

1) Family number: 70548071 (CN207639249U)

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Title: GREEN WALL OF INTELLIGENT CONTROL

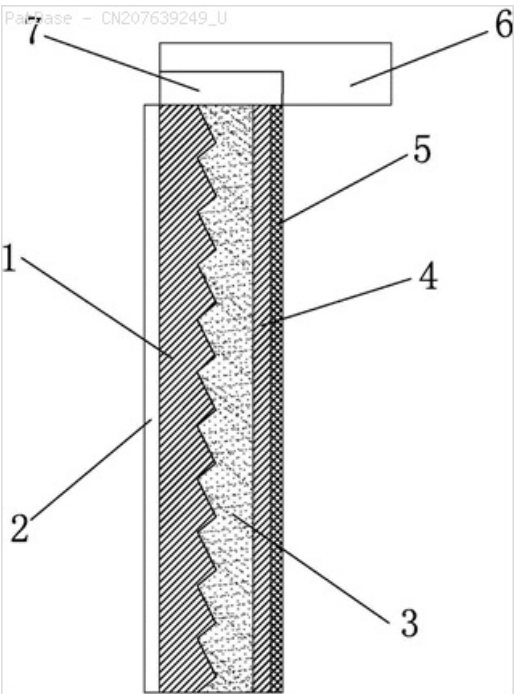
Abstract: The utility model discloses a green wall of intelligent control, including cultivateing the boss, irrigating passageway and decorative board, it is vertical rectangular shape to cultivate the boss toit sets up to arrange the interval, be provided with the irrigation passageway between adjacent cultivation boss, the decorative board has been blanketed at cultivation boss and irrigation passagewaysurface, cultivate the boss including folding graphite alkene electricity heating sticker piece, marble base plate, cultivation matter layer, the soil horizon of establishing in proper order, it is provided with temperature sensor, humidity transducer, carbon dioxide sensor, dissolves oxygen content sensor to cultivate the matter in situ, it is filled with porous foam block to irrigate the passageway intussuseption, be provided with the planting hole of fretwork on the decorative board of cultivateing the corresponding position of boss. The utility model discloses according with modern green'shealthy life theory, adopting intelligent management, help the green healthy growth who plants, the installation is firm, and stability is good, helps sparingly soil, beautifies the indoor environment, can improve the environment for the indoor fresh air that brings, the green cycle length of surviving of planting.

Classifications:

International (IPC 8-9): A01G7/04 A01G9/02 E04B2/00

G05D27/02 (Advanced/Invention)

CPC: Y02P60/146



Family:

Publication number	Publication date	Application number	Application date
CN207639249 U	20180724	CN201721481090U	20171108

Priority:

CN201721481090U 20171108

Probable Assignee: SUZHOU BIZUNION ENERGY SAVING CO LTD

Assignee(s): (std): SUZHOU BIZUNION ENERGY SAVING CO LTD

Assignee(s): SUZHOU 100 WITH ENERGY SAVING TECHNOLOGY CO LTD ; SUZHOU BIZUNION ENERGY SAVING CO

Inventor(s): (std): LIU FENG ; LIU WENHUI

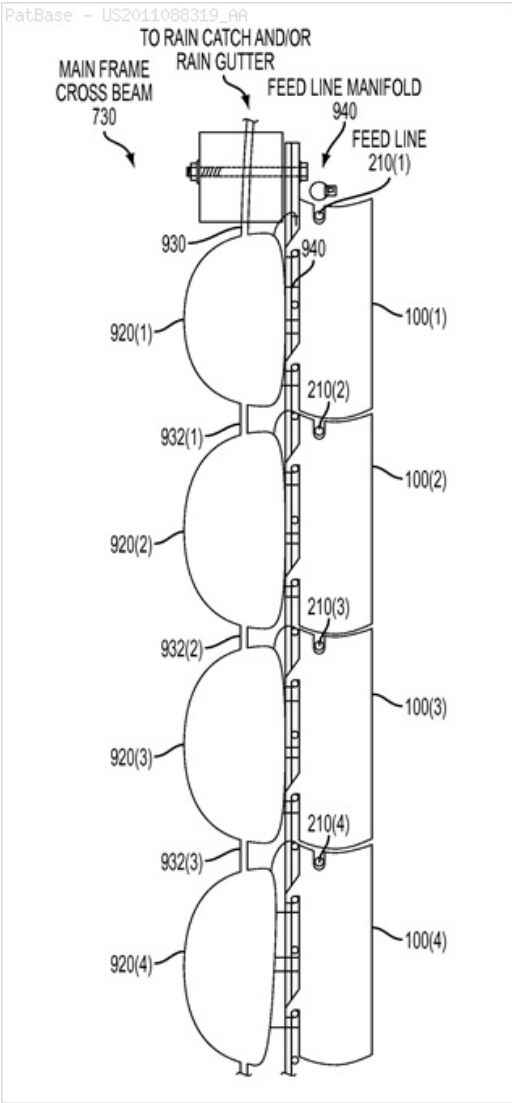
2) Family number: 46782072 (US2011088319A)

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Title: GREEN WALL PLANTING MODULE, SUPPORT STRUCTURE AND IRRIGATION CONTROL SYSTEM

Abstract: A green wall planting module has a rear wall, two side walls and a top and bottom wall, the top wall having a concave shape for receiving within its cross section a bottom wall of a green wall planting module mounted approximately one to four millimeters above it on a grid wall structure to suppress splashing and retain rain water. The grid wall structure comprises horizontal rods associated with a vertical wall structure of, for example, a building. The top wall of a lower mounted green wall module comprises an integral slot adapted to receive a horizontal irrigation pipe or hose which may lie horizontally in and longitudinally along the slot when the green wall modular apparatus is mounted to the grid wall. Tapered louvers are provided within the green wall planting module slanting upward from the rear wall at a predetermined angle within the module so as to collect and retain water as does the bottom concave wall of the apparatus. A controlled irrigation system including a cistern and rain barrel is provided to re-circulate collected rain water to plantings horizontally displayed by the green wall planting module.

Classifications:
International (IPC 8-9): A01G25/00 A01G9/02
G05D7/06 (Advanced/Invention);
E04H14/00 (Advanced/Non-invention);
A01G25/00 A01G9/02 (Core/Invention)
CPC: A01G9/025 Y02P60/244
European: A01G1/00C A01G9/02C
US: 47/65.9 47/66.6 47/66.600P 47/66.600S 47/82 52/173.1
52/173.100S 700/284 700/284P



Family:

Publication number	Publication date	Application number	Application date
US2011088319 AA	20110421	US20090624084	20091123
US2011093122 AA	20110421	US20090612155	20091104
US7788848 BA	20100907	US20100686856	20100113
US7926224 BA	20110419	US20090624084	20091123

Priority:

US20090253341P 20091020 US20090612155 20091104 US20090624084 20091123
US20100686856 20100113

Probable Assignee: VICTORY GREENWALL SYSTEMS INC
Assignee(s): (std): KOUMOUDIS SOTIRI ; VICTORY GREENWALL SYSTEMS INC
Inventor(s): (std): KOUMOUDIS SOTIRI
Agent(s): PCT LAW GROUP PLLC

3) Family number: 54819116 (MX2011013185A) © PatBase

Title: MOBILE HANGING VERTICAL GARDEN SYSTEM.

Abstract: THE PRESENT INVENTION REFERS TO A MOBILE HANGING VERTICAL GARDEN SYSTEM FOR CREATING SURFACES WITH PLANTS FOR COMMERCIAL, INDUSTRIAL AND DOMESTIC USE IN INDOOR AND OUTDOOR APPLICATIONS. THE SYSTEM COMPRISES A TEXTILE MAT IN WHICH BAGS ARE FORMED FOR RECEIVING PLANTS OR CROPS. THIS TEXTILE MAT HAS A STRUCTURE OF STRUCTURAL TEXTILE BANDS HUNG FROM THE UPPER PORTION THEREOF TO A SUPPORT STRUCTURE, WHICH MAY BE A MOBILE WALL, TUBULAR STRUCTURE OR INDEPENDENT FRAME.

Classifications:
International (IPC 8-9): A01G9/02 A47G7/04 (Advanced/Invention)

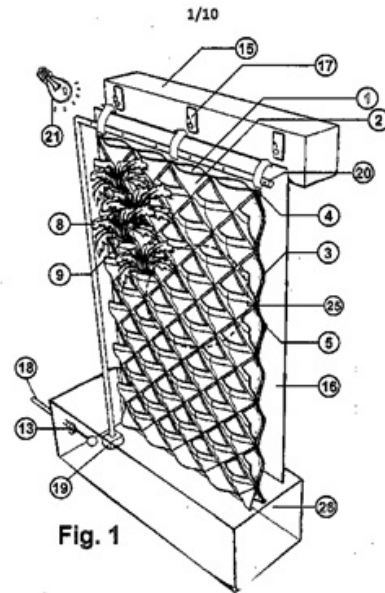


Fig. 1

Family:

Publication number	Publication date	Application number	Application date
MX2011013185 A1	20130614	MX20110013185	20111208

Priority:

MX20110013185 20111208

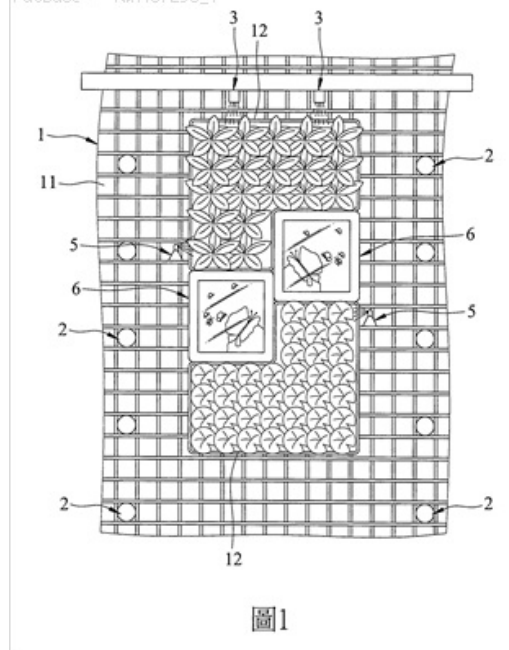
Probable Assignee: PHI PROJECT S A DE C V**Assignee(s):** (std): PHI PROJECT S A DE C V**Assignee(s):** PHI PROJECT DE CV SA**Inventor(s):** (std): OJEDA VICENTE PERALTA ; RIVERA KENJI ULISES LOPEZ**Inventor(s):** VICENTE PERALTA OJEDA ; KENJI ULISES LOPEZ RIVERA**4) Family number: 55357121 (TWM467296Y)**

© PatBase

Title: INTEGRATION TYPE WATERING AND ILLUMINATION CONTROL SYSTEM OF GREEN WALL

Abstract: Source: TWM467296Y **Machine translation:** One kind of green wall irrigation and cooperation ? integrated light emitting control system, comprising at least one light-emitting element green light yield nickel, ? irrigation water supply should be at least a sprinkle water separator, investigation measuring the shift of ?, Temperature, degree of a sensing unit, and a light emitting element, the STRIKEOUT AND COOPERATION strikeout sprinkle water separator, the strikeout of the first sensing unit is electrically connected to the control unit. In the control unit root ?? strikeout automatic mode to at least one pre-set schedule, the control light-emitting element, the strikeout strikeout sprinkle water separator, strikeout, ? moving off closing sensing unit, and the root context ?? ring mode, control light-emitting element, the strikeout strikeout sprinkle water separator, the strikeout of ? sensing unit moving off or closed. In this way, the model can fit enough ring territory, determined species implanted bar member, and can be used with people mutual sliding effect, and helps to yield green growing, and green landscaping effect.

Classifications:**International (IPC 8-9):** A01G25/16 (Advanced/Invention)

**Family:**

Publication number	Publication date	Application number	Application date
TWM467296 Y	20131211	TW20130212350U	20130701

Priority:

TW20130212350U 20130701

Probable Assignee:

UNIV VANUNG

Assignee(s): (std):

UNIV VANUNG

Assignee(s):

VANUNG UNIV

Inventor(s): (std):

LIN SHUI QUAN

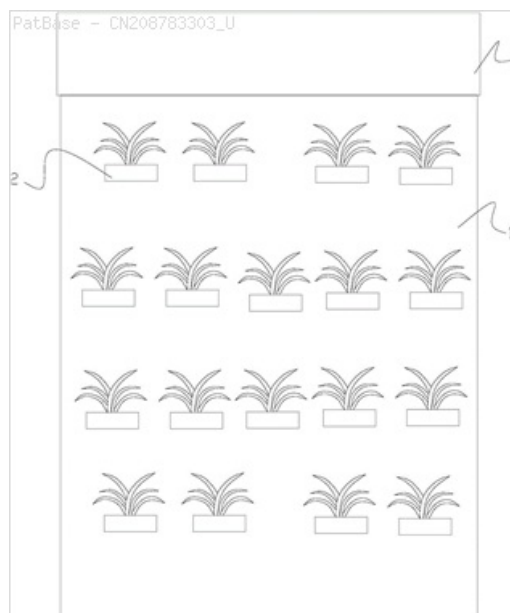
5) Family number: 74124189 (CN208783303U)

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Title: GREEN WALL IRRIGATION SYSTEM

Abstract: The utility model discloses a green wall irrigation system, including main part support, planting basin, water guide frame and water storage device, planting the basin and establishing on the main part support, water storage device establishes at main part support top, plants basin upper portion position and is equipped with the water inlet, water storage device includes storage water tank, waterpump, controller and drinking -water pipe, and the storage water tank is fixed to be established on main part support top, and the water pump is established in the storage water tank on the diapire, drinking -water pipe one end and water pump fluid intercommunication, and the water guide frame is fixed to be established on the main part support, is equipped with the aqueduct on the water guide frame, the drinking -water pipe other end and aqueduct one end fluid intercommunication, the aqueduct other end and water inlet fluid intercommunication, the controller is fixed to be established on the storage water tank, and the controller carries out circular telegram work according to the control signal control pump of receiving for the water pump will be saved water in the storage water tank and loop through drinking -water pipe and aqueduct extraction to plant the basin in. Its the later stage moisturizing work needed manual work that can solve the green wall among the prior art is gone on, and is very loaded down with trivial details, maintenance problem with high costs.

Classifications:**International (IPC 8-9):** A01G27/00 A01G9/02 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN208783303 U	20190426	CN201821213063U	20180727

Priority:

CN201821213063U 20180727

Probable Assignee: GUANGDONG CHUANGYU LANDSCAPE ARCH CO LTD

Assignee(s): (std): GUANGDONG CHUANGYU LANDSCAPE ARCH CO LTD

Assignee(s): GUANGDONG CHUANGYU LANDSCAPE ARCHITECTURE CO ; GUANGDONG CHONG YU GARDEN CO LTD

Inventor(s): (std): YANG YUANZHE ; SUN YANGSHEN ; TANG ZHENYUAN ; GUO BING

6) Family number: 60976300 (BR202013032285U)

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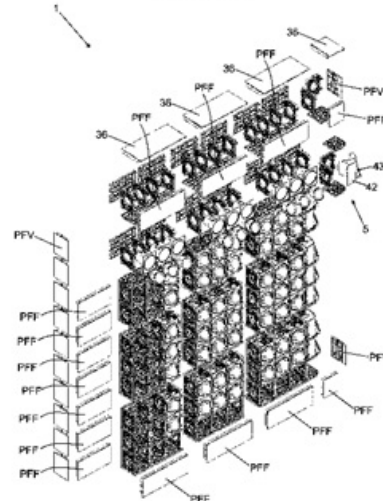
Title: DISPOSICAO INTRODUZIDA EM JARDIM VERTICAL MODULAR COM IRRIGACAO E NUTRICAO AUTOMATIZADA IN VERTICAL GARDEN provision introduced MODULAR WITH IRRIGATION AND NUTRITION AUTOMATED (Machine translation)

Abstract: Source: BR202013032285U [PT] 1 RESUMO DISPOSICAO INTRODUZIDA EM JARDIM VERTICAL MODULAR COM IRRIGACAO E NUTRICAO AUTOMATIZADA refere-se a um jardim vertical modular (1) montado por placas (P) de encaixe simples, produzidas em material reciclado 5 com protecao contra raios ultravioleta podendo ser expansivel sem limite de tamanho, para ambientes internos e externos, com irrigacao (I) automatizada e sustentavel garantindo a irrigacao das plantas (V) com a possibilidade de reaproveitamento da agua e a adequada nutricao a partir de fertilizantes soluveis. **Machine translation:** 1 SUMMARY provision introduced IN VERTICAL GARDEN MODULAR WITH IRRIGATION AND NUTRITION AUTOMATED refers to a modular vertical garden (1) mounted on plates (P) of simple fitting, produced in recycled material 5 with protection against ultraviolet rays can be expandable without limit size, for indoors and outdoors, with irrigation (I) automated and sustainable ensuring irrigation of plants (V) with the possibility of water reuse and adequate nutrition from soluble fertilizers.

Classifications:

International (IPC 8-9): A01G27/00 A01G9/02
A01G9/28 (Advanced/Invention)

FIGURA 1

**Family:**

Publication number	Publication date	Application number	Application date
BR202013032285 U2	20151013	BR20132032285U	20131216

Priority:

BR20132032285U 20131216

Probable Assignee:

GONCALVES RENATO BREUEL

Assignee(s): (std):

GONCALVES RENATO BREUEL

Assignee(s):

RENATO BREUEL GONCALVES

Inventor(s): (std):

GONCALVES RENATO BREUEL

Inventor(s):

RENATO BREUEL GONCALVES

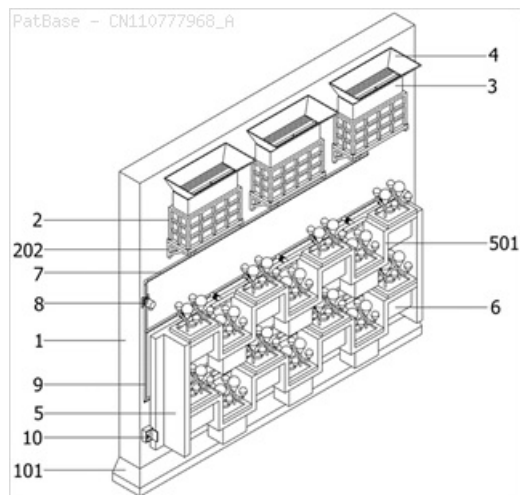
7) Family number: 77604349 (CN110777968A)

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Title: Based on green building prefabricated vertical green wall structure (Machine translation)

Abstract: Source: CN110777968A **Machine translation:** The present invention provides a method based on the green building prefabricated vertical green wall structure, comprising: a wall, said wall rectangular array-like front end face portion is provided with three of said screen frame, said screen frame and each interior are fitted with one of said storage tank; the lower left corner wall front end face portion is mounted on the control box and the control box with solenoid valves and external power supply are ordinary electrically connected phase. As rainwater storage tank and hopper mounted on the screen frame inside, when the rain, rainwater collected by rainwater harvesting bucket water storage tank inside, when the sunny irrigated rectangular green planting pots planting green plants, by pressing the control box inside the control switch, the controller controls the solenoid valve is open work, so that the water storage tank inside the sink pipes and pipes from rainwater through T-type drip head drip irrigation in rectangular green planting pots inside and make green plants can also be obtained during sunny natural rainwater irrigation, greatly improving the green wall irrigation system of practicality, it effectively reduce water waste.

Classifications:**International (IPC 8-9):** A01G9/02 E04B2/00 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN110777968 A	20200211	CN201911110258	20191114

Priority:

CN201911110258 20191114

Probable Assignee:

LULICONAZOLE ONLY

Assignee(s):

LULICONAZOLE ONLY

8) Family number: 51111377 (US2013160363A)

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Title: AQUAPONIC VERTICAL GARDEN WITH INTEGRATED AIR CHANNEL FOR PLANT-BASED AIR FILTRATION

Abstract: Embodiments are described for a closed-loop, vertical garden system for growing plants and filtering air and water comprising: a support structure; a composite, grow media configured to physically support the growth of plants and distribute water to the roots of the plants through capillary action through the area of the grow media; a water source coupled to the grow media through a pump and plumbing system, wherein the plumbing system is configured to draw water from the water source through the grow media and back to the water source in substantially closed loop aquatic system; and an air flow subsystem configured to draw outside air through the plants and transmit filtered air back out of the support structure.

Classifications:

International (IPC 8-9): A01G31/00 A01G31/02

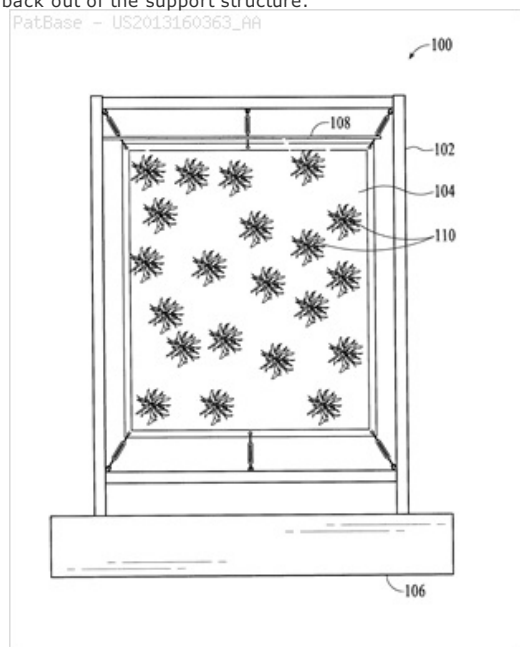
A01G9/02 (Advanced/Invention)

CPC: A01G9/022 Y02B10/30 A01G31/02 A01G9/025 Y02P60/244

Y02P60/216 A01K63/04

European: A01G31/02 A01G9/02C3 Y02B10/30 Y02B10/50

US: 47/59.00R 47/59R 47/59S 47/62.00A 47/62.00N 47/62.00R 47/62A 47/62N 47/62R 47/66.6



Family:

Publication number	Publication date	Application number	Application date
US2013160363 AA	20130627	US20130773201	20130221
US8181391 BA	20120522	US20090403939	20090313
US8516743 BA	20130827	US20100792701	20100602
US8578651 BA	20131112	US20100792696	20100602
US9032665 BB	20150519	US20130773201	20130221

Priority:

US20080069447P 20080314 US20090403939 20090313 US20100792696 20100602
 US20100792701 20100602 US20100792683 20100602 US20130773201 20130221

Probable Assignee: INKA BIOSPHERIC SYSTEMS

Assignee(s): (std): GIACOMANTONIO PAUL ; GIACOMANTONIO PAUL J ; INKA BIOSPHERIC SYSTEMS ; INKA BIOSPHERIC SYSTEMS ; TOMKAT RANCH EDUCATIONAL FOUNDATION

Inventor(s): (std): GIACOMANTONIO PAUL ; WHITNEY CHRISTOPHER J ; GIACOMANTONIO PAUL J

Agent(s): DERGOSITS AND NOAH LLP; GEOFFREY T; STANIFORD TOMITA LLP

9) Family number: 66371415 (TWM544760Y)

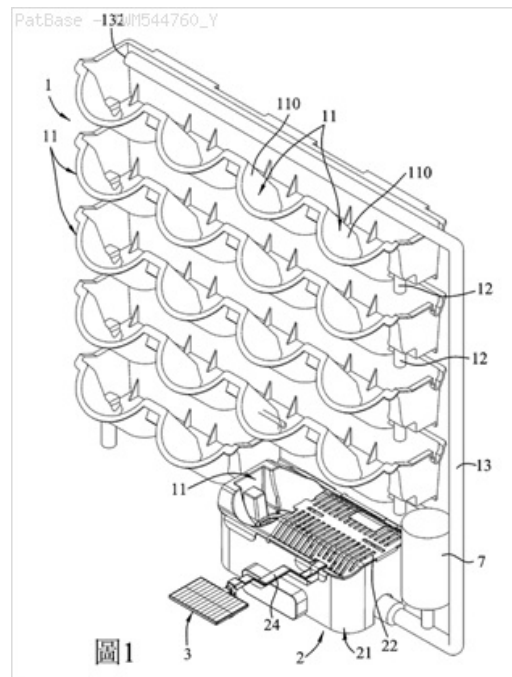
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Title: GREEN WALL IRRIGATION SYSTEM

Abstract: Source: TWM544760Y **Machine translation:** One kind of ? green wall irrigation system, comprising a basin water level controller unit, a sensing unit, a first water supply control unit, and a control unit within the optimum range. Strikeout pots and pots and emitting unit including ammonia stocker, and one for the water supplied to the water supply pipe and the like strikeout pots. In the first control unit can supply within the optimum strikeout strikeout olefins using the water pipe providing water to the basin into water like state, strikeout, etc. and an OFF closed like state 00 moves, stop the water. The control unit includes a first level, the strikeout news receiving module, a control module and\ count 00 modules. The control module can be strikeout strikeout etc. basin water level is lower than the first level 00, in accordance with evidence-strikeout quasi brown water level control water supply control within the optimum strikeout emitting unit immediately or a predetermined time after 00 moves, the strikeout of water like state to set. The present model can according to plant needs moisture, timely water supply, so that the machine is at sik sesame plant growing well.

Classifications:

International (IPC 8-9): A01G25/16 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
TWM544760 Y	20170711	TW20170202840U	20170301

Priority:

TW20170202840U 20170301

Probable Assignee: SONG XU YANG

Assignee(s): (std): SONG XU YANG

Assignee(s): SONG XUYANG

Inventor(s): (std): SONG XU YANG

10) Family number: 67923434 (GR20160200122U)

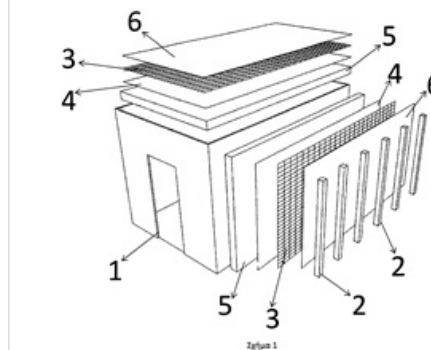
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Title: HYDROPONIC GERMS CULTIVATION CHAMBER FOR FODDER PRODUCTION WITH USE OF A VERTICAL GARDEN, DROP IRRIGATION AND INFLATED POLYSTYRENE

Abstract: Novelty: there is disclosed a hydroponic germs cultivation chamber composed of an external vertical insulating garden and internal planting channels which are made of inflated polystyrene and irrigated by water drops. Advantages: natural insulation and aesthetic upgrade of the landscape by use of the vertical planting mode; insulation of the plant's root by use of polystyrene which is cheaper than the plastic or metal channels habitually in use today; water quantity control and differentiated water quantity supplied to the plant's root according to the growth phase of the plants; stable humidity in the chamber and, thereby, deterrence of the growth of pathogenic factors which could be harmful to the cultivated plants.

Classifications:

International (IPC 8-9): A01G31/00 (Advanced/Invention)



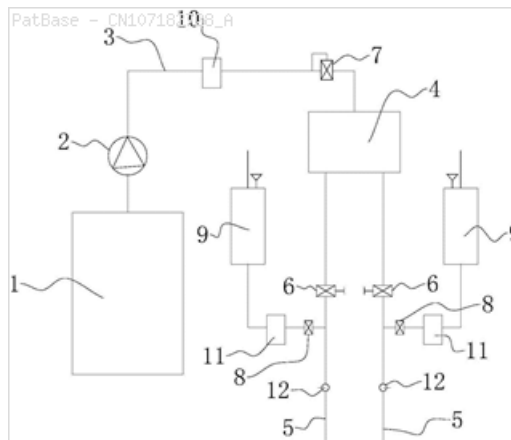
Publication number	Publication date	Application number	Application date
GR20160200122 U	20171122	GR20160200122U	20160330

GR20160200122U 20160330

Inventor(s): (std): KASPIRIS GEORGIOS PANAGIOTI

Abstract: The invention discloses a green wall irrigation system and a green wall using the system. The irrigation system comprises a number of irrigation pipes, a water supply device and a control system, the control system comprises a control device, a humidity sensor, a flow meter and a solenoid valve, the solenoid valve and the flow meter are respectively mounted on each irrigation pipe, the humidity sensor, the flow meter and the solenoid valve are respectively connected with the control device, the control device is used for receiving the signals of the humidity sensor and the flow meter and controlling the opening and closing of the solenoid valve. The humidity sensor is used for passing the humidity of a planting location to the control device and controlling the solenoid valve through the control device to conduct irrigation, in the irrigation process, the amount of irrigation is measured through the flow meter, and the measurement is passed to the control device, and the closing of the solenoid valve is controlled by the control device. By adoption of the irrigation mode using multiple irrigation pipes, the amount of irrigation water is different at multiple different places, thereby the arising of the circumstances of too much local humidity or over drought is prevented, and the uniformity of irrigation is achieved.

A01G27/008

[illegible]

Priority:

CN201710421368 20170607

Probable Assignee: GREENLAND GROUP SENMAO LANDSCAPE CO LTD**Assignee(s):** (std): GREENLAND GROUP SENMAO LANDSCAPE CO LTD**Assignee(s):** GREENLAND GROUP SENMAO LANDSCAPE CO**Inventor(s):** (std): CHEN LINRONG**12) Family number: 62506594** (CN205266418U)

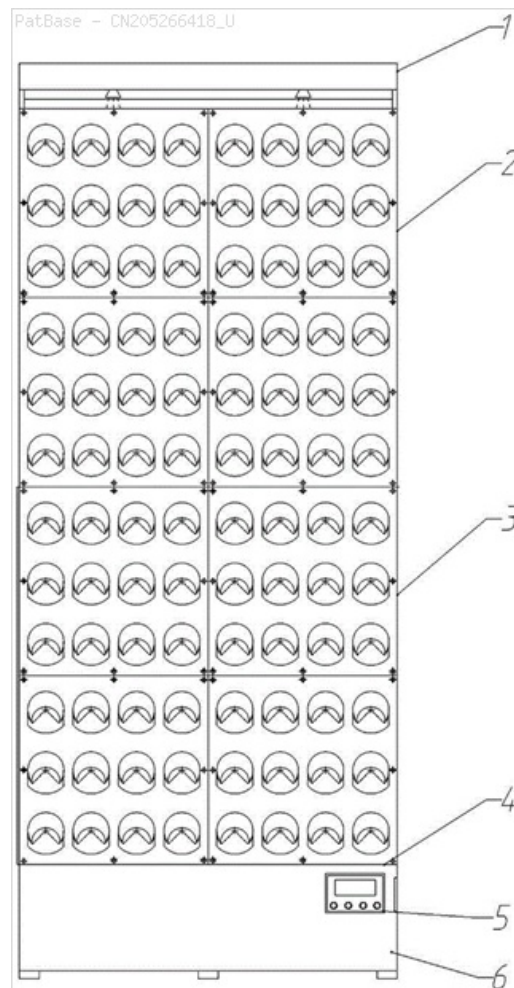
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Title: QUICK GREEN WALL OF INSTALLING MODULE FORMULA

Abstract: The utility model provides a quick green wall of installing module formula, it is main includes a water tank module that is located the lower part, is in water tank module the higher authority meets through linking module respectively has the lower module that has the support respectively, last module and top cap module, inside irrigation and the irradiant automatic watering control system who is provided with steerable plant wall below the water tank module, the top cap module become with lighting lamp group by top cap frame, last module and lower module above be provided with a plurality of plant and flowers and trees frame to its the higher authority apolegamy has the four seasons to grow plant green or rich colors, automatic watering control system mainly constitute by burette and water pump, the water pump connect with the nutrient solution water tank to through tube coupling in module and the lower module a plurality of burettes on every plant and the flowers and trees frame on lying in, the water tank module below be provided with the water tank base, it has a simple structure, uses simple to operate, makes the indoor environment characteristics such as effectively improved.

Classifications:**International (IPC 8-9):** A01G27/02 A01G9/02

A01G9/20 (Advanced/Invention)

**Family:**

Publication number	Publication date	Application number	Application date
CN205266418 U	20160601	CN201521058802U	20151218

Priority:

CN201521058802U 20151218

Probable Assignee:

MA ENGAO

Assignee(s): (std):

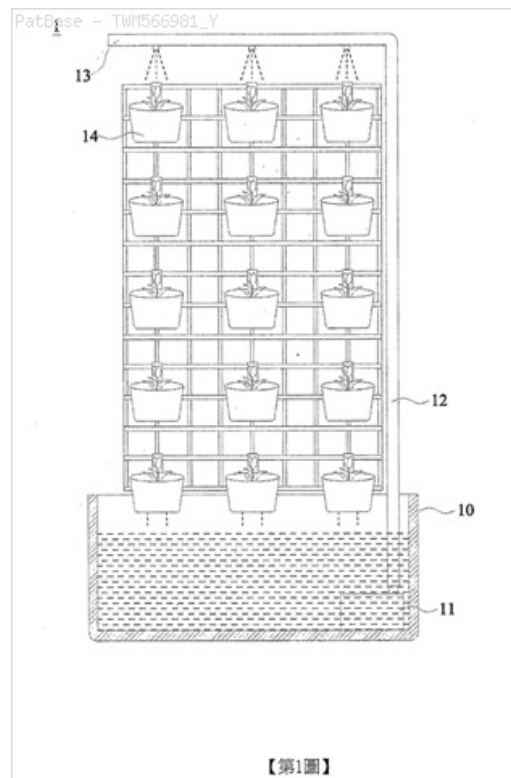
MA ENGAO

Assignee(s):

MARNE HIGH

Inventor(s): (std):

MA ENGAO



Family:

Publication number	Publication date	Application number	Application date
TWM566981 Y	20180921	TW20180206280U	20180514

Priority:

TW20180206280U 20180514

Probable Assignee: ZHONG TAI GREENVIEW CO LTD

Assignee(s): (std): ZHONG TAI GREENVIEW CO LTD

Assignee(s): GREENVIEW CO LTD IN TAIWAN ; ZHONG TAI GREENVIEW CO

Inventor(s): (std): DENG XIAO REN

15) Family number: 65800745 (CN206182004U)

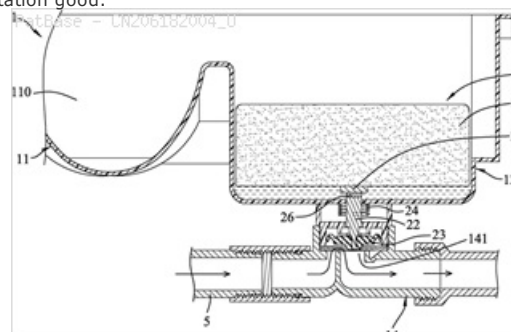
© PatBase

Title: GREEN WALL IRRIGATION SYSTEM

Abstract: The utility model provides a green wall irrigation system, is applicable to and connects a water source to contain a basin ware unit, a float valve. This basin ware unit includes several basin ware, one receives survey basin ware, and a delivery pipe. This float valve is used for listening this water level that receives survey basin ware to can be when this water level that receives survey basin ware be less than a normal water level, control this delivery pipe supply water for the basin ware with should receive survey basin ware to and when this water level that receives survey basin ware equals or is higher than this normal water level, control this delivery pipe and stop to supply water. Whether intake through this delivery pipe of float valve control, can provide moisture according to the plant demand, make vegetation good.

Classifications:

International (IPC 8-9): A01G27/00 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN206182004 U	20170524	CN201621211951U	20161110

Priority:

CN201621211951U 20161110

Probable Assignee:

SONG XUYANG

Assignee(s): (std):

SONG XUYANG

Inventor(s): (std):

SONG XUYANG