoided by using the apparatus to pay for the cost of the apparatus and/or to provide ongoing revenue thereby inducing many people to substitute carbon containing fuels for cooking and/or electricity needs by a synergic combination of cooking 0 and electricity generation 21 on sunlight H through a low cost two-axis easy sun **tracking** mechanism including a bendable mirror 14 having variable curvatures r_m and tilt angles s_m , optimized for the **solar** altitudes α_s at the latitudes, seasons and day **times** from equator to arctic, resulting in greatly augmented cooking power enabling high quality meals 0 through much shorter cooking **times** and longer/higher PV **cell** 21 outputs charging batteries 24 powering lights, refrigerator, television, **computer**, enabling worldwide education and sustainable development.

Classifications:

International (ipc 8-9): F24J2/00 F24J2/02 F24J2/06 F24J2/10 F24J2/12 F24J2/14 F24J2/16 F24J2/54 H01L25/00 H01L31/052 H01L31/0525 H01L31/058 H02N6/00 (Advanced/Invention); F24J2/00 F24J2/02 F24J2/06 H01L31/052 H01L31/058 H02N6/00 (Core/Invention);

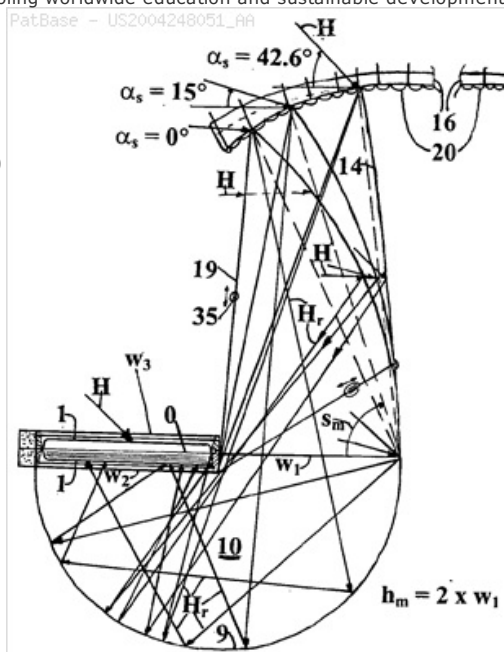
H01L (Subclass/Invention)

International (ipc 1-7): F23C11/04 F24J F24J2/00 F24J2/02 F24J2/10 H01L H01L31/052 H01L31/058

CPC: Y02E10/40 Y02E10/47 Y02E10/50 Y02B40/18 H02S40/44 H02S40/38 H02S40/22 Y02E10/52 Y02A40/926 F24S20/30 F24S23/70 F24S30/40 F24S23/00 F24S23/81 H02S99/00

European: F24J2/02 F24J2/06 F24J2/10 F24J2/10C F24J2/54 H01L31/058 H02N6/00 T01L31/058C Y02B40/18 Y02E10/40 Y02E10/47 Y02E10/52 Y02E10/60

US: 136/246 431/1 431/1P



Family:

Publication number	Publication date	Application number	Application date
AP200503472 A0	20051231	AP20050003472	20040519
AU2004245925 AA	20041216	AU20040245925	20040519
BRPI0411277 A	20060801	BR2004PI11277	20040519
CA2526442 AA	20051118	CA20042526442	20040519
CN1830093 A	20060906	CN200480022073	20040519
EP1639654 A2	20060329	EP20040752772	20040519
GB200523829 A0	20060104	GB20050023829	20040519
GB2418245 A1	20060322	GB20050023829	20040519
IL172341 A0	20090211	IL20040172341	20040519
IN06045DN2005 A	20091002	IN2005DN06045	20051226
US2004248051 AA	20041209	US20040801864	20040317
US2006124166 AA	20060615	US20040559348	20040519
WO04109195 A2	20041216	WO2004US15817	20040519
WO04109195 A3	20050217	WO2004US15817	20040519

Priority:

US20030475468P 20030604 US20040801864 20040317 US20040559348 20040519
WO2004US15817 20040519 US20050559348 20051205

Probable Assignee: RIETKERK PATRICK ANTHONY

Assignee(s): (std): MAARTEN MARTINUS ROMIJN ; MAARTEN ROMJIN ; MARTINUS ROMIJN MAARTEN ; RIETKERK PATRICK ANTHONY ; ROMIJN MAARTEN M ; ROMIJN MAARTEN MARTINUS

Inventor(s): (std): MARTINUS ROMIJN MAARTEN ; ROMIJN MAARTEN M ; ROMIJN MAARTEN MARTINUS

Inventor(s): ROMIJN MAARTEN ; MAARTEN MARTINUS ROMIJN

Agent(s): PEGASUS IP; IP SOLVED ANZ PTY LTD; BORDEN LADNER GERVAIS LLP; BROOKS KUSHMAN PC

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

Title: **SOLAR** RECEIVER

Abstract: A lightweight reflector with a load bearing structure based on a tensile spoke-wheel. The spoke structure is especially compatible with dish parabolic mirrors, but has utility as a carrier structure for any round functional surface, including flat or slightly-curved mirrors used in central tower **solar** systems, parabolic dishes for radio telescopes and antennas, and for non-concentrating thin film **solar panels**. There are no radial members loaded in compression. All the spokes pull the rim inwards, and the rim is compressed in the circumferential direction. The imbalance in spoke tension results from the application of load provides the rigidity of the rim in respect to the hub, both for in-plane and out-of-plane forces. Ribs stiffen the spokes to resist wind and gravity, but are not structurally supported by either the hub or the rim. Lightweight reflector tiles match the wheel structure and create the reflective surface.

Classifications:

International (IPC 8-9): F24J2/02 F24J2/07 F24J2/10 F24J2/12

F24J2/38 F24J2/46 F24J2/52 G06Q H01L31/042 H01L31/052

H01L31/054 H02N6/00 H02S20/10 H02S30/00 H02S30/10

H02S40/42 (Advanced/Invention);

F24J2/10 (Advanced/Non-invention)

CPC: Y02E10/47 Y02B10/20 H01L31/0525 H01L31/0547 Y02E10/41

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F24S25/00 F24S25/10 F24S2023/874

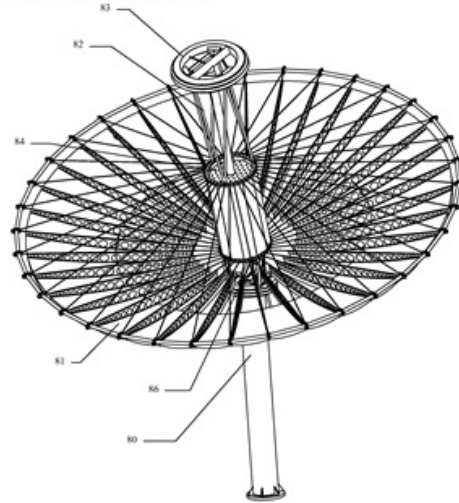
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US: 126/600 126/600S 126/680 126/680S 126/690 126/690S

134/172 134/198 134/99.1 136/244 136/246

PatBase - US2011247679_AA



Family:

Publication number	Publication date	Application number	Application date
AU2011239635 AA	20111020	AU20110239635	20110413
CL2012002870 A1	20131108	CL20120002870	20121012
CN103026608 A	20130403	CN201180029235	20110413
EP2559147 A1	20130220	EP20110769548	20110413
EP2559147 A4	20170517	EP20110769548	20110413
IN09503DN2012 A	20160115	IN2012DN09503	20121105
US2011247679 AA	20111013	US20110086315	20110413
US2015184895 AA	20150702	US20140574360	20141217
US2015287866 AA	20151008	US20150684292	20150410
US9006560 BB	20150414	US20110086315	20110413
WO11130454 A1	20111020	WO2011US32378	20110413
WO15095424 A1	20150625	WO2014US70999	20141217

Priority:

US20100323857P 20100413	US20100334560P 20100513	US20100351946P 20100607
US20100370755P 20100804	US20100407911P 20101029	US20110432584P 20110114
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US20140574360 20141217	US20150684292 20150410	

Probable Assignee: SHELEF BEN

Assignee(s): (std): EREZ SHMUEL ; SHELEF BEN

Assignee(s): BEN SHELEF

Inventor(s): (std): EREZ SHMUEL ; SHELEF BEN

Inventor(s): SHMUEL EREZ ; BEN SHELEF

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; CLARKE MODET AND CO CHILE
LIMITADA; Kirschner Klaus Dieter; JOSEPH; NIXON PEABODY LLP; BACH JOSEPH

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
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Title: SOLAR TRACKER CLEANING SYSTEM AND METHOD

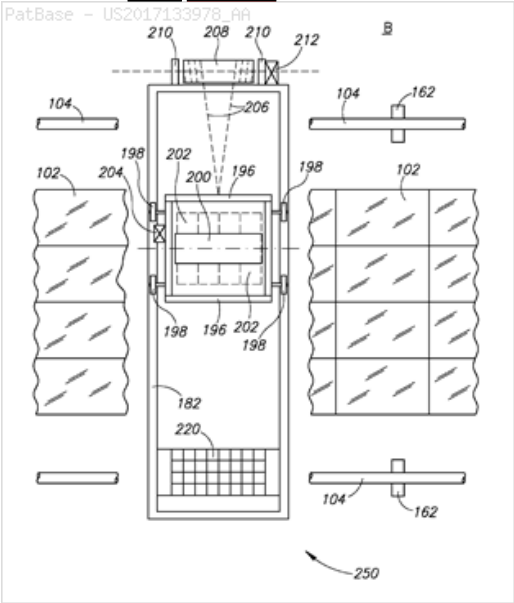
Abstract: A solar tracker waterless cleaning system for cleaning solar panels of solar trackers in at least one solar tracker row, each solar tracker having a length and a width and being able to be positioned at a pre-determined angle, the cleaning system including at least one waterless cleaning apparatus operable to clean a panel surface of the solar tracker row without using water, at least two rails positioned horizontally parallel to the solar tracker row, a support frame for supporting the cleaning apparatus and a controller coupled with the cleaning apparatus and with the support frame for moving the cleaning apparatus in the width direction and the length direction of the solar tracker row, the support frame moving over the rails and moving the cleaning apparatus in a width direction and a length direction of the solar trackers while maintaining a pre-determined angle in the width direction of the solar trackers.

Classifications:

International (IPC 8-9): A47L5/22 H02J7/35 H02S20/32 H02S30/10 H02S40/10 (Advanced/Invention)

CPC: H02S40/10 H02S20/32 Y02E10/40 H02S30/10 H02J7/35 F24S40/20

US: 1/1



Family:

Publication number	Publication date	Application number	Application date
US2017133978 AA	20170511	US20160246085	20160824
US9455665 BA	20160927	US20160005139	20160125
WO17077540 A1	20170511	WO20161L51194	20161103

Priority:

US20150252519P 20151108 US20160005139 20160125 US20160318242P 20160405
US20160246085 20160824

Probable Assignee: ECOPPIA SCIENTIFIC LTD

Assignee(s): (std): ECOPPIA SCIENT LTD ; EVERMORE UNITED S A ; MELLER MOSHE

Assignee(s): EVERMORE UNITED SA ; ECOPPIA SCIENTIFIC LTD

Inventor(s): (std): MELLER ERAN ; MELLER MOSHE

Agent(s): BROWN RUDNICK LLP; KORAKH ELIAV 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 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 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

Title: ADJUSTABLE **SOLAR** COLLECTOR AND METHOD OF USE

Abstract: A **solar** collector has operably connected reflective **panels** that can be positioned to substantially form a parabolic trough that concentrates **solar** radiation onto a tube running along the focal line of the trough. A folding mechanism can be manually or automatically operated to selectively fold and unfold the **panels** into open and closed positions and into any number of intermediate positions, including the position characterized by formation of a parabolic trough. A rotating mechanism can be manually or automatically operated to selectively rotate the **solar** collector about an axis parallel to the focus line of the parabolic trough.

Classifications:

International (IPC 8-9): F24J2/10 F24J2/12 F24J2/36 F24J2/38

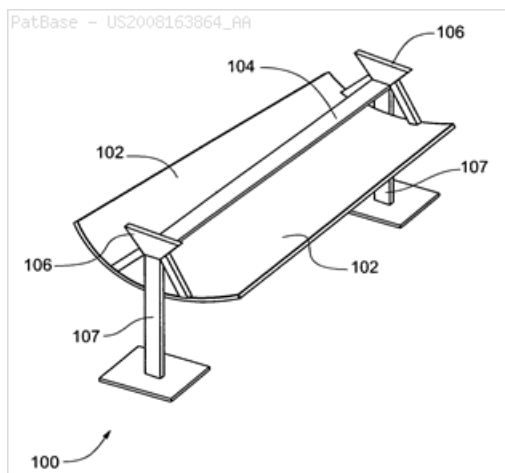
F24J2/52 F24S23/71 (Advanced/Invention);

F24J2/00 F24J2/06 F24J2/36 F24J2/38 (Core/Invention)

CPC: Y10S126/903 F22B3/04 F24S40/20 F24S20/50 F24S23/74
F24S30/425 F24S40/85 F24S2030/134 F24S2030/16 F22B1/006
F24S50/00 Y02B10/20 Y02E10/45 Y02E10/47

European: F22B1/00S F22B3/04 F24J2/14 F24J2/36 F24J2/46B10
F24J2/54B4 R24J2/46B30 R24J2/54P14B R24J2/54P8D Y02B10/20
Y02E10/45 Y02E10/47

US: 126/692 126/694 126/696 126/714 126/903 359/852



Family:

Publication number	Publication date	Application number	Application date
CA2612029 AA	20080522	CA20072612029	20071122
CA2612029 C	20120327	CA20072612029	20071122
US2008163864 AA	20080710	US20070986417	20071121
US2009223510 AA	20090910	US20090425965	20090417
US7878192 BB	20110201	US20070986417	20071121

Priority:

US20060860623P 20061122 US20070986417 20071121 CA20072612029 20071122
US20090425965 20090417

Probable Assignee: LARSEN THEODORE E

Assignee(s): (std): LARSEN THEODORE E ; LARSEN THEODORE EDWARD ; LARSON THEODORE EDWARD

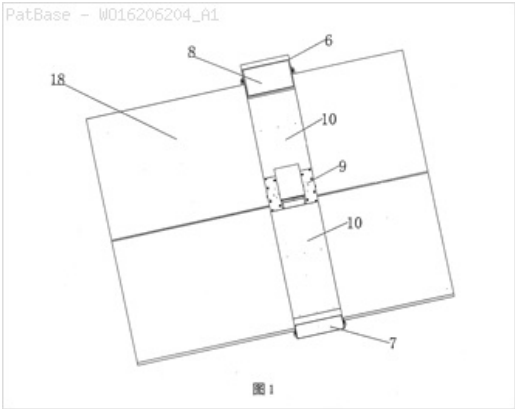
Inventor(s): (std): LARSEN THEODORE EDWARD ; LARSON THEODORE EDWARD ; LARSEN THEODORE E

Agent(s): MOFFAT AND CO; PATTERSON THUENTE SKAAR AND CHRISTENSEN PA; PATTERSON THUENTE
CHRISTENSEN PEDERSEN PA

Title: **PHOTOVOLTAIC** ASSEMBLY AND AUTOMATIC **CLEANING** DEVICE THEREFOR

Abstract: A **photovoltaic** assembly and automatic **cleaning** device therefor. The device comprises: a frame having a middle portion (5) parallel to a **photovoltaic panel** (18) to be **cleaned** when mounted across the **photovoltaic panel** (18) to be **cleaned**; a moving unit configured to drive the automatic **cleaning** device to move along the **photovoltaic panel** (18) to be **cleaned**; a guiding unit configured to restrict a moving trajectory of the moving unit; a **cleaning** unit configured to **clean** the **photovoltaic panel** (18) to be **cleaned** while the automatic **cleaning** device is moving; a drive unit comprising a **motor** (12) and a transmission portion and configured to provide a dynamical power to the **cleaning** unit and moving unit; an intelligent **control** system (13) configured to intelligently **control** the **motor** (12) to be on/off; and a power supply unit connected to the **motor** (12) and the intelligent **control** system (13), having a **photovoltaic** power generation assembly (8) to generate off-grid power, and configured to supply power to the automatic **cleaning** device. The device can automatically **clean** a **photovoltaic panel** (18) and provide the energy required for **cleaning** to itself via self-generation of electricity.

Classifications:
International (IPC 8-9): A47L11/38 B08B1/04 H01L21/67 H01L31/02 H02S40/10 (Advanced/Invention)
CPC: H02S40/00 A47L11/38 H01L21/67 H01L31/02 H02S40/10



Family:

Publication number	Publication date	Application number	Application date
CN104467649 A	20150325	CN201410805397	20141223
CN104917452 A	20150916	CN201510354214	20150624
CN104917452 B	20180116	CN201510354214	20150624
CN204810222 U	20151125	CN201520439003U	20150624
IN201617042016 A	20170317	IN201617042016	20161208
WO16101325 A1	20160630	WO2015CN000017	20150108
WO16206204 A1	20161229	WO2015CN090378	20150923

Priority:

CN201410805397 20141223 CN201510354214 20150624 CN201520439003U 20150624
WO2015CN090378 20150923

Probable Assignee: KASHGAR SOL BRIGHT PHOTOVOLTAIC TECH CO LTD

Assignee(s): (std): KASHGAR SOL BRIGHT PHOTOVOLTAIC TECH CO LTD ; ZHANG YILING

Assignee(s): KASHGAR SOL BRIGHT PHOTOVOLTAIC TECHNOLOGY CO ; KASHGAR SOL BRIGHT PHOTOVOLTAIC TECHNOLOGY CO LTD ; YI ZHANG LING

Inventor(s): (std): ZHANG YILING

Agent(s): BEIJING HENGDU LAW FIRM

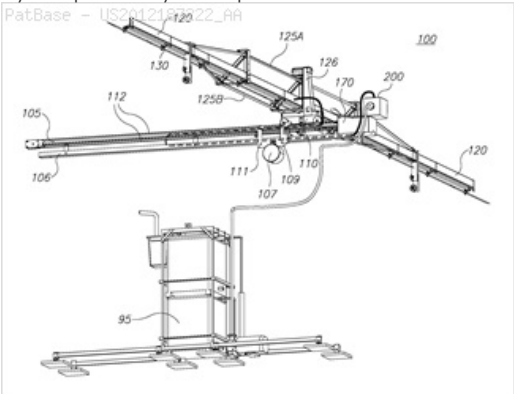
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Title: COOLING AND WASHING SYSTEM

Abstract: A cooling and washing system designed to evaporatively cool **solar panels** by sprinkling water upon the **panels** according to their temperature, in way that utilizes warm water from the system and minimizes water consumption, such as to keep the **solar panel** in an optimal operation temperature. Sprinkling is carried out by a moveable arm connected to a cart that is directed to the optimal sprinkling **locations** by a **control** system. The arm is designed to minimize shading on the **panels**, and to further allow **cleaning** the **panels**. The system may be operated by water power.

Classifications:

International (IPC 8-9): B05B3/18 B08B3/02 B65H F24J2/46
H01L31/042 H01L31/052 (Advanced/Invention);
B65H (Subclass/Invention)
CPC: Y02E10/40 Y02E10/50 H01L31/042 H01L31/052 H01L31/0521
B05B13/041 B08B3/024 B05B12/12 F24S40/20 F24S80/00
European: B05B13/04A2 B08B3/02C F24J2/46B10 H01L31/052A
L05B12/12 Y02B10/20
US: 239/751 239/751P



Family:

Publication number	Publication date	Application number	Application date
GB201101239 A0	20110309	GB20110001239	20110125
GB2487719 A1	20120808	GB20110001239	20110125
IL217719 A0	20120329	IL20120217719	20120124
US2012187222 AA	20120726	US20120356806	20120124

Priority:

GB20110001239 20110125

Probable Assignee:

Assignee(s): (std):	GALILI GIORA
Assignee(s):	GALILI GIORA
Inventor(s): (std):	GIORA GALILI
Inventor(s):	GALILI GIORA
Inventor(s):	GIORA GALILI

Title: SYSTEMS AND METHODS FOR WEIGHT-BASED REPOSITIONING OF **SOLAR** ENERGY COLLECTION DEVICES

Abstract: Systems and methods for positioning **solar** energy collection devices are disclosed. In one embodiment, an integrated unit combines the necessity of **solar panel** repositioning with water filtration. While also providing **clean** water for the end user, the integrated unit uses **controlled** weight displacement to rotate a **solar panel** to **follow** the sun from east to west-a process also known as horizontal (azimuth) **solar tracking**.

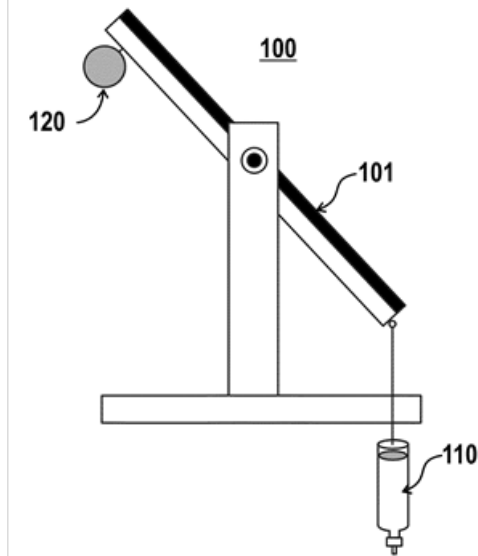
Classifications:

International (IPC 8-9): F24J2/38 F24J2/52 F24J2/54 H01L31/042 H01L31/052 H02S20/32 (Advanced/Invention)

CPC: H02S20/32 Y02E10/52 Y02E10/47 F24S25/10 F24S2030/16 F24S2030/18 F24S25/70 F24S25/13 F24S25/632 F24S30/425 F24S50/20

US: 1/1 136/246

PatBase - US2014124015_AA



Family:

Publication number	Publication date	Application number	Application date
US2014124015 AA	20140508	US20130027108	20130913
US2016156305 AA	20160602	US20160017414	20160205
US9276520 BB	20160301	US20130027108	20130913

Priority:

US20120700839P 20120913 US20130027108 20130913 US20150427108 20150310
US20160017414 20160205

Probable Assignee: SUNSALUTER

Assignee(s): (std): FULL EDEN ; ROSEICOLLIS TECHNOLOGIES INC ; SUNSALUTER

Inventor(s): (std): FULL EDEN

Agent(s): ORRICK HERRINGTON AND SUTCLIFFE LLP

Title: SYSTEM AND METHOD FOR SUBSTRATE TRANSPORT

Abstract: Introduction of substrates into vacuum environment is accomplished by gradually reducing the number of substrates being transferred simultaneously as the **clean** and evacuated environment is progressed. Cassettes are maintained in **clean** atmospheric environment and do not enter the vacuum environment. Several vacuum locks are linearly staggered so as to introduce progressively higher level of vacuum environment. The number of substrates transported through this arrangement is a portion of the number of substrates present in each cassette. The staggered vacuum locks lead to a series of processing chambers, wherein a yet smaller number of substrates, e.g., one or two, are transported.

Classifications:

International (IPC 8-9): C23C14/22 C23C14/24 C23C14/34 C23C14/56 C23C16/54 C23C18/54 H01L21/00 H01L21/67 H01L21/673 H01L21/677 H01L31/0216

H01L31/18 (Advanced/Invention);

C23C14/34 C23C16/54 H01L21/00 H01L21/67

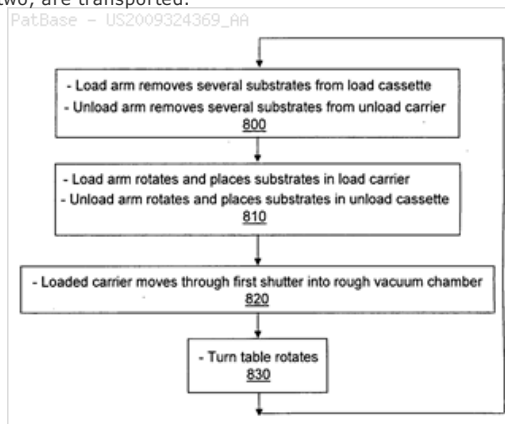
H01L31/0216 (Core/Invention)

CPC: Y10S414/14 H01L21/67173 H01L21/67313 H01L21/67775 H01L21/67781 C23C14/22 C23C14/24 C23C14/34 C23C14/568

European: C23C14/22 C23C14/24 C23C14/34 C23C14/56F

H01L21/673B H01L21/677D10B H01L21/677D8 H01L21/67S2Z2L

US: 1/1 118/723VE 204/298.04 204/298.040S 414/217 414/222.01 414/222.010P 414/806 414/806S 414/940

**Family:**

Publication number	Publication date	Application number	Application date
CN101630634 A	20100120	CN200910158447	20090630
EP2141739 A2	20100106	EP20090164187	20090630
EP2141739 A3	20110112	EP20090164187	20090630
JP2010062534 A2	20100318	JP20090156127	20090630
US2009324369 AA	20091231	US20090495740	20090630
US2010024731 AA	20100204	US20090512010	20090729
US8992153 BB	20150331	US20090495740	20090630
US9157145 BB	20151013	US20090512010	20090729
WO10014761 A1	20100204	WO2009US52167	20090729

Priority:

US20080077067P 20080630 US20080084600P 20080729 US20090495740 20090630
US20090512010 20090729

Probable Assignee: INTEVAC INC

Assignee(s): (std): BARNES MICHAEL S ; BLUCK TERRY ; CHEN XIANG ; ERISTOFF D GUY ; ERISTOFF GUY D ; INTEVAC INC ; WALL ART ; WALL ARTHUR C ; SCOLLAY STUART

Inventor(s): (std): BARNES MICHAEL S ; BLUCK TERRY ; CHEN XIANG ; ERISTOFF D GUY ; ERISTOFF GUY D ; SCOLLAY STUART ; STUART SCOLLAY ; TERRY BLUCK ; WALL ART ; WALL ARTHUR C ; XIANG CHEN

Agent(s): KIRSCHNER KLAUS DIETER; NIXON PEABODY LLP; JOSEPH; BACH JOSEPH

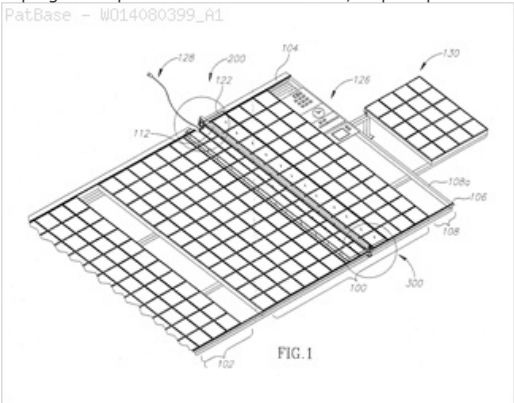
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Title: NATURALLY-IRRIGATED SOLAR PANEL AND SOLAR COLLECTOR CLEANING SYSTEM

Abstract: A naturally-irrigated cleaning add-on for a solar panel or a solar collector, comprising: at least one wiper track mountable on at least one side, respectively, of a frame of said solar panel or said solar collector; a wiping unit configured to travel along said at least one wiper track, to clean a transparent front cover of said solar panel or said solar collector; and an automatic actuator configured to actuate said wiping unit upon detection of dew and/or precipitation.

Classifications:

International (IPC 8-9): B08B1/00 F24J2/46 (Advanced/Invention)
CPC: B08B1/008 Y02B10/20 Y02E10/40 F24S40/20



Family:

Publication number	Publication date	Application number	Application date
WO14080399 A1	20140530	WO2013IL50954	20131119

Priority:

US20120729662P 20121126

Probable Assignee: FISCHER ERAN

Assignee(s): (std): FISCHER ERAN

Inventor(s): (std): FISCHER ERAN

Agent(s): S FRIEDMAN AND CO 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

Title: **SOLAR** CONCENTRATOR FOR THE GENERATION OF HEAT AND ELECTRICITY

Abstract: The invention provides a system for **solar** concentration of the type **solar** dish characterized by the integration and combination of several sources of renewable energy to convert **solar** energy and wind energy to produce electricity and heat. The invention provides a system that **tracks** the sun on two axes and consists of a parabolic body covered with reflective material that concentrates the **solar** rays on a heat exchanger, allowing the production of thermal energy. The invention also allows to produce electrical energy by means of a **photovoltaic panel** and a wind turbine. The electrical energy produced by the turbine and by the **photovoltaic panel** is used to power the **motors** of the moving system and makes the system electrically autonomous. The invention allows to adjust the power to the heat exchanger without defocus the system, while the same is in operation, by means of an actuator. The invention allows to ensure the system to tipping due to the action of wind, to protect the reflective elements from atmospheric agents, to **clean** the reflective elements and to work on the exchanger and on the **photovoltaic panel**, assuming a security configuration, thanks to a C-shaped or S-shaped bust.

Classifications:

International (IPC 8-9): F03G6/06 F24J2/07 F24J2/12 F24J2/52

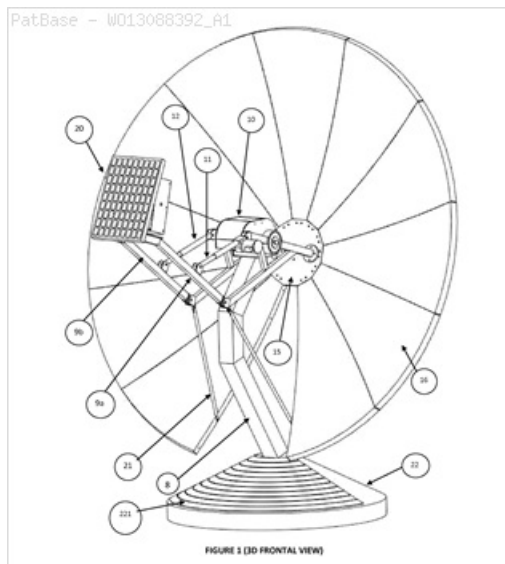
F24J2/54 H01L31/058 (Advanced/Invention)

CPC: Y02E10/41 Y02E10/42 Y02E10/46 Y02E10/47 Y02E10/60

H02S20/00 H02S40/44 H02S20/10 H02S20/32 Y02E10/50 F03G6/06

F24S20/20 F24S23/71 F24S25/30 F24S30/45 F24S30/452

European: F24J2/07 F24J2/12 F24J2/52A4 F24J2/54C F24J2/54C2



Family:

Publication number	Publication date	Application number	Application date
ITCS20110039 A1	20120314	IT2011CS00039	20111214
WO13088392 A1	20130620	WO20121B57293	20121213

Priority:

IT2011CS00039 20111214

Probable Assignee: LINDIA ANTONIO

Assignee(s): (std): LINDIA ANTONIO ; MONACO FRANCESCO ; MONACO STEFANO ; POLILLO ROBERTO

Inventor(s): (std): LINDIA ANTONIO ; MONACO FRANCESCO ; MONACO STEFANO ; POLILLO ROBERTO

Agent(s): POLILLO ROBERTO

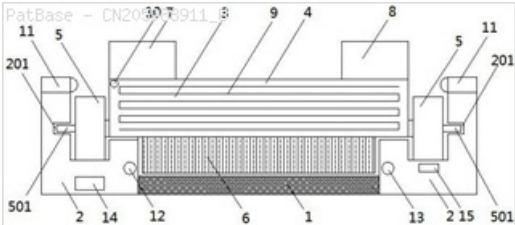
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Title: AUTOMATIC **CLEANING** DEVICE OF **SOLAR CELL PANEL**

Abstract: The utility model relates to a **solar cell panel cleans** the field, concretely relates to automatic **cleaning** device of **solar cell panel**, comprises a **solar cell** pane, the **track, clean** dolly, **clean** dolly includes automobile body and gyro wheel, the automobile body is arranged in on the **solar cell panel**, the gyro wheel groove on the **track** is arranged in to the gyro wheel, the fixed **cleaning** bristle in below of automobile body, the bottom of automobile body is provided with the air outlet, be provided with hot wire in the automobile body, the hot wire electric connection temperature **controller**, article two, have manyly to infrared intrusion detector on orbital top relative position, be provided with temperature and **humidity sensor** and well accuse ware on the **track**, both ends kou chu is provided with position **sensor** around orbital, well accuse ware is electrical connection the **motor** respectively, the fan, the resistance wire, infrared intrusion detector, a weighing **sensor** and a temperature **sensor**, **humidity** transducer and position **sensor**, this device keeps **solar cell panel's cleanness** to guarantee that work efficiency is not influenced, realize automatic **cleaning** simultaneously, saved manpower and **time** to can in **time clean** the foreign matter.

Classifications:

International (IPC 8-9): B08B1/00 B08B13/00 B08B5/02 H02S40/10 H02S40/12 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN205988911 U	20170301	CN201620909904U	20160820

Priority:

CN201620909904U 20160820

Probable Assignee:

SHAO QI

Assignee(s): (std):

SHAO QI

Inventor(s): (std):

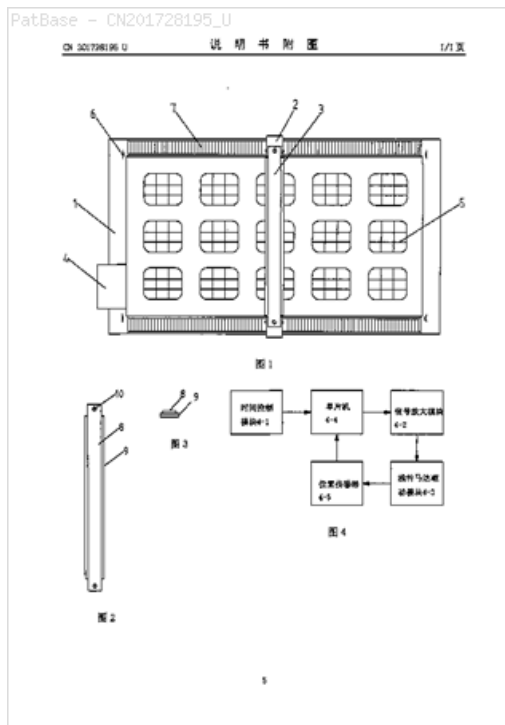
SHAO QI

Title: Automatic dust removing device of **solar panel**

Abstract: The utility model relates to an automatic dust removing device of a **solar panel**, which can effectively solve the problems of regularly **cleaning** dirt on the surface of the **solar panel** and ensuring the use effect of the **solar panel**; the technical scheme is as **follows**: the device comprises a fixing support, linear **motors** and a dust scraping device; the **solar panel** is arranged in the fixing support; the dust scraping device is arranged on the upper surface of the **solar panel**; both ends of the dust scraping device are arranged on the symmetric linear **motors**; the linear **motors** are arranged on parallel magnetic **tracks** on both sides of the fixing support; both ends of the parallel magnetic **tracks** are provided with limit **sensors** on the fixing support; the limit **sensors** and the linear **motors** are connected with a **controller** on one end of the fixing support; and the automatic dust removing device of the **solar panel** has simple structure, is convenient to install and use, can automatically operate through the **control** of the **controller**, remove the dust, frost or snow accumulated on the surface of the **solar panel**, keep the absorption surface of the **solar panel** **clean**, save manpower and improve the working environment of the **solar panel**.

Classifications:

International (IPC 8-9): B08B1/00 B08B13/00 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN201728195 U	20110202	CN201020101440U	20100126

Priority:

CN201020101440U 20100126

Probable Assignee: HONOR TRUST TECHNOLOGY COMPANY LTD

Assignee(s): (std): HONOR TRUST TECHNOLOGY COMPANY LTD

Inventor(s): (std): ZEYA CHEN ; XIANGSHUN ZHENG ; HONGTAO YAN

Inventor(s): CHEN ZEYA ; YAN HONGTAO ; ZHENG XIANGSHUN

Title: ROOF DRAIN **CLEANER** (RDC)

Abstract: [Source: Claim 1] The Embodiments Of The Invention In Which An Exclusive Property Or Privilege Is Claimed Are Defined As **Follows**: 1. This Roof-Drain-**Cleaner**(RDC) consists of **cleaning** blade driven by a **motor** with transmission, melting element, WiFi-Internet module, **control** module, **solar panel** with related system, and structure for fixing the apparatus to the drain hole. When the water level near the drain is reaching a certain height, the apparatus starts automatically to **clean** the drain or melting the ice if the temperature is low than 0 degrees centigrade. The **solar panels** supply the power to charge the batteries and also the batteries charged by AC power. The water level **sensors** will detect if the water accumulating to a certain height. There are three same **sensors** in three columns, at least two **sensors** give out the same signals, the apparatus starts the **motor** to drive the blade to **clean** the garbage. The Base ring with element is to support the apparatus. When temperature is low than 0 degrees centigrade and the water level is reaching the **sensors**, RDC starts to melt the ice by the heat of element. The apparatus is fixed to the holes by the 3 L holders, the L holder is tighten by bolts around the Base ring. This RDC is connected to WiFi or **wireless** internet, so operation and the status reading could be performed via Internet. When the **motor** is over power or some other problems happen, it reminds the owner and maintenance may be needed. The operating Buttons are **located** on the PCB for some simple settings. 2. This Roof-Drain-**Cleaner**(RDC) recited in claim 1 wherein said with a blade. 3. This Roof-Drain-**Cleaner**(RDC) recited in claim 1 wherein said with a blade with frame structure. 4. This Roof-Drain-**Cleaner**(RDC) recited in claim 1 wherein said with a heating element. 5. This Roof-Drain-**Cleaner**(RDC) recited in claim 1 wherein said with a heating element combined with the support ring. 6. This Roof-Drain-**Cleaner**(RDC) recited in claim 1 wherein said with a blade. 7. This Roof-Drain-**Cleaner**(RDC) recited in claim 1 wherein said with WiFi-internet module which enables the remote **control**. 8. This Roof-Drain-**Cleaner**(RDC) recited in claim 1 wherein said with a blade. 9. This Roof-Drain-**Cleaner**(RDC) recited in claim 1 wherein said with **solar panel** system. 10. This Roof-Drain-**Cleaner**(RDC) recited in claim 1 wherein said use 3 **sensor** for more reliable action. 11. This Roof-Drain-**Cleaner**(RDC) recited in claim 1 wherein said with a blade. 12. This Roof-Drain-**Cleaner**(RDC) recited in claim 1 wherein said use L-holders to hold the apparatus on the drain hole.

Classifications:

International (IPC 8-9): E04D13/076 (Advanced/Invention)

CPC: E04D13/0409 E04D13/076 E04D2013/0418 E04D2013/0427 E04D2013/0866 E04D2013/088

Family:

Publication number	Publication date	Application number	Application date
CA2905168 AA	20170325	CA20152905168	20150925

Priority:

CA20152905168 20150925

Probable Assignee:

ZHANG HANG

Assignee(s): (std):

ZHANG HANG

Inventor(s): (std):

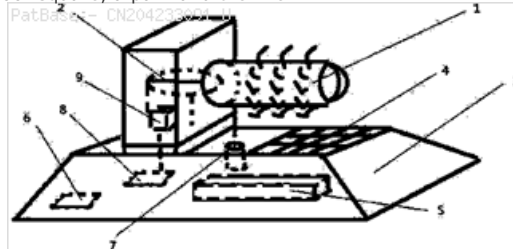
ZHANG HANG

Title: PHOTOVOLTAIC SENSING SHOE POLISHER

Abstract: The utility model discloses a photovoltaic sensing shoe polisher. The photovoltaic sensing shoe polisher comprises a cylindrical brush, a motor, a pedestal, a photovoltaic plate, a supercapacitor, a booster output module, an infrared sensor, a single chip microcomputer module and a relay, wherein the pedestal is cuboid; the motor is positioned on one side of the pedestal; the photovoltaic plate is arranged above the pedestal; the supercapacitor, the booster output module, the infrared sensor, the single chip microcomputer module and the relay are mounted inside the pedestal; the cylindrical brush is fixed on the motor. The photovoltaic sensing shoe polisher has the advantages as follows: solar energy is converted into electrical energy through the photovoltaic plate and is stored in the supercapacitor, and when the infrared sensor senses that a shoe approaches, the shoe polisher automatically starts the motor to work and the cylindrical brush rotates to remove dust from the shoe; the shoe polisher is powered by the photovoltaic plate, so that electricity consumption is lowered; the shoe polisher does not need a power supply, so that the shoe polisher can be mounted at any place, and is suitable for open outdoor environments such as an outdoor square, a park and the like.

Classifications:

International (IPC 8-9): A47L23/02 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN105708403 A	20160629	CN201410721595	20141203
CN204233091 U	20150401	CN201420746420U	20141203

Priority:

CN201410721595 20141203 CN201420746420U 20141203

Probable Assignee: NANJING COLLEGE CHEMICAL TECH

Assignee(s): (std): NANJING COLLEGE CHEMICAL TECH ; NANJING COLLEGE OF CHEMICAL TECH ; NANJING COLLEGE OF CHEMICAL TECHNOLOGY

Inventor(s): (std): JIN WEI

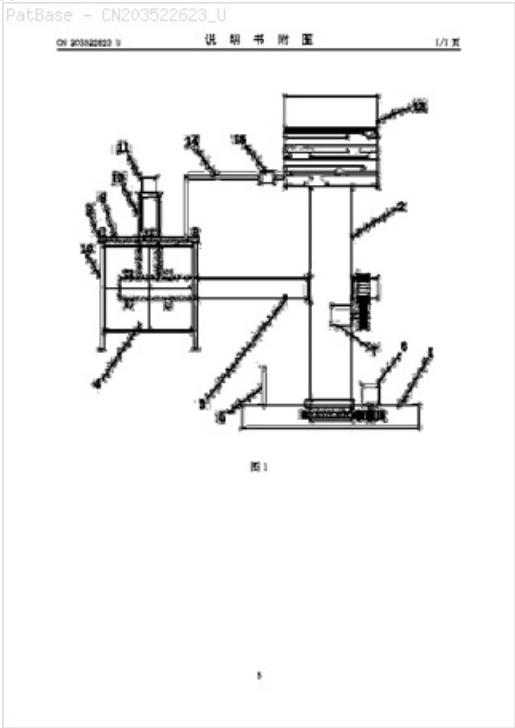
Title: AUTOMATIC TRACKING AND DUST REMOVING PHOTOVOLTAIC POWER GENERATION DEVICE

Abstract: The utility model discloses an automatic tracking and dust removing photovoltaic power generation device which comprises a base and a vertical rotating shaft which is rotatably connected to the base. The vertical rotating shaft is rotatably connected with a horizontal rotating shaft. A solar panel is fixed on the horizontal rotating shaft. The vertical rotating shaft and the horizontal rotating shaft are in transmission with a motor A and a motor B. The device also comprises a controller, a sun azimuth photoelectric detector and a cleaning device. The controller controls the motor A and the motor B according to the detection signal of the sun azimuth photoelectric detector such that the normal line of the solar panel points to the sun. The controller starts the cleaning device regularly to clean the solar panel. The device has the functions of automatic tracking and cleaning at the same time, the maximization of the solar cell conversion efficiency is maintained, the generation capacity is raised, the electric energy manufacture cost is reduced, and the economic benefits are raised. The automatic control is achieved, the equipment maintenance difficulty and investment are reduced, and the operational cost of a photovoltaic power generation device is reduced.

Classifications:

International (IPC 8-9): H02S20/32 H02S40/10 (Advanced/Invention)

CPC: Y02E10/47 F24S40/20 F24S30/452 F24S50/20



Family:

Publication number	Publication date	Application number	Application date
CN203522623 U	20140402	CN201320675146U	20131030

Priority:

CN201320675146U 20131030

Probable Assignee: HUIAN COLLEGE INF TECHNOLOGY

Assignee(s): (std): HUIAN COLLEGE INF TECHNOLOGY ; HUIAN COLLEGE OF INFORMATION TECHNOLOGY

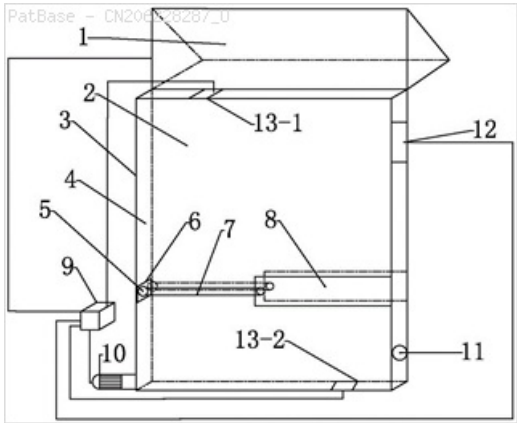
Inventor(s): (std): CHEN LIANG ; MU YAN ; SUN YUNLONG

Title: AUTOMATIC TWO -SIDED **CLEANED** GLASS BRUSH DEVICE OF **SOLAR** ENERGY

Abstract: The utility model relates to an automatic two -sided **cleaned** glass brush device of **solar** energy, it is **clean** effectively to solve glass window single face, it is artifical **clean**, high -rise **clean** difficulty, the problem that wastes **time** and energy, there is glass on the window frame, there is **solar cell panel** the top, there are switch and air purifier in one side, there are first and second inductors on the glass upper left side with right side below, there are a left side and right conveyor belt in the perpendicular groove on one side of in the window frame, a left side and right conveyor belt one end and **follow** driving wheel are even, the other end links with the **motor**, a **motor**, it is first, second inductor and programmable **controller** are even, **solar cell panel** links with the accumulate device through **photovoltaic controller**, the accumulate device is through dc -to -ac converter and programmable **controller**, air purifier even, the fixed plate is fixed on a left side and right conveyor belt, on have a pipe box, there is the telescopic link in the pipe box, the telescopic link is fixed in glass brush one end, connect by programmable logic **controller control**, the utility model discloses simple structure, convenient to use, it is effectual, labour saving and **time** saving, it is multiple functional, energy -conserving and environment -protective.

Classifications:

International (IPC 8-9): A47L1/03 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN206228287 U	20170609	CN201620905861U	20160820

Priority:

CN201620905861U 20160820

Probable Assignee: UNIV HUANGHUAI

Assignee(s): (std): HUANGHUAI UNIV ; UNIV HUANGHUAI

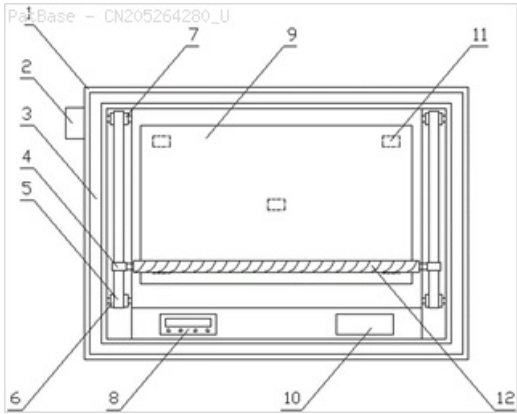
Inventor(s): (std): HU JINGYU ; LIU WENFU ; MENG JUAN ; WANG YINLING ; YE MIAO

Title: ELECTRONIC INFORMATION DISPLAY SCREEN

Abstract: The utility model provides an electronic information display screen, relate to display screen technical field, which comprises a fram, the LED display screen, micro **motor** and **controller**, the LED display screen is equipped with in the frame, the LED display screen installs inside has bright **sensor**, the lower extreme all is equipped with the action wheel and **follows** the driving wheel on the frame both sides, action wheel and **follow** driving wheel are around there being the conveyer belt, action wheel and driven taking turns to all are equipped with the elevator, be connected with round roller between the elevator, circle roller overcoat has **clean** drum, **clean** drum is **located** LED display screen front end, the action wheel is connected with the outer little letter **motor** of frame, be equipped with **solar** light **panel** around the frame on the frame, the frame lower extreme is equipped with interconnect's **controller** and battery box, the **controller** is connected with micro **motor** and bright **sensor** respectively, the battery box is connected with **solar** light **panel**. This electronic display screen knot adopts **solar** light **panel**, and is not only energy -conserving and environment -protective to can not receive the influence when cutting off the power supply in the city, utilize bright **sensor**, reached automatic purpose of **cleaning** the display screen, convenient to use.

Classifications:

International (IPC 8-9): G09F9/33 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN205264280 U	20160525	CN201620001258U	20160104

Priority:

CN201620001258U 20160104

Probable Assignee: UNIV HEILONGJIANG SCIENCE AND TECH

Assignee(s): (std): HEILONGJIANG UNIV OF SCIENCE AND TECH ; UNIV HEILONGJIANG SCIENCE AND TECH

Assignee(s): HEILONGJIANG UNIV OF SCIENCE AND TECHNOLOGY

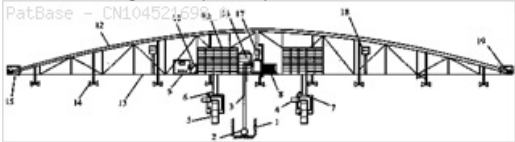
Inventor(s): (std): HU XIAO ; HUANG CHUNNAN ; MA NAJI ; SUN JIAN ; XU FENG

Title: LIGHT-SMALL AUTOMATIC WALK CANAL FEEDING TYPE IRRIGATOR

Abstract: The invention discloses a light-small automatic walk canal feeding type irrigator, including a water sucking hose, a first reduction driving **motor**, a driving wheel, a steering device, a main beam, a self sucking pump, a main water supply line, a truss, a low-pressure spray head, a foam baffle, a bottom drain valve, a water intaking filtering device, a **controller**, a **solar photovoltaic** power generation system, a storage battery, a fertilizer apparatus, an infrared correction navigation system. The irrigator integrates the opto-mechatronics and the efficient **solar** utilization technology, is powered by the **clean solar** energy, utilizes infrared correction to adjust the walk errors during the walking process of the irrigator, and thereby achieves the navigation straight walking of the unit. Meanwhile, the maximum power point **tracing control** technology based on **solar** mechanical **tracing** and the maximum power point **tracing control** technology based on fixation and installation of **photovoltaic cell panels** are adopted. In a word, the irrigator has the advantages of being convenient to move, saving in labor and **time**, high in irrigation accuracy, good in water saving effect and strong in adaptability.

Classifications:

International (IPC 8-9): A01C23/04 A01G25/09 G01C21/00 H02J7/35 H02S20/32 H02S40/30 (Advanced/Invention)
CPC: Y02P60/122 A01G25/09 A01C23/042 G01C21/00 H02J7/35 H02S20/00 H02S40/00 Y02A40/237



Family:

Publication number	Publication date	Application number	Application date
CN104521698 A	20150422	CN201410731923	20141206
CN104521698 B	20170125	CN201410731923	20141206

Priority:

CN201410731923 20141206

Probable Assignee: UNIV NORTHWEST A AND F

Assignee(s): (std): NORTHWEST A AND F UNIV ; UNIV NORTHWEST A AND F

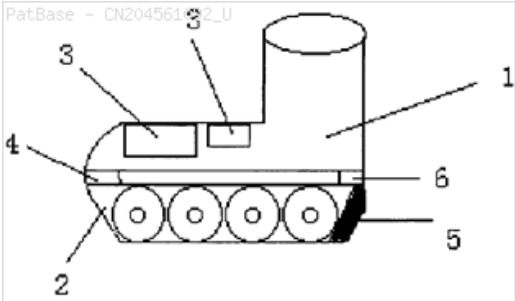
Inventor(s): (std): WANG BIN ; WANG CHANGWEI ; WU PUTE ; ZHANG LIN ; ZHU DELAN ; ZHU JINFU

Title: ELECTRONIC SHOES OF ENVIRONMENTAL PROTECTION

Abstract: The utility model discloses an electronic shoes of environmental protection, including the shoes body, the **motor**, running gear and power generation facility, running gear is for installing the **track** outside wheel and the wheel below the shoes body, power generation facility includes **solar cell panel** and battery, and **solar cell panel** is attached in vamp or shoes body side, and the battery is installed inside the sole, still include **wireless** remote **controller**. The utility model discloses a **clean** energy, it provides power, low carbon environmental protection to be shoes by **solar** energy, adopt the **track** to replace the wheel, it is steadily comfortable, **control** more easily, older people also can wear, **control** shoes through hand-held remote **controller** or sound, nimble intelligence is simply easily learned, does not require the user, with low costs, the price is human-oriented, and the ordinary people can afford to consume

Classifications:

International (IPC 8-9): A43B3/00 A43B5/00 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN204561092 U	20150819	CN201520188699U	20150327

Priority:

CN201520188699U 20150327

Probable Assignee:

YU CHANGJING

Assignee(s): (std):

YU CHANGJING

Assignee(s):

IN CRYSTAL GROWTH

Inventor(s): (std):

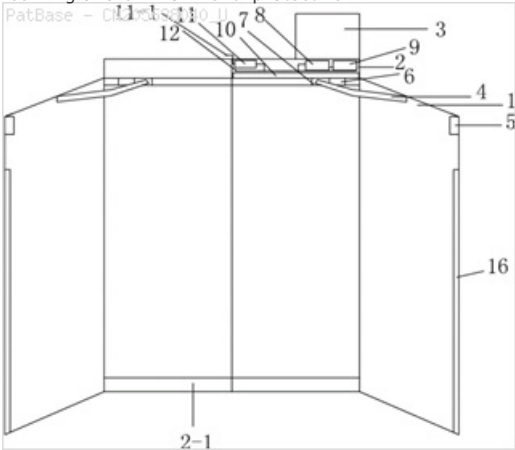
YU CHANGJING

Title: CAN MULTI -FUNCTIONAL WINDOW OF AUTOMATIC CLOSED INDUCTION TYPE SELF -CLEANING

Abstract: The utility model discloses a can multi -functional window of automatic closed induction type self -cleaning, it relates to the field. The upper portion of window form is provided with the window frame, and the lower part of window form is provided with down the window frame, last window frame top install solar panel, solar panel is connected with the battery, the battery respectively with the humidity inductor, a controller, a drive uni, the motor electricity is connected, the inboard upper portion of window form is connected with the trace, the controller is connected with humidity inductor and drive control, the lower extreme of motor is connected with the telescopic link, be connected with on the telescopic link and clean the device, and the water storage box sets up in last window frame, the one end of water storage box with spout water piping connection, the other end and the water storage pipe of water storage box are connected, and install the solenoid valve on the spray pipe. Can be automatic closed when people go out and rain suddenly or snow, prevent effectively that clothing or ground from getting wet, can rinse outside window form, the cleaning performance is good, adopts the solar cell power supply, and is comparatively energy -conserving and environment -protective.

Classifications:

International (IPC 8-9): A47L1/02 E05F15/63 E05F15/71 E06B7/14 E06B7/28 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN205638040 U	20161012	CN201620446386U	20160516

Priority:

CN201620446386U 20160516

Probable Assignee:

HU JIANWEI

Assignee(s): (std):

HU JIANWEI

Inventor(s): (std):

HU JIANWEI

Title: AUTOMATIC COOLING AND WASHING EQUIPMENT OF THE PHOTOVOLTAIC MODULE STRUCTURE

Abstract: Source: KR20070001305U

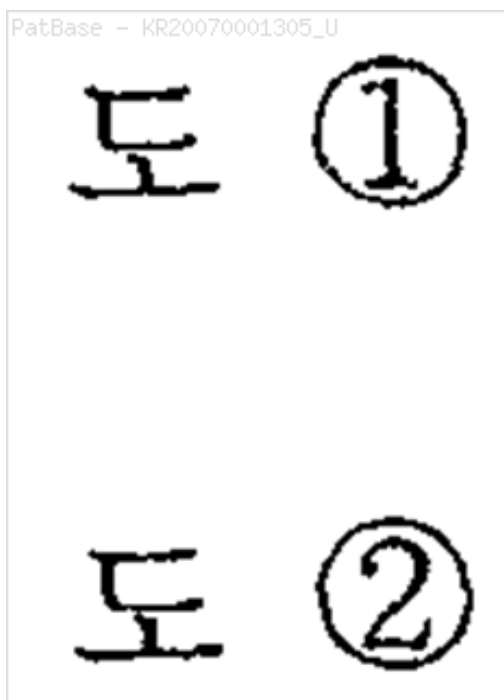
Machine translation: Jipgwangpan present invention advances the sun (mojeulpan) in order to sustain the efficiency of the automatic sprinkler cooling and **cleaning** unit is to provide a structure such that the investment structure of large **solar** power, but the atmosphere of the condenser plates are installed When the dust and scattering of dust or snow buildup scale buildup, etc. The original purpose condenser does not condense in the **solar panel** in a conventional hand-polished glass stand or the degree of automation of the **clean** form an integral structure intended entire mall area is Slope **tracking** fixed-expression or approximately 32 degrees to prevent overheating of the condenser plates by removing the scale of the original without any loss of sunlight condensed on top of a sprinkler system you want to use the balance (40) the proper amount of detergent and water, and occasionally on the surface of live coating is to allow up and convex on both sides of (90) with a C-shaped rails (80) along the drive **motor** (20) by a horizontal to a vertical type and down the left and right balance (30) driving the balance was gudongke (30) removable top for easy bi-directional brush (60) gyeopjulro chips placed on a sleeve to facilitate the flow of live or doubling as a staggered vertical plate type condenser by placing the brush up and down the balance when moving to the left and right horizontal automatic secheokke was C (80) rails in the bottom that the balance wheel adhesive on the convex (90) to create airflow flows spaced condenser plates and jipgwangpan the gap between the much balance when moving the brush easily be adjusted to move my line designed product in the sprinkler device (40) Change the **location** and rough (90) to add the device was wire rope instead of chain of hunger (50) by replacing was not oriented, can work. Also driving the balance pan in the center of the drive decelerates the **motor** (20) using the wire rope (50) to be reeled solved rivets device (70) can be repeated to adjust the distribution board to the PC or a convenient remote **control**, remote **control** is the configuration. Jipgwangpan risk prevention and to safeguard savings of this device is designed for fully automated structure generation, the first **time** the original construction as the city is keeping you together. That prevented a lot of electricity generation decreased by an increase in electricity generation as a result of the generation which will take more of this product is designed by new innovative device that is an economic benefit. Live, detergents, rivets, devices, drive **motors**, C-type side rails, uneven, Balance, Wire Rope

Classifications:

International (IPC 8-9): H01L31/042 H02S40/00 (Advanced/Invention); H01L31/042 (Advanced/Non-invention)

CPC: H02S40/10 H02S40/425

European: Y02E10/50



Family:

Publication number	Publication date	Application number	Application date
KR20070001305 U	20071220	KR20070017448U	20071029

Priority:

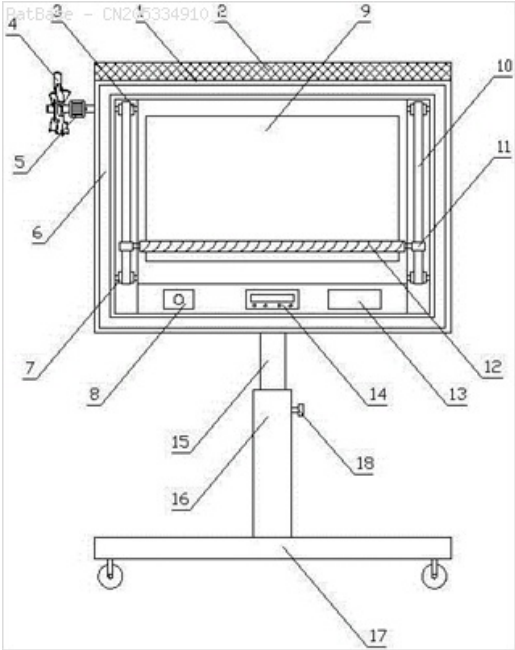
KR20070017448U 20071029

Title: HIGHWAY CONSTRUCTION SIGN PLATE

Abstract: The utility model provides a highway construction sign plate, relate to denoter technical field, which comprises a fram, the denoter, micro **motor** and adjustment mechanism, adjustment mechanism includes the base, the sleeve pipe, bracing piece and adjusting bolt, bracing piece top connecting frame, the frame is top mounted to have **solar** light **panel**, there is the denoter in the frame, the denoter below is equipped with interconnect's photosensitive **sensor**, **controller** and battery box, be equipped with LED lamp strip on the frame frame, the lower extreme is equipped with the action wheel and **follows** the driving wheel on the frame both sides, action wheel and **follow** driving wheel are around there being the conveyer belt, be equipped with the elevator on the conveyer belt, there is round roller between the elevator, the action wheel is connected with the transmission shaft, be equipped with little letter **motor** and impeller on the transmission shaft. This highway construction sign plate adopts **solar** light **panel**, photosensitive **sensor** and the cooperation of LED lamp strip, has solved the problem of seeing unclear denoter night, has reached energy -conserving and environment -protective purpose, adopt the impeller, believe that **motor** and **clean** drum cooperate a little to utilize the rain resource electricity generation, solved the problem of seeing unclear denoter rainy day.

Classifications:

International (IPC 8-9): G09F13/18 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN205334910 U	20160622	CN201620090116U	20160129

Priority:

CN201620090116U 20160129

Probable Assignee:

SHAO CHANGSHUN

Assignee(s): (std):

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Inventor(s): (std):

SHAO CHANGSHUN