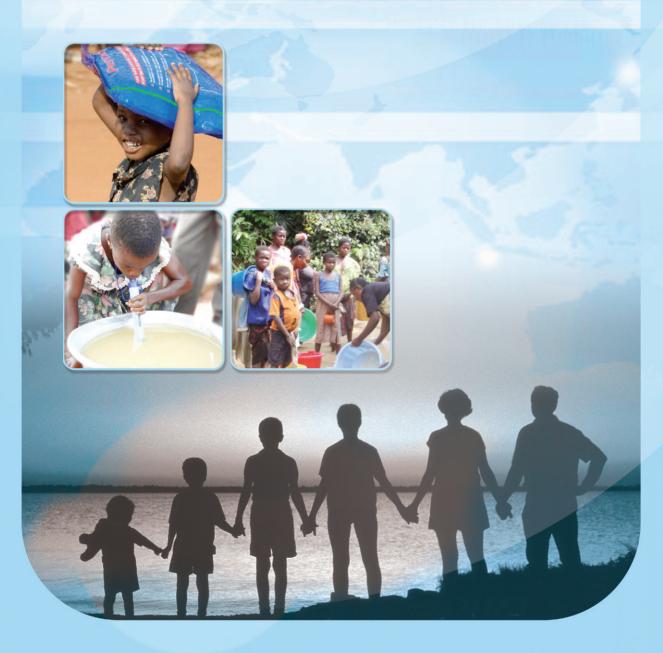
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1. Introduction

1. Introduction

As a country that rapidly progressed from an underdeveloped stage to become a member of the OECD, Korea has gained vast experience in implementing economic plans and policies on intellectual property rights (IPR). In light of this experience, Korea and the Korean Intellectual Property Office (KIPO) are eager to extend a hand of friendship to the world so that we can share our experience and assets with other countries.

Our program of 'technological solutions for basic needs' aims to support local development. As a part of the program, we plan to provide information on appropriate technology. The aim of this plan is to provide residents of developing countries with technological information that can be useful for solving livelihood issues, such as a lack of water, agricultural problems, housing, and energy issues.

Information on appropriate technology, which is urgently required by developing countries, is gathered from a database of Korean Patent Information. The information is summarized and translated into English by experts and loaded into a special database. The special database of information on appropriate technology is then disseminated through various means such as booklets and CDs and uploaded onto the Web site of the IP & Development Online Center <www.ipforliving.org>.

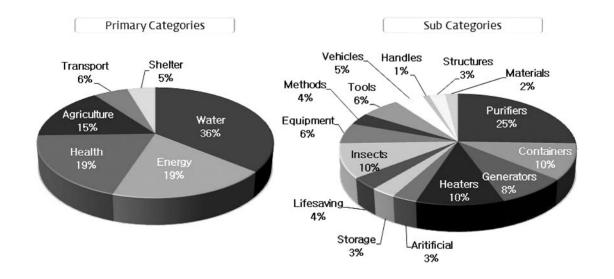
The information on appropriate technology will be a useful source for deriving solutions that can satisfy technological needs at a regional level.

The database is currently being constructed as a pilot project, though we are planning to continually expand it with additional information on appropriate technology.

As we proceed with this international program, we ask for the ongoing support and participation of the international community.

Contents Summary

| Primary Categories | Sub Categories |
|---------------------------|---|
| Water(72) | Purifiers(51), Containers(21) |
| Energy(38) | Generators(17), Heaters(21) |
| Health(39) | Artificial(6), Storage(6), Lifesaving(7), Insects(20) |
| Agriculture(31) | Equipment(12), Methods(7), Tools(12) |
| Transport(11) | Vehicles(9), Handles(2) |
| Shelter(9) | Structures(5), Materials(4) |



2. Water

- 1) Purifiers(51)
- 2) Containers(21)



Title of invention

APPARATUS COMPRISING A SOLAR HEAT-COLLECTING PLATE CAPABLE OF PRODUCING DRINKING WATER USING SOLAR HEAT

Bibliographic data

Application number: 1020070116640
Date of filing: 2007.11.12
Applicant: CHANG, JONG YOON
CHANG YOON JUNG

CHANG, YOON JUNG CHANG, JONG OH

Publication number: 1020090049002
Publication date: 2009.05.15

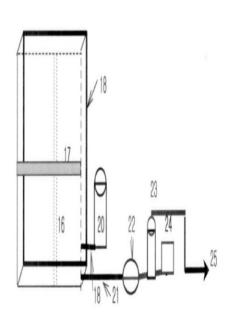
Inventor: CHANG, JONG YOON CHANG, YOON JUNG

CHANG, YOON JUNC

Int. CI: C02F 1/68, C02F 1/48, C02F 1/04 Priority:

Summary

This invention relates to the preparation of water free of micro-organisms. The apparatus for producing drinking water increases water purification by distilling water inexpensively with solar heat. The apparatus for producing drinking water with solar heat includes a solar heat-collecting plate(18), a permanent magnet(22), a mineral container(23), and an anion oxygen generator(24). The solar heat-collecting plate comprises a heat-collecting plate frame, a heat insulation box, a non-woven box, a distilled water-collecting panel, a water supply pipe, a water discharge pipe, and a heatcollecting plate cap. A heating wire is installed on the bottom of the outer side of the non-woven box. A semicircular gear(17) is adhered to a vertical center part of the solar heat-collecting plate. The permanent magnet converts the distilled water into nano-clustered water. Alkaline water of pH 8~9 is produced in the mineral container by adding all kinds of minerals.



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Legal status

Final disposal of an application:

Publication

Patent registration number:

Patent duration:

Key words

solar heat, drinking water, purifier, distilling, water purification

Category



Title of invention

PERSONAL PORTABLE WATER PURIFIER CAPABLE OF PREVENTING WATERBORNE, VECTOR-BORNE, AND NEGLECTED TROPICAL DISEASES

Bibliographic data

Application number : 2019980017298 Publication number : 2020000006242

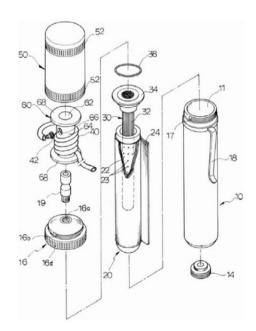
Date of filing : 1998.09.11 Publication date : 2000.04.15

Applicant : KO, SEOK BAE Inventor : KO, SEOK BAE

Int. Cl: **B01D 29/11, C02F 1/28, F04B 9/14** Priority:

Summary

This invention is concerned with a personal portable purifier which is for prevention of common diarrhea and can be carried around for easy access to safe and clean drinking water. The portable water purifier is comprised of a connection part(16a), a body(10), a second filter(20), a third filter(30); a flexible hose(40), and an upper cap(50). The connection part is placed at the upper part of the portable water purifier in order to connect a piece(19) or a suction device which is used for sucking up water with the user's mouth. A pipe-shaped connector for water inflow is formed at the lower part of the body. The third filter is installed inside the second filter which is formed around the body. One part of the flexible hose is attached to the connector for water inflow at the lower part of the body, and the other end of the flexible hose is connected with a strainer(42) which functions the first filter. The upper cap is joined with the upper part of body.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002132190000
Patent duration : 2013.09.11

Key words

personal purifier, portable purifier, diarrhea disease, flexible hose

Category



Title of invention

CAPSULE FOR CLEAN WATER WHICH IS PORTABLE AND CAN BE USED FOR A LONG PERIOD

Bibliographic data

Application number : 2020040035373 Publication number : Date of filing : 2004.12.13 Publication date :

Applicant: JUNG, UI HO Inventor: JUNG, UI HO

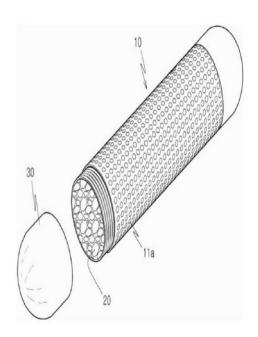
Int. Cl: **B01D 35/00, B01D 39/20, C02F 1/68,**

C02F 1/32

Priority:

Summary

The present invention relates to a capsule which is suitable for a case where the treatment objective water is given a purification treatment to produce pure water or potable water. The capsule for clean water is tubeshaped and has a plurality of openings(11a) on the lateral wall for the inflow and outflow of water. A capsule body(10) is made of a photocatalyst and one end is opened. A cover(30) is equipped at the end of the capsule body in order to open and close the capsule body. The capsule body is made of a dual-layered wall which is comprised of an external body and internal body. The external body contains a plurality of openings. The internal body is arranged to be a constant distance from the external body and has a plurality of openings which are dislocated from the openings of the external body. The purification particles (20) are arranged in the capsule body and are made of active carbon or elvan which can be easily obtained.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2003790400000
Patent duration : 2014.12.13

Key words

capsule, pure water, portable water, active carbon, purification particles

Category



Title of invention

PORTABLE WATER PURIFIER CAPABLE OF COMPLETELY REMOVING THE BACTERIA AND GERMS FROM TREATMENT OBJECTIVE WATER

Bibliographic data

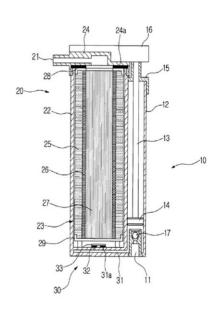
Application number : 2020010011598 Publication number : Date of filing : 2001.04.23 Publication date :

Applicant: KIM, DONG JIN Inventor: KIM, DONG JIN

Int. CI: B01D 35/00 Priority:

Summary

The present invention relates to a portable water purifier which is portable and removes the bacteria and germs in treatment objective water so people can drink the water which is purified by the present invention without any concern. The portable water purifier comprises a cylinder(12), a piston load(13), and a piston head(14). At the lower part of the cylinder, an inlet(11) is formed. Installed at the inlet are: a pump part(10) in which a ball valve(17) for preventing the reverse flow of water is installed, a tube-shaped housing(22), and a filter cartridge(23) which is detachable to the housing. Installed in the upper part of housing are a housing cover(24) in which the outlet(21) is formed, a filter part(20) which is arranged in the same direction as the pump part of the lower part, and the valve part(30) for preventing the reverse flow of water.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2002376690000
Patent duration : 2011.04.23

Key words

water purifier, portable, pump, purification

Category



Title of invention

POTTERY WATER PURIFIER MADE OF YELLOW SOIL TO REDUCE MANUFACTURING COST AND IMPROVE PURIFICATION

Bibliographic data

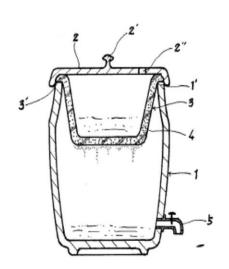
Application number : 202000029541 Publication number : Date of filing : 2000.10.24 Publication date :

Applicant : LEE, HYEON SAM Inventor : LEE, HYEON SAM

Int. CI: B01D 35/00 Priority:

Summary

This invention comprises yellow soil to keep the manufacturing cost low and the manufacturing process very simple. A conventional filter and purifier are difficult to manage and maintain because they are made of composite resin. But yellow soil is easy to find and obtain, and does not need complex facilities to process. The body(1) of the water purifier is made of pottery and contains objective water and a filter box(3). The filter box is made of yellow soil and charcoal powder which are mixed to form the shape of a filter box, and fired at the temperature of 600 degrees. During the firing process, the charcoal powder forms minor openings(4) which allow osmosis filtration. Because of these minor openings, water can pass through the filter box and be filtered. If the minor openings are contaminated by impurities, the minor openings may be fired at the temperature of 300 degrees, and then they can be reused.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002183070000
Patent duration : 2010.10.24

Key words

purifier, pottery water purifier, yellow soil

Category



Title of invention

DISPOSABLE WATER PURIFIER CAPABLE OF STERILIZING MICROSCOPIC ORGANISMS AND REMOVING CONTAMINANTS DISSOLVED IN WATER

Bibliographic data

Application number : 1020020076773 Publication number : 1020040049378

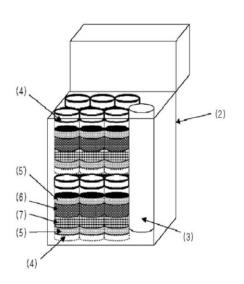
Date of filing : 2002.12.05 Publication date : 2004.06.12

Applicant : LEE, HOO KUN Inventor : LEE, HOO KUN

Int. Cl: C02F 1/42 Priority:

Summary

The present invention relates to a disposable water purifier which is portable and convenient because the size of the invention is small and the composition is very simple. The disposable water purifier can conveniently eliminate various contaminants and sterilize microscopic organisms to make water drinkable. The disposable water purifier comprises a transparent plastic pipe, a glass fiber wool(5), an ion-exchange resin(6), silverimpregnated activated carbon(7), lids(4), and a case(2). The glass fiber wool can remove floating matter from water, and the ion-exchange resin can remove heavy metals or ionic materials. The silver-impregnated activated carbon can sterilize the microscopic organisms in the water, and the transparent plastic pipe can charge the ion-exchange resin and the silver-impregnated activated carbon. The lids protect the material in the disposable water purifier. The case can contain a plurality of disposable water purifiers.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1004870950000
Patent duration : 2022.12.05

Key words

contaminated water, disposable water purifier, silver impregnated activated carbon, glass fiber wool

Category



Title of invention

PLASTIC BAG WATER PURIFIER CAPABLE OF INSTANTLY PURIFYING WATER FOR DRINK AND PORTABILITY

Bibliographic data

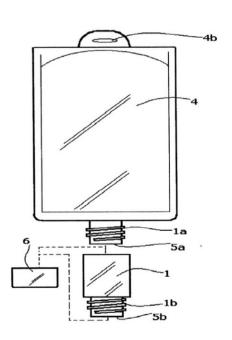
Application number : 2020010004392 Publication number : Date of filing : 2001.02.14 Publication date :

Applicant: KIM, SEONG HUN Inventor: KIM, SEONG HUN

Int. CI: B01D 35/02 Priority:

Summary

A plastic bag water purifier is used for purifying water which is potentially unsafe instantly and simply. The plastic bag water purifier is made of a soft resin such as resilient polyethylene or silicon, thus it can be normally carried by folding or rolling up. The plastic bag water purifier comprises a plastic bag for containing water(4) and a purification cap(1) in which a water purification filter(3) is installed. The purification cap is made of transparent material. The water is purified by jointing the plastic water bag and the purification cap, and pressing the plastic water bag with a hand or inverting the plastic water bag and allowing water to pass through the filter which in the purification cap by the action of gravity. The water bottle, the purification cap, an inlet port(5a), and an auxiliary cap(6) are formed of a transparent or semitransparent resin in order to confirm the replacement period and the contamination degree.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002337440000
Patent duration : 2011.02.14

Key words

water purification, flexible water bottle, portable purifier

Category



Title of invention

HAND-POWERED WATER PURIFIER CAPABLE OF PUMPING WATER WITHOUT ELECTRICITY USING A HAND POWERED PUMP

Bibliographic data

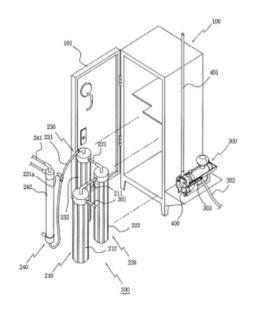
Application number : 2020020037126 Publication number : Date of filling : 2002.12.12 Publication date :

Applicant: HYUP JIN PHOTO CO., LTD. Inventor: KIM, TAE YEONG

Int. Cl: **B01D 29/50, B01D 35/00** Priority:

Summary

A hand-powered water purifier pumps water by operating a hand-powered piston pump, and passes water through multi-layered filters in order to purify water. The handpowered water purifier is suitable for the back-country such as the innermost depths of Africa or the upper reaches of the Amazon where electricity is not supplied. A multi-layered filter(210), a micro filter(220), an active carbon filter(230), and a membrane filter(240) are connected through tubes(211, 221, 231) by turns and are installed in a purifier body(100). The raw water is pumped by the hand-powered pump in through the inlet tube which is in the water source. The raw water first passes through the multi-layered filter which includes a hydro filter, and secondly passes through the micro filter cartridge and the active carbon filter. After the above step, almost all physical substances are removed from the raw water. Bacteria, algae, viruses, and fungi are removed by passing the water through the membrane filter.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2003075380000
Patent duration : 2012.12.12

Key words

hand powered pump, membrane filter, water purification, portable purifier, active carbon filter

Category



Title of invention

WATER PURIFYING SYSTEM FOR SUPPLYING DRINKING WATER FREE OF VIBRIO CHOLERAE AND CHIGELLA

Bibliographic data

Application number: 1019900701073 Publication number: 1019900701665

Date of filing: 1990.05.23 Publication date: 1990.12.04

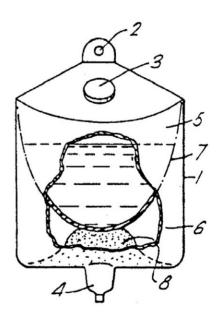
Applicant: HAMPSHIRE ADVISORY AND Inventor: WILSON MICHAEL

TECHNICAL SERVICES LIMITED MONRO PHILIP

Int. Cl: C02F 1/44 Priority: 1988.09.23 GB 1988 198822470

Summary

This invention relates to the provision of water free of micro-organisms and the enterotoxins of Vibrio cholerae and Shigella species. It will be of particular use during periods of emergency due to natural disasters and in other situations where a microbiologically safe supply of water is not readily accessible. The disclosed process produces a non-toxic solution containing at least one water-soluble solid(8) substantially free of microorganisms which retains the solid in a container(1) provided with a selectively permeable membrane(7) in contact with the solid and passing water to the opposite side of the membrane for a predetermined minimum period of time so as to allow the water to enter the container by osmosis but prevent the passage into the container of micro-organisms from the water. The solution may be oral rehydration therapy, drinking water, a solution of a drug, a dried blood product, or a blood or plasmasubstitute for administration to a patient or a nutritional suspension of dried nutritional substance, milk solids or partly dehydrated food.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1001035710000
Patent duration : 2011.03.15

Key words

vibrio cholerae, shigella, water purifier, membrane, micro-organisms

Category



Title of invention

PORTABLE WATER PURIFIER CAPABLE OF PURIFYING WATER OUTDOORS IN ORDER TO USE FOR DRINKING, COOKING, OR MEDICAL USES

Bibliographic data

Application number : 2019990010503 Publication number : 2019990035325

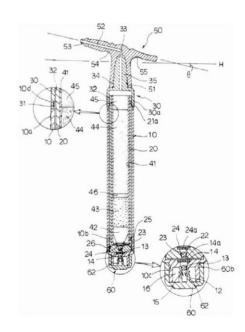
Date of filing : 1999.06.14 Publication date : 1999.09.06

Applicant : KO, SEOK BAE Inventor : KO, SEOK BAE

Int. CI: B01D 27/00, B01D 35/00 Priority: 1988.11.24 KR 2019980022964

Summary

A portable water purifier provides a simple process for producing clean water free of pathogenic microorganisms and of enterotoxins of V. cholerae and Shigella species without the need for chemical disinfection or boiling. The portable water purifier comprises a piston(20), a cylinder(10), an upper cap(30), a filter cartridge, a handle(50), and a lower cap(60). The piston is inserted into the cylinder. The upper cap is attached to the back side of the piston by a screw. The filter cartridge is installed in the piston, and the handle is joined to the upper cap by the screw. The lower cap covers the first inlet port(12) of the cylinder and has a penetration hole. A tube(41), the first filter(42), a sterilizer(43), a deodorizing filter(44), and the second filter are installed in the filter cartridge. An interlayer film(46) is installed between the sterilizer and the deodorizing filter in order to separate them.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2002795210000
Patent duration : 2014.06.14

Key words

portable, purifier, filter, cartridge, water purification, microorganism

Category



Title of invention

PORTABLE WATER FILTRATION DEVICE WITHOUT COMPRISING AN ADDITIONAL PRESSURIZING MECHANISM

Bibliographic data

Application number : 1020070017854 Publication number : Date of filing : 2007.02.22 Publication date :

Applicant : JAMES JANG
RICARDO JANG

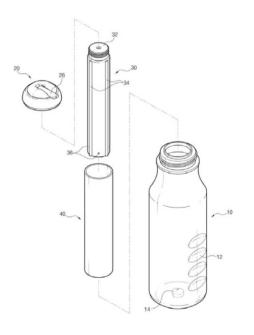
RICARDO JANG

RICARDO JANG

Int. CI: **B01D 35/00, B01D 27/08** Priority:

Summary

A portable water filtration device is operated only using hand pressure, facilitating production of drinking water from naturally flowing water or collected water at any place. The portable water filtration device comprises a body(10), a lid(20), a filter cartridge(30), and a filter housing(40). The body has an inlet formed in an upper end thereof, and is made of a material that can be stretched by hand pressure. The lid is clamped to the body, on which an outlet is formed to discharge water. The filter cartridge is clamped to the lid, has a discharge hole(32) and inflow holes(36) formed therein, and comprises a filter of which a top part is opened such that the filter cartridge is inserted into the filter housing, wherein the portable water filtration device further comprises an air check valve(14) installed on the body to automatically control or halt inflow of external air into the body. The filter cartridge has spacing protrusions(34) formed on the outer peripheral surface thereof such that the spacing protrusions come in contact with the inner peripheral surface of the filter housing, and a space for moving water is formed between the filter cartridge and the filter housing by the spacing protrusions.



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Legal status

Final disposal of an application:

Patent registration number:

Patent duration:

Registration
1008472080000
2027.02.22

Key words

portable, water filtration, hand pressure, outdoor water

Category



Title of invention

PORTABLE WATER PURIFIER ENABLING USERS TO DRINK PURIFIED WATER BY PURIFYING RAINWATER OR WATER FROM RIVER OR LAKE TO POTABLE LEVEL

Bibliographic data

Application number: 1020070026370 Publication number: 1020080084884

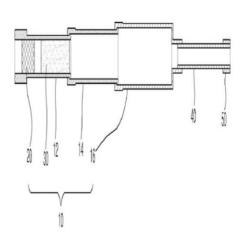
Date of filing: 2007.03.17 Publication date: 2008.09.22

Applicant: HAN, HYUN SOO Inventor: HAN, HYUN SOO

Int. CI: B01D 35/00 Priority:

Summary

A simple and convenient portable water purifier is proposed to allow users to drink purified water by purifying rainwater, or water from a river or lake more efficiently. The portable water purifier comprises a water purification filter(30), a body part(10), a flexible suction hose(40), and a suction port(50). The body part in which the water purification filter is embedded, has an inlet(20) formed in one end thereof, i.e., an end portion of the pipe thereof to bring water into the body part through the inlet. Furthermore, the body part is composed of a plurality of pipes(12, 14, 16) such that a length of the body part is variably changed by forming the body part in an antenna form. The flexible suction hose is connected to the body part. The suction port is joined with an end of the suction hose, through which a user can suck water. The water purification filter is configured in a structure in which metal silver and a plurality of pores are dispersed through a ceramic material.



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Legal status

Final disposal of an application: Rejection

Patent registration number:

Patent duration:

Key words

portable, water purifier, outdoor water, flexible suction hose

Category



Title of invention

PORTABLE WATER PURIFIER FOR FILTERING AND PURIFYING WATER TO PROVIDE A POTABLE WATER SUPPLY FROM UNTREATED SOURCES SUCH AS LAKES AND STREAMS

Bibliographic data

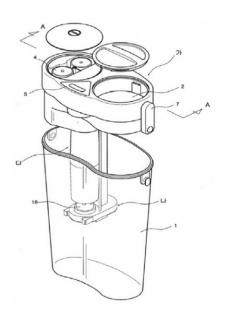
Application number : 202000001649 Publication number : Date of filing : 2000.01.21 Publication date :

Applicant: CHOI, GWANG SUN Inventor: CHOI, GWANG SUN

Int. CI: B01D 25/02 Priority:

Summary

A portable water purifier relates to devices for filtering and purifying water to make such water potable, and more particularly to a portable water-filtering and purifying device for quickly and easily removing extremely small microbes or other disease-causing elements and contaminants from such water. The portable water purifier comprises a water container(1), a pumping device, a driving cartridge, and a filter cartridge. The driving cartridge includes a driving motor and a decelerator and has an inlet port(2) and an outlet port for allowing the water to pass through. The pumping device is rotated by the interlock of the driving cartridge. The filter cartridge filters water which is pumped by a rotator of the pumping device. The pumping device is driven by the battery. If a switch(5) is turned on, water is instantly filtered up to the drinking level.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2001885400000
Patent duration : 2010.01.21

Key words

portable, water purifier, filtration, outdoor water, microbes, pumping device

Category



Title of invention

PORTABLE WATER PURIFIER WHICH HAS A SMALL AND STRONG STRUCTURE FOR BEING USED OUTDOORS

Bibliographic data

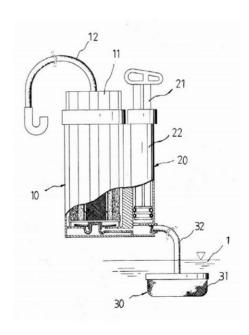
Application number : 202000018991 Publication number : Date of filing : 2000.07.03 Publication date :

Applicant: KIM, GI BOK Inventor: KIM, GI BOK

Int. CI: C02F 1/28 Priority:

Summary

The present invention relates to devices for filtering and purifying water to make such water potable. The size of the present invention is small and the structure is strong. Thus, it is convenient for carrying outdoors. The portable water purifier comprises a filter part(10), a pump(20), and an inlet port(30). The filter part is detachable to filter water which is circulated inside, and includes a cover(11) for opening and shutting the upper part and a discharge tube(12) for discharging water which is circulated inside the filter part. The pump is located on the lateral side of the filter part, and includes a piston(21) and a cylinder(22) for supporting the piston. The piston pressurizes through upward and downward motion. The inlet part includes a filter net(31) and an inlet tube(32). The filter net filters the foreign matters inside. The inlet tube is connected with the filter part. The portable water purifier includes the pump at the lateral side thereof, so filtration is simple and rapid.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002061170000
Patent duration : 2010.07.03

Key words

portable, water purifier, pump, filter net, water purification, outdoor water

Category



Title of invention

PORTABLE WATER TANK WITH A PURIFICATION FUNCTION FOR FILTERING AND STORING RAINWATER

Bibliographic data

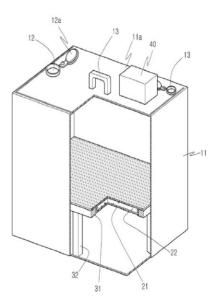
Application number : 1020050013663 Publication number : Date of filing : 2005.02.18 Publication date :

Applicant: HYUN JIN CO., LTD. Inventor: IM, YONG TAEK

Int. Cl: A45F 3/16 Priority:

Summary

The disclosed portable water tank has a purification function so it can purify rainwater or river water by installing a filter and filtering materials in a water storage tank. The portable water tank is composed of a water storage tank(11), a filter(21), a frame(31), and a waterpurifying medicine box(40). The water storage tank is made of waterproofing rigid cloth or synthetic resin film to be folded and is composed of a lid unit(11a) opened and closed on the top side, a raw water-supply port(12) and an air vent hole(13) formed on the upper surface, and a purified water discharge port at the side of a lower part. The filter is installed at the lower side of a raw water-storing part arranged on the upper side of the water storage tank to embed filtering materials(22). The frame is detachable with a combining tool like a screw or a button installed on the periphery of the filter, and is propped up by a support bar(32) supporting the filter and forms a purified water storage part storing purified water and filtered water under a water-filtering and -purifying unit including the filter. The water-purifying medicine box stores water-purifying medicines supplied to the raw water in the water storage tank.



copyright KIPO 2009

Legal status

Final disposal of an application : Registration
Patent registration number : 1005238540000
Patent duration : 2025.02.18

Key words

portable, water tank, purification function, purifying medicine, water proof

Category

TECHNOLOGY

Appropriate Technologies for Basic Needs



Title of invention

WATER PURIFICATION SYSTEM OPERABLE WITHOUT POWER FOR PURIFYING UNDERGROUND WATER AND RIVER WATER

Bibliographic data

Application number : 1020060009759 Publication number : Date of filing : 2006.02.01 Publication date :

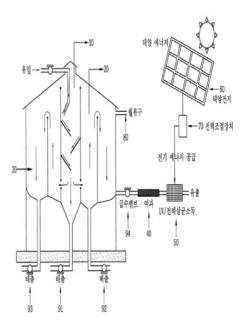
Applicant: KOREA INSTITUTE OF SCIENCE AND Inventor: RHEE, JAE SEONG

LEE, SU WON LEE, GYU SEONG

Int. CI: **E03B 11/00, C02F 1/00** Priority:

Summary

A water purification system can supply clean water by precipitating and decomposing floating matter through a grit bath, a water-collecting bath and a drain bath, and also cut down on the operational cost by performing the multistage process in a single bath and by using solar energy. The water purification system includes a grit bath(10), a drain bath(30), and a natural light sterilization bath(50). The grit bath regulates the flow rate of water in a cylindrical body and removes floating matter. The water-collecting bath surrounds the grit bath and secondarily removes floating matters from water from the grit bath. The drain bath surrounds the watercollecting bath, stores water and precipitates and removes floating matter. The natural light sterilization bath is connected to the drain bath to sterilize water using sunlight. The grit bath has an inlet, an inclined plate zigzagged and installed in an inner wall to remove floating matter and to regulate flow rate, a discharge port draining water into the water-collecting bath, and a discharge valve(91) for discharging deposit.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1006740180000
Patent duration : 2026.02.01

Key words

water purification system, precipitation, decomposition, solar energy

Category



Title of invention

FILTER FOR PURIFYING WATER USING YELLOW SOIL AND NON-SOIL MATERIAL

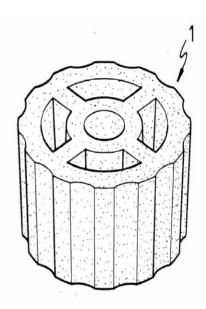
Bibliographic data

Application number: 1019980032809 Publication number: 1019980082009
Date of filing: 1998.08.10 Publication date: 1998.11.25
Applicant: KIM, JUN RYEOL Inventor: KIM, JUN RYEOL

Int. Cl: **B01D 39/06** Priority:

Summary

This invention is concerned with a filter that helps people drink water safely by improving the filtering function. A conventional filter is normally made of elvan, but this invention uses yellow soil and non-soil materials to purify water obtained from a source of water of unknown purification state. The filter made of yellow soil and nonsoil material emits far-infrared rays, which ionize water and filters heavy metals. The manufacturing method of the filter(1) is as followings. First, the 400mesh of yellow soil having a particle size with the 400 mesh of non-soil material is mixed. Second, the mixed result of yellow soil and non-soil material is fured under a temperature of 1300 degrees to make the far-infrared ray-emission material. Third, after forming the far-infrared ray emission material, it is pulverized. Forth, the pulverized far-infrared ray emission material is mixed with the heat resistant powder to a mixing ratio of about 100:1. Fifth, the mixed material is formed into a filter of desired shape (reference to drawing) under a temperature of 1300 degrees. The filter is naturally magnetized because it is formed under a high temperature.



copyright KIPO 2009

Legal status

Final disposal of an application : Registration
Patent registration number : 1002979410000
Patent duration : 2018.08.10

Key words

water purification, filter, water purifier, yellow soil, ionized water

Category



Title of invention

PORTABLE WATER-FILTERING DEVICE EQUIPPED WITH A STRAW IN WHICH A FILTER FOR WATER PURIFICATION IS MOUNTED

Bibliographic data

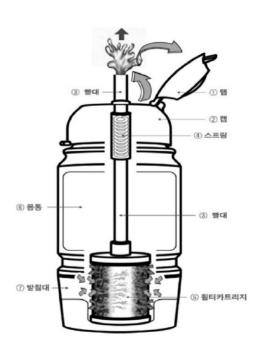
Application number : 202000027150 Publication number : Date of filling : 2000.09.28 Publication date :

Applicant: CHOONGWAE PHARM. CO. Inventor: KWON, JAE HYEON

Int. CI: B01D 35/00 Priority:

Summary

A portable water-filtering device includes a suction straw where a filter cartridge for purifying water is mounted on the end thereof. The filter cartridge is filled with active carbon in order to remove parasites, bacteria, viruses, and toxic metals such as lead, copper and arsenic. The portable water-filtering device comprises a cap(2) on which a tap(1) is installed, an upper body (6), and a lower body(7). The straw is arranged in the water-filtering device, and the filter cartridge(5) is firmly mounted on the end of the straw. A spring(4) is mounted on the upper part of the straw inside the cap. Because of the spring, the straw freely moves up and down inside the water-filtering device when the tap is opened and shut. If the tap is opened, the straw pops out. And if the tap is shut, the straw retracts in.



copyright KIPO 2009

Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002255690000
Patent duration : 2010.09.28

Key words

water purification, filter, water purifier, straw, pop-up, tap

Category



Title of invention

PORTABLE/FOLDABLE WATER PURIFIER CAPABLE OF CONVENIENTLY PURIFYING WATER INDOORS/OUTDOORS

Bibliographic data

Application number: 1019920011409
Date of filing: 1992.06.27
Applicant: SIN, SUK KYOON

SIM, SANG SEOB

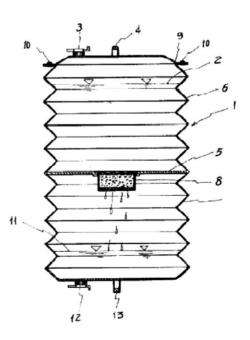
Publication number: 1019940000134

Publication date: 1994.01.17 Inventor: SIN, SUK KYOON SIM, SANG SEOB

Int. CI: B01D 35/00 Priority:

Summary

A portable water purifier supplies hygienically clean water out of doors by a foldable structure. The portable water purifier comprises foldable body with a partition (5) in the center thereof, a water-receiving vessel(6), a purified water vessel, an upper pipe(9), a pull knob(13), and a discharge outlet(12). The upper pipe is easily assembled with snap buttons(10) positioned on the upper part of the main body(1). The pull knob and the discharge outlet are positioned on the lower part of the main body. Because the water-receiving vessel and the purified water vessel are formed in the same main body of the foldable water purifier, the received water is automatically purified.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1000860820000
Patent duration : 2012.06.27

Key words

portable, foldable, water purifier, snap buttons, partition

Category



Title of invention

RAINWATER-COLLECTING AND -PURIFYING SYSTEM

Bibliographic data

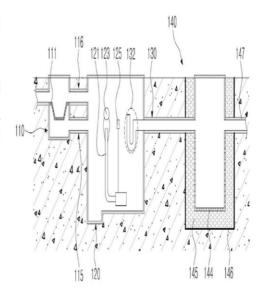
Application number : 1020080083098 Publication number : Date of filing : 2008.08.25 Publication date :

Applicant: EKOBIK CO., LTD Inventor: ANN, YOUNG CHAN

Int. CI: C02F 1/00, B01D 24/10 Priority:

Summary

The present invention relates to a rainwater-collecting and -purifying system which is capable of making use of the surface water in a water-collecting tank. The rainwater-collecting and -purifying system is comprised of a rainwater-filter tub(110) which filters the inflowing rainwater, a water storage tank(120) which is connected with the rainwater-filter tub through a rainwater-inflow pipe(116) to collect the filtered water from the rainwaterfilter tub, and a water-collecting pipe(121) is prepared in the water storage tank with a float(123) which enables the water-collecting pipe to float corresponding to the water level in the water storage tank. As a result, the water-collecting pipe is capable of collecting purified upper surface water in the water storage tank. In addition, a water-discharging pipe(130) in the water storage tank connects the water storage tank to an additional water storage tank(140) to collect the purified water from the water storage tank when the water exceeds a certain storage level.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008956230000
Patent duration : 2028.08.25

Key words

rainwater, purification

Category



Title of invention

RAINWATER-COLLECTING AND -FILTERING APPARATUS FOR COLLECTING WATER FROM HEAVY RAIN

Bibliographic data

Application number: 1020030051991 Publication number: 1020050013368

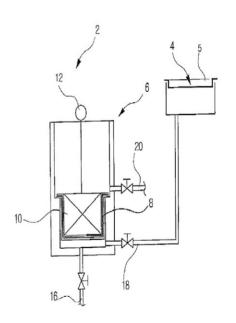
Date of filing: 2003.07.28 Publication date: 2005.02.04

Applicant: LEE, IN NAM Inventor: LEE, IN NAM

Int. CI: C02F 1/44 Priority:

Summary

The present invention relates to a rainwater-collecting and -filtering apparatus(2) which is capable of being used for collecting water from heavy rain to provide water for cleaning, washing, fire-fighting, etc. The rainwater-collecting and -filtering apparatus is comprised of a water storage tank(4) which collects rainwater while filtering foreign material over a certain size using a filter unit(5), a pipe(18) connecting the storage tank to a filtering net device(6) with a valve, the filtering net member with an outlet pipe(20) for filtered water, a filtering net unit(10) which is detachable from the filtering net device, and a vibrator(12) connected to the filtering net unit to filter the water from the water storage tank through the pipe. In addition, the filtering net device has a dumping pipe(16) to dispose of dust or foreign materials in the filtering net unit after washing the filtering net unit by turning on the vibrator. Therefore, the rainwater-collecting and -filtering apparatus is able to maintain high efficiency for filtering rainwater.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1005125630000
Patent duration : 2023.07.28

Key words

rainwater, collect, filter

Category



Title of invention

RAINWATER-RECYCLING SYSTEM FOR SOLVING WATER SHORTAGE PROBLEM

Bibliographic data

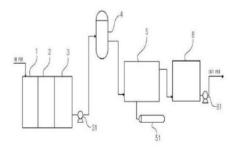
Application number : 1020060034516 Publication number : Date of filing : 2006.04.17 Publication date :

Applicant: DAISUNG GREEN TECH CO., LTD. Inventor: LEE, MI RAN

Int. Cl: C02F 9/00 Priority:

Summary

The present invention relates to a rainwater-recycling system which is capable of solving the water shortage problem by efficiently reprocessing rainwater and is capable of preventing water pollution by filtering harmful substances in the rainwater. The purposes of this invention are to utilize rainwater for living, gardening, industry, and fire-fighting through the reprocessing of the rainwater. The rainwater-recycling system is composed of a screen unit(1) which removes suspended solids in the rainwater, a precipitation unit(2) which removes sand or earth by depositing sediment, a water flow control unit(3) which controls the amount of inflowing water, a hybrid filter unit(4) which consists of a diatomite filter or A/C(activated carbon) filter or other filter or the combination of the filters as mentioned, an ozone processing unit(5) which processes the water with ozone generated from an ozone apparatus(51), and a discharge unit(6) which discharge the water after disinfection.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1007527920000
Patent duration : 2026.04.17

Key words

rainwater, recycle, filter

Category



Title of invention

REVERSE-OSMOSIS PORTABLE WATER PURIFIER FOR PURIFYING RAW WATER INTO DRINKING WATER

Bibliographic data

Application number : 1020060068278 Publication number : 1020080008709

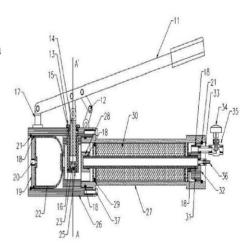
Date of filing : 2006.07.21 Publication date : 2008.01.24

Applicant : HONG, CHAE HYUNG Inventor : HONG, CHAE HYUNG

Int. Cl: B01D 35/00, C02F 1/44, B01D 61/02 Priority:

Summary

The present invention relates to a portable water purifier which is capable of purifying raw water into drinking water. The reverse-osmosis portable water purifier is convenient and portable, and can purify a wide range of raw water including fresh water and seawater, by installing a reverse-osmosis separation membrane and a manual pump in a single body within a pressure container. The portable water purifier is composed of a cylindrical pressure container consisting of an upper portion(26) and a lower portion(27). The portable water purifier has no pump on which a power motor is attached. A reverse-osmosis separation membrane(30), a manual type piston pump, and a gas tube(22) are formed in a single body within the pressure container, thereby minimizing the breakage of the container and area of water leakage. The reverse-osmosis separation membrane has a high degree of efficiency and a wide pressure range of purifying performance. The gas tube absorbs pulsation due to water impact and maintains a uniform pressure.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008144210000
Patent duration : 2026.07.21

Key words

portable, osmosis, purifier, water, drink

Category



Title of invention

PORTABLE WATER PURIFIER

Bibliographic data

Application number : 1019990021981 Publication number : 1019990068713

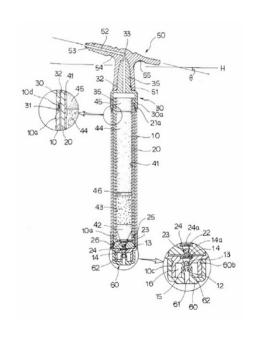
Date of filing : 1999.06.14 Publication date : 1999.09.06

Applicant : KO, SEOK BAE Inventor : KO, SEOK BAE

Int. CI: B01D 35/00 Priority: 1988.11.24 KR 2019980022964

Summary

The present invention relates to a portable water purifier which is capable of purifying water from a stream or a river for drinking. The portable water purifier comprises a cylindrical body(10) in which the first check valve and a piston body(20) which has the second check valve are inserted in the cylindrical body with a sliding action, a filter cartridge(40) which is inserted into the piston body for purifying natural water, an upper cap(30) which is combined with the positive screw part of the piston body for discharging purified water, a grip(50) of which an outlet part is inclined upward for easy drinking, and a lower cap(60) which covers the inlet part of the cylindrical body.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1003201480000
Patent duration : 2019.06.14

Key words

water, purifier, portable

Category



Title of invention

PORTABLE WATER PURIFIER

Bibliographic data

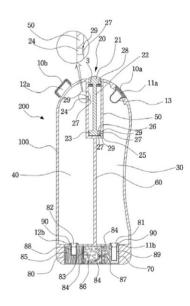
Application number : 1020040086141 Publication number : Date of filing : 2004.10.27 Publication date :

Applicant: BAE, JUNG SUK Inventor: BAE, JUNG SUK

Int. Cl: **B01D 35/00, B01D 35/30, C02F 1/26** Priority:

Summary

The present invention is related to a portable water purifier bottle. The portable water purifier is comprised of: a water-feed cell(30) which has a water-feed hole(11a) with a cover(10a), a water-purifier cell(40) which has a water-discharge hole(12a) with a cover(10b), an air inflow hole(24) connected to the water purifier cell, an air outflow hole(25) connected to the water-feed cell, a diaphragm(60) which separates the water purifier cell and the water-feed cell, a cylinder(50), a main body(100) forming a combining aperture(70) which has a water inflow hole(11b) connected to the water-feed cell and a water-outflow hole(12b) connected to the water purifier cell, an air injection unit(20) to generate air pressure by pumping a piston(23) in the cylinder, and a filter(80) containing a nonwoven unit(85), a sterilizing unit(86), and activated carbon(87). A user fills the water-feed cell through the water-feed hole and impurities are filtered by a filter net(13). After filling the water-feed cell, the user pumps the air injection unit and the water in the water-feed cell moves through the filter due to the air pressure difference between the waterfeed cell and the water purifier cell.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1005763530000
Patent duration : 2024.10.27

Key words

portable, water, purifier

<u>Category</u>



Title of invention

PORTABLE WATER PURIFIER

Bibliographic data

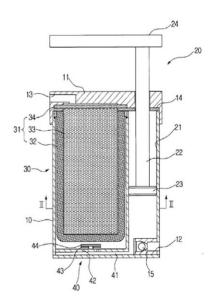
Application number : 2020010011599 Publication number : Date of filing : 2001.04.23 Publication date :

Applicant: KIM, DONG JIN Inventor: KIM, DONG JIN

Int. CI: B01D 35/00 Priority:

Summary

The present invention relates to a portable water purifier which is capable of purifying water from a river or a lake to provide drinking water. The portable water purifier is able to sterilize water and remove any impurities in the water to obtain purified water. The portable water purifier is comprised of a housing(10), a cylinder(21), a piston rod(22), a piston head(23), a pump unit(20), a ceramic filter(32), activated carbon(33) accommodated in the ceramic filter, a filter cartridge(31) consisting of a micro filter covering the ceramic filter and the activated carbon, a filter unit(30), and a valve unit(40) which prevent the water supplied to the filter unit from flowing backward using a connecting path(41). The above housing includes a water-intake hole(12), a water-discharge hole(13), and a ball valve(15) which prevents water from flowing backward. A water-intake pipe could be connected to the water-intake hole and a pre-filter is possibly placed to filter out impurities over a certain size. The filter cartridge could be replaced when the filter is no longer in use, therefore the maintenance fee is reduced.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2002376700000
Patent duration : 2011.04.23

Key words

portable, water, purifier

Category



Title of invention

DEVICE TO OBTAIN DRINKING WATER FROM WATER VAPOR

Bibliographic data

Application number: 1020030067372 Publication number: 1020050031163

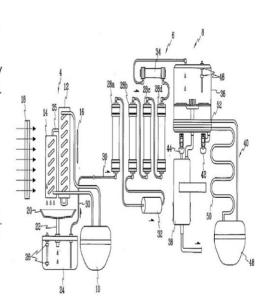
Date of filing: 2003.09.29 Publication date: 2005.04.06

Applicant: WINIX INC. Inventor: YOON, HEE JONG

Int. Cl: **B01D 35/00, B01D 5/00** Priority:

Summary

The present invention is related to a device to make drinking water which is capable of obtaining water from water vapor and purifying the obtained water to make drinking water. The device to obtain drinking water from water vapor could be used for a fishing vessel or a battleship. The device to obtain drinking water from water vapor comprises: a condensing unit(4), a purification unit(6) which is supplied water from the condensing unit, and a drinking water-supply unit(8) which refrigerates or boils the purified water. The condensing unit uses a refrigerator which has a similar structure to a common air cleaner. The condensing unit includes a compressor(10) which compresses a refrigerant gas to a high temperature and pressure, a condenser(12) which condenses the refrigerant gas from the compressor, an evaporator(14) which evaporates the low-pressure refrigerant from the expansion tube through the condenser, and a fan(16) located in the back of the condenser which inducts the air to the condensing unit. The evaporator includes an air filter(18), a waterspout(20), a water pipe(22), and a water tank(24). The water tank has a water-level control sensor(26), so when a certain amount of water is in the water tank, the condensing unit stops the operation. A water pipe(30) connects the water tank to the purification unit. The purification unit consists of plural filters, for example a precipitation filter(28a), a pre-processing carbon filter(28b), a membrane filter(28c), and a post-processing carbon filter(28d). A sterilization lamp(34) is possibly located at the end of the filters. The above drinking water supply unit includes a cold water tank(36), a warm water tank(38), a cooling unit(40), and discharge valve(42,44) which are connected to the cold water tank and cooling water tank respectively.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1005407450000
Patent duration : 2023.09.29

Key words

drink, water, air, humidity

Category



Title of invention

WATER-PURIFYING FILTER FOR PORTABLE WATER BOTTLE

Bibliographic data

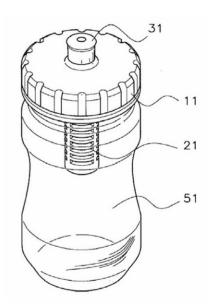
Application number : 202000029126 Publication number : Date of filing : 2000.10.19 Publication date :

Applicant: OH, MIN WOONG Inventor: OH, MIN WOONG

Int. CI: B01D 35/02 Priority:

Summary

The present invention relates to a water-purifying filter which is capable of being used on a portable water bottle. The water-purifying filter for a portable water bottle comprises: a combining unit(11), a water purification unit(21) which is connected to the combining unit, and an upper and lower cover unit(31) corresponding to the water purification unit. The water bottle(51) has an entrance unit and a screw thread is formed around the entrance unit. The water purification unit has a filter unit which is formed in a casing. The surface of the casing has plural water-guide holes. The bottom of the filter unit is closed but the top of the filter connected to the combining unit is open via the waterdischarge hole. The filter unit is obtained using a ceramic filter, a carbon filter, an alkali ion filter, or other. To purify water using the water purifying filter, the water bottle is filled with water and turned bottle upside down. Then the water goes into the water guide holes and is purified while moving through the filter unit.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002157290000
Patent duration : 2010.10.19

Key words

purify, filter, water, bottle

Category



Title of invention

PORTABLE PURIFIER USING FILM-SEPARATION TECHNIQUE

Bibliographic data

Application number: 1019980028749
Date of filing: 1998.07.15
Applicant: KIM, HYUNG SOO

YOON, SEONG HOON

Publication number: 102000008784
Publication date: 2000.02.15

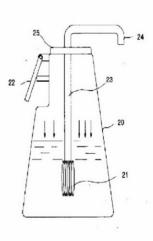
Inventor: KIM, HYUNG SOO

KIM, JOO YOUNG YOON, SEONG HOON

Int. CI: B01D 61/00 Priority:

Summary

The present invention is related to a portable water purifier which is capable of purifying water by using a film-separation technique to make drinking water by passing raw water through a dividing film. The portable water purifier comprises an original water inlet supplying original water from the outside, a body(20) containing a regular amount of original water in order to sink a dividing film(21) in the original water inlet, a pumping unit for passing original water by the sunk dividing film in the body, and an outlet(24) for discharging filtered water with the dividing film by the pumping unit. Here, the pumping unit is structured as an inhaling pump that passes original water through the dividing film by the pressure difference between an inhaling pump pipe and the dividing film, caused by inhaling air of the inhaling pump pipe.



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Legal status

Final disposal of an application : Rejection

Patent registration number:

Patent duration:

Key words

portable, purifier, water

Category



Title of invention

DESALINATION APPARATUS AND METHOD OF OPERATING DESALINATION APPARATUS

Bibliographic data

Application number: 1019980710400
Date of filing: 1998.12.18
Applicant: EBARA CORPORATION

Publication number : 1020000016790
Publication date : 2000.03.25
Inventor : KAMIYA ICHIRO
NARASAKI YUZO
OTSUKA HIDEMITSU

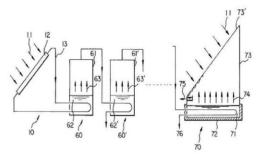
MORISHITA MANABU

Int. CI: C02F 1/14 Priority: 1996.06.19 JP 1996 179901

1996.06.19 JP 1996 179902

Summary

The present invention relates to a desalination apparatus which is capable of utilizing solar energy for desalination. The desalination apparatus is provided with a solar heat collector(12) for heating a heating medium(13) with solar energy, a heat exchanger(92) cooperating with an evaporation can(60) so as to subject the heating medium and raw water(62) in the evaporation can to heat exchange and generate water vapor(63) therein, a condenser(98) cooperating with a raw water tank(72) so as to receive the vapor(63) from the evaporation can and cool the vapor and raw water in the raw water tank through heat exchange to obtain distilled water, a distilled water tank for storing distilled water, an evacuating means for evacuating the evaporation can and depressurizing the inside so as to promote the generation of vapor in the evaporation can, and a means for supplying raw water to the evaporation can. When a plurality of evaporation cans(60) are provided, a condenser cooperating with the evaporation cans is provided so as to receive the vapor(63) from an upstream evaporation can, cool the vapor with the raw water in a downstream evaporation can and thereby produce distilled water, and also heat the raw water in the downstream evaporation can and generate vapor.



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Legal status

Final disposal of an application : Rejection

Patent registration number:

Patent duration:

Key words

desalination, solar, evaporation

Category



Title of invention

HARMFUL SUBSTANCE REMOVAL SHEET AND CONTAINER FILTER USING THE SAME

Bibliographic data

Application number : 1019950025105 Publication number : 1019960021098

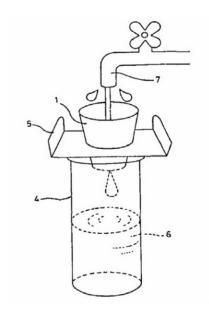
Date of filing : 1995.08.16 Publication date : 1996.07.18

Applicant : TOYOBO CO., LTD. Inventor : MATSUMOTO KIMIHIKO

Int. Cl: B01D 39/00 Priority: 1994.12.12 JP 1994 307931

Summary

The present invention relates to a harmful substance removal sheet and a container filter using the harmful substance removal sheet. The present invention improves water permeability (gas permeability) of the sheet using pulp and specified amounts of fibrous activated carbon and inorganic particles as the components of a material for forming a harmful substance removal sheet which is appropriately used for a simple disposable container filter for purifying water such as tap water, etc. This container type filter 1 consists of a combination of a cylindrical body made of paper and the harmful substance removal sheet 2 and preferably sheet 2 is fitted to the bottom of filter 1 and more desirably, all or a part of one side of the peripheral wall in the axial direction of the cylindrical body is formed from sheet 2 in place of paper. At this time, harmful substance removal sheet 2 comprises pulp, 10 to 60wt.% of fibrous activated carbon and 1 to 30wt.% of inorganic particles and preferably also contains 5 to 35wt.% of heat-fusible fiber and/or ≤20wt.% of a reducing substance. Thus, the objective sheet 2 having good water permeability (gas permeability) and sufficient strength can be obtained.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1003815870000
Patent duration : 2015.08.16

Key words

sheet, filter, water, purify

<u>Category</u>



Title of invention

WATER PURIFICATION DEVICE

Bibliographic data

Application number: 1019980708080 Publication number: 1020000005359

Date of filing: 1998.10.10 Publication date: 2000.01.25

Applicant: KIMBERLY-CLARK WORLDWIDE,

INC.

Inventor: COTTON, JAMES DENNIS

EVERHART, DENNIS STEIN

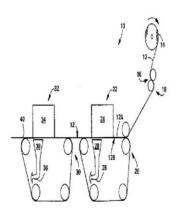
GADSBY, ELIZABETH

DEIBLER

Int. CI: C02F 1/00, A47G 21/18 Priority: 1996.04.12 US 1996 631512

Summary

The present invention relates to a water purifier in the shape of a drinking straw which is capable of purifying heavy metal contamination and pathogenic bacteria. A drinking straw-shaped water purifier purifies water by forced movement of water through the straw. The drinking straw-shaped water purifier is composed of: 1) a filter plug made of a fibrous structure and having sides, a first end, a second end, and a firmness sufficient to avoid collapse of the fibrous structure under a specified pressure drop; 2) water purification material integrated in the fibrous structure; and 3) a liquid impervious wrapper covering the sides of the filter plug, the wrapper defining openings at the first and second ends of the filter plug.



copyright KIPO 2009

Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1004513330000
Patent duration : 2017.04.08

Key words

water, purifier, straw

Category



Title of invention

STRAW WATER PURIFIER

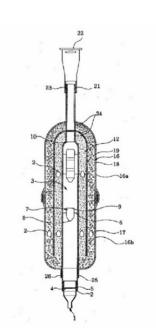
Bibliographic data

Application number: 1019990059791 Publication number: 1020010062997
Date of filing: 1999.12.21 Publication date: 2001.07.09
Applicant: CHOI, DONG MIN Inventor: CHOI, DONG MIN

Int. CI: B01D 35/00 Priority:

Summary

The present invention relates to a straw water purifier which is capable of purifying water from a top outlet by simply putting a bottom inlet of the water purifier in water to be purified and by sucking the purified water through the outlet, the water being purified by magnets, an activated carbon filter, a mixture filter layer made of small particles of elvan, zeolite and germanium and a ceramic ball filter layer. The straw water purifier comprises the followings: (i) a straw water purifier which consists of a first supply path(3), a second supply path(12) and a third supply path(16); (ii) a first supply path of cylinder shape which has an inlet at the bottom with a check valve(5) and is fixed to the first supplying path by a bolt (2) and a nut (4), and in which many magnets(7) are set by a supporting net(6) for magnetizing water, the magnetized water flowing through a non-woven screen(24) to the top of the second supply path; (ii) a second supply path(12) which is set around the first supply path, with the bottom end opened for transferring water to the bottom of the third supply path(16), and in which an activated carbon filter(13) is charged for adsorbing impurities; and (iii) a third supply path(16) which is set around the second supply path for moving water from bottom to top, to which an outlet(22) is fixed by a bolt (21) and a nut (23), and in which a mixture filter layer(17) made of small particles of elvan, zeolite and germanium and a ceramic ball filter layer(18) are charged.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1003611390000
Patent duration : 2019.12.21

Key words

straw, water, purifier

Category



Title of invention

METHOD FOR PURIFYING CONTAMINATED WATER OR REFINING SEAWATER NATURALLY BY PASSING CONTAMINATED WATER OR SALT WATER THROUGH LOWER PORTIONS OF PARTITIONS

Bibliographic data

Application number: 1020070102802 Publication number: 1020070105949

Date of filing: 2007.10.11 Publication date: 2007.10.31

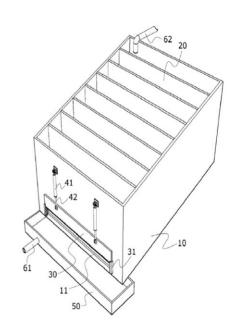
Applicant: HAN, SANG KWAN Inventor: HAN, SANG KWAN

Int. CI: C02F 1/00, C02F 1/52 Priority: 2007.01.12 KR 1020070004015

2007.01.22 KR 1020070006759 2007.05.22 KR 1020070049543 2007.07.27 KR 1020070075735 2007.08.31 KR 1020070088277 2007.09.21 KR 1020070096604

Summary

The present invention relates to a water purifying method which can be used for purifying contaminated water or refining seawater. The method for purifying contaminated water or refining seawater naturally using partitions comprises: a purification tank(10) of which a bottom part is inclined downward, and which has a drain(11) formed on a lowermost side portion thereof; multistage partitions(20) within the purification tank spaced an equal distance apart from one another, and which each has an outlet(21) formed at one side of a lower portion thereof; an adjusting plate(30) which has guides(31) installed at both sides thereof and is formed on a front side of the drain and lifted and lowered to adjust the opening degree of the drain; an operating cylinder(41) which is fixed to the purification tank, and of which the tip of a piston rod(42) is connected to an upper portion of the adjusting plate; a water storage tank(50) which is installed below the drain, and has a discharge pipe(61) formed thereon; a water supply pipe(62) installed on an upper portion of the purification tank opposite the drain; and a detachable filtering mesh in a space between the purification tank and the partition and in spaces between the partitions and includes a bottom part, a mesh and a traction wire.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008354000000
Patent duration : 2027.10.11

Key words

purify, water, seawater, contaminate, partition

Category



Title of invention

WATER BOTTLE WITH STRAW

Bibliographic data

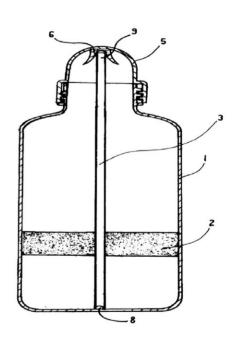
Application number : 2020030002944 Publication number : Date of filing : 2003.01.29 Publication date :

Applicant: JEONG, KOOK SEONG Inventor: JEONG, KOOK SEONG

Int. CI: **B65D 47/06** Priority:

Summary

The present invention relates to a water bottle with a straw which is capable of being used to purify stream water to use as drinking water. This water bottle with a straw comprises mainly a water bottle(1), a filter(2), and a straw(3). The filter has a hole to insert the straw and is placed inside the water bottle. The filter is tightly fixed in the water to ensure the water only goes through the filter and the water is purified while going through the filter to the bottom of the water bottle. One end of the straw is exposed out of the bottleneck to suck the purified water through the straw. The other end of the straw contacts the bottom of the water bottle to access the purified water. The present invention easily obtains purified water by filling the bottle with water.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2003114880000
Patent duration : 2013.01.29

Key words

straw, water, purifier

Category



Title of invention

DEVICE FOR FILTERING RUBBISH AND POLLUTANTS EFFECTIVELY

Bibliographic data

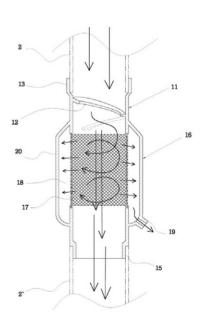
Application number : 2020040010152 Publication number : Date of filling : 2004.04.13 Publication date :

Applicant: WOO, CHEON YONG Inventor: WOO, CHEON YONG

Int. CI: C02F 1/44 Priority:

Summary

A device for filtering rubbish can be used for collecting rainwater from a roof and for filtering pollutants such as fallen leaves, rubbish, or sand effectively to clean the rainwater. The device for filtering rubbish comprises an upper body(11) connected to a pipe(2') for water tank and a rainwater-filtering part(16) with a rainwater filtering tank(18) for storing rainwater which is filtered by a steel net. The upper body has a screw fan(12) for making a rainwater vortex. The outside of the steel net of the rainwater filtering part is separated from the steel net to form the rainwater-filtering tank. The upper part is connected to the upper body and a drain line(19) is formed in the lower part to drain the rainwater outside. The lower part of the rainwater filtering tank housing(20) may have a lower connection part(15) for coupling the pipe with a water tank. A drain line(19) of the rainwater filtering tank housing is connected to the rainwater storage tank(3).



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Legal status

Final disposal of an application : Registration
Patent registration number : 2003549780000
Patent duration : 2014.04.13

Key words

roof, rainwater, filltering

Category



Title of invention

REMOVAL AGENT OF FLUORIDE IONS AND TREATMENT METHOD FOR WASTEWATER CONTAINING FLUORIDE IONS USING THE SAME

Bibliographic data

Application number: 1020020013002 Publication number: 1020020022751

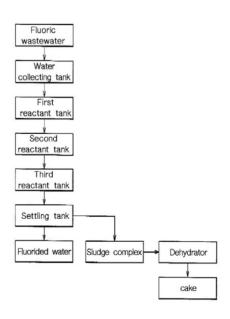
Date of filing: 2002.03.11 Publication date: 2002.03.27

Applicant: SO, JAE CHOON Inventor: SO, JAE CHOON

Int. CI: C02F 1/58 Priority:

Summary

A removal agent of fluoride ions and a treatment method for wastewater containing fluoride ions can be used for reducing the concentration of fluoride ions to 10 ppm or less, recycling slurry generated in the treatment process as cement material, simplify the treatment process of wastewater containing fluoride to reduce the time required for the treatment process of wastewater. The remover of fluoride ions includes a fluorine ion removal agent having a chloric acid solution. The fluorine ion removal agent includes a mixture of potassium polymetaphosphate with an active aluminum compound, or a mixture solution, or a rare-earth group compound solution. The treatment method for wastewater comprising fluoride ions comprises a step(a) for adding the chloric acid solution to the wastewater containing fluoride, a step(b) for adding caustic soda to the wastewater of step(a) to raise the pH of the wastewater above 5.0, a step(c) for adding a mixture of potassium polymetaphosphate, or the mixture solution, or the rareearth group compound solution to the wastewater of step(b) to reach 4.0~10.0 ph and then adding a polymer coagulant.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1003654650000
Patent duration : 2021.05.29

Key words

remover, fluoride,cement, wastewater

Category



Title of invention

COMPLEX REMOVAL AGENT OF FLUORIDE AND HEAVY METAL

Bibliographic data

Application number : 1019980027352

Date of filing : 1998.07.07

Applicant: HANIL GREEN TECH CO., LTD

SAMSUNG ELECTRONICS CO., LTD.

Publication number: 102000007830

Publication date : 2000.02.07 Inventor : KIM, JONG GYU

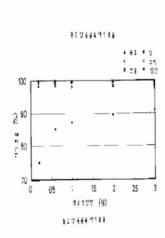
KIM, BU TAE

KIM, JIN MAN SUNG, GYU SIK KIM, SEONG JIN CHOI, YEONG SEOK

Int. Cl: C02F 9/00, C02F 1/52, C02F 1/58 Priority:

Summary

A complex removal agent can be used for removing fluoride and heavy metal found in wastewater, reducing chemical treatment costs and maintenance costs and preserving the environment. The complex removal agent of fluoride and heavy metal comprises a hydroxide which is a strong alkali for neutralizing heavy metal and coheres with high-density fluoride, an absorbent which has small pores for adsorbing residual fluoride after hydroxide reacts with wastewater, and an additive for promoting coherence and absorption. Also, the fluoride can be removed to about 90% using the property of an Al-based or Si-based group. The Al-based or Si-based groups, and natural absorbents have small pores to adsorb fluoride and heavy metals such Cu, Zn, Pb, Cr or Cd. The absorbent includes at least one of Ca, Mg, Na, or K to increase adsorption.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1003021510000
Patent duration : 2018.07.07

Key words

fluoride, heavy metal, wastewater, remover

Category



Title of invention

FLUORINE WASTEWATER TREATMENT AGENT

Bibliographic data

Application number: 1019950019973
Date of filing: 1995.07.07
Applicant: LG METALS CORP.

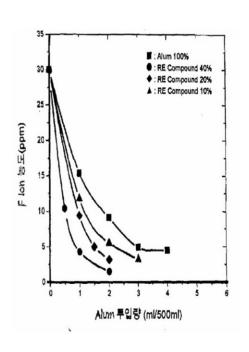
Publication number : 1019970006191
Publication date : 1997.02.19
Inventor : HONG, YEONG HO

YANG, SEONG HUN WOO, SANG MO

Int. CI: C02F 1/58 Priority:

Summary

A fluorine wastewater treatment agent can be used for removing fluoride ions including fluorine selectively and effectively. The fluorine wastewater treatment agent includes a soluble rare-earth element compound of less than 40% by weight and Al compound of more than 60% by weight. The rare-earth element compound includes one among at least two groups of sulphate, nitrate, chloride, acetate of a rare-earth metal whose main components are Ce, La, and Nd. Pr. The Al compound has one among at least two groups of sulphate, nitrate, chloride, acetate.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1001499340000
Patent duration : 2015.07.07

Key words

wastewater, fluoride, rare-earth element

Category



Title of invention

COMPOSITION FOR ELIMINATING FLUORINE FROM WASTEWATER AND A METHOD FOR ELIMINATING FLUORINE FROM WASTEWATER USING THE SAME TO REDUCE AMOUNT OF SLUDGE AND CALCIUM HARDNESS GENERATED

Bibliographic data

Application number : 1019980014576 Publication number : 1019990080957

Date of filing : 1998.04.23 Publication date : 1999.11.15

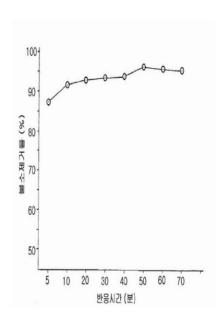
Applicant : POSCO Inventor : CHAE, JONG HAK

KWON, MIN SU

Int. CI: C02F 1/58, C02F 1/52 Priority:

Summary

A composition for eliminating fluorine from wastewater and a method for eliminating fluorine from wastewater using the same can be used for reducing the amount of sludge and calcium hardness generated, removing fluorine ions in wastewater quickly, and controlling pH using caustic soda in the range of 6.5-7.5 pH. The composition for eliminating fluorine from wastewater is prepared by mixing 10%(w/v) cerium sulfate solution, 20%(w/v) ferrous sulfate solution or concentrated sulfuric acid (H2SO4) at a volume ratio of 100:25 to 30:1.5 to 2:5. The method for eliminating fluorine from wastewater using the above composition includes a step for adding the composition to wastewater in an amount of 3.5 to 5.0 mL/L·steelmaking wastewater to obtain cerium fluoride, a step for neutralizing the cerium fluoride by adding coagulant and potassium hydroxide followed by coprecipitation in the form of slurry a step for adding coagulant to the coprecipitated slurry for coagulation, and a step for separation of slurry and supernatant, followed by decanting the supernatant, wherein the composition is reduced for more than 20 minutes before use.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1003491540000
Patent duration : 2018.04.23

Key words

wastewater, fluoride, calcium hardness

Category



Title of invention

METHOD FOR TREATING FLUORINE IN WATER, WHICH IS USEFUL FOR REMOVAL OF FLUORINE FROM WASTEWATER DISCHARGED FROM PRODUCTION PROCESSES FOR ELECTRONIC PARTS, ETC.

Bibliographic data

Application number : 1019990006269

Date of filing : 1999.02.25

Applicant : FUJITSU LIMITED

Publication number : 1019990082710

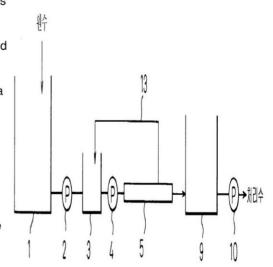
Publication date : 1999.11.25

Inventor : KEZUKA SATOSHI
SADAKATA TAKAYUKI

Int. Cl: C02F 1/58, C02F 1/42 Priority: 1994.12.12 JP 1994 307931

Summary

A method for treating fluorine-containing water can be used for removing fluorine stably without containing fine particles in treated water, reducing use amount of a treating agent, reducing the volume of sludge, and achieving miniaturization and simplification of the device. The method for treating water containing fluorine can lower the density of fluorine included in the water containing fluorine by filtration, centrifugal separation, vapor condensation, and a floating method instead of gravity precipitation for separation of calcium fluoride. The method for treating water containing fluorine comprises the steps of: adding a granular calcium carbonate to water containing fluorine, circulating the water containing fluorine and calcium carbonate through a separating membrane apparatus(5), removing the resulting fluorine-free treated water from the separating membrane apparatus(5), and supplying water containing fluorine to a system in which calcium carbonate is converted into calcium fluoride. The circulation system comprises a circulation bath(3), the separating membrane apparatus, and a circulation line. A circulation pump circulates the circulation system to cause a reaction with calcium carbonate, and then the treated water flows from the separating membrane apparatus to the treatment bath(9) to be drained by a transfer pump(10).



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Legal status

Final disposal of an application : Registration
Patent registration number : 1003548880000
Patent duration : 2019.02.25

Key words

fluorine-containing water, calcium carbonate

Category



Title of invention

METHOD AND APPARATUS FOR TREATING WASTEWATER CONTAINING FLUORIDE

Bibliographic data

Application number : 1020000065832 Publication number : 1020020035988

Date of filing : 2000.11.07 Publication date : 2002.05.16

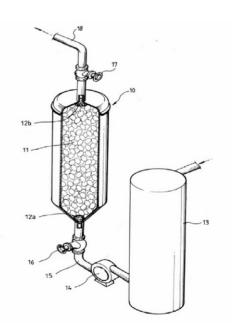
Applicant : KIM, JAE JONG

KORENAGA TAKASHI

Int. CI: C02F 1/58 Priority:

Summary

A method and apparatus for treating wastewater containing fluoride using regenerable ceramic adsorbent is suitable for the treatment of wastewater containing fluorine-based etchant generated by semiconductor industries. The method includes four main steps. (i) After the reaction of 30 parts by weight of CaF2 with 70 parts by weight of SiO2, 44-54 parts by weight of CaS and 12.5 parts by weight of polystyrene are added to 100 parts by weight of the mixture of CaF2 and SiO2, and baked at 1200 degrees C for 10 hours to obtain a calcined ceramic. (ii) After ball-milling the calcined ceramic to the particle size of 1 to 2mm, water of which amount ranges from the of ceramic powder to triple the weight is added to the ceramic powder, and packed in a column at a space velocity of 1-2.7/hr. (iii) Pouring a mixed aqueous solution of CaF2 and NaH2PO4·2H2O into the ceramic-packed column at a space velocity of 1-2.7/hr. (iv) Causing wastewater containing fluorine-based etchant to pass through the ceramic-packed column while controlling the fluorine concentration in effluent less than 1mg/L.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1003698920000
Patent duration : 2020.11.07

Key words

wastewater, fluoride, regenerable ceramic adsorbent

Category



Title of invention

METHOD FOR TREATING WATER CONTAINING FLUORINE

Bibliographic data

Application number : 1020010049633 Publication number : 1020010087434

Date of filing : 2001.08.17 Publication date : 2001.09.15

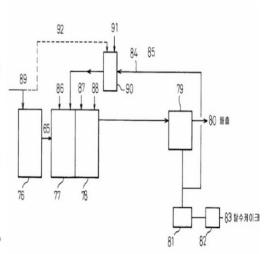
Applicant : FUJITSU LIMITED Inventor : KEZUKA SATOSHI
SADAKATA TAKAYUKI

Int. CI: C02F 1/58 Priority: 1998.04.27 JP 1998 117155

1998.12.08 JP 1998 348586

Summary

A method for treating water containing fluorine can be used for preventing solidification of calcium compound and fine particles of calcium compound from being mixed in the water containing fluorine by making the fluorine included in the water react with calcium carbonate to form calcium fluoride. A calcium salt like calcium hydroxide(86) is added to wastewater containing fluorine in a reaction vessel(77) to form calcium fluoride. After the pH of the wastewater is adjusted in a pHadjusting vessel(78), the wastewater is subjected to solid-liquid separation in a concentration apparatus. In the concentration apparatus, solid-liquid separation of the wastewater containing calcium fluoride is discharged from the reaction vessel using filtration, centrifugal separation, concentration by evaporation, or flotation. Since concentration based on filtration, centrifugal separation, concentration by evaporation, and flotation make the separation possible without allowing crystals to grow, the addition of a coagulant is not necessary. An example of solid-liquid separation method based on filtration is based on membrane separation; in this case, an ultrafiltration membrane, a micro-filtration membrane. a filter cloth, etc., are used as a filtration membrane.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1003826600000
Patent duration : 2019.02.25

Key words

fluorine, water, calcium, hydroxide, micro-filtration

Category



Title of invention

UV WATER DISINFECTOR TO PROVIDE HIGH QUALITY DRINKING WATER AT LOW COST

Bibliographic data

Application number : 1019997001174
Date of filling : 1999.02.06

Applicant: THE REGENTS OF THE UNIVERSITY

OF CALIFORNIA

Int. CI: A61L 2/10

Publication number: 102000029946
Publication date: 2000.05.25

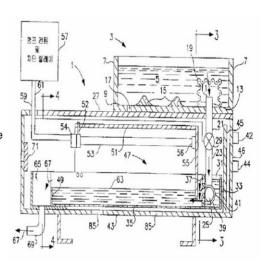
Inventor: GADGIL ASHOK

GARUD VIKAS

Priority: 1996.08.06 US 1996 692558

Summary

A UV disinfector is to provide an innovative flow design for a UV water disinfection system, allowing both gravity-driven fluid delivery and treatment with a low pressure UV lamp, decreasing energy depletion and environmental impact, and providing sanitary water at a low cost requiring little maintenance, thus making safe water available to people in developing nations. The innovative UV disinfector has numerous innovative features which provide high-quality drinking water at low cost, about 5 -70 cents per person per year, making safe water available for the first time to many people in developing nations. The availability of a simple, inexpensive method for disinfecting drinking water will save the lives of many people, particularly children who are the most susceptible to diarrhea diseases. Because women are primarily responsible for providing their families with water, the inventive UV disinfection system can greatly improve their quality of life by reducing their workloads and the number of their children lost to waterborne diseases. An innovative flow design for a UV water disinfection system is provided which allows both gravity-driven fluid delivery and treatment with a low-pressure UV lamp, decreasing energy depletion and environmental impact. The UV disinfector(1) has a gravitydriven water delivery system(21), and an air-suspended bare UV lamp(53). The disinfector is hydrodynamically optimized with a laminerizing, perforated baffle wall(37), beveled treatment chamber(47), and outlet weir(69).



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Legal status

Final disposal of an application : Registration
Patent registration number : 1004858970000
Patent duration : 2017.08.01

Key words

uv disinfector, disinfection system

Category



Title of invention

DRINKING WATER-PRODUCING SYSTEM TO OBTAIN WATER BY CONDENSING MOISTURE CONTAINED IN AIR

Bibliographic data

Application number: 1020040044068 Publication number: 1020050118916

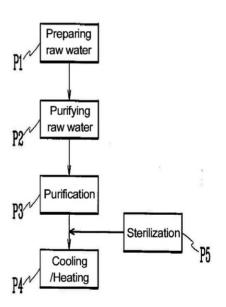
Date of filing: 2004.06.15 Publication date: 2005.12.20

Applicant: WINIX INC. Inventor: YOON, HUI JONG

Int. CI: B01D 35/00 Priority:

Summary

A drinking water-producing system prevents multiplication of bacteria and removes alien substances primarily by periodically purifying water collected in a water-storage tank at certain time intervals in case the purified water is used as drinking water after purifying condensate water obtained by condensing moisture contained in air. The drinking water-producing system comprises: a production step(P1) of preparing a prescribed amount of raw water by cooling air to a dew point or below to condense moisture contained in the air, a purification step(P2) primarily purifying stored raw water after production in P1 to prevent multiplication of bacteria and remove alien substances from the raw water, a water purification step(P3) of purifying the raw water passing through the P2 to remove heavy metals and other harmful substances from the raw water;, and a cooling/heating step(P4) for cooling or heating the purified water to a prescribed temperature such that users drink or use the cooled or heated purified water.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1006041100000
Patent duration : 2024.06.15

Key words

drinking water, bacteri, tank

Category



Title of invention

PORTABLE, POTABLE WATER-RECOVERY AND -DISPENSING APPARATUS TO RECOVER AND SANITIZE LIQUID WATER FOR HUMAN USE FROM HUMIDITY FOR HUMAN USE

Bibliographic data

 Application number :
 1020047013165
 Publication number : 1020040082444

 Date of filing :
 2004.08.24
 Publication date : 2004.09.24

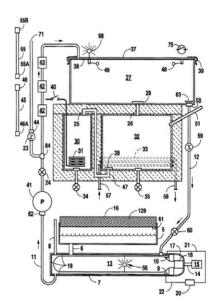
Applicant: WORLDWIDE WATER, L.L.C Inventor: FORSBERG FRANCIS C.

COLBERT CLAYTON

Int. Cl: **F25D 11/00, F25D 17/06** Priority:

Summary

A portable, potable water generator produces high-purity liquid water by condensation of water vapor from ambient air and allows tailoring of the system for maximum production and efficiency in varied climates, temperatures and/or settings. Various options for obtaining pure water are utilized as it becomes increasingly more difficult to remove moisture from low-humidity or -temperature conditions. In low-humidity conditions, provision is made for automatically purifying municipal water. The system also utilizes the tendency of evaporators to freeze at lower temperatures. By specifically controlling the freezing and thawing, condensate can be produced in temperatures lower than the temperature at which most dehumidifiers automatically turn off. The generator employs an air filter to remove particulates and aerosols from the incoming air. An enclosed heat absorber cools the filtered air to its dew point and collects droplets of condensate into a condensate collector(5). Before discharge, the collected dew is treated in a bacteriostat loop to destroy adventitious living organisms and to filter out undesirable and dangerous contaminants. A recirculation loop provides the ability to recirculate stored condensate, including during periods of inactivity. Further, quick-disconnect fittings(55b) and variable length flexible tubing allows use of the invention to serve remote dispensers and/or appliances and allows use of municipal water treated through the apparatus in low condensate situations.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1006262420000
Patent duration : 2022.02.25

Key words

potable-water generator, low humidity

Category



Title of invention

REVERSE-OSMOSIS PORTABLE WATER PURIFIER FOR CONVERTING RAW WATER INTO DRINKING WATER

Bibliographic data

Application number : 2020060019657 Publication number : Date of filing : 2006.07.21 Publication date :

Applicant: HONG, CHAE HYEONG Inventor: HONG, CHAE HYEONG

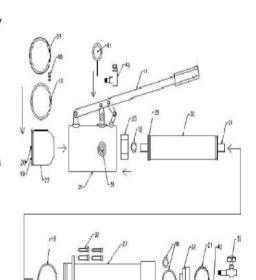
Priority:

Int. CI: **B01D 61/00**

C02F 1/44 B01D 61/02

Summary

A reverse-osmosis portable water purifier is conveniently portable and can purify various types of raw water including fresh water and seawater by installing a reverse-osmosis separation membrane and a manual pump in a single body within a pressure container. The water purifier has a cylindrical pressure container consisting of an upper portion(26) and a lower portion(27). The water purifier has no pump on which a power motor can be attached. A reverse-osmosis separation membrane(30), a manual piston pump, and a gas tube(22) are formed in a single body within the pressure container, thereby minimizing the breakage of the container and area of water leakage. The reverseosmosis separation membrane has a high degree of removal efficiency and a wide pressure range of purification performance. The gas tube absorbs pulsations due to water impact and maintains uniform pressure.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2004282860000
Patent duration : 2016.07.21

Key words

reverse osmosis type, portable water purifier

Category



Title of invention

WATER TREATMENT APPARATUS USING ELECTROCOAGULATION

Bibliographic data

 Application number :
 1020087002746
 Publication number : 1020080032142

 Date of filing :
 2008.02.01
 Publication date :
 2008.04.14

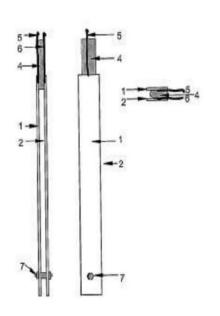
Applicant: RESEARCH WATER PTY LTD. Inventor: ROBINSON

VIVIAN NOEL EDWARD

Int. CI: C02F 1/463 Priority: 2005.07.05 AU 2005 903543

Summary

A portable apparatus for treating polluted water by electrocoagulation is provided. The apparatus comprises at least two electrodes(1,2). The apparatus also includes a housing(4), electrically isolated from at least two electrodes, to which the at least two electrodes are spaced apart from one another. When at least two secondary electrodes are at least partly submerged in the polluted water and provided with an electrical potential, one of at least two electrodes (2) is sacrificed so as to provide ions to the polluted water. One of at least two electrodes preferably provides coagulating ions to the polluted water. At least two electrodes preferably have a combined mass of less than approximately 15 kg. More preferably, at least two electrodes have a combined mass of approximately 5 kg, 2 kg, 1 kg, or 0.2 kg. The electrodes are preferably formed from any one of: metal foil wrapped around a solid former, plates of thin bent metal, plates of flat metal, and cylindrical metal rods. At least two electrodes preferably have a crosssection of any shape of: oval, circular, rectangular, annular, and any closed or nearly closed shape.



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Legal status

Final disposal of an application : **Publication**

Patent registration number:

Patent duration:

Key words

portable apparatus, water, electrocoagulation

Category



Title of invention

PORTABLE STERILIZER FOR PRODUCING SAFE DRINKING WATER

Bibliographic data

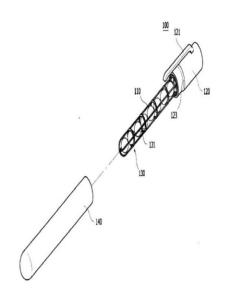
Application number : 2020040027641 Publication number : Date of filing : 2004.09.24 Publication date :

Applicant: HAHN, DONG EUN Inventor: HAHN, DONG EUN

Int. Cl: B01D 39/20, B01D 39/14, B01D 35/00 Priority:

Summary

A portable sterilizer(100) can sterilize running water or spring water quickly and can be used in travel, mountain climbing, fishing, or leisure. The portable sterilizer comprises ceramic balls(110) which are a sintered mixture of powder ceramic and Ag nano particles, a cylindrical main body(120) having a protrusion, a latticeshaped (131) ceramic ball-storage part(130) which stores the ceramic balls in the bottom of the main body. and a cover(140) which is cylindrical for the ceramic ballstorage part. The main body has a step(123) for combining the cover with the ceramic ball-storage part. The main body, the ceramic ball-storage part, and the cover are made of plastic or metal. The plastic may be polyethylene or polypropylene, etc. The metal may be aluminum or stainless steel. The water flows into the ceramic ball-storage part and then is mixed by shaking or rolling the portable sterilizer to sterilize it by Ag particles included in the ceramic balls.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2003716140000
Patent duration : 2014.09.24

Key words

portable sterilizer, water, leisure

Category



Title of invention

LOESS BALL HARDWOOD CHARCOAL WATER PURIFIER TO FILTER HARMFUL ELEMENTS

Bibliographic data

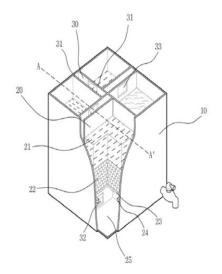
Application number : 2020050028127 Publication number : Date of filing : 2005.09.30 Publication date :

Applicant: LEE, KI JOO Inventor: LEE, KI JOO

Int. CI: B01D 35/00 Priority:

Summary

A loess ball hardwood charcoal water purifier filters harmful elements by using a loess ball and charcoal. Its filter can be easily replaced to also produce hot water using a heating unit. The A loess ball hardwood charcoal water purifier comprises a plurality of purification parts(20) consisting of: a charcoal purification layer(21) and a loess ball purification layer(22) which channel water supplied from the upper part to the lower part, a purification circulation part(30) which circulates the water drained from the lower inlet(32) to the adjacent purification part via the upper outlet(33), a water storage part for storing the water purified by the plurality of purification parts and the purification circulation part. The purification parts consist of the charcoal purification layer, the loess ball purification layer, a supporting layer(23), a supporting protrusion(24), and a drain layer. The purification parts can be separated from the main body of the water purifier. The purification circulation part has a partition layer(31) formed between the purification parts. The lower inlet and upper outlet are formed in the partition layer. The water-storage part has a heating unit consisting of a heating material and a heat-insulating material to produce hot water.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2004044910000
Patent duration : 2015.09.30

Key words

loess ball hardwood charcoal water

Category



Title of invention

WATER-PURIFYING SYSTEM FOR PURIFYING SEAWATER AND POLLUTED FRESH WATER USING SOLAR ENERGY AND COOLING VAPOR

Bibliographic data

Application number: 1020050078477
Date of filing: 2005.08.25
Applicant: SEO, HYOUNG DEOG

CHANG, SE YEOL

Publication number: 1020070024023
Publication date: 2007.03.02

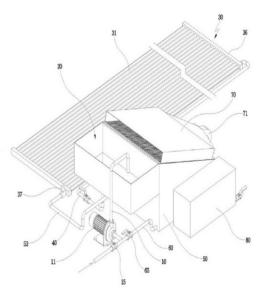
Inventor: SEO, HYOUNG DEOG

CHANG, SE YEOL HAN, SANG BAE CHOI, WON JOON

Int. CI: C02F 1/04 Priority:

Summary

The present invention relates to a water purifying system which can purify seawater and polluted fresh water at low cost without causing environmental pollution. The water-purifying system obtains power from solar energy. An inflow pipe(10) is combined with a pump(11) for seawater or polluted fresh water. A water-collecting tank(20) collects seawater and polluted fresh water at the end of the pump. A heat-collecting unit(30) is connected with the water-collecting tank by a connecting pipe(40). An evaporating chamber(50) receives seawater and polluted fresh water supplied through a pipe(53) for evaporating the seawater and polluted fresh water. An exhaust pipe(60) is combined with one side of the evaporating chamber. A cooling pipe(70) is attached to the upper end of the evaporating chamber in an oblique direction, containing a blower(71) for cooling vapor. An evaporated water-collecting tank(80) collects evaporated water through a water-collecting pipe at the lower end of the cooling pipe.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1007416740000
Patent duration : 2025.08.25

Key words

water purifying system, seawater, polluted fresh water, solar energy, evaporation

Category



Title of invention

WATER RECEPTACLE WITH WATER-PURIFYING FUNCTION USING PERMANENT MAGNETS AND FAR-INFRARED RAY-EMITTING ELEMENTS

Bibliographic data

Application number: 1020030070788

Date of filing: 2003.10.10

Applicant: KIM, YONG HUN

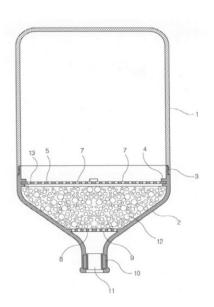
KIM, YONG JOON

Publication number: 1020050034977
Publication date: 2005.04.15
Inventor: KIM, YONG HUN
KIM, YONG JOON

Int. CI: **B65D 81/24** Priority:

Summary

An object of this invention is to supply purified water by discharging water via far-infrared light-emitting elements and permanent magnets for sterilization. The water supplied from this invention is capable of increasing the purification function as long as the invention contains treatment objective water. The water receptacle with the water-purifying function includes a lower main body(2) which is formed with an outlet(11), and an upper main body(1) which is for storing the treatment objective water, wherein the upper and lower main bodies are coupled by screw parts(3). Permanent magnets(10) are installed inside the outlet. Far-infrared ray-emitting elements(12) made of elvan and zeolite are filled in a space between upper and lower partition plates(8, 5) in the lower main body.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1005000530000
Patent duration : 2023.10.10

Key words

water receptacle, elvan, zeolite, permanent magnets, water purification

Category



Title of invention

PLASTIC BAG FOR POTABLE WATER AND A CUSTODY PLASTIC BAG

Bibliographic data

Application number: 1019940024843 Publication number: 1019960010467

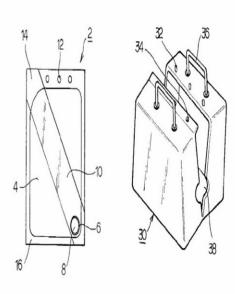
Date of filing: 1994.09.30 Publication date: 1996.04.20

Applicant: CHOE, KYUNG HEE Inventor: CHOE, KYUNG HEE

Int. CI: B65D 81/20, B65D 81/24 Priority:

Summary

This invention is concerned with a portable plastic bag for drinking water and a custody plastic bag which is for the prevention of common diarrhoea and can be carried around for easy access to safe and clean drinking water. The plastic bag can sustain the drinking water by suppressing the propagation of bacteria or germs. The plastic bag(2) is produced by injecting potable water into a portable water storage space in the plastic bag formed of the surface and the rear face of a plastic sheet(4) in an initial process of production. A sealing unit(16) is formed at the upper end of the plastic sheet for a complete seal to keep out exterior air. According to the complete sealing, rotting of the potable water due to the propagation of germs is avoided. The plastic bag is disposable, and cleaning the inner portion of the plastic bag is not needed.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1001661130000
Patent duration : 2014.09.30

Key words

plastic bag, portable water containing, drinking water

Category



Title of invention

AIR INSUFFLATION WATER TANK CAPABLE OF CONVENIENT INSTALLATION AND UNINSTALLATION AT ANY PLACE

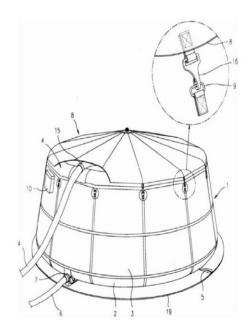
Bibliographic data

Application number : 2019990010110 Publication number : 2020010000321
Date of filing : 1999.06.08 Publication date : 2001.01.05
Applicant : SAMGONG CO., LTD. Inventor : LEE, GEON

Int. CI: B65D 90/00 Priority:

Summary

This invention is able to be installed at any place and store drinking water and water for various purposes such as industrial and agricultural uses. Especially, this invention can be rapidly installed and uninstalled and fill the water in and installing the water tank at the same time, so people can use it conveniently with a smaller work force. The water tank comprises a tube-shaped bottom part(2), a main wall part(3), and an air tube(4) which are all formed into one body. The bottom part and the main wall part are made of waterproof materials. The air tube supports and raises the main wall part in order to store the water according to the level of water which is in the water tank. If the water fills the water tank after expanding the air tube, the water tank is automatically installed.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2002864510000
Patent duration : 2014.06.08

Key words

water tank, air tube, water containing, integrated structure, drought

Category



Title of invention

DISPOSABLE DRINKING WATER BAG FOR EMERGENCY, CAPABLE OF SUPPLYING WATER EVEN IN CASE OF DISASTERS SUCH AS DROUGHT OR FLOOD

Bibliographic data

Application number : 1020020045424 Publication number : 1020040012067

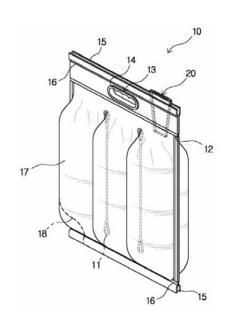
Date of filing : 2002.07.31 Publication date : 2004.02.11

Applicant : PARK, KI BEOM Inventor : PARK, KI BEOM

Int. CI: **B65D 30/22** Priority:

Summary

A drinking water bag made of PE material for temporary and disposable use is used in emergency situations. The drinking water bag can supply drinking water even in case the supply of portable water is interrupted by different disasters or accidents such as drought. The drinking water bag consists of a drinking water receptacle(17) which is in rectangular pouch form, an inlet port(20) formed on the right top end of the receptacle, a grip(13) with a reinforcing part(14) at the center of the top end of the receptacle; and adhesive portions(16) on both the top and bottom ends of the receptacle. The water bag has a wing portion(15) extended from the adhesive portion and an output folding line(18) formed at the left bottom end of the receptacle, and a compartment portion(11) and a reinforcing part(12) at the center of the receptacle for convenience of carrying the bag.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1004454410000
Patent duration : 2022.07.31

Key words

drinking water bag, drought, supplying drinking water, water container

Category



Title of invention

RAINWATER COLLECTION TANK TO PROVIDE WATER FOR AGRICULTURAL USES

Bibliographic data

Application number : 1020000043603 Publication number : 1020000059259

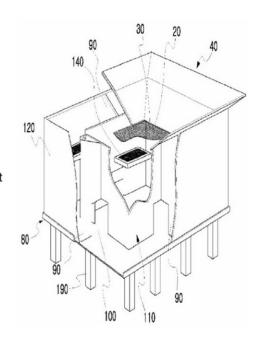
Date of filing : 2000.07.28 Publication date : 2000.10.05

Applicant : KIM, HYUK Inventor : KIM, HYUK

Int. CI: **B65D 88/10** Priority:

Summary

The present invention relates to a rainwater collection tank which is capable of being used for collecting rainwater to provide water for agricultural uses. A rainwater collection tank includes a water-collecting part(40) including a wing part sloping toward a center part to collect rainwater in an upper end, a collection hole(30) formed in the center of the wing part, and a filtering net(20) formed in an upper face, an internal water tank(110) mounted in the center of the watercollecting part, a partitioned part(90) including an external water tank receiving drainage from the wing part and the internal water tank, and mounted between respective faces of the internal water tank and the external water tank, a cleaning way and connecting way(100) formed in the face of contact of the partitioned part and an internal partitioned part so that each room is pierced and the internal pressure is dispersed, a waterway, a pump connected with a pipe, and a supporting part(80) mounted to support the aforementioned structural elements in one side part.



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Legal status

Final disposal of an application: Withdrawal

Patent registration number:

Patent duration:

Key words

rainwater, collect, tank

Category



Title of invention

JOINTED FACILITY FOR KEEPING RAINWATER USING BLOCKS FOR REINFORCEMENT AND METHOD FOR CONSTRUCTION

Bibliographic data

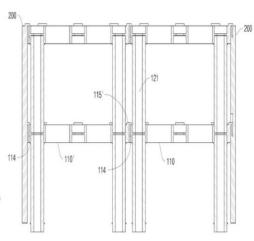
Application number : 1020050078459 Publication number : Date of filing : 2005.08.25 Publication date :

Applicant: NUVOTEC CO., LTD. Inventor: HAN, SEUNG HEE

Int. CI: E03B 3/02 Priority:

Summary

The present invention relates to a prefabricated rainwater-collecting facility and a construction method thereof which uses blocks to reinforce the supporting unit. The prefabricated rainwater-collecting facility and construction method are capable of reducing the construction period and enabling rainwater to infiltrate underground easily. The prefabricated rainwatercollecting facility is built by a combination of blocks to reinforce the supporting unit. The block comprises a flat bottom plate(110) and a plurality of supporting bars which are inserted into the flat bottom plate. The flat bottom plate includes a first fluid transfer hole which enables the rainwater to easily move. The first fluid transfer hole has a circular shape but it has any shape to facilitate the movement of rainwater. The prefabricated rainwater-collecting facility is implemented by combining the blocks together.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1005530860000
Patent duration : 2025.08.25

Key words

rainwater, collect, block, prefabricate

Category



Title of invention

PREFABRICATED RAINWATER-STORAGE SYSTEM AND CONSTRUCTION METHOD THEREOF, FOR FORMING A RAINWATER STORAGE FRAME BY ASSEMBLING BLOCKS USING FASTENERS AND INSTALLING A WATER-PERMEABLE SHEET OR A WATER-IMPERVIOUS SHEET TO THE OUTSIDE OF THE RAINWATER-STORAGE FRAME

Bibliographic data

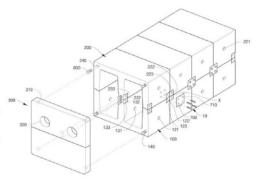
Application number : 1020050079894 Publication number : Date of filing : 2005.08.30 Publication date :

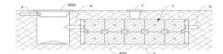
Applicant: HAN, SEUNG HEE Inventor: HAN, SEUNG HEE

Int. CI: E03B 3/02 Priority:

Summary

The present invention relates to a prefabricated rainwater-storage system and a constructing method for the rainwater-storage system which is capable of improving the convenience of construction and shortening the period of construction. The prefabricated rainwaterstorage system stores up rainwater by attaching a finishing member to the outside of a rainwater-storage frame assembled with many blocks using fasteners and discharging the rainwater from a building inward through an inflow pipe. Hereon the block comprises: a lower body(100) composed of a floor panel, a side wall having one or more primary fluid passage holes(121) to move rainwater easily, a support wall having one or more secondary fluid passage holes(131) to move rainwater easily, an upper body(200) placed on the upper part of the lower body, and a wall panel (300) coupled to both sides of the upper body's side walls and support walls and assembled with the lower body and the upper body to form two spaces split by each support wall. The upper body is composed of a floor panel a side wall having one or more primary fluid passage holes(221) to move rainwater easily and a support wall having one or more secondary fluid passage holes to move rainwater easily. A construction method of the prefabricated rainwater storage system comprises the steps of excavation, constructing the foundation, constructing a rainwater storage frame by assembling blocks, connecting the rainwater storage frame to external facilities and constructing a waterpermeable sheet or a water-impervious sheet to the side of the completed rainwater storage frame to drain or not drain the rainwater stored in the rainwater storage frame to the outside, and then compacting





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Legal status

Final disposal of an application : Registration
Patent registration number : 1006637930000
Patent duration : 2025.08.30

Key words

rainwater, storage, construct

<u>Category</u>



Title of invention

PREFABRICATED RAINWATER STORAGE SYSTEM WHICH IS ASSEMBLED MUTUALLY AND A CONSTRUCTION METHOD THEREOF, FOR ASSEMBLING MANUALLY BY FORMING BLOCKS WITH LIGHTWEIGHT EXPANDED POLYSTYRENE, MAKING RAINWATER FLOW VERTICALLY AND HORIZONTALLY BY ASSEMBLING BLOCKS WITH ONE OR MORE HOLLOWS AND FLUID PASSAGE HOLES USING FASTENERS AND INSTALLING A WATER PERMEABLE SHEET OR A WATER IMPERVIOUS SHEET BY THE PURPOSE OF A RAINWATER STORAGE FRAME

Bibliographic data

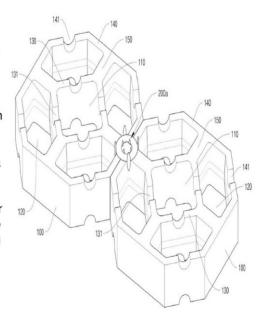
Application number : 1020050081107 Publication number : Date of filing : 2005.09.01 Publication date :

Applicant: HAN, SEUNG HEE Inventor: HAN, SEUNG HEE

Int. CI: E03B 3/02 Priority:

Summary

The present invention relates to a prefabricated rainwater storage facility and construction method thereof using light blocks to build the facility. The prefabricated rainwater storage facility is comprised of a plurality of rainwater storage blocks made of expanded polystyrene. The rainwater storage blocks can be assembled manually and a rainwater storage frame is built by connecting each rainwater storage block through a connecting hole. The stored rainwater easily moves vertically or horizontally in the rainwater storage frame. The prefabricated rainwater storage facility composes: a primary hole(110) which guides rainwater vertically, a secondary hole(120) of which at least two are formed around the primary hole guiding rainwater to move water in a vertical direction, a inner wall(130) which divides the primary hole and the secondary holes, a primary moving hole(131) which is formed in the inner wall and moves the stored rainwater horizontally, a secondary moving hole(141) which is formed in an exterior wall(140) and moves the stored rainwater outside of the rainwater storage block in a horizontal direction.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1006637980000
Patent duration : 2025.09.01

Key words

rainwater, storage, construct

Category



Title of invention

APPARATUS FOR USING AND COLLECTING RAINWATER BY USING A GREENHOUSE ROOF

Bibliographic data

Application number : 1020060115127 Publication number : 1020080045888

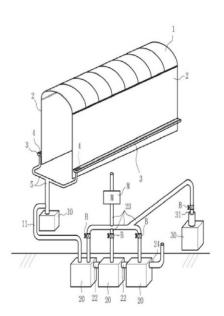
Date of filing : 2006.11.21 Publication date : 2008.05.26

Applicant : BIOLINE, INC. Inventor : LIM, JUNG MIN

Int. CI: **E03B 3/03, E03B 3/02** Priority:

Summary

The present invention relates to an apparatus for using and collecting rainwater for agricultural uses and other purposes which uses a greenhouse to provide the water. The apparatus for collecting rainwater by using a greenhouse is composed of a greenhouse(1), two rain gutters(3) placed on both sides of the greenhouse, a primary water supply pipe(5) which is connected to the rain gutter, a primary rainwater tank(10), an auxiliary pipe(11), and a rainwater storage tank(20). The rainwater storage tank is comprised of plural storage tanks connected via connecting pipes(22) to each other, and the last rainwater storage tank has a ventilation pipe(24). The rainwater storage tanks are connected to a water-discharge pipe(23) which is connected to a motor(M) to supply the stored rainwater to an auxiliary storage tank. A fertilizer-adding unit(31) is located between the discharge pipe and the auxiliary storage tank, so the auxiliary storage tank stores the mixture of water and fertilizer.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008478260000
Patent duration : 2026.11.21

Key words

rainwater, greenhouse, collect, tank

Category



2006.04.21

KIM, PAN SOO

Title of invention

RAINWATER-COLLECTING APPARATUS CAPABLE OF SEPARATING IMPURITIES AND POLLUTANTS FROM RAINWATER EFFECTIVELY AND STORING UP LARGE QUANTITIES OF **RAINWATER**

Bibliographic data

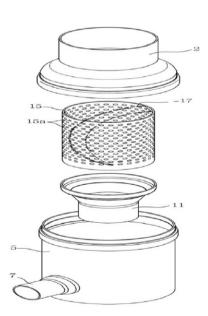
Application number: 1020040083108 Publication number: 1020060033996 Date of filing: Publication date: 2004.10.18 Applicant: KIM, PAN SOO Inventor:

LIM, TAE HYUNG

Int. CI: E03C 1/122 Priority:

Summary

The present invention relates to a rainwater-collection apparatus which is capable of separating impurities and pollutants from rainwater effectively and storing up a large quantity of rainwater. The rainwater-collection apparatus comprises: a rainwater pipe guiding the rainwater pouring from a rooftop, an upper stopper(2) coupled to the lower part of the rainwater pipe, a watercollecting tub composed of an outer tub and an inner tub to collect rainwater, a storage pipe(7) connected to the outer tub of the water-collecting tub, a screen(15) provided with many holes(15a) to separate rainwater and impurities, and a water-collection guide unit installed inside of the screen to guide and spray rainwater toward the side wall of the screen by rotating the rainwater pouring from the rooftop. As the water-collection guide unit, a whirlpool foil(17) is installed inside the screen to flow in whirls along the side wall of the screen.



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Legal status

Final disposal of an application: Registration Patent registration number: 1006178440000 Patent duration: 2024.10.18

Key words

rainwater, collect, storage

Category



Title of invention

RAINWATER CONDUIT SYSTEM FOR RECYCLING RAINWATER

Bibliographic data

Application number : 1020070042730 Publication number : 1020080097629

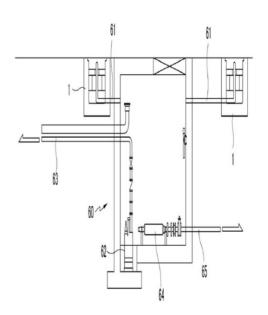
Date of filing : 2007.05.02 Publication date : 2008.11.06

Applicant : RAINBOW SCAPE CO., LTD Inventor : JUNG, WOON EIK

Int. Cl: C02F 1/00, E03F 1/00 Priority:

Summary

The present invention is related to a rainwater conduit system which is used for recycling rainwater. The rainwater conduit system comprises a U-shaped concrete gutter, a horizontal blocking board which is installed at the inner side of the concrete gutter and in which a plurality of pitch holes is formed, a vertical blocking board forming the outer side, a main body which purifies through the internal filter medium and discharges water. Therefore, this rainwater conduit system improves construction efficiency and reduces construction costs.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008966950000
Patent duration : 2027.05.02

Key words

rainwater, conduit, recycle

Category



Title of invention

SYSTEM FOR INDUCING LOW FLOW AND UNDERGROUND INFILTRATION OF RAIN WATER, FOR PREVENTING LOW GROUND FROM BEING FLOODED BY INDUCING WATER TO MANHOLE PLACED AT FILTER LAYER

Bibliographic data

Application number: 1020050015729 Publication number: 1020060094596

Date of filing: 2005.02.25 Publication date: 2006.08.30

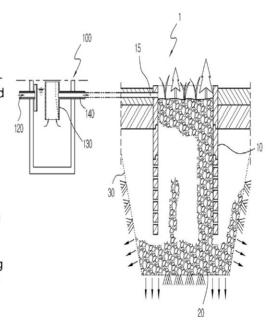
Applicant: JO, MYUNG JA

Inventor: JO, MYUNG JA

Int. Cl: **E03F 1/00, E03F 5/02, E03F 5/10** Priority:

Summary

The present invention is related to a system for infiltrating rainwater underground to prevent low ground from being flooded and to protect the environment by preserving underground water levels. The system for infiltrating rainwater underground is comprised of a nonwoven fabric(30) laid on the upper surface of the ground with a predetermined size after digging a pit, a filter layer(20) laid on the upper surface of the non-woven fabric with a predetermined thickness to filter contaminated substances contained in the rainwater, a manhole(10) constructed on the filter layer laid on the upper surface of the non-woven fabric bored with plural drain holes at the main wall and filled again with the inner space of the filter layer, a planting part comprising a tree and a plant planted on the upper side of the filter layer filled on the manhole, and a water supply pipe(15) penetrating the upper end of the manhole and supplying the rainwater flowing down from a neighboring manhole or an adjacent bucket to the upper side of the manhole. The rainwater flows in the manhole for the underflow, passes through the filter layer in the inner part and surrounding the manhole, and penetrates natural soil(1) after the contaminated substances of the water are filtered.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1006915660000
Patent duration : 2025.02.25

Key words

infiltration, rainwater, underground

Category



Title of invention

CONSTRUCTION FOR COLLECTING AND STORING RAINWATER USING NON-WOVEN FABRIC LAYERS

Bibliographic data

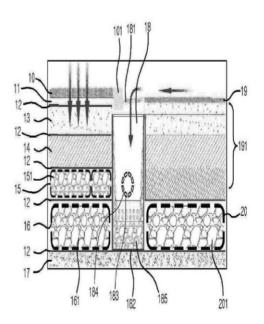
Application number : 1020070033169 Publication number : Date of filing : 2007.04.04 Publication date :

Applicant: LEE, JAI SIK Inventor: LEE, JAI SIK

Int. CI: E03F 1/00 Priority:

Summary

An underground structure for collecting and storing rainwater can be filtered by non-woven fabric layers effectively for recycling rainwater by forming water-permeable pavement on the surface of the earth, forming many base layers on the lower part of the water-permeable pavement and piling up non-woven fabric layers between the base layers. The underground structure for collecting and storing rainwater comprises base layers piled up on a ground layer(17), waterpermeable pavement(10) located on the uppermost base layer, nonwoven fabric layers(12) located between the uppermost base layer and the water-permeable pavement, the lowermost base layer and the ground layer, and a catch basin(18) connected with the base layers and located on the side of the base layers. The base layers include a first base layer(11) formed by piling up broken stones having the average particle size of 9~13mm to a thickness of 5~8cm, a second base layer(13) formed by piling up broken stones having the average particle size of 20~25mm to a thickness of 10~12cm, a third base layer(14) formed by piling up broken stones having the average particle size of 40~45mm to a thickness of 15~20cm, a fourth base layer(15) formed by piling up broken stones having the average particle size of 70~75mm to a thickness of 25~30cm, and a fifth base layer(16) formed by piling up broken stones having the average particle size of 30~35mm to a thickness of 70~75cm. The water-permeable pavement is formed by filling up broken stones having the average particle size of 2~5mm or 9~13mm between many pavement blocks in a ratio of 1 to 1, wherein the broken stones having the average particle size of 2~5mm are filled after the broken stones having the average particle size of 9~13mm are filled.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008556300000
Patent duration : 2027.04.04

Key words

rainwater collection, non-woven fabric layers

Category



Title of invention

METHOD FOR REUSING RAINWATER AND CHANGING ACID RAIN TO NEUTRAL RAIN FOR **COOLING WATER**

Bibliographic data

Application number: 102000079586 Date of filing: 2000.12.21 Applicant: RESEARCH INSTITUTE OF

INDUSTRIAL SCIENCE

TECHNOLOGY

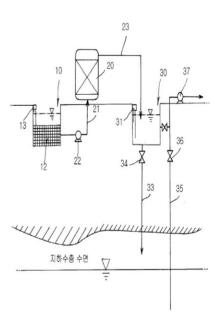
Publication number: 1020020050437 Publication date: 2002.06.27

Inventor: MUN, JEONG GI

Int. CI: C02F 9/04 Priority:

Summary

A method for reusing rainwater can be used for collecting and storing rainwater in the rainy season to reuse and changing acid rain to neutral rain for cooling water using a filtering device. The method for reusing rainwater comprises the steps of (i) the neutralization of rainwater in the first water-collecting tank(10) packed with slag(12), (ii) the removal of turbidity by passing neutralized rainwater through a filter medium of a filtration unit(20) by operating the first pump(22) which is controlled by the signal of the first water level-measuring instrument(13); (iii) the storage of filtrated water in the secondary water-collecting tank(30) and the drainage of filtrated water by opening the valve(34) of a drainage pipe(33) which is controlled by the secondary water level-measuring instrument(31). The slag has an average diameter of 10-20mm and is packed to a depth of 1m from the bottom of the first water-collection tank.



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Legal status

Final disposal of an application: Registration Patent registration number: 1006222690000 Patent duration: 2020.12.21

Key words

rainwater collection, rainy season, filltering

Category



Title of invention

APPARATUS FOR STORING RAINWATER FOR USE IN TOILET OR LANDSCAPE ARCHITECTURE

Bibliographic data

Application number : 1020030051729

Date of filing : 2003.07.26

Applicant: **ENVIRONMENTAL FACILITIES**

MANAGEMENT CO., LTD.

Publication number: 1020030068514

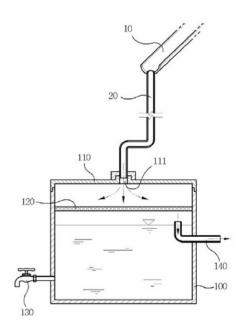
Publication date: 2003.08.21 Inventor: JUN, YANG GEUN

PARK, HYO WON

Int. CI: E03B 3/03 Priority:

Summary

An apparatus for storing rainwater can be used for recycling rainwater collected on the roof for use in a toilet or for gardening, etc. and reducing the shortage of water. The apparatus for storing rainwater comprises: a rainwater storage apparatus collecting rainwater flowing down from a roof, a cover(110) provided with a rainwater drain (111) and opening or closing the upper part of the rainwater storage, an anti-access screen (120) necessary to filter impurities and prevent insects from accessing the storage apparatus, a rainwater outflow valve(130) placed at the lower part of the storage apparatus to send the collected rainwater out for use, a rainwater drain pipe(140) provided with a pump installed at a certain depth of the rainwater to drain overflowing water.



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Legal status

Final disposal of an application: Rejection

Patent registration number:

Patent duration:

Key words

recycling, rainwater, gardening

Category



Title of invention

RAINWATER STORAGE ASSEMBLY FOR CLEANING ROADS

Bibliographic data

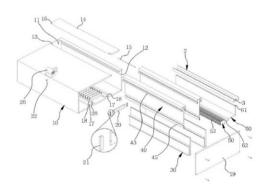
Application number : 1020060028600 Publication number : Date of filing : 2006.03.29 Publication date :

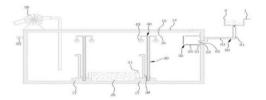
Applicant: SUNJINM ENGINEERING CO., LTD. Inventor: KIM, DONG JU

Int. Cl: **E03F 5/10** Priority:

Summary

A rainwater storage assembly can be used for purifying rainwater and using it for cleaning roads and preventing accidents caused by reverse flow of rainwater. The rainwater storage assembly comprises a water storage tank(10) formed with two partition sills(17), a fixing groove(18), an active carbon fixing groove(28), a connection plate fixing hole(12), an overflow pipe(22), and a rotating door(14) fixed at an opening unit(11), plural active carbon plates(20) fitted with rubber covers(21) on both ends of a square plate made of active carbon to be inserted into the active carbon fixing groove, a partition plate(30) installed in the water storage tank and integrally formed with a vertical partition unit and a connection path unit, a vertical moving plate(40) fitted into an insertion space unit of the partition plate, a filtering box(50) fixed on the inner wall of the water storage tank to locate the discharge port(62) of a connection plate(60) fixed with a net(53), the connection plate formed with an injection port(61) on one end, a discharge port(62) on the other end to be connected with the connection plate fixing hole, a discharge hole(3) on the bottom of a road lateral port(2) to be connected with the injection port, and a suction pump(26) with the end of a suction pipe inserted/fixed into the tertiary storage unit to communicate with the outer side of the water storage tank.





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Legal status

Final disposal of an application : Registration
Patent registration number : 1006258530000
Patent duration : 2026.03.29

Key words

assemble type storage, rainwater, road

Category



Title of invention

RAINWATER COLLECTION UNIT PREVENTING TRASH INFLUX

Bibliographic data

Application number : 1020070110009 Publication number : 1020090044095

Date of filing : 2007.10.31 Publication date : 2009.05.07

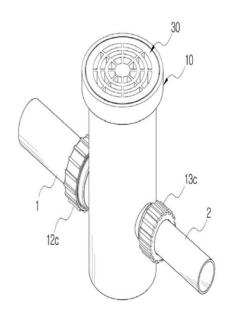
Applicant : DEA-DUK CHEMISTRY CO., LTD. Inventor : PARK, CHI HWA

SHIN, YEONG SEOK

Int. CI: E03F 5/14 Priority:

Summary

A rainwater collection unit for preventing trash influx can be used for filtering out foreign substances such as trash, earth or sand using a filtering net in order to prevent bad smells. The rainwater collection unit for filtering out trash comprises a cylindrical main body(10) for rainwater, a trash filtering net(20) on the cylindrical main body for flittering rainwater, and a lid grate(30) having a plurality of meshed ribs which are formed at the upper part of the cylindrical main body. An inlet coupling port is combined with an inlet for rainwater by a socket(12c, 13c). A heating coil is formed between the inlet line coupling port and a drain line coupling port which is contacted with the connection terminal. The trash filtering net consists of upper and lower protrusions, a tapered part having a drain hole for rainwater and a trash storage part.



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Legal status

Final disposal of an application : Publication

Patent registration number:

Patent duration:

Key words

rainwater collection, trash, fillering net

Category



Title of invention

FILTERING BASKET FOR RAINWATER DRAIN

Bibliographic data

Application number : 2020010018799 Publication number : Date of filing : 2001.06.22 Publication date :

Applicant: N4 TECH

YANG, HAN JONG

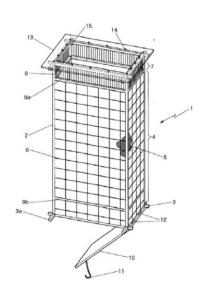
Publication date :
Inventor : YANG, HAN JONG

KIM, JAE CHEOL

Int. CI: E01C 11/22 Priority:

Summary

A filtering basket for a rainwater drain can be used for filtering pollutants such as rubbish, earth, sand, or oil to drain clean rainwater and separating the bottom part of the basket from the main body to remove the waste and pollutants for cleaning the rainwater drain. The filtering basket for a rainwater drain can be placed at the side of the road. The filtering basket comprises the basketshaped net frame(2) which is inserted in the rainwater storage tank, a bottom plate(10) which is separated from the basket frame to remove earth, sand, or rubbish which is collected in the basket, a cover which is formed at the top of the basket frame to prevent rainwater from flowing into both the basket frame and the storage tank, a filleting ember which is formed at the side of the frame and fillers pollutants which flows into the upper opening hole of the basket frame, and the overflow drain hole which is formed at the top of the filleting part and drains the rainwater and fillers pollutants with a screen(8).



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Legal status

Final disposal of an application : Registration
Patent registration number : 2002485090000
Patent duration : 2011.06.22

Key words

filtering basket, rainwater drain, filtering basket

Category



Title of invention

PORTABLE WATER PAIL HAVING UPPER AND LOWER GRIPS

Bibliographic data

Application number: 1019990005616 Publication number: 1020000056365

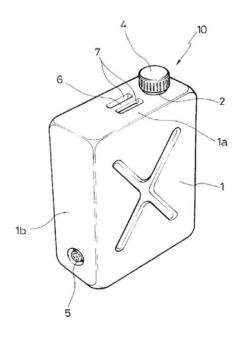
Date of filing: 1999.02.19 Publication date: 2000.09.15

Applicant: DAESUNG PLASTIC CO., LTD Inventor: KWON, GI YONG

Int. CI: A45F 3/16 Priority:

Summary

A portable water pail having upper and lower grips can be used for facilitating the carrying of the pail. The potable water pail has two handles(8) which are respectively on the top part(1a) and the bottom part(1d) of the portable water pail. The portable water pail comprises a water storage receptacle (3) which is formed in the main body, an injection hole covered by a cap(4), and protruding handles(6). One handle faces the other handle in a diagonal direction. The handles are formed in recessed parts(7). An air check valve(5) is formed in a recessed part. When pouring water into tanks or containers, both hands grip the handles and tilt the portable water pail to easily pour the water.



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Legal status

Final disposal of an application: Rejection

Patent registration number:

Patent duration:

Key words

portable water pail, grape

Category



Title of invention

WATER CONSERVATION METHOD AND APPARATUS THEREFOR TO COLLECT WATER USED IN FLUSHING TOILETS, WASHING, WATERING GARDENS

Bibliographic data

Application number: 1019970702531
Date of filing: 1997.04.17
Applicant: SMITH ROBBIE

Inventor: SMITH ROBBIE SMITH NANCY SMITH JOANNE

Publication number: 1019970707353

Publication date:

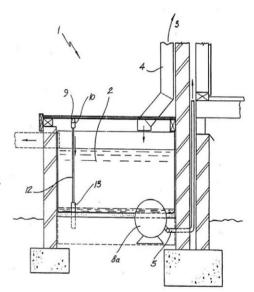
Int. Cl : E03B 3/03 Priority : 1994.10.17 AU 1994 8841

1995.06.02 AU 1995 3341

1997.12.01

Summary

With the increasing need for water conservation and more efficient use of available water resources it has now been recognised that house and building design should be modified to accommodate on or within a building, a large water storage capacity supplied by storm water runoff to reduce demand for town water and provide for retardation of stormwater runoff, thereby reducing overland runoff and hence the load of drainage infrastructure. A water storage and storm water collection apparatus is incorporated into or onto a building such that the apparatus is integral with the building and generally forms part of the structure. The apparatus comprises: at least one storage reservoir(2), a catchment provided on the building(in the direction of arrow 3) in communication with the storage reservoir so that storm water runoff from the catchment enters the reservoir via inlet pipe(4), at least one outlet (5) from the reservoir in communication with a supply line which terminates at a tap or water-consuming appliance, and means(9) on the reservoir which communicates with a supply line(10) allowing ingress of a supplementary water supply from an alternative source such as a main supply.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1004634130000
Patent duration : 2015.10.17

Key words

water conservation, building, drainage

Category



Title of invention

WATER RECEPTACLE WITH WATER-PURIFYING FUNCTION

Bibliographic data

Application number: 2020030031846 Publication number: Date of filing: Publication date: 2003.10.10

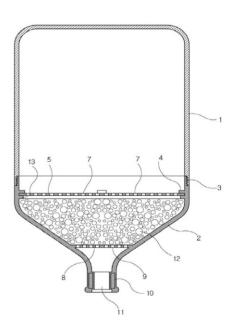
Applicant: KIM, YONG HUN Inventor: KIM, YONG HUN KIM, YONG JOON

KIM, YONG JOON

Int. CI: B65D 81/24 Priority:

Summary

A water receptable with a water-purifying function provides mineral water which is produced by putting elvan and zeolite in the water receptacle. The mineral water passes through a far infrared radiation material and a permanent magnet for sterilization and antibacterial treatment. The water receptacle comprises a water storage tank and a drain(11). The main body comprises a lower main body(2) having a drain and an upper main body(1) for storing water. A screw (3) couples the upper and lower main body. A lower fixing partition(8) with a plurality of holes(9) is set in the lower main body. A protrusion(13) and a plurality of coupling protrusions(4) are formed in the upper inner surface. A partition(5) with a groove for coupling protrusion is formed. A permanent magnet(10) is installed in the drain. The far infrared radiation material(12) of elvan and zeolite is filled in a space between the lower fixing partition and the upper partition.



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Legal status

Final disposal of an application: **Extinguishment** Patent registration number: 2003395870000 Patent duration: 2013.10.10

Key words

water receptable, water, magent

Category

3. Energy

- 1) Generators(17)
- 2) Heaters(21)



Title of invention

EQUIPMENT FOR PUMPING UNDERGROUND WATER USING SOLAR CELL SYSTEM

Bibliographic data

Application number : 2020060003005 Publication number : Date of filing : 2006.02.02 Publication date :

Applicant: KIM, SU TAE

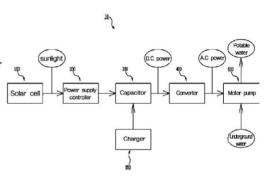
BOO, SEONG AN JUNG, GWANG GEUN HAN, JONG GEUN WOO, MYEONG HA Inventor : KIM, SU TAE BOO, SEONG AN

JUNG, GWANG GEUN HAN, JONG GEUN WOO, MYEONG HA

Int. CI: E03B 3/06 Priority:

Summary

The object of this invention is to pump underground water using a solar cell system. The underground water that is pumped can be used for drinking or farming. The present invention can be used in the back country or the upper reaches of the Amazon where electricity is not supplied, because it obtains the power from solar energy. Equipment for pumping underground water comprises a pole which is arranged in a vertical direction, a solar cell(100) which is arranged at the upper part of the pole, a power supply controller(200), a capacitor(300), a converter(400), and a motor pump(500). The power supply controller generates power by receiving solar energy from the solar cell. The capacitor stores the direct current generated from the power supply controller. The converter converts the direct current which is stored in the capacitor into alternating current. The motor pump is operated by the alternating current which is converted by the converter in order to pump underground water.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2004159420000
Patent duration : 2016.02.02

Key words

solar cell, underground water, motor pump, back country, solar energy

Category



Title of invention

PUMP OPERATED BY WIND POWER AND SUNLIGHT CAPABLE OF REDUCING ENERGY CONSUMPTION AND OBTAINING ENVIRONMENTALLY FRIENDLY ENERGY

Bibliographic data

Application number : 1020070024545 Publication number : Date of filing : 2007.03.13 Publication date :

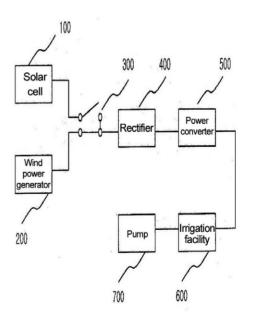
Applicant: IN-TECH FACTORY AUTOMATION Inventor: LEE, JOON KI

CO., LTD.

Int. CI: F04D 13/02 Priority:

Summary

This invention relates to a pump operated by wind power and sunlight. Even though electricity is not supplied, the pump can supply water through wind power and sunlight. Therefore, energy consumption and operating expenses can be decreased. The pump operated by wind power and sunlight includes a solar cell(100), a wind power generator(200), an interlock switch(300), a rectifier(400), a power converter(500), and a pump(600). The solar cell converts solar energy to DC electric power. The wind power generator converts wind power to AC electric power. The interlock switch receives DC electric power and AC electric power from the wind generator and the solar cell and selectively outputs them without interference. The rectifier converts the AC electric power received from the interlock switch to DC electric power. The power converter converts the DC electric power supplied from the rectifier into the power required for the pump. The pump is operated by the power supplied from the power converter.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1007767080000
Patent duration : 2027.03.13

Key words

solar cell, wind power, sunlight, underground water, pump, solar energy, energy consumption

Category



Title of invention

HAND-OPERATED GENERATOR CAPABLE OF GENERATING POWER THROUGH FRICTIONAL FORCE

Bibliographic data

Application number : 2019970026158 Publication number : 2019990012976

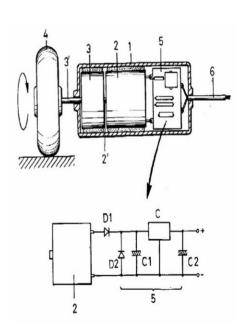
Date of filing : 1997.09.19 Publication date : 1999.04.15

Applicant : PARK, YONG DEOK Inventor : PARK, YONG DEOK

Int. CI: H02K 15/00 Priority:

Summary

The present invention relates to a generator that can generate power with simple hand movement. The generator is small so it can be used anywhere. The generator comprises a case(1), a gear box(3), and a regulator(5). The case is formed into a thickness which is suitable for being grabbed by a hand. The gear box which drives a miniature generator(2) and a generator is installed inside the case. The regulator which controls and outputs a constant voltage is integrated with the gear box and is arranged inside the case. A frictional wheel(4) is mounted to be driven in a direction crossing the axis of rotation(3') of the gear box. So, a capacitor is charged by the rotation of the frictional wheel.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2001677400000
Patent duration : 2012.09.19

Key words

frictional wheel, rotation, generator, hand-operated

Category



Title of invention

WIND GENERATOR USING TOY PINWHEEL STRUCTURE FOR INCREASING ELECTRICITY GENERATION EFFICIENCY

Bibliographic data

Application number : 1020070057443 Publication number : Date of filing : 2007.06.12 Publication date :

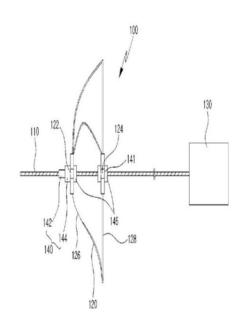
Applicant : LEE, HEE YOUNG Inventor : LEE, HEE YOUNG

LEE, JUN SEOK YEONG, HYUN JIN JIN, KWANG BUM

Int. Cl: **F03D 1/06, F03D 1/00** Priority:

Summary

A wind generator is designed by adapting a toy pinwheel structure in order to increase electricity generation efficiency. The wind generator includes a pivot shaft(110), a pinwheel-type rotary part(120), and a power-generating part(130). The pivot shaft is aligned parallel to the ground surface. The pinwheel-type rotary part is mounted to the pivot shaft and includes a rear rotary hole(124) in the center of a polygonal or circular plate. Cut parts are formed in a radial manner to extend from positions spaced around the center of the rear rotary hole by a predetermined distance, to the circumference of the plate, thus providing unit blades. After one end of each unit blade is bent towards the center of the plate, the unit blades are coupled to each other, so that a pinwheel structure having a front rotary hole(122) is obtained. The front and rear rotary holes are fitted over the pivot shaft so they can pivot. Here, the interval between the front and rear rotary holes is adjusted according to the direction of the wind. The power-generating part functions to generate current induced by torque of the pivot shaft.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008483850000
Patent duration : 2027.06.12

Key words

wind generator, toy pinwheel, electricity

Category



Title of invention

MOBILE GENERATOR FOR CHARGER

Bibliographic data

Application number : 1020020044781 Publication number : 1020020070210

Date of filing : 2002.07.29 Publication date : 2002.09.05

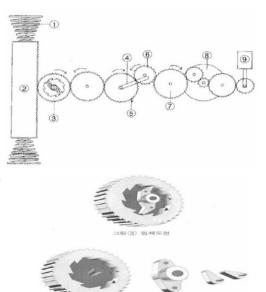
Applicant : JOO, EUN MAN

Inventor : JOO, EUN MAN

Int. CI: H02K 57/00 Priority:

Summary

The present invention relates to a generator which is capable of being used as a mobile electricity generator to charge batteries of portable appliances including a transceiver, remote control, camera, etc. The present invention causes the generator to generate electricity by converting kinetic energy produced by a moving object. For example, when a person runs for a minute with this generator held in a hand, the waiting time of a mobile phone increases by 20 minutes. According to the present invention, when a metal bar(2) moves, the spring(1) connected to the metal bar shakes. A gear(3) which rotates only one direction delivers the power to the gears and finally the power transmitted from the gears operates the generator(9), thereby electricity is generated.



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Legal status

Final disposal of an application : Rejection

Patent registration number:

Patent duration:

Key words

mobile, generator, electricity, charger

Category



Title of invention

METHANE GAS GENERATOR USING FOOD WASTE

Bibliographic data

Application number: 1020080125566 Publication number: 1020080113339
Date of filing: 2008.12.09 Publication date: 2008.12.30
Applicant: KIM, JUNG HO Inventor: KIM, JUNG HO

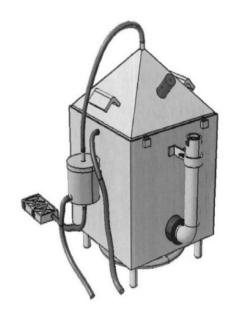
Int. CI: C02F 11/04, B09B 3/00, C10L 3/06

B65D 6/40

Priority:

Summary

The present invention relates to a biogas generator which is capable of generating methane gas using food waste. The biogas generator produces methane gas by the decomposition of food waste in a fermentation tank, and the produced methane gas is stored in the gas tank. Once the methane gas reaches a certain amount in the gas tank, the methane gas is burnt to use for cooking and other purposes. The biogas generator comprises a fermentation tank, a gas tank, a safety water tank, and a burner. The fermentation tank is filled with water mixed with methane bacteria, the oxygen in the gas tank is eliminated by being sunk in the water, and food waste is supplied to the biogas generator through a waste supply pipe. It is very convenient to get rid of food waste using the biogas generator. The present invention is also able to use plant and animal waste, and other organic waste as sources of biogas energy for the biogas generator. The biogas generator makes good use of organic wastes to produce methane gas and protects the environment. The biogas generator does not use any other energy, but produces methane gas by decomposition of organic waste.



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Legal status

Final disposal of an application : Publication

Patent registration number:

Patent duration:

Key words

methane, gas, generator, food waste

Category



Title of invention

AN APPARATUS FOR PRODUCING METHANE GAS AND LIQUID FERTILIZER BY DECOMPOSING ANIMAL WASTE

Bibliographic data

Application number : 202000029659 Publication number : Date of filing : 2000.10.13 Publication date :

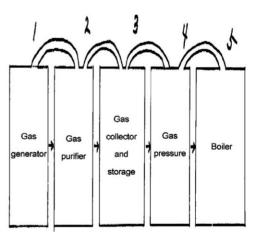
Applicant: KIM, MI JIN Inventor: KIM, MI JIN

Int. CI: C02F 11/04 Priority:

Summary

The present invention relates to an apparatus for producing methane gas and liquid fertilizer by decomposing animal waste. The apparatus for producing methane gas and liquid fertilizer is able to prevent water, air and soil contamination by animal waste, and make good use of the animal waste to save fossil energy. The apparatus for producing methane gas and liquid fertilizer comprises a gas generator(1), a gas purifier(2), a gas collector and storage unit(3), a gas pressure device(4), and a boiler(5). Animal waste is supplied to the gas generator and a motor is used to mix the animal waste to increase the generation of methane gas. Sludge is discharged through the sludge discharge pipe and the obtained sludge is used as fertilizer for farming. The motor to mix the animal waste is connected by a stainless wire, thereby it is possible to fix the motor by removing it from the tank, increasing efficiency for the maintenance of the motor. Finally, the present invention can be efficiently used for cooking and heating, and provides valuable organic fertilizer.





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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002189650000
Patent duration : 2010.10.13

Key words

methane, gas, fertilizer, waste

Category



Title of invention

AUTOMATIC ELECTRICITY-PRODUCING SHOE

Bibliographic data

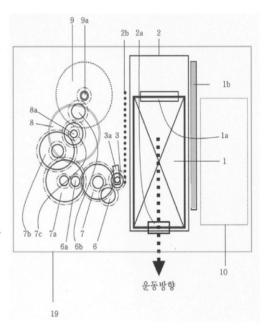
Application number : 1020070022259 Publication number : Date of filling : 2007.03.07 Publication date :

Applicant: YOU, YOUNG HO Inventor: YOU, YOUNG HO

Int. Cl: A43B 7/04, A43B 7/00 Priority:

Summary

The present invention relates to an electricity-producing shoe that utilizes the stepping motion of walking to produce electric power. The electricity-producing shoe is capable of using the produced electricity to heat a heating element to warm the feet, to operate a motor or pump air to cool the feet, and to charge batteries of a mobile phone or other small electric appliances. The electricity-producing shoe comprises a shoe body including an electricity-producing module and an electricity generator mounted therein. The electricityproducing module includes a variable block(1) which moves back and forth, a pulling steel(2) which is surrounding the variable block and moves in the direction of the arrow, a gear(3) turned according to the gear guide(3a) when the pulling steel 2 moves. The gear (3) stops moving forward when contacting the contact gear(6). The gear (3) then executes a rotary motion according to a flat gear(2b) and the contact gear (6) rotates. The present invention produces electricity by converting rectilinear movement to rotary movement through horizontal movement.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008035190000
Patent duration : 2027.03.07

Key words

automatic, electricity, produce, shoe

Category



Title of invention

FLASHLIGHT WITH SELF ELECTRICITY-GENERATING FUNCTIONS

Bibliographic data

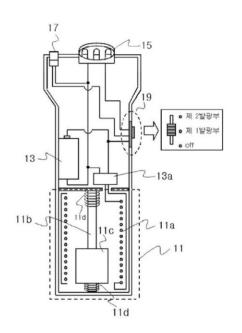
Application number : 2020020031038 Publication number : Date of filing : 2002.10.17 Publication date :

Applicant: SON, JAE SEOL Inventor: SON, JAE SEOL

Int. CI: F21L 13/08 Priority:

Summary

The present invention relates to a flashlight which is capable of self-generating electricity to produce light. The flashlight includes an electricity-generating unit(11), a charging unit(13), a primary lighting unit(15), a secondary lighting unit(17), and a switch unit(19). The electricity generating unit comprises a permanent magnet(11c), a metal coil(11a), a fixing axis(11b), and an elastic connector(11d). When the flashlight is shaken, the permanent magnet passes through the metal coil which induces voltage in the coil, generating electricity. The charging unit includes a capacitor and a rectifier(13a). The induced voltage in the metal coil is rectified from alternating voltage to direct voltage and the direct voltage is assigned to charge the capacitor. The primary lighting unit is composed of a plurality of LEDs(Light Emitting Diodes) which are arranged in a round shape. The second lighting unit is comprised of a laser diode. The switch unit switches the electricity to the first lighting unit or the second lighting unit selectively, and forms a slide to easily turn on and off the light.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2003024950000
Patent duration : 2012.10.17

Key words

flashlight, electricity, generating

Category



Title of invention

SMALL SIZE WIND FORCE GENERATOR FOR MINIMIZING THE LOSS OF ENERGY

Bibliographic data

Application number : 1020040068361 Publication number : 1020060019733

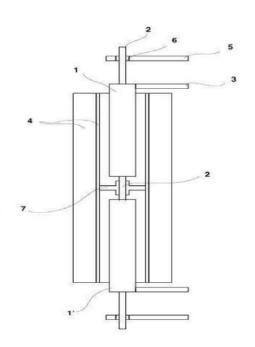
Date of filing : 2004.08.30 Publication date : 2006.03.06

Applicant : OH, HO SUP Inventor : OH, HO SUP

Int. Cl: F03D 11/00, F03D 9/00 Priority:

Summary

A small size wind force generator increases the generation efficiency by minimizing the mechanical structure to convert wind force to rotating force and transfer the rotating force to a rotator of the generator. Stators(1,1) of a generator shares one rotator(2) of a generator. The rotator is exposed outside through the both ends of the stators and between the stators. The rotator has a magnet only in the area inserted in the stators. A combining member(7) is combined with the exposed portion of the rotator. A through hole is formed in the middle of the combining member. The area near the through hole is stepped to be higher than the peripheral portion. A combining slot is formed in the side of the stepped portion to screw with the rotator. A combining slot is formed in the outer circumference of the combining member to screw with a propeller(4). Therefore, the small size wind force generator can be directly transfer the rotating force of a propeller to a rotator of the generator to minimize the loss of energy.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1006103460000
Patent duration : 2024.08.30

Key words

wind force, stator, ratator

Category



Title of invention

PORTABLE GENERATOR USED FOR GENERATING LIGHT FOR FLASHLIGHTS AND FIRE FOR CIGARETTES

Bibliographic data

Application number: 1019980050149 Publication number: 1019990014563

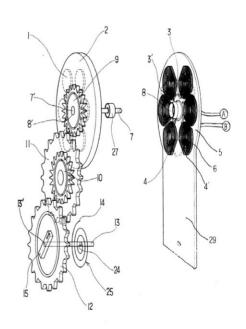
Date of filing: 1998.11.23 Publication date: 1999.02.25

Applicant: BAEG SONG Inventor: LEE, JEONG HUN

Int. CI: H02K 57/00 Priority:

Summary

A portable generator charges electronic goods anytime and anywhere, generates electricity on the spot and makes fire in a convenient manner. The circular magnetic section(1) has north and south poles. A magnet array plate(2) arranges a plurality of magnetic sections at predetermined intervals on a circumference such that magnets adjacent to each other have opposite poles. A coil bundle array plate(5) arranges coil bundles(6) at predetermined intervals on a circumference such that inside terminals(3, 3) are connected to outside terminals. The magnet array plate(2) is rotated about an axial hole(8) of the coil bundle array plate(5) by an axial rod(7) fixed to the axial hole(8). The primary small gear(9) is fixed to an axial end(7) on the rear center of the magnet array plate(2). The primary large gear(11) having a secondary small gear(10) is engaged with the primary small gear(9). The secondary large gear(12) is engaged with the secondary small gear(10). Therefore, the portable generator can be used for generating lighting for a flashlight and fire for a cigarette.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1002932960000
Patent duration : 2018.11.23

Key words

portable generator, magnet, coil

Category



Title of invention

PORTABLE GENERATOR FOR SMALL ELECTRIC APPLIANCES SUCH AS CELLULAR PHONES, CASSETTE PLAYERS

Bibliographic data

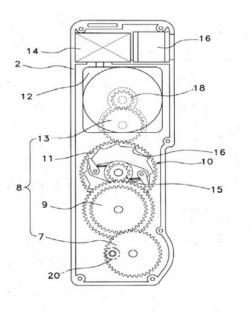
Application number : 202000020513 Publication number : Date of filing : 2000.07.18 Publication date :

Applicant: KIM, CHANG JOONG Inventor: KIM, CHANG JOONG

Int. CI: H02K 51/00 Priority:

Summary

A portable generator can be used anytime and anywhere for charging small electric appliances such as cellular phones or cassette players when they are drained. The portable generator comprises a body(2), a gear group(8) formed in the body, a handle(20) for power transmission which protrudes outside of the body and is formed at one side of the gear group, an electric generator(12) coupled with the gear group to generate electricity by rotation, a converter(14) which changes alternating current to direct current, and a connection socket(16) which connects the converter to small electric appliances(30) such as cellular phones or cassette players. The gear group includes a reverse rotation preventing unit(10) for preventing backlash of the electric generator. The body has a guide rail for transferring a rack gear. A lever connected to a hinge is formed in one side of the body. The rack protrudes in the lower part of the lever. The hinge of the lever and the body has a spring for restoring the lever which is separate from the body. Therefore, the portable generator can easily provide electricity to small appliances anytime.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002132520000
Patent duration : 2010.07.18

Key words

portable generator, eclectic appliances, cellular phone, cassettes

Category



Title of invention

GENERATING HAND-HELD LIGHT

Bibliographic data

Application number : 1020000032473 Publication number : 1020010098332

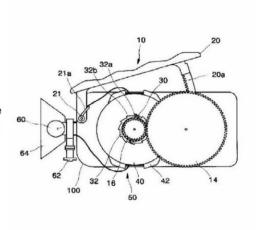
Date of filing : 2000.06.13 Publication date : 2001.11.08

Applicant : PARK, MOON JIN Inventor : PARK, MOON JIN

Int. CI: F21L 13/08 Priority:

Summary

A generating hand-held light improves user convenience and prevents environmental contamination by eliminating the necessity of using batteries. The generating handheld light comprises a driving unit, an electric generator, and a bulb. The driving unit has a driving handle(20), a fly wheel connected with the driving handle, and a gear for transmitting the force of the driving handle. The generating hand-held light includes the driving handle having a rack gear(20a) moving in a linear manner wherein the driving handle can be moved around a hinge (21), a fly wheel(40) interlocked with the rack gear which moves in a single direction in a linear manner while the driving handle moves, a generator(50) having a rotor connected to the fly wheel which generates current by driving the rotor, a bulb(60) connected to the generator through an electric circuit, and a relay gear installed between the rack gear and the fly wheel which converts the linear movement of the rack gear into rotational movement and transmits the converted rotational movement to the fly wheel. The relay gear includes a small gear engaged with the rack gear, and a large gear(14) coupled coaxially with the small gear which converts small circular movement into large circular movement.



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Legal status

Final disposal of an application: Abandonment

Patent registration number:

Patent duration:

Key words

light, electric generator, bulb

Category



Title of invention

EXERCISE BICYCLE WITH ACCELERATION-TYPE AC GENERATOR TO GENERATE ELECTRICITY

Bibliographic data

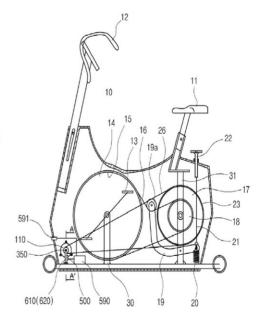
Application number : 1020050072841 Publication number : Date of filing : 2005.08.09 Publication date :

Applicant: PARK, JONG HOO Inventor: PARK, JONG HOO

Int. CI: A63B 22/06 Priority:

Summary

An exercisebicycle having an acceleration-type AC(Alternating Current) generator improves health and generates electricity. The exercise bicycle having an acceleration-type AC generator can stably generate three-phase AC electricity by rotating a multi-pole magnet of an inner rotor at high speed in a ring-shaped coil block. The exercise bicycle having an accelerationtype AC generator is composed of a rotary paddle(13) configured to rotate a center disc(14) in a housing(10), a flywheel(17) combined with a first belt(16) to receive rotating force from the center disc, and a generator pulley(110) for transmitting the rotating force sent from the flywheel to the acceleration-type AC generator through a second belt(26). Both ends of an inner shaft(350) are attached to mounting and fixing bars(610, 620) on the bottom side of the housing of the AC generator. In addition, the AC generator is continuously operated by transmitting momentum generated by human power to the AC generator through the flywheel and storing the momentum in the flywheel.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1006632400000
Patent duration : 2025.08.09

Key words

health bicycle, ac

Category



Title of invention

ELECTRICITY-GENERATING REFRIGERATOR USING SOLAR ENERGY

Bibliographic data

Application number: 1020020024861 Publication number: 1020030086735

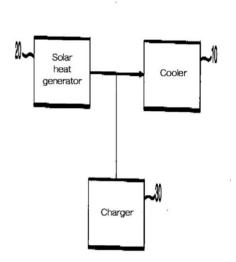
Date of filing: 2002.05.06 Publication date: 2003.11.12

Applicant: LG ELECTRONICS INC. Inventor: KIM, JIN CHEOL

Int. CI: **F25B 27/00** Priority:

Summary

A refrigerator using solar energy can be run without using a home power source by generating electricity with a solar generator, and by charging a changing battery with surplus electricity to drive the refrigerator. The refrigerator comprises a solar generator(20),a refrigerator main body having an inside storage space formed therein to freeze or refrigerate food, a cooling system(10) mounted thereto and supplied with electricity by the solar generator to generate chilled air necessary for cooling the storage space, and a charger(30) charged with electricity generated by the solar generator and used as a power source for operation of the refrigerator. The cooling system includes a compressor compressing low-temperature and low-pressure gaseous refrigerant into high-temperature and high-pressure gaseous refrigerant, a condenser converting the hightemperature and high-pressure gaseous refrigerant into high-temperature and high-pressure liquid refrigerant, an expansion valve converting the high-temperature and high-pressure liquid refrigerant into low-temperature and low-pressure liquid refrigerant, and an evaporator evaporating the low-temperature and low-pressure liquid refrigerant to generate chilled air necessary for cooling the inside of the refrigerator.



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Legal status

Final disposal of an application: Abandonment

Patent registration number:

Patent duration:

Key words

refrigerator, solar energy, electricity

Category



Title of invention

SIX-WINGED WIND POWER GENERATOR FOR HOME USE

Bibliographic data

Application number : 1020020054364 Publication number : 1020020076215

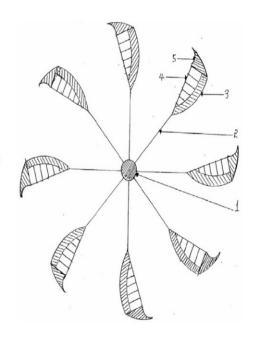
Date of filing : 2002.09.09 Publication date : 2002.10.09

Applicant : HUR, SUK KU Inventor : HUR, SUK KU

Int. CI: F03D 1/02 Priority:

Summary

A wind-power generator for home use can remove the dangers and environmental pollution caused by power generation of fossil fuels and atomic energy, and can be used for generating electricity from a low-price wind-power generator installed in a home. The six wings of the wind power generator can use wind to generate electricity and have a ladle shape like a weather vane. The speed reducer and speed increaser are installed between a rotating shaft(5) of a wind power generator impeller and a rotating shaft of the power generator. The power generator is installed in a proper position. The power generator is connected with a storage cell. An attachable zinc oxide arrester is attached to the power generator to protect the power generator from lightning.



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Legal status

Final disposal of an application: Rejection

Patent registration number:

Patent duration:

Key words

wind power generator, fossil fue, atomic energy

Category



Title of invention

PEDAL-POWERED INDEPENDENT POWER-SUPPLY DEVICE

Bibliographic data

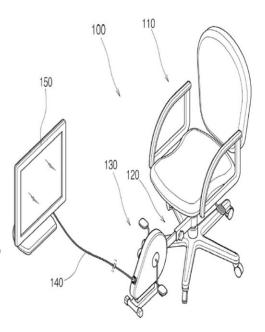
Application number : 2020050020819 Publication number : Date of filing : 2005.07.18 Publication date :

Applicant: KIM, KWON IK Inventor: KIM, KWON IK

Int. Cl: G06F 1/26 Priority:

Summary

An independent power-supply device supplies electricity generated by a pedal to a monitor thus saving power of the monitor. Also, the independent power-supply device for a monitor can make a user exercise to prevent obesity. The independent power-supply device comprises a chair(110) for a user, a fixing member(120) which is coupled with a rotation shaft to control its own length, a power-generating member (130) for generating power by rotation of the fixing member caused by user's feet, a power-supply line(140) for supplying power from the power-generating member, a monitor connected to the power-supply line. The chair consists of a support bar coupled with a rotation shaft, a power-generating member, a length-control bar, and a control lever for the support bar. The pedal is rotated by a user's feet and rotates a driving plate connected to the rotation plate, so the rotation of the driving plate drives an electric generator in the circumference thereof to generate power. The power is charged in a battery. The charged power is supplied to the monitor via the power-supply line.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2003981030000
Patent duration : 2015.07.18

Key words

power supply, pedal, monitor

Category



Title of invention

HEATING DEVICE UTILIZING FRICTION HEAT, CAPABLE OF BOILING WATER WITHOUT ANY ELECTRICITY OR STOVE

Bibliographic data

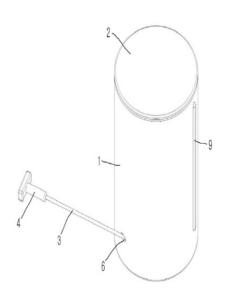
Application number : 1020070059213 Publication number : Date of filling : 2007.06.18 Publication date :

Applicant: OH, JAE WOOK Inventor: OH, JAE WOOK

Int. Cl: F24J 3/00 Priority:

Summary

This invention is designed to heat food or warm up body temperature by maximizing heat generated by friction of materials using a reusable heating element. The heating device utilizing friction heat includes a cylindrical container(1), a cap(2), a groove, a thermometer, and a protective cover(9) for protecting the thermometer. A friction plate is formed on the bottom side of the cylindrical container. A wire(3) is wound around the frictional materials, and one end of the wire is connected with a handle(4) by passing through a penetration hole(6). The bottom part of the cylindrical container contains various parts to generate heat by friction. The cap blocks dust from entering into the container and prevents heat dissipation from the container. The groove is formed for a thermometer to check the heat generated by friction.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008573950000
Patent duration : 2027.06.18

Key words

friction heat, food, body temperature, friction plate, boiling

Category



Title of invention

SOLAR COOKING SYSTEM CAPABLE OF HEATING OBJECTS WITHOUT CONSUMING ELECTRICITY OR FOSSIL FUEL

Bibliographic data

Application number : 2020020010548 Publication number : Date of filing : 2002.04.09 Publication date :

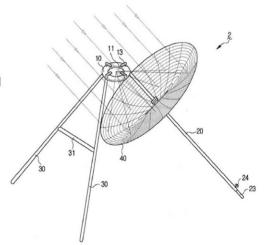
Applicant : MORE-IN ENERGY INCORPORATION Inventor : KIM, SEOK JONG

LEE, DONG GYU

Int. CI: F24J 2/02 Priority:

Summary

The present invention relates to a solar cooking system for heating objects. A solar cooking system is often desirable to persons who cannot utilize cooking systems powered by electricity, fossil fuels, or other energy sources. By harnessing the sun's rays, solar cooking systems allow for an inexpensive and nonpolluting means for cooking and heating substances such as food or liquids. The solar cooking system comprises a cooking part(10), the first supporting bars(30), the second supporting bar(20), and a reflecting dish(40). A hole(11) is formed at the center of the cooking part. The first supporting bars are fastened by a connecting bar(31). The second supporting bar is connected at the underside of the cooking part and has a length-adjust unit. The reflecting dish is foldable and is detachable to the outer circumference of the first supporting bars. The focus of sunlight which is reflected by the reflecting dish is placed on the hole of the cooking part.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002832660000
Patent duration : 2012.04.09

Key words

solar cooking systems, sun light, reflecting plate, food

Category



Title of invention

FRICTIONAL HEATING VACUUM BOTTLE FOR IMPROVED CONVENIENCE OF USE BY FORMING A HEATING ELEMENT BUNDLE FOR HEATING WATER

Bibliographic data

Application number : 1020060105354 Publication number : 1020080037986

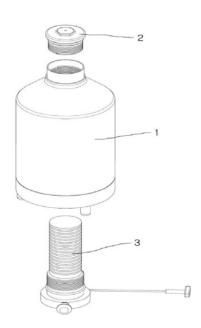
Date of filing : 2006.10.27 Publication date : 2008.05.02

Applicant : OH, JAE WOOK Inventor : OH, JAE WOOK

Int. Cl: A47J 41/00, A47J 41/02 Priority:

Summary

The present invention relates to a vacuum bottle which is capable of boiling water or liquid inside a container by utilizing frictional heating. The frictional heating vacuum bottle comprises a vacuum bottle(1), a cap bundle(2), and a heating element bundle(3) assembled in the lower part of the vacuum bottle to generate heat. The vacuum bottle consists of an inner container, an outer container. and a bottom container. The inner container has a cap bundle-assembly hole and a cap bundle-assembly screw for assembling the cap bundle in the upper part, and a heating element bundle-assembly hole and a heating element bundle-assembly screw in the lower part, to minimize the transmission of heat by creating a vacuum in the inner space of a dual container formed by the inner and outer containers. The bottom container has three supporting holes to stand the heating element bundle in the lower part stably. The heating element bundle includes a heating element with a recessed part to maximize the efficiency of heat transmission, a screw for fastening the vacuum bottle, a lower O-ring for shielding water, and a thermometer-assembly hole for inserting a bourdon thermometer.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008426790000
Patent duration : 2026.10.27

Key words

frictional heating, vacuum-bottle, heating element, water, boiling

Category



Title of invention

SOLAR HEATING APPARATUS FOR HEATING AN OBJECT USING A LARGE LIQUID LENS

Bibliographic data

Application number : 1020030090505 Publication number : 1020050058577

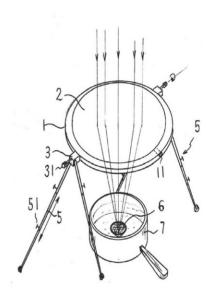
Date of filing : 2003.12.12 Publication date : 2005.06.17

Applicant : SHIN, SUK KYUN Inventor : SHIN, SUK KYUN

Int. CI: F24J 2/08 Priority:

Summary

This invention relates to a solar heating apparatus which is able to heat objects using a large liquid lens. The solar heating apparatus heats food at home or outdoors and uses heat industrially with sunlight as infinite energy, so it can reduce fuel consumption and prevent environmental pollution. The solar heating apparatus comprises a liquid lens(2) supported by an outer circular frame(1), and an arc-rotating or height-adjusting unit formed in the outer circular frame to adjust the height or to rotate the liquid lens according to the angle of sunlight. A conical condensing plate(6) is formed in the center of a solar heat pot(7) and placed on the focus of the liquid lens to adjust the initial focus. After injecting water through a water-injection hole(11) formed in the outer circular frame, the liquid lens is closed by a sealing member, and a rotating leg support part(3) is connected to a rotation-adjusting knob(31). Four-point support legs(5) are installed in the rotating leg support part and folded, and the height of the four-point support leg is adjusted by a leg height-adjusting knob(51). The inside of the condensing plate is black, and the condensing plate is made of a metal sheet to heat water in the solar heat pot.



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Legal status

Final disposal of an application: Rejection

Patent registration number:

Patent duration:

Key words

solar heating, liquid lens, conical condensing plate, sunlight

Category



Title of invention

SOLAR HEAT APPARATUS CAPABLE OF HEATING WATER WHICH IS USED FOR STEAM HEATING OR DRINKING

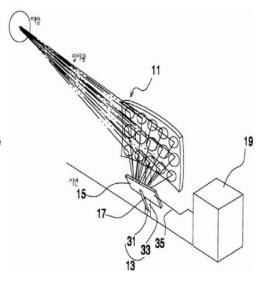
Bibliographic data

Application number: 2019980007815 Publication number: 2019990041074
Date of filing: 1998.05.13 Publication date: 1999.12.15
Applicant: KIM, CHANG DONG Inventor: KIM, CHANG DONG

Int. CI: F24J 2/00 Priority:

Summary

The present invention relates to a solar heat apparatus which is able to heat water above the boiling point without using a secondary heating device. So, water heated by the solar heat apparatus can be used for steam heating or drinking. The apparatus using solar heat comprises a reflecting-condensing member(11), a rotating member(13), a heating member(15), and a water tank(19). The reflecting-condensing member is composed of a plurality of reflectors which are concave mirrors, and a fixing plate for adjusing the reflectors. The reflecting-condensing member reflects and condenses the sunlight. The rotating member is rotably combined with the reflecting-condensing member, and rotates the reflecting-condensing member according to the movement of the sun. The heating member is fixed to the rotating member, and converts the light condensed by the reflecting-condensing member into heat energy, and heats water in the first pipe. The water tank stores the heated water from the first pipe through the second pipe(35).



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002390610000
Patent duration : 2013.05.13

Key words

solar heat, steam heating, drinking water, heat energy, reflecting, condensing

Category



Title of invention

HEAT-RECOVERY SYSTEM USING ORGANIC-FERMENTATION FACILITY CAPABLE OF USING HEAT GENERATED FROM FERMENTATION OF FECES IN LIVESTOCK WASTE IN HEATING APPLICATIONS

Inventor:

Bibliographic data

Application number : 1020050058039 Publication number : 2005.06.30 Publication date :

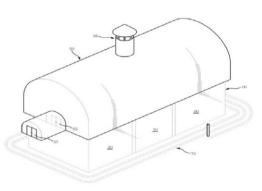
Applicant: BMBMECCA CO.

PARK, YANG GYUN OH, JUN SANG YANG, YOUNG SUB

Int. CI: C02F 3/28 Priority:

Summary

The present invention relates to a heat-recovery system which can recover the heat from the fermentation process of feces and can generate electricity using the recovered heat. A fermentation facility comprises a tank in which livestock waste is stored, a roof for covering the upper part of the tank, and an air diffuser for supplying air to the livestock waste. A livestock waste-treatment tank(10) is installed underground and comprises a livestock wastefermentation part(20) for storing the livestock waste, a urine-fermentation part(30) for storing and fermenting urine of the livestock waste stored in the livestock wastefermentation part, and a feces-fermentation part(40) for storing and fermenting livestock waste stored in the livestock waste-fermentation part. A house(50) shuts off the livestock waste treatment tank from the outside. A feces heat-absorbing part is installed in the feces-fermentation part of the livestock waste-treatment tank to absorb heat generated when feces are fermented. A terrestrial heatabsorbing part(70) installed around the livestock wastetreatment tank to supply the house(50) with absorbed terrestrial heat by absorbing terrestrial heat, wherein urine fermented in the livestock waste-treatment tank is recycled as active water.

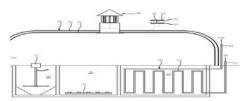


BMBMECCA CO.

OH, JUN SANG

PARK, YANG GYUN

YANG, YOUNG SUB



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Legal status

Final disposal of an application : Registration
Patent registration number : 1006548870000
Patent duration : 2025.06.30

Key words

heat recovery, fermentation, livestock waste, heating, generator

Category



Title of invention

LIGHTING DEVICE WHICH IS OPERATED BY MANUAL POWER USING A HEATING COIL

Bibliographic data

Application number : 2019990010350 Publication number : 2020010000463

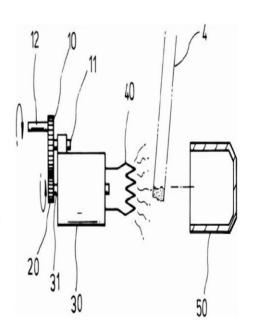
Date of filing : 1999.06.11 Publication date : 2001.01.05

Applicant : LEE, JONG WON Inventor : LEE, JONG WON

Int. CI: F23Q 3/00 Priority:

Summary

The present invention relates to a lighting device which can light objects using manual power. It is possible to use this invention perpetually because it does not use electricity or fossil fuels. The light device operated by manual power comprises a miniature generator(30), a main gear(10), a sub gear(20), a lighting coil(40), and a cover(50). The miniature generator generates power using the rotary power of the sub gear. The main gear is arranged at the exterior of miniature generator and includes a rotation lever formed at one side of the main gear. The sub gear is in gear with the main gear and receives the rotary power of the main gear. The lighting coil is heated by the power of the miniature generator in order to provide light. The cover is placed on the exterior of the lighting coil in order to protect the lighting coil.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002694120000
Patent duration : 2014.06.11

Key words

lighting, coil, miniature generator, human power

Category



Title of invention

CONDENSING SOLAR COOKER FOR REDUCING ENVIRONMENTAL CONTAMINATION BY REDUCING USE OF FOSSIL FUEL

Bibliographic data

Application number : 1020070097126 Publication number : 1020070108486

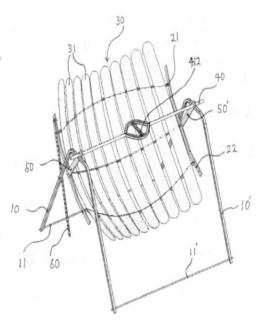
Date of filing : 2007.09.19 Publication date : 2007.11.12

Applicant : KIM, CHEOL SOO Inventor : KIM, CHEOL SOO

Int. Cl: A47J 27/00, F24J 2/02, A47J 37/00 Priority:

Summary

The present invention relates to a condensing solar cooker which is capable of heating objects in a cooking vessel by condensing sunlight. The amount of energy produced depends on the size and number of reflector sheets used to reflect the sunlight. The condensing solar cooker is comprised of a pair of fixed frames(10, 10'), a reflector sheet(30), a frame for supporting the reflector sheet, a cooking part, and an angle-adjusting bar(60). The fixing frames are placed at the left and the right sides of the condensing solar cooker to support the whole device and have lower units fixed by reinforcing bars(11, 11'). The frame for supporting the reflector sheet is composed of more than two horizontal frames(21) installed at predetermined intervals and a pair of vertical frames(22) connected with both ends of the horizontal frames. The horizontal frames are curved as closed to parabolic form as possible. The reflector sheet includes a plurality of unit reflector sheets(31) which are thin and long, and are elongated on the recessed front part of the horizontal frames. The cooking part is located corresponding to the focusing portion of the reflector sheet. The angle-adjusting bar includes a plurality of angle-adjusting holes and is coupled with a hinge unit in order to adjust the angle of the frame for supporting the reflector sheet.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008794330000
Patent duration : 2027.09.19

Key words

solar energy, cooker, condensing, reflector

Category



Title of invention

PORTABLE SOLAR COOKER

Bibliographic data

Application number : 2020010024843 Publication number : Date of filing : 2001.08.16 Publication date :

Applicant: KOREA INSTITUTE OF ENERGY

RESEARCH

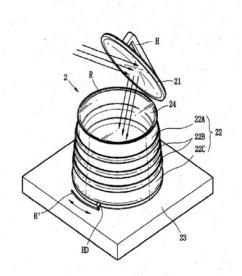
Inventor: LIM, SANG HOON

JANG, MOON SEOK JANG, CHEOL YONG

Int. CI: F24J 2/02 Priority:

Summary

The present invention relates to a solar energy cooker which is capable of being used for cooking food. The solar energy cooker forms a solar box cooker comprising a base plate(23) made of thermal insulating material, and a side wall(22) which is composed of multiple layers. Therefore, the present solar energy cooker is portable and kept by separating the side wall. The present solar energy cooker comprises: a reflector(21) with a handle(H), a transparent cover(24) which is hinged to the top side wall unit(22A) to maintain the heat inside the cooker box, and a side wall built by multiple layers(22A, 22B, 22C). The present invention is able to change the height of the side wall of the solar energy cooker, thereby the space being occupied by the solar energy cooker could be minimized. In addition, it is convenient to store and carry the cooker, and possibly use it for cookware not only at home, but also outdoors.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2002550390000
Patent duration : 2011.08.16

Key words

solar, cook, reflector

Category



Title of invention

WOOD-BURNING STOVE

Bibliographic data

Application number : 1020050128933 Publication number : 1020070067751

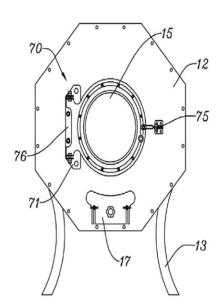
Date of filing : 2005.12.23 Publication date : 2007.06.29

Applicant : HAN, TAI WON Inventor : HAN, TAI WON

Int. Cl: F23B 60/00, F24H 1/40 Priority:

Summary

The present invention relates to a wood-burning stove which is capable of preventing the escape of wasted heat, thereby improve the efficiency of the heating. The wood-burning stove arranges a plurality of recycling pipes in the combustion chamber center of the stove in a radial shape; as a result the combustion heat and gas produced in the combustion chamber are not leaked outside quickly, so that the heat and gas are dispersed into the entire area of the combustion chamber. Therefore, combustion heat is accumulated and heating efficiency is improved. The present wood-burning stove comprises a supporting leg(13), chimney, a hatch(15), a stove body, recycling pipes arranged in the stove body, and a combustion chamber. The plurality of recycle pipes in the combustion chamber is rotated respectively to remove soot or dust.



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Legal status

Final disposal of an application: Withdrawal

Patent registration number:

Patent duration:

Key words

wood, burning, stove

Category



Title of invention

WOOD-BURNING STOVE FOR BLOWING WARM WIND, CAPABLE OF REDUCING LOSS OF COMBUSTION HEAT AND GENERATING WARM WIND

Bibliographic data

Application number : 1020070072293 Publication number : 1020090008929

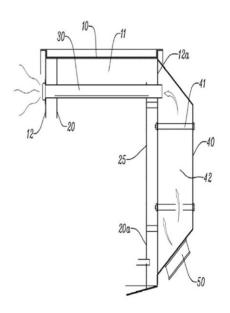
Date of filing : 2007.07.19 Publication date : 2009.01.22

Applicant : LEE, DOO WOONG Inventor : LEE, DOO WOONG

Int. Cl: F24B 1/189, F24B 1/185, F24B 13/00 Priority:

Summary

The present invention relates to a wood-burning stove which is capable of generating warm wind for heating. The wood-burning stove is provided to improve heating efficiency by heating secondary air and supplying it. The wood-burning stove comprises a stove body(10) consisting of all sides of a primary and secondary insulating plate(20,20a) installed inside side plates(12,12a) of the stove body, a warm air pipe(30) penetrating the primary and secondary insulating plate and the side plates, a ventilation duct(40) attached to the side plates in one body, and a ventilation fan(50) attached to the bottom of a ventilation duct. The ventilation fan forces out the hot air of the warm air pipe.



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Legal status

Final disposal of an application: Rejection

Patent registration number:

Patent duration:

Key words

stove, wood, heating, warm, wind

Category



Title of invention

FIREWOOD BURNER WITH HEATING PLATE CAPABLE OF MULTI-PURPOSES SUCH AS HEATER OR BOILER

Bibliographic data

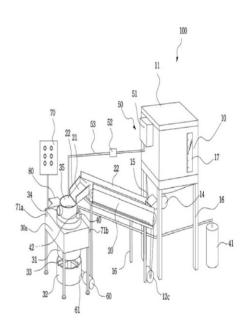
Application number : 1020070063847 Publication number : Date of filing : 2007.06.27 Publication date :

Applicant: KIM, DAE KYOUM Inventor: KIM, DAE KYOUM

Int. CI: F23B 40/00, F23B 60/00 Priority:

Summary

The present invention relates to a firewood burner with a heating plate installed which is capable of multi-purposes such as a heater or a boiler. The firewood burner is provided as a heater or boiler by burning fuel effectively such as rice straw, fallen leaves, sawdust, rice hulls, and wood. The firewood burner comprises a hopper(10) including a fuel transfer part(14) with an axis of rotation, a transfer conveyor(20) driven by a motor(12c), a rotary burner(31) consisting of a support(33) and a penetrated ash plate, a combustion container formed with an ash pan(32) on the lower part of the support, an ignition part(40) connected to the combustion container, an auxiliary fuel supply device(50) installed to supply auxiliary fuel, a blower(60) installed through an airconnecting pipe(61) in order to connect to the lower part of the rotary burner, and a control part(70) controlling the motor, the ignition part, and the blower.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008689850000
Patent duration : 2027.06.27

Key words

firewood, burner, heating, boiler

Category



Title of invention

FIREWOOD BURNER

Bibliographic data

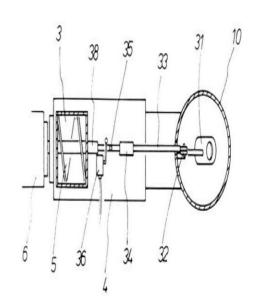
Application number : 202000009326 Publication number : Date of filing : 2000.04.01 Publication date :

Applicant: LEE, SUNG HO Inventor: LEE, SUNG HO

Int. Cl: F23B 60/02, F23B 40/00 Priority:

Summary

The present invention relates to a wood burner which is provided to obtain a high heating temperature by the complete combustion of inflammable materials such as wood, rice hulls, sawdust, etc., by blowing atmospheric air while restraining the generation of smoke and ash, wherein the fuel is automatically supplied according to the degree of combustion for promoting the convenience. The wood burner includes a hopper for storing fuel and a cover at an upper end part for covering the top part of the hopper, a charging case(4) for charging the fuel stored in the hopper by the rotation of a screw(5) driven by a reduction motor(6), a combustion case(10) for burning the fuel conveyed by the charging case, a blower for injecting atmospheric air into the combustion case, and a fuel supply unit for controlling the reduction motor and the blower to automatically supply the fuel according to the amount of combustion.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2001938310000
Patent duration : 2010.04.01

Key words

firewood, burner, high, heat, temperature

Category



Title of invention

SOLAR BOILER SYSTEM FOR HEATING AND SUPPLYING HOT WATER FOR REDUCING INSTALLATION SPACE BY REMOVING HOT WATER STORAGE TANK

Bibliographic data

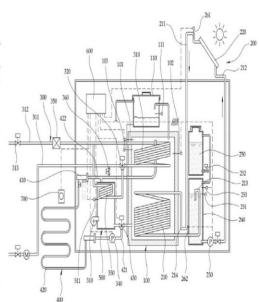
Application number : 2020040027502 Publication number : Date of filing : 2004.09.24 Publication date :

Applicant: JEON, SEOK YOUNG Inventor: JEON, SEOK YOUNG

Int. Cl: **F24J 2/04, F24J 2/34** Priority:

Summary

The present invention relates to a solar boiler system for heating and supplying hot water which is capable of reducing the limit of installation space by removing a hot water storage tank. The solar boiler system for heating and supplying hot water is provided to use a hot water supply unit and a heating unit, although solar heat is not enough, by installing an auxiliary heating boiler next to a heat storage tank. An auxiliary heating boiler(500) using fuel is installed between a heating recovery pipe(421) and a heating supply pipe(422) connected to a heating pipe(420). A hot water supply unit(300) has an auxiliary hot water supply coil(330) installed between a water supply pipe(311) and a hot water pipe(312) and is connected to a hot water supply coil(310) in parallel by a primary three-way solenoid valve(320). A heating unit(400) circulates the water of the auxiliary heating boiler between the heating supply pipe and the heating recovery pipe using a secondary three-way solenoid valve(430). A heat exchanger(210) of a heat storage unit(200) comprises an airseparating tank(240) connected to the middle of a recovery line(212) and a heat storage medium supply tank(250) connected to the airseparating tank and equipped with a primary heat storage medium level sensor(251) and a primary automatic opening-and-closing valve(252) to supply the heat storage medium at any time. A main controller(600) collects information from high and low temperature sensors(261) positioned adjacent to a solar heat collector(220), a hot water supply temperature sensor(101) installed at the upper end of the heat storage tank, and an auxiliary temperature sensor mounted at the auxiliary heating boiler, and operates the primary and secondary three-way solenoid valves and circulation pumps (230. 340). A room temperature controller(700) controls operation of the main controller and checks operation state.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2003700420000
Patent duration : 2014.09.23

Key words

solar, boiler, water

Category



Title of invention

SOLAR HEATING PANEL ARRANGEMENT

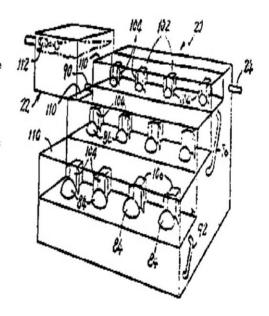
Bibliographic data

Application number : 1019820000912 Publication number : 1019830009445
Date of filing : 1982.03.03 Publication date : 1983.12.21
Applicant : CHANG, MU KWANG Inventor : CHANG, MU KWANG

Int. CI: F24J 2/04 Priority:

Summary

The present invention relates to a solar heating panel which is used for heating liquid to a high temperature using solar energy. The solar heating device(20) has a staged apparatus as a body (26). A heated liquid tank(30) is established in the most upper stage(28). The other portion of the body is filled with insulating material (32). Four hemispheric hollowed portions(40) are established with a constant distance on each stage. Plates for fluid circulation(46, 48, 50), which have good conductivity, are assembled on the stages. Hemispheric fluid passages(62) are arranged between the hollowed portion (40) of the body and the hemispheric hollowed portion of the plate. A fluid passage pipe(64) is connected to the upper portion and the lower center portion of the passage(62).



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1000236340000
Patent duration : 2002.03.03

Key words

solar, heat, liquid

Category



Title of invention

SOLAR WATER HEATER

Bibliographic data

Application number: 1019840007365 Publication number: 1019850003977

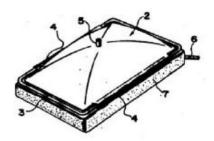
Date of filing: 1984.11.23 Publication date: 1985.06.29

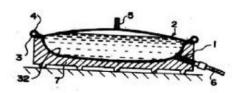
Applicant: YONAHARA YOSHIHIRO Inventor: YONAHARA YOSHIHIRO

Int. CI: F24J 2/36 Priority: 1983.11.24 JP 1983 221471

Summary

The present invention relates to a solar water heating system which is foldable to a compact size for portability, by constructing a bag that is composed of a bottom plate made of a flexible sheet and, on top of it, a swelling part made of transparent film, a water inlet and outlet provided thereto. The bottom plate of the instant solar water heater is formed by aflexible sheet (1) made of vinyl chrolide, etc., and, on top of it, a bag (a) is installed which has a swelling part (b) made of transparent film (2). The bag has on both sides a sheath (4) in which a frame pipe (5) is inserted to firmly attach both the ends to a desired position. The bag (a) has a water inlet (6) and outlet (7) so that it can be transported to a desired location and a solar water heater may readily be constructed on the spot.





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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1000338730000
Patent duration : 2004.11.23

Key words

solar, heat, liquid

Category



Title of invention

SOLAR-HEATING BOILER INCLUDING WATER-HEATING TANK AND ADJUSTABLE REFLECTION PLATE

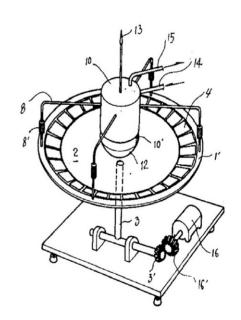
Bibliographic data

Application number : 1019870004124 Publication number : 1019880012965
Date of filing : 1987.04.27 Publication date : 1988.11.29
Applicant : RYU, SU HWAN Inventor : RYU, SU HWAN

Int. CI: F24J 2/04 Priority:

Summary

A solar-heating boiler can be used for collecting solar heat effectively and boiling water in the tank without subsidiary heating energy and can control the position of a water-heating tank by controlling the height of a support bar to adjust the focus distance of reflected light. Also, the solar-heating boiler can concentrate light and reduce the installation area. The solar-heating boiler consists of a main reflection plate(2) and an adjustable reflection plate(4) radically arranged at the center of a hemispherical reflection plate(1), a water-heating tank(9) insulated by vacuum chambers(10) and a lower transparent glass window and mounted at the focus of the hemispherical reflection plate, a support bar(8) with lower bevel gear and upper adjusting bolt(5) for adjusting reflection angle of adjustable reflection plate.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1000376380000
Patent duration : 2007.04.27

Key words

solar, heating boiler, tank

Category



Title of invention

STOVE FOR FIREWOOD AND BROWN COAL TO ROAST GRAIN CROPS SAFELY

Bibliographic data

Application number: 2020070017569 Publication number: 2020080000877

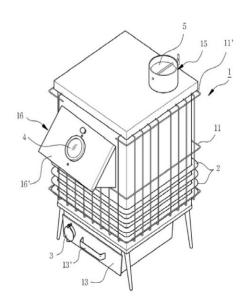
Date of filing: 2007.10.30 Publication date: 2008.05.07

Applicant: KIM, YOUNG DONG Inventor: KIM, YOUNG DONG

Int. CI: F24B 1/26, F24B 13/00 Priority:

Summary

A stove for firewood and brown coal roasts grain crops such as corn, chestnut, and sweet potato safely and can minimize heat loss by controlling air content while a user sees the combustion chamber of the stove and economize fuel. The stove for firewood and brown coal comprises a safety net(11) formed around the circumference, a rostol and an ash pan formed at the bottom part of the combustion chamber, an air exhaust damper(15) in the upper part which is connected to a chimney pipe, a inlet(16) for inputting wood or lignite. A hot water line(2) winds around the main body(1). An air controller(3) for controlling air supply is formed on the front surface of the ash pan. The window(4) for seeing the inner part of the combustion chamber is formed in the cover(16') of the inlet. An air-controlling damper(5) for controlling exhaust air is formed in the exhaust damper. The safety net is set on the upper part of the stove. Two or three heating tubes are formed at the inner part of the main body.



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Legal status

Final disposal of an application : Rejection

Patent registration number:

Patent duration:

Key words

stove, firewood, brown coal, grain crops

Category



Title of invention

WOOD STOVE FOR HEATING AND COOKING SIMULTANEOUSLY

Bibliographic data

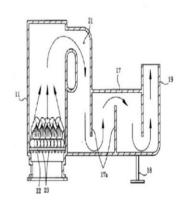
Application number : 202000015471 Publication number : Date of filing : 2000.05.31 Publication date :

Applicant: LEE. WON LIM Inventor: LEE. WON LIM

Int. CI: F24B 13/00 Priority:

Summary

A wood stove uses the heat of combustion gas exhausted from a smoke pipe to increase heat efficiency and prevent fire by an overheated smoke pipe. The stove for wood comprises a closed combustion chamber(11) which recovers the heat of combustion gas exhausted from a smoke pipe, and a plurality of partitions(17a). An inlet for pushing waste wood, wood, sawdust, etc., has a hinge for opening and closing and is formed in the upper part of the chamber. A grill(23) is installed at the bottom of the chamber. The stove is supported by supports and legs(18) which are formed in the bottom of the chamber. The multiple partitions divide the top of the chamber and the heat recovery chamber to delay the time to exhaust the combustion gas. The portions which are formed in the heat-recovery chamber make the combustion gas zigzag to increase the heat efficiency. A supporter for cooking is formed in the upper surface of the heat-recovery chamber. Therefore, the stove provides heating and cooking at the same time.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002037670000
Patent duration : 2010.05.31

Key words

stove, wood, smoke

Category



Title of invention

WOOD STOVE TO IMPROVE HEATING AREA

Bibliographic data

Application number : 2019990002877 Publication number : 2020000017415

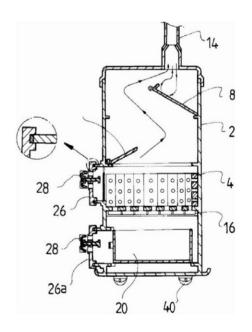
Date of filing : 1999.02.25 Publication date : 2000.09.25

Applicant : JANG, JEONG IL Inventor : JANG, JEONG IL

Int. Cl: F24B 13/02, F23B 60/00 Priority:

Summary

A wood stove increases the heating area of the combustion chamber and latent heat by stacking insulation bricks around the inner part of the chamber. The diameter of the smoke pipe becomes smaller to release soot and smoke quickly. The stove of a cylindrical drum body comprises a combustion chamber(4) formed at the lower part of the cylindrical drum body, insulation bricks(2) formed around the wall of the combustion chamber, an ash pan which is formed at the lower part and removes ashes generated by combustion, a lever which is formed in the ash pan and exposed to the exterior, and a convection plate(6) and a blowback-prevention plate(8) in the upper part of the combustion chamber. The insulation bricks have many holes for increasing the heating area and latent area. The blowback-prevention plate is tilted. A cover is opened and then wood, paper, or waste is put into the combustion chamber. An air control port(28) induces complete combustion. The combustion heat is dissipated through the holes of the insulation bricks thus to improve the heating efficiency.



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Legal status

Final disposal of an application: Abandonment

Patent registration number:

Patent duration:

Key words

stove, combusion, latent heat

Category



Title of invention

FIREWOOD BOILER HAVING HIGH THERMAL EFFICIENCY AND SUPERIOR DURABILITY

Bibliographic data

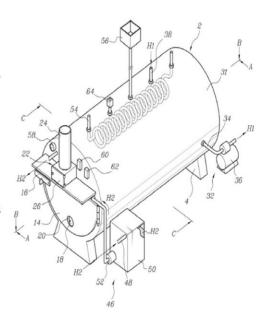
Application number : 1020070041765 Publication number : Date of filing : 2007.04.30 Publication date :

Applicant: KIM, YONG HYEON Inventor: KIM, YONG HYEON

Int. Cl: F24B 13/00, F24B 13/02 Priority:

Summary

A firewood boiler increases heating power and thermal efficiency by burning imperfect combustion gas again in a re-burning area, and to more rapidly heat water by transferring heat to a primary thermal medium using a secondary thermal medium having higher thermal capacity. Also, the firewood boiler can improve durability by using a protection system against electricity failure and forming a combustion chamber and a heat-exchange chamber in the shape of a pressure vessel. The firewood boiler includes a cylindrical combustion chamber, a cylindrical heatexchange chamber, an insulation unit, a primary thermal medium circulation unit(32), and a flame guide plate. The cylindrical combustion chamber has a combustion gas outlet port in an upper portion of the front thereof and has a fuel input port which is accessed by a cover(14) in a lower portion of the front thereof. The cylindrical heat-exchange chamber is installed outside the combustion chamber to store a primary thermal medium(H1), such as water. The insulation unit is installed around the outer wall of the heat exchange chamber to insulate. The primary thermal medium circulation unit causes the primary thermal medium to circulate in a space to be heated. The flame guide plate partitions the interior of the combustion chamber, and is spaced at opposite ends thereof from a circumferential wall of the combustion chamber, thus defining space.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008461420000
Patent duration : 2027.04.30

Key words

firewood boiler, chamber, heat

Category



4. Health

- 1) Artificial(6)
- 2) Storage(6)
- 3) Lifesaving(7)
- 4) Insects(20)



Title of invention

ROTATION ADAPTER FOR MODULAR KNEE JOINT WHICH HAS A WEDGE-FIXING FUNCTION

Bibliographic data

Application number : 2019990008704 Publication number : 2020000021117

Date of filing : 1999.05.20 Publication date : 2000.12.15

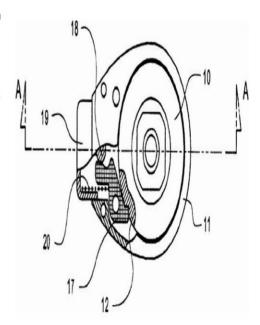
Applicant : BK MEDITECH CO., LTD. Inventor : PARK, YUN SEO

JUN, GWON SUN

Int. CI: A61F 5/00, A61F 5/04 Priority:

Summary

The present invention relates to a rotation adapter which is joined with a modular knee joint. The rotation adapter is able to be rotated or fixed without any inconvenience, and noise is not generated during walking. Manufacture is easy because the structure is simple. The rotation adapter includes an upper body(10), a lower body(12), a bearing-affixing bolt, and an adapter housing(11). The upper body is joined with an upper adapter, and comprises a button assembly for releasing the fixation and an assembly for affixing as a wedge function. The lower body of the modular knee joint is joined and rotated with the upper part, and includes grooves for adjustments. A slide bearing is installed in the lower body. The upper body and the lower body are joined by the bearing-affixing bolt and the housing. The components are firmly affixed according to the wedge function.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2002674520000
Patent duration : 2014.05.20

Key words

rotation adapter, modular knee joint, wedge

Category



Title of invention

BALL HINGE ANKLE JOINT ADAPTER WITH LATERAL EXERCISE FUNCTIONS OF RUBBER FEET

Bibliographic data

Application number: 102000036671
Date of filing: 2000.06.29
Applicant: BK MEDITECH CO., LTD.

KOREA VETERANS HOSPITAL

Publication number: 1020020002182

Publication date : 2002.01.09 Inventor : JUN. GWON SUN

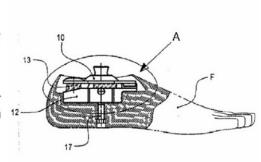
tor: JUN, GWON SUN KOO, CHAN SEO

PARK, YUN SEO

Int. CI: A61F 2/60 Priority:

Summary

A ball hinge ankle joint adapter has a lateral exercise function of rubber feet,so it can reduce the inconvenience to a user walking on an uneven surface. The ball hinge ankle joint adapter with a lateral exercise function of rubber feet(F) comprises an upper body(10) coupled with an upper pipe adapter, a lower body(12) contacting the rubber feet, a heel rubber cushion(13) for damping the shock caused in landing, a ball hinge bolt for movably connecting the upper body with the lower body, a side rubber cushion, a side guide hinge for keeping the position of the rubber cushion, and a rubber feet-coupling bolt(17) for connecting the rubber feet with the lower body.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1003815700000
Patent duration : 2020.06.29

Key words

ball hinge, ankle joint adapter, lateral exercise function, rubber feet

Category



Title of invention

ENERGY-STORING PROSTHETIC FOOT KEEL, CAPABLE OF REDUCING ENERGY CONSUMPTION OF WALKING

Bibliographic data

Application number : **1020000017337**Date of filing : **2000.04.03**

Applicant: KOREA ADVANCED INSTITUTE OF

SCIENCE AND TECHNOLOGY

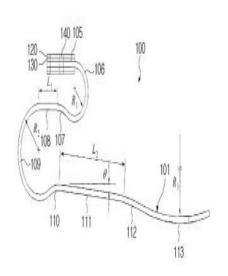
Publication date: 2001.10.31
Inventor: JANG, TAE SEONG
LEE, DONG HUI
LEE, JEONG JU
YOON, YONG SAN

Publication number: 1020010093991

Int. CI: A61F 2/66 Priority:

Summary

The present invention relates to an energy-storing prosthetic foot keel which is used for disabled people who have lost a leg. The prosthetic foot keel can reduce energy consumption of walking by structurally simplifying the prosthetic foot keel. The prosthetic foot keel comprises an ankle part(105) coupled to the pylon, a bottom part(111) which is positioned as the sole of the foot, curved surface parts which are positioned between the ankle part and the bottom part so as to connect the ankle part with the bottom part, wherein the ankle part, bottom part and curved surface parts form an integral plate spring structure. The first curved surface part(106) is connected to the ankle part and is formed in a radius of curvature of R1. The second curved surface part(109) connects the first curved surface part with the bottom part and is formed in a radius of curvature of R2. A flat part(108) having a length of L1 is connected between the first curved surface part and the second curved surface part. The bottom part has a length of L2 and is inclined in a certain angle. A toe part(113) is formed at the end part of the bottom part in a radius of curvature of R3. An aluminum pad(120) is adhered to the area contacted with the pylon in the ankle part.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1003627360000
Patent duration : 2020.04.03

Key words

prosthetic foot keel, disable, pylon, ankle

Category



Title of invention

METHOD FOR MANUFACTURING PROSTHETIC ARMS AND LEGS MADE OF SILICON

Bibliographic data

Application number : 1019980011924 Publication number : 1019980025245

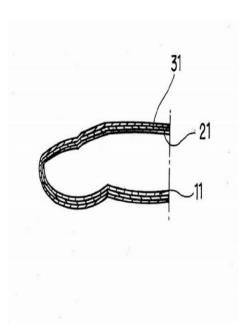
Date of filing : 1998.04.04 Publication date : 1998.07.06

Applicant : LEE, SEUNG HO Inventor : LEE, SEUNG HO

Int. CI: A61F 2/54 Priority:

Summary

Conventional prosthetic arms and legs are made of paste resin, so if people wear conventional prosthetics for a long time, they cause skin trouble and a bad smell caused by sweat. The present invention is made by inserting a nylon mesh into silicon resin and coating it using a single injection process. Thus, the product has the flexibility of silicon and the durability of nylon mesh, and does not cause skin trouble and damage from -30 to 180 Degrees Celsius. The nylon mesh is soaked in a coupling agent for 2 hours and wound adhesively on the upper surface of an inner mold frame to infuse skin layer silicon(11). The first mold product is heated at 50 to 100 Degrees Celsius for 2 to 3 hours in an oven and hardened at room temperature and then coated with colored film layer silicon(21) on the upper surface of the first mold product. The second mold product obtained by infusing protective film layer silicon(31) into the interior of an outer mold frame is combined with the first mold product obtained in the first process and then heated at 50 to 100 Degrees Celsius for 2 to 3 hours in an oven.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1002650960000
Patent duration : 2018.04.04

Key words

artificial arm, artificial leg, nylon mesh, silicon resin, skin trouble

Category



2003.08.27

PHILLIPS VAN L.

Title of invention

FOOT PROSTHESIS WITH CUSHIONED ANKLE

Bibliographic data

Application number : 1020037005853

Date of filing : 2003.04.26

Applicant: OSSUR NORTH AMERICA, INC.

PHILLIPS VAN L.

POUCHAK HILARY

Publication number: 1020030070019

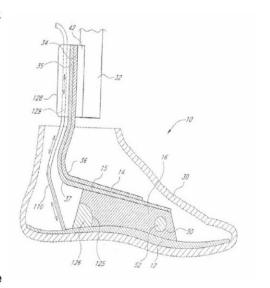
Publication date:

Inventor:

Int. CI: A61F 2/66 Priority: 2000.10.26 US 2000 698489

Summary

A simple, inexpensive prosthetic foot is provided incorporating a cushioned ankle including an ankle block (16) formed of a resilient material or bladder having desired compliance and energy-return characteristics. The ankle block is sandwiched between a foot element (12) and an ankle element (14). One or more openings extend through the ankle block with a substantially transverse orientation relative to the forward walking motion. The size and shape of these openings, as well as the insertion of different types of stiffeners (52) therein, provide desired performance characteristics to the ankle block. When the ankle block takes the form of one or more inflatable bladders, the pressure within these bladders is individually controlled by valves to provide desired performance characteristics to different portions of the prosthetic foot. A pump system (90) can also be used to control and generate fluid pressure into these bladders. A preferred pump system generates fluid pressure based upon the movement of the amputee onto two telescoping pylons that are connected to the prosthetic foot.



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Legal status

Final disposal of an application : Abandonment

Patent registration number:

Patent duration:

Key words

artificial, prosthetic, leg, foot, shock-absorbing

Category



Title of invention

ARTIFICIAL LIMB OPERATED BY GLOVE

Bibliographic data

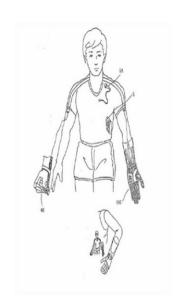
Application number : 2020030034441 Publication number : Date of filing : 2003.10.30 Publication date :

Applicant: PARK, SANG SUK Inventor: PARK, SANG SUK

Int. Cl: A61F 2/54 Priority: 2003.09.22 KR 2020030029993

Summary

An artificial limb(100) can be used for performing stable and smooth movement of one artificial hand which can be controlled by the other normal hand. A glove made of light material having various electronic devices is put on the normal hand. As the normal hand moves, the electric signal generates and transfers it to the artificial hand by wire or wireless. The artificial limb comprises a remote control(5) for speech recognition, a switch-control unit(10), a net glove-controlling unit, a wrist-rotating unit, a wrist-bending unit, a finger-moving unit, and an elbow-moving unit. The wrist-rotating unit is rotated by a wrist supporter. The seventh wire is connected to a wrist-rotation plate and the first ring of the forearm, the second motor, and the other finger. In the wrist bending unit the eighth wire is connected to the first and second rings of the wrist frame, the third motor, and the other finger. To bend a thumb and an index finger, a primary motor is connected to a power-transmitting unit by a wire. The primary and secondary wires are connected to the net glove-control unit to move the five fingers. The wrist of the artificial hand is rotated by the power-transmitting unit. To bend the thumb and an index finger by the bending of elbow, the first and second wires are connected to a bend-fixing ring. To bend the five fingers, the second and third connection rings are connected to the first and second protrusion parts.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2003490890000
Patent duration : 2013.10.30

Key words

artificial limb, hand, glove

Category



Title of invention

FRUIT-STORING BOX WITH DRAIN FUNCTION, CAPABLE OF PREVENTING THE FRUIT FROM ROTTING OR BEING DAMAGED

Bibliographic data

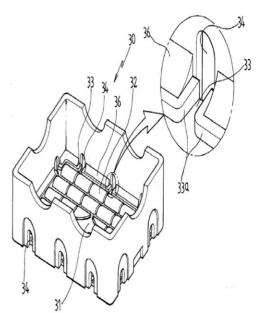
Application number : 2020020029226 Publication number : Date of filing : 2002.09.30 Publication date :

Applicant: HYOWON CO., LTD. Inventor: KIM, BONG HUI

Int. CI: **B65D 85/34** Priority:

Summary

A fruit-storing box is designed for keeping fruit edible for a long time by preventing the fruit from being damaged or rotting caused by the moisture which is generated inside or comes from outside. The fruit-storing box(30) includes a center groove(31), a incision groove(34), a cylinder groove(32), and a draining groove(33). The center groove is formed on the center of the bottom plane of the fruit-storing box. The cylinder grooves are regularly formed at the circumstance of the center groove. The cylinder groove has a wave-shaped vertical section. The draining groove is formed to cross the incision groove. The fruit-storing box has a draining function. The moisture inside the fruit-storing box is drained through the incision groove on the lateral wall.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002989960000
Patent duration : 2012.09.30

Key words

fruit, storing box, draining, moisture, rotten

Category



Title of invention

VACUUM DEVICE FOR A FOOD VESSEL, CAPABLE OF KEEPING FOOD FRESH FOR A LONG TIME

Bibliographic data

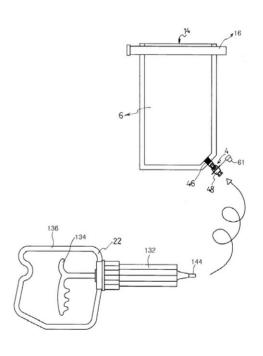
Application number : 2020010025257 Publication number : Date of filing : 2001.08.21 Publication date :

Applicant: SEHYANG INDUSTRIAL CO., LTD. Inventor: HA, JAE HO

Int. Cl: **B65D 81/20** Priority:

Summary

The present invention relates to a food vessel which is able to keep food fresh for a long time by creating a vacuum the inside of the food vessel. The plastic bag can be used as a food vessel. A joint hole and a joint part are formed at the upper part of the plastic bag(6) in order to connect a vacuum pump. A vacuum space and a valve which is uplifted toward a vacuum space are formed inside the plastic bag. A switching part including a jointing part and a cutting part is formed at the body part of the valve. A soft vacuum valve is connected with the end part of the plastic bag in order to create a vacuum inside the plastic bag using the vacuum pump. A sealing member such as an inner zipper or an outer zipper seals the opening of the plastic bag. A flowsecuring member(46) is attached to the corner of the plastic bag.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002592010000
Patent duration : 2011.08.21

Key words

food vessel, plastic bag, vacuum pump

Category



Title of invention

MANUAL VACUUM DEVICE WHICH CAN PREVENT THE FOOD IN A CONTAINER FROM ROTTING BY CREATING A VACUUM IN CONTAINER

Bibliographic data

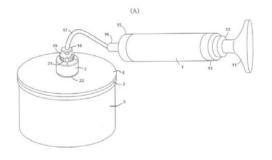
Application number : 2020060005759 Publication number : Date of filing : 2006.03.03 Publication date :

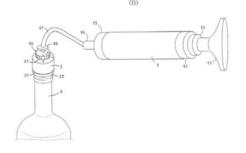
Applicant: LEE, GWANG HUI Inventor: LEE, GWANG HUI

Int. CI: B65D 81/20, B65D 53/00, B65D 51/18 Priority:

Summary

The present invention relates to a vacuum device that creates a vacuum in a container for maintaining the freshness of food. The vacuum device is worked by hand so it is suitable for use in a place where electricity is not supplied. A vacuum cap comprises a body(2) and a bar(19) for adjusting the degree of the vacuum, and is mounted through a hole in the cap(4) of the container. A knob (18) of a vacuum pump is connected with the vacuum cap. The vacuum pump applies the principle of an injector. If the bar is opened, the vacuum state is released. The bar comprises a hose connector into which the knob of the vacuum pump is able to be inserted, and an air hole which is connected with the hose connector. Therefore, air can move from the air hole to the hose connector.





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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2004227560000
Patent duration : 2016.03.03

Key words

food, vacuum pump, hand-operated

Category



Title of invention

AIRTIGHT FOOD CONTAINER

Bibliographic data

Application number : 1020020006804 Publication number : 1020030067014

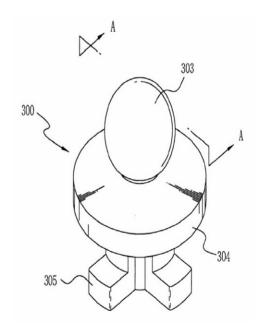
Date of filing : 2002.02.06 Publication date : 2003.08.14

Applicant : PARK, JONG KOOK Inventor : PARK, JONG KOOK

Int. CI: A47J 47/02 Priority:

Summary

The present invention relates to an airtight food container which is capable of storing and preserving food for a long period of time. The airtight food container includes a container box, a cover, an airtight cap which fits in a hole located in the center of the cover, and a packing unit adhering to the inside of the cover. The airtight cap(300) comprises: a circular module(301) formed on top of the airtight cap, a gap(302) which is formed in one side of the circular module to easily discharge the air, a cover unit(303) to cover the gap and the circular module, a central body(304) which closely adheres on top of the penetration hole. The airtight food container maximizes user reliability and satisfaction to preserve and store the food in a fresh state by applying the airtight cap.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1004860740000
Patent duration : 2022.02.06

Key words

airtight, container, food

Category



Title of invention

FOOD CONTAINER FOR PRESERVING FOOD

Bibliographic data

Application number: 2019930010647 Publication number: 2019950000083

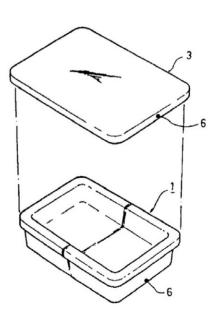
Date of filing: 1993.06.17 Publication date: 1995.01.03

Applicant: JEONG, SANG BOK Inventor: JEONG, SANG BOK

Int. CI: A23B 4/06 Priority:

Summary

The present invention relates to a food container which is capable of preserving food. More particularly the present invention is about a food container preserving fish or other kinds of food which easily rots. The food container comprises a container cover(3) and a container body(1). The container cover and the container body have a double structure which forms an empty space inside so that a user fills the empty space with water through the hole(6) and places the container cover and the container body in a refrigerator to freeze the water. Then a fish or other kind of food is put in the container and the freshness of the food is maintained for a long time. The present invention is also used for preserving food on a display stand in a market.



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Legal status

Final disposal of an application : Registration

:

Patent registration number:

Patent duration:

Key words

food, container, fresh

Category



Title of invention

CONTAINER EMPLOYING LONG AIR CIRCULATION PIPES FOR MAINTAINING FRESHNESS IN FOOD

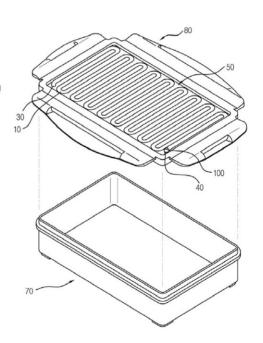
Bibliographic data

Application number : 1020070083923 Publication number : 1020090019468
Date of filing : 2007.08.21 Publication date : 2009.02.25
Applicant : YU, YEON SOON Inventor : YU, YEON SOON

Int. Cl: **B65D 51/16, B65D 85/50, B65D 81/18** Priority:

Summary

The present invention relates to a container employing long air circulation pipes which is capable of maintaining freshness. The container for the maintenance of freshness is provided to allow air having a temperature equal to the temperature of the container to be carried in using a long circulation pipe. The container comprises an air circulation unit which is provided with a long inner exposure hole(30) and a long outer exposure hole(40) formed on the inner and outer air circulation pipes, wherein the air circulation unit is formed on the main body part(70) or the cover part(80) of the container, and the inner and outer air circulation pipes are long.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008876860000
Patent duration : 2027.08.21

Key words

container, fresh, air, circulation

Category



Title of invention

PORTABLE SCANNING DEVICE CAPABLE OF DETECTING VARIOUS EXPLOSIVE SUBSTANCES

Bibliographic data

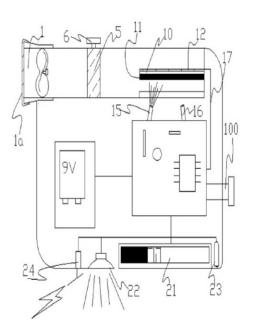
Application number : 2020010035517 Publication number : Date of filing : 2001.11.19 Publication date :

Applicant: PARK, CHEOL HONG Inventor: PARK, CHEOL HONG

Int. CI: G01N 33/22 Priority:

Summary

The present invention relates to a portable scanning device for detecting various explosive substances accurately and conveniently by checking the reaction of fluorescent light to explosive compounds over 50ppb with a polysilole-germole nano wire sensor. The portable scanning device comprises an air inlet(1), a guide part, a sensing unit, a control unit, a display unit, and a power unit. The air inlet sucks in air for detecting explosives. The guide part induces air from the air inlet to a sensing unit and restricts inflow of foreign matters with a filter(5). The sensing unit is coated with polysilole-germole nano wire for inducing a change of intensity in a fluorescent light in reacting to the electron deficient explosive with contact to the air. The control unit converts the change of fluorescent light into distinguishable signals, and controls the sensing unit and a display unit. The display unit generates light, vibration and sound according to signals from the control unit. The display unit has a light indicator(21), a speaker(22), and a vibrator(23).



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002650110000
Patent duration : 2011.11.16

Key words

explosive, light indicator, scanning, nano wire sensor

Category



Title of invention

WRIST OR ANKLE PROTECTOR FROM SNAKES

Bibliographic data

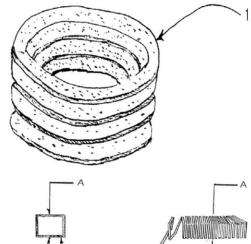
Application number : 2020010016826 Publication number : Date of filing : 2001.05.16 Publication date :

Applicant: CHO, YOUN SANG Inventor: CHO, YOUN SANG

Int. CI: A41D 13/08 Priority:

Summary

The present invention relates to a protector which is capable of protecting a human from snakes by wearing the protector on an ankle or wrist. The coil-shaped protector is made of a metal or plastic which has a strong tensile force. Inside of the metal or plastic coil are some materials that snakes hate, for example tobacco leaf, alum, sulfur, a pyrethrin, or a bell, and the metal or plastic coil is covered by a fabric to be worn for hiking. The present invention is able to protect the human body from a snake's sharp teeth by putting some materials inside the coil that repel snakes. The present invention includes a coil spring which accommodates a bell, alum, tobacco leaf, or other material to drive away snakes, and the coil spring could protect a human body from a snake attack.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002436700000
Patent duration : 2011.05.16

Key words

protector, snake, wear

Category



Title of invention

LEG PROTECTOR WHICH PROTECTS FROM SNAKES OR OTHER DANGERS

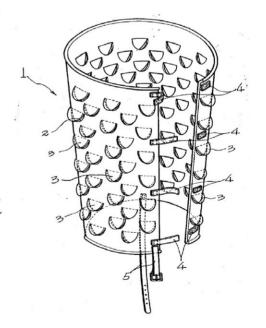
Bibliographic data

Application number: 2019950012487 Publication number: 2019970000491
Date of filing: 1995.06.01 Publication date: 1997.01.21
Applicant: PARK, SE JIN Inventor: PARK, SE JIN

Int. CI: A63B 71/08 Priority:

Summary

The present invention relates to a human body protector which is capable of protecting especially legs from snakes or other dangers. The leg protector forms a plurality of protecting pieces which protrude downward. The protecting pieces allow fresh air to enter and move around while the leg protector is worn and protects the leg from snake bites. The leg protector comprises: a main body(1) made of elastic plastic and having a plurality of ventilation holes, and a plurality of protecting pieces(3) located outside of the ventilation holes. A combining band(4) is located in one side of the main body. A fixing band(5) is located in the bottom of the main body. The combining band is recommended to use magic tape or possibly be replaced by a combing hole or combing string.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2001310010000
Patent duration : 2010.06.01

Key words

leg, protector, snake, danger

Category



Title of invention

PEDAL-POWERED HAND STERILIZE

Bibliographic data

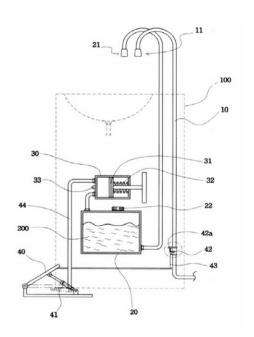
Application number : 202000027606 Publication number : Date of filing : 2000.10.04 Publication date :

Applicant: PARK, CHAN EUI Inventor: PARK, CHAN EUI

Int. CI: A61L 2/00 Priority:

Summary

The present invention relates to a pedal-powered hand sterilizer which is capable of providing or sterilizing water by controlling an air injection pedal. The present invention is able to operate both a water washer and a sterilizer, so that a user can conveniently wash or sterilize. The pedalpowered hand sterilizer has a single main body(100) which has a water faucet(11) connected to a water supply pipe(10) and a sterilizing water faucet(21) connected to a sterilizer tank(20). An opening-and-closing valve(42) which returns to a rest position by a spring(42a) is installed in the water supply pipe where the water faucet is attached. An auxiliary pressure tank(30) with a piston(31) which provides air pressure while descending by the repelling power of a spring(32). The opening-and-closing valve(42) of the watersupply pipe(10) is connected to an air-injection pedal(40) which is located in the bottom of the main body(100) through a wire(43), and the auxiliary pressure tank and an air cylinder(41) in the air injection pedal are connected through an air supply pipe, so that when the air injection pedal operates, the opening and closing valve(42) opens to supply water, and at the same time the air is injected into the sterilizer tank(20) to increase air pressure, and then when a user touches the valve body(25a), the sterilizing water comes out by air pressure.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002206610000
Patent duration : 2010.10.04

Key words

hand, sterilizer

Category



Title of invention

BALLOON SET FOR RESCUE OPERATIONS IN MOUNTAIN, SEA OR DENSE FOREST

Bibliographic data

Application number : 1019990010606 Publication number : 1020000061531

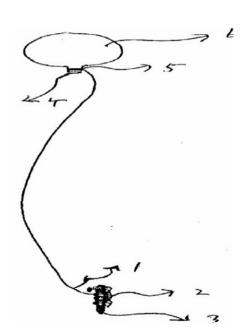
Date of filing : 1999.03.23 Publication date : 2000.10.25

Applicant : LEE, CHANG JIN Inventor : LEE, CHANG JIN

Int. CI: A63H 27/10 Priority:

Summary

A balloon set for rescue operations can be simply used at any time when you get lost in the mountains, the sea or dense forest. The position is easily and conveniently communicated to people on a high place or in a distance upon an accident in the mountains or on the sea. Thus, a victim is easily rescued. In addition, in a case that a position is needed to be disclosed, portable equipment is made up by using a luminous red glittering balloon, a long, light and thin thread and inactive gas. The balloon set consists of a thin string(1) of nylon, a spool(2) for winding the string and holding a balloon, a red balloon(6) with a reflection plate and nightglow, a spray can having compressed He gas, and tape for patching holes in the balloon.



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Legal status

Final disposal of an application: Rejection

Patent registration number:

Patent duration:

Key words

balloon, rescue, mountai, sea

Category



Title of invention

REAGENT FOR DETECTING MALARIA EFFECTIVELY

Bibliographic data

Application number : 1020030014496
Date of filing : 2003.03.07
Applicant : LG LIFE SCIENCES LTD.

Publication number : 1020030036334
Publication date : 2003.05.09

Inventor : LIM, GUK JIN SON, MI JIN

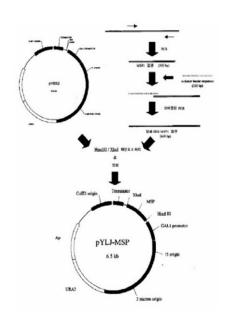
LEE, SEUNG WON OH, JAE HUN

KIM, HYEONG CHEOL HWANG, BYEONG GAP

Int. CI: G01N 33/53 Priority:

Summary

A recombination revelation vector of cloning merozoite surface protein (MSP) of a Korean strain of Plasmodium vivax is fabricated and transformed to yeast. The recombination revelation vector includes the surface protein expressed from a yeast-transgenic body. A reagent for detection of malaria containing a PV200C polypeptide which is the C-terminal region of merozoite surface protein (MSP) of Plasmodium vivax is provided. The PV200C polypeptide has higher sensitivity and specificity to an antigen of malaria, so that it can be useful for diagnosis of a Korean strain of malaria. The reagent for detection of malaria contains a PV200C polypeptide which is a C-terminal region of merozoite surface protein(MSP) of Plasmodium vivax, wherein the PV200C polypeptide is produced from yeast transformed with an expression vector containing a gene encoding the PV200C polypeptide having the nucleotide sequence of SEQ ID NO: 8, alpha-factor leader peptide of the yeast and histidine residue. The transformed yeast is pYLJ-MSP/S. cerevisiae INVSC1(KCTC 8977P).



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Legal status

Final disposal of an application : Registration
Patent registration number : 1004114960000
Patent duration : 2020.02.17

Key words

recombination revelation vector, cloning, protein, msp

Category



Title of invention

KIT FOR DIAGNOSIS OF MALARIA HAVING HIGH SENSITIVITY AND SPECIFICITY

Bibliographic data

Application number: 1020030061665
Date of filing: 2003.09.04
Applicant: VENDIA TECH CO., LTD.

Publication number: 1020040023526
Publication date: 2004.03.18
Inventor: SHIN, HYEONG SUN
SHIN, GWANG SUN

SHIN, GWANG SUN JUNG, HONG GEUN LIM, JONG MUN

Int. CI: C12Q 1/26 Priority: 2002.09.10 KR 1020020054640

Summary

A kit for diagnosis of malaria increases sensitivity and specificity to malaria using anti-malaria agents, and rapidly and easily carries out malaria diagnosis. The kit for diagnosis of malaria includes an anti-malaria agent which competitively binds to a NADH or NAD+ binding region of lactic acid dehydrogenase of Plasmodium(pLDH) with NADH or NAD+, and a non-human-derived carrier which covalently binds with the anti-malaria agent, wherein the anti-malaria agent is selected from the group consisting of chloroquine, hydroxychloroquine, quinine, quinine bisulfate, quinine carbonate, quinine dihydrobromide, quinine dihydrochloride, quinine ethylcarbonate, quinine formate, quinine gluconate, quinine hydrobromide, quinine dihydrochloride, quinine ethylcarbonate, quinine formate, quinine gluconate, quinine hydriodide, quinine hydrochloride, quinine salicylate, quinine sulfate, quinine tartrate, quinine urea hydrochloride, quinocide, quinoline, amodiaguine, pamaguine, plasmocide and primaguine; and the carrier protein is selected from the group consisting of non-human derived albumin, casein, non-human derived cytochrome c, fetuin, skim milk, tyroglobuline or bovine submaxillary mucin.

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Legal status

Final disposal of an application : Rejection

Patent registration number:

Patent duration:

Key words

kit, diagnosis, malaria

Category



Title of invention

ULTRAVIOLET RAY LAMP FOR KILLING HARMFUL INSECTS

Bibliographic data

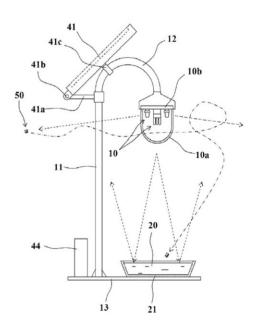
Application number : 2020060015613 Publication number : Date of filing : 2006.06.10 Publication date :

Applicant: JIN YOUNG CO., LTD Inventor: OH, SANG YEONG

Int. Cl: A01M 1/04, A01M 1/22 Priority:

Summary

The present disclosure relates to an extermination appliance for harmful insects which lures the insect to an ultraviolet ray lamp and eliminates them using water. The appliance is operated by solar power so it can be used at any place where electricity is not supplied. The appliance comprises the ultraviolet ray lamp(10), light-reflecting water(20), a vessel(21), a current switch, and a power supply. The ultraviolet ray lamp emits light in order to lure insects. The light-reflecting water is in the vessel and reflects the ultraviolet rays in order to lure insects into the water. The vessel is placed under the ultraviolet ray lamp to collect dead insects. The current switch turns on/off the ultraviolet ray lamp. The power supply is wired to a capacitor which stores current generated from a solar cell(41).



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Legal status

Final disposal of an application : Registration
Patent registration number : 2004258240000
Patent duration : 2016.06.10

Key words

ultraviolet ray lamp, harmful insect, solar cell

Category



Title of invention

PORTABLE EXTERMINATION APPARATUS WHICH OBTAINS POWER FROM SOLAR CELL

Bibliographic data

Application number : 1020000047756 Publication number : 1020010025175

Date of filing : 2000.08.18 Publication date : 2001.04.06

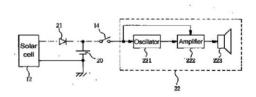
Applicant : WIRELESS TSUKAMOTO KOREA Inventor : YANG, HYEON MIN

CO., LTD.

Int. CI: A01M 1/22 Priority:

Summary

The present disclosure relates to a portable extermination apparatus which is operated by a solar cell and eliminates vermin using ultrasonic waves. Because the portable extermination apparatus receives power from the solar cell, it can be easily used in the field and does not need any electric power. The portable extermination apparatus consists of a main body, multiple solar cells(12), a battery(20), and an ultrasonic generator(22). The multiple solar cells generate electric power using sunlight and are located in the main body. The battery stores electric power generated from the multiple solar cells and provides electric power to the ultrasonic generator to generate ultrasonic waves. The ultrasonic generator generates ultrasonic waves in order to exterminate vermin. A diode(21) is located between the multiple solar cells and the battery so as to prevent back flow of electric power from the battery to the solar cells. The ultrasonic generator consists of an oscillator(221), amplifier(222), and speaker(223).



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Legal status

Final disposal of an application: Rejection

Patent registration number:

Patent duration:

Key words

vermin, solar cell, ultrasonic, diode

Category



Title of invention

HAMMOCK FOR BABY WITH MOUNTED MOSQUITO NET

Bibliographic data

Application number : 2019900014227 Publication number : 2019920005813

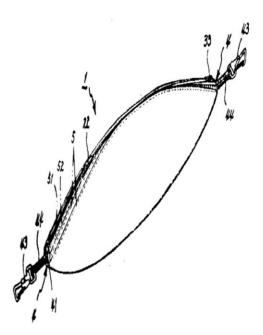
Date of filing : 1990.09.15 Publication date : 1992.04.21

Applicant : KIM, GI JUNG Inventor : KIM, GI JUNG

Int. CI: A45F 3/22 Priority:

Summary

The present invention relates to a hammock in which a mosquito net is mounted in order to protect a baby from mosquitoes and from falling out. The hammock(1) comprises a main body made of textiles in a semicapsule configuration, a net formed with the mosquito net, and a completion part(4). A plurality of elastic wires(51, 52) are mounted in a sewing hole which is formed in the main body. A slide zipper(22) is formed at the end of main body. The elastic wire is not mounted to the lowermost layer of the main body in order to make the baby comfortable. The net part is sewn to the main body, and has a slide zipper at the end part thereof. The completion part is formed by sewing together the end parts of the net part and main body.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2000746990000
Patent duration : 2005.09.15

Key words

hammock, mosquito net, elastic wire, slide zipper

Category



Title of invention

LURING DEVICE FOR CAPTURING HARMFUL VERMIN WITH SCENT AND LIGHT

Bibliographic data

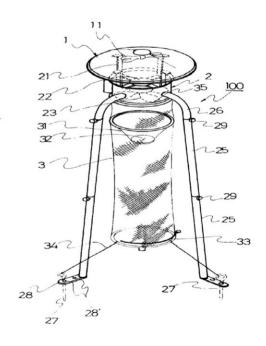
Application number : 2020040019203 Publication number : Date of filing : 2004.07.06 Publication date :

Applicant: GREEN AGRO TECH CO., LTD. Inventor: PARK, MAN UNG

Int. CI: A01M 1/08 Priority:

Summary

The present invention relates to a device for capturing harmful vermin day and night effectively which can be used semi-permanently. The device for capturing harmful vermin includes a lampshade(1), an inducing lamp(11) which is installed under the lampshade, a cylindrical main body(2), and an insect-capturing net(3). A motor and a suction fan are installed in the main body. The insect-capturing net is installed in the lower part of the main body and captures insects. A controller box for controlling the motor includes a timer and is installed around the circumference of main body. A zipper is in the lower part of the insect-capturing net. An entrance hole(32) for insects is formed in the upper part of the insect-capturing net. The insect-capturing net is held in place by a string.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2003643840000
Patent duration : 2014.07.06

Key words

vermin, insect, capturing net

Category



Title of invention

ELECTRONIC INSECT-KILLING DEVICE OPERATED BY A SOLAR BATTERY AND ITS CONTROL METHOD

Bibliographic data

Application number : 1019920002822

Date of filing : 1992.02.24

Applicant : SK CORPORATION

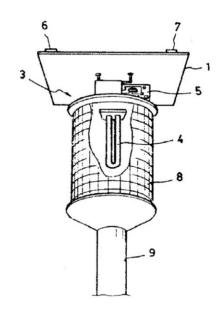
Publication number: 1019930017489
Publication date: 1993.09.20
Inventor: JUNG, HYEON JONG

PARK, CHAN SEUNG OH, HUI CHANG HYUNG, JUN HO

Int. CI: H05C 1/00 Priority:

Summary

An insect-eliminating device is operated by a solar battery(1) and also includes a capacitor, a water drop detector(6), an optical sensor(7), a controller(3), and dual outer nets. The solar battery converts sunlight into electric energy and has a reflector on the bottom. The capacitor is connected to the solar battery and stores the output of the solar battery. The water drop detector and the optical sensor output the signal by detecting rain, and time of day and night. The controller controls the operation according to sensor output, and applies high voltage to the electrode, and turns on the fluorescent lamp for luring insects. The dual outer nets cover the controller and form the variable insect gate. The size of the gate is adjustable.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1000827990000
Patent duration : 2012.02.24

Key words

vermin, insect, capturing net, solar battery, sunlight, water drop detector, optical sensor

Category



Title of invention

SUCTION INSECT TRAP

Bibliographic data

Application number : 1020050022719 Publication number : 1020060100854

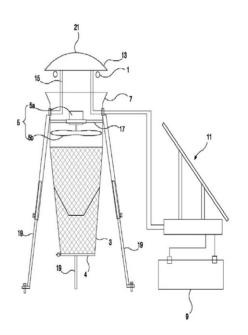
Date of filing : 2005.03.18 Publication date : 2006.09.21

Applicant : PARU CO., LTD. Inventor : CHOI, TAE WON

Int. CI: A01M 1/08 Priority:

Summary

The present invention relates to a suction insect trap which is capable of catching insects using a suction fan and an inducing light. The suction insect trap is provided to use solar light to charge a battery to operate the device, so that the present insect trap can be used in a region where no electricity is supplied. The suction insect trap comprises: an inducing light(1), a detaining net(3), a suction fan(5) located between the detaining net and the inducing light, an inducing bucket body(7) which supports the suction fan and induces insects to the detaining net, a battery(9) which supplies electric power to the inducing light and suction fan, and a solar light module which charges the battery. The inducing light is recommended to use an LED(Light Emitting Diode) using DC to reduce power consumption.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1006913600000
Patent duration : 2025.03.18

Key words

insect, suction, trap

Category



Title of invention

APPARATUS FOR EXHALING INSECT REPELLENT PERFUME AND SET THEREOF

Bibliographic data

Application number: 1020000050715
Date of filing: 2000.08.30
Applicant: KIM, HAN SEOK
YOO, MYOUNG OK

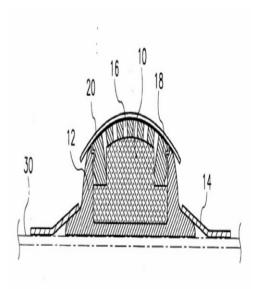
Publication date: 2002.03.07
Inventor: KIM, HAN SEOK
YOO, MYOUNG OK

Publication number: 1020020017391

Int. CI: A01M 13/00 Priority:

Summary

The present invention relates to an apparatus for emitting volatile noxious incense for insect extermination and set thereof. The apparatus for emitting volatile noxious incense for insect extermination and a set thereof are provided to safely protect the body of a user from any noxious insects in the open air by attaching to the body simply. The apparatus is comprised of a volatile noxious incense material(10) for insect extermination, formed so that it is volatilized at a normal temperature, a receiving member(12) for storing the volatile noxious insect extermination material, an adhesive member(14) for attaching the receiving member to the body of a user or a base sheet(30), and an obstructing member(20) for covering the receiving member in order to prevent the exhalation of the volatile noxious insect extermination material.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1003977540000
Patent duration : 2020.08.30

Key words

insect, repellent, perfume

Category



Title of invention

MOSQUITO NET WITH A WATERPROOF ROOF

Bibliographic data

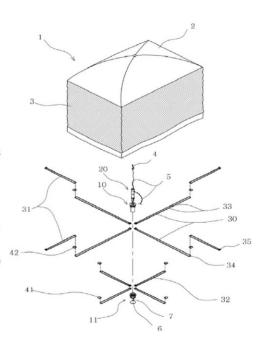
Application number : 202003000740 Publication number : Date of filing : 2003.01.10 Publication date :

Applicant: KIM, SIN CHEOL Inventor: KIM, SIN CHEOL

Int. CI: A45F 3/52 Priority:

Summary

The present invention relates to a mosquito net which is capable of preventing dew from falling into the mosquito net by replacing the roof of the mosquito net with a waterproof fabric. The mosquito net of the present invention has a similar structure as an umbrella, so that a user can easily fold and unfold the mosquito net. The mosquito net(1) comprises an upper rib case(10), an elevating shaft(20), and a lower rib case(11) to easily fold and unfold the mosquito net. The upper rib case has connections with main ribs(30) and assistant ribs(31). The middle of the main ribs is connected by a main stretcher(41). When the lower rib case of the mosquito net is pushed upward, the hooking unit(23) of the elevating shaft(20) is fixed to the bottom(16) of the lower rib case, and at the same time the supporting stretcher(32) pushes the main stretcher(30) to unfold the mosquito net.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2003103980000
Patent duration : 2013.01.10

Key words

mosquito, net

Category



Title of invention

INSECT REPELLENT BAND

Bibliographic data

Application number : 202000029255 Publication number : Date of filing : 2000.10.20 Publication date :

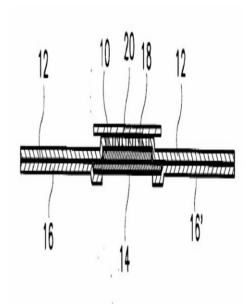
Applicant : KIM, HAN SEOK
YOO, MYOUNG OK

Inventor : KIM, HAN SEOK
YOO, MYOUNG OK

Int. CI: A01M 13/00 Priority:

Summary

The present invention relates to an insect repellent band which is capable of keeping harmful insects, such as mosquitoes or flies, a safe distance from the person who is wearing this band. The insect repellent band comprises: an insect repellent fragrant unit(10) in a flat plate shape which sprays an insect repellent fragrance, a first band unit(12) which covers the top of the insect repellent fragrant unit and has an extended length, a second band unit(14) which covers the bottom of the insect repellent fragrance unit, the lower side of the extended length of the first band unit which has adhesive material to attach the insect repellent band to skin when it is in use, an adhesive protect cover(16,16') attached to the lower side of the extended length, and a cover unit(20) for the insect repellent fragrance unit. Therefore, the insect repellent band is able to protect human body from harmful insects by simply attaching skin during outdoor activities.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002214460000
Patent duration : 2010.10.20

Key words

band, insect, repellent

Category



Title of invention

TATTOO STICKER WITH INSECT REPELLENT FUNCTION

Bibliographic data

Application number : 2020070011630 Publication number : 2020070000871

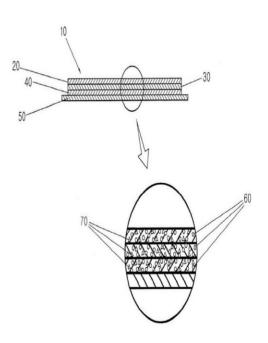
Date of filing : 2007.07.16 Publication date : 2007.08.03

Applicant : JO, JOUNG GIL Inventor : JO, JOUNG GIL

Int. CI: G09F 3/02, G09F 3/00 Priority:

Summary

The present invention relates to a tattoo sticker with an insect repellent function for repelling harmful insects from the human body and is used for body fashion with various styles. In addition, the tattoo sticker is an aroma tattoo sticker. The tattoo sticker comprises a plurality of layers above a thin paper layer(50). A sticker main body(10) includes a transparent coating layer(40), an adhesive layer(20), and an offset printing layer where various images are printed. The transparent layer and adhesive layer are mixed with an aroma(70) which repels insects such as mosquitoes or flies.



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Legal status

Final disposal of an application : Rejection

Patent registration number:

Patent duration:

Key words

tatoo, insect, repellent

Category



Title of invention

INSECT TRAP BOX BY USING AN ATTRACTANT LOCATED INSIDE OF THE TRAP BOX

Bibliographic data

Application number : 1020080013350 Publication number : 1020090056762

Date of filing : 2008.02.14 Publication date : 2009.06.03

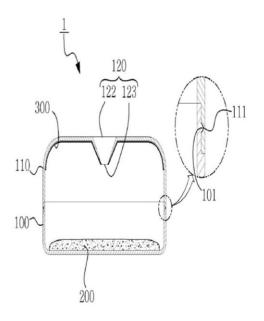
Applicant : LG HOUSEHOLD & HEALTH CARE Inventor : LEE, DAE JIN

LG HOUSEHOLD & HEALTH CARE Inventor : LEE, DAE JIN KIM, HYUN DONG

Int. CI: A01M 1/02, A01M 1/14 Priority: 2007.11.29 KR 1020070122958

Summary

The present invention relates to an insect trap which is capable of catching insects by using a trap box, an attractant, and a sticky sheet. The insect trap includes mainly an insect trap box which has an entry hole on the top of the trap box, and an attractant which attracts insects inside of the trap box, so that the insect trap box attracts the insects such as flies or other insect to catch and extinct. The insect trap comprise: a base part unit(100); an upper part unit(110); an attractant(200); a sticky sheet(300). The base part unit is an open box type and has a combining protrusion(101) on the external surface. In addition, the attractant is located on the bottom of the base part unit. The attractant is a material which is harmless to human body. The upper part unit is combined to the base part unit and the upper part unit is detachable from the base part unit. The upper part unit is open bottom type box and combined on tope of the base part unit. The entry hole(120) is formed on top of the upper part unit.



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Legal status

Final disposal of an application : **Publication**

Patent registration number:

Patent duration:

Key words

insect, trap, attractant, box

Category



Title of invention

PAPER BOX INSECT-CONTROL NOXIOUS DEVICE

Bibliographic data

Application number : 1020080013347

Date of filing : 2008.02.14

Applicant: LG HOUSEHOLD & HEALTH CARE

LTD.

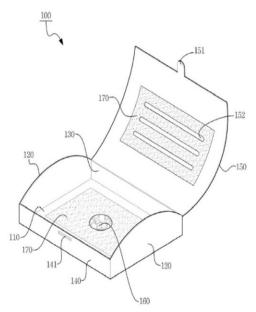
Publication number: 1020090056761

Publication date : 2009.06.03 Inventor : LEE, DAE JIN KIM, HYUN DONG

Int. CI: A01M 1/14, A01M 1/02 Priority: 2007.11.29 KR 1020070122961

Summary

An insect-controlling noxious device can be used for capturing harmful insects such as flies or drosophila using attractant and disposing of the insects hygienically. The insect-controlling noxious device(100) consists of a square bottom plate(110), plural side plates, and a cover plate(150) having an hole. The squire type bottom plate, the several side plates, the cover plate is made of paper. The upper part of the side plate is protruded in semicircle shape. The cover plate is bent in semi-circle shape. A coupling part and a slot are to fix the cover plate. A capturing slit(152) of the cover plate is formed in the noxious insects controlling device to attract the insects. Attractant(160) is put in the capturing slit. The attractant may be made of lactic acid, organic acid or glycerol, sucrose, maltose, banana, apple, etc or their mixture. The capturing slit became narrower like a cone to prevent the insects from retreating. A sticky sheet(170) is formed around the capturing slit to capture the insects.



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Legal status

Final disposal of an application : Publication

Patent registration number:

Patent duration:

Key words

noxious insects, paper box, attractant

Category



Title of invention

INSECTICIDAL PLANTS AND INSECTICIDAL COMPOSITION TO BE USED AS NATURAL INSECTICIDAL AGENT

Bibliographic data

Application number : 1020010026179

Date of filing : 2001.05.14

Applicant : NATUROBIOTECH CO., LTD.

Publication number: 1020020087568
Publication date: 2002.11.23
Inventor: KIM, SUN IL

KIM, EUN HUI

PARK, BYEONG MUK YANG, YEONG CHEOL AHN, YONG JUN

CHOI, JIN U

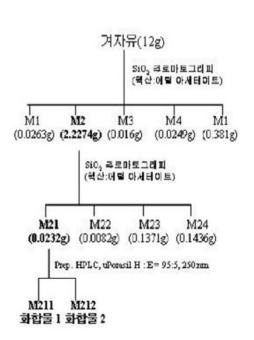
KIM. HYEON CHEOL

Int. CI: A01N 65/00

Priority:

Summary

A composition containing as a main component an organic solvent extract of 22 plants exhibiting an insecticidal or insect-repellent characteristic against various insects can be effectively used as a natural insecticidal agent or insect repellent. The insecticidal composition contains one or more selected from the group consisting of Acorus gramineus Soland, Acorus calamus var. angustatus Bess. Cinnamomum camphora. Agastache rugosa (Fisch. et Meyer) O. Kuntze, Cinnamomum sieboldii, Cinnamomum cassia, Kaempferia galanga, Illicium verum, angelicae dahuricae, Cnidium officinale, Piper nigrum, Zanthoxylum coreanum, Zanthoxylum piperitum, Zanthoxylum schinifolium, Eugenia caryophyllata, Nardostachys chinensis Batal, Tilia amurensis Rupr., Lysimachia foenum-graecum Hance, Aguilaria agallocha Roxb., Agastache rugosa, Brassica juncea and horseradish oil.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1004868190000
Patent duration : 2021.05.14

Key words

compositio, organic solvent extract

Category



Title of invention

NATURAL COMPOSITION FOR REPELLING MOSQUITOES USING CINNAMOMUM SIEBOLDII EXTRACT

Bibliographic data

Application number : **1020020025808**Date of filing : **2002.05.10**

Applicant: SEOUL NATIONAL UNIVERSITY

INDUSTRY FOUNDATION

Publication number : 1020030087445

Publication date : 2003.11.14

Inventor: KIM, SUN IL

JANG, GYU SIK KIM, HYEON CHEOL AHN, YONG JUN

Int. CI: A01N 65/00 Priority:

Summary

A natural composition for repelling mosquitoes in particular contains a Cinnamomum sieboldii extract and one of trans-cinnamaldehyde, cinnamyl alcohol, or its derivatives. It repels mosquitoes and is harmless to the human body. The natural composition for repelling mosquitoes is characterized by containing a Cinnamomum sieboldii extract, wherein the extract is one of a MeOH crude extract of Cinnamomum sieboldii. its hexene or chloroform fraction, or Cinnamomum sieboldii oil. It further contains at least one selected from the group consisting of trans-cinnamaldehyde, cinnamyl alcohol and its derivatives. The Cinnamomum sieboldii extract or its mixture can be used. Its content is preferably 5-10 wt % or 15-20 wt %. At least one group of trans-cinnamaldehyde or cinamyl alcohol can be selected. The shape of the composition for repelling mosquitoes can be a spray, a coil, a capsule, a cream or a gel.

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Legal status

Final disposal of an application : Registration
Patent registration number : 1004848870000
Patent duration : 2022.05.10

Key words

natural, composition, mosquitoes, cinnamomum sieboldii extract

Category



Title of invention

MOSQUITO LARVICIDE COMPOSITION CONTAINING HERBAL EXTRACT HAVING LOW TOXICITY TO HUMANS

Bibliographic data

Application number : 1020030007131 Publication number : 1020040070903

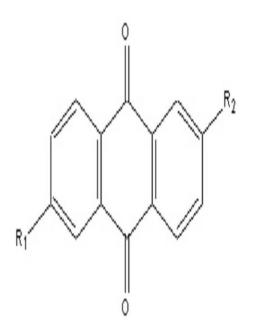
Date of filing : 2003.02.05 Publication date : 2004.08.11

Applicant : LEE, HOE SEON Inventor : LEE, HOE SEON

Int. CI: A01N 65/00 Priority:

Summary

A mosquito larvicide composition contains an herbal extract of Pimenta recemosa, Citrus bergamia, Carum carvi or the like as an active ingredient. It is low in toxicity to the human body as well as fish and shellfish and thus is environmentally friendly. The mosquito larvicide composition contains: an extract of one or more plants selected from the group consisting of Pimenta recemosa, Citrus bergamia, Carum carvi, Daucus carota, Juniperis virginiana, Cuminum cyminum, Ferula galbanifulua, Organum majorana, Commiphora myrrha, Lavandula officinalis and Melaeuca viridiflora, and one or more compounds of the formula(1) and (2) as an active ingredient. In formula(1), R1 is -H, -OH, -CH3, and R2 is -H, -OH, -CH3. In formula(2), R1 is -H, -OH, -CH3, R2 is -H, -OH, -CH, -COOH, R3 is -H, -OH, -CH3, and R4 is -H, -OH, -CH3. The extract composition can be used in essential oil or organic solvent extract. The extract composition is extracted by a distillation or pressing method using water or vapor.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1005149770000
Patent duration : 2023.02.05

Key words

mosquito, larvicide, composition, active ingredient

Category



Title of invention

COMPOSITION FOR SAFE MOSQUITO REPELLENT COMPRISING NATURAL MOSQUITO-REPELLING OIL WHICH IS CAPABLE OF REPLACING DEET AS CONVENTIONAL MOSQUITO REPELLENT

Bibliographic data

Application number : **1020060036535**Date of filing : **2006.04.24**

Applicant: CHUNGBUK NATIONAL UNIVERSITY

INDUSTRY-ACADEMIC COOPERATION FOUNDATION

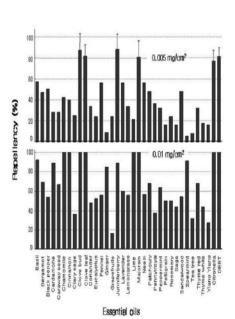
Publication number : Publication date :

Inventor : KIM, GIL HA
KANG, SIN HO

Int. CI: A01N 65/00 Priority:

Summary

A composition for mosquito repellent improves mosquitorepellent effects by increasing effective time of mosquito repellent and safety of use by inhibiting skin and oral toxicity. Also, the composition is capable of replacing DEET(N,N-diethyl-m-toluamide) as a conventional mosquito repellent. The composition for mosquito repellent includes at least one oil selected from clove bud oil, clove leaf oil, juniper berry oil and majoram oil, and is prepared by selecting one oil from juniper berry oil and majoram oil, adding 10-70 vol %, based on the volume of the selected oil and of one adjuvant oil into the selected oil wherein the adjuvant oil is selected from vanillin, polyoxyethylene glycol, polyvinyl ether-maleic acid (PVM/MA) copolymer, polyvinylalcohol, polyacrylic acid, polyvinylpyrrolidone (PVP), carbopol, hydroxy propylmethyl cellulose, hydroxy ethyl cellulose, hydroxy propyl cellulose, gelatin and alginic acid, and adding ethanol into the mixture.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1007563970000
Patent duration : 2026.04.24

Key words

composition, mosquito, repellent, deet

Category



Title of invention

SAFE AND EFFICIENT COMPOSITION FOR REPELLING MOSQUITOES COMPRISING NERIC ACID

Bibliographic data

Application number : 1020070048299 Publication number : Date of filing : 2007.05.17 Publication date :

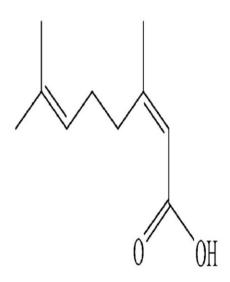
Applicant : BIO & HNT, INC. Inventor : KWON, HYEOK IL

PARK, GYE CHEONG OH, HYEON U

Int. Cl: A01N 25/20, A01N 25/00, A01P 7/04 Priority:

Summary

A composition for repelling mosquitoes can be used for preventing harmful effects to the human body using a compound isolated from natural products while the mosquito-repelling activity is identical to the conventional mosquito-repelling agent, N,N-diethyl-mtoluamide(DEET). The composition for repelling mosquitoes includes 0.1-25 wt % of neric acid represented by the formula(1) which is isolated from vegetable essential oils including lemon mint (Satureja punctata) and sweet orange (Citrus sinensis). The composition is applied to the skin for repelling mosquitoes, and is formulated as a cream, lotion, spray, diffusion, or coating agent. The neric acid of the invention is harmless to humans and acts as a strong repellent to aedes. The chemical formula of the neric acid is C10H16O2. The neric acid is included in vegetable essential oil and is mainly in lemon mint.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1007544160000
Patent duration : 2027.05.17

Key words

composition, mosquitoes, neric acid

Category



Title of invention

MOSQUITO NET HAVING AN AROMATIC NATURAL HERB

Bibliographic data

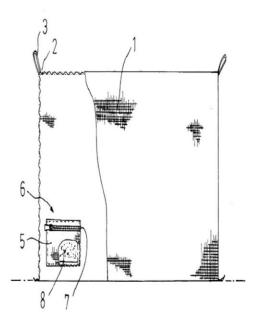
Application number : 2020020026167 Publication number : Date of filing : 2002.09.02 Publication date :

Applicant : LEE, KI CHOOL Inventor : LEE, KI CHOOL

Int. CI: A47C 29/00, A45F 3/52 Priority:

Summary

A mosquito net can be used for repelling mosquitoes using a pocket of an aromatic natural herb. The mosquito net has a net pocket which includes an aromatic natural herb, or a mixture of a neutral scent or peppermint which cleans the fuzz out of the head and repels mosquitoes. The mosquito net consists of a upper net(1), a side net, a fixing adjustment string(3), and a pocket(6). The pocket is formed at the side of the net and has an aromatic agent(8). The aromatic agent is a natural herb, or a mixture of a neutral scent or peppermint. Peppermint is a mosquito repellant. Also, the aromatic agent can be strawberry, peach, apple, lemon, lavender, jasmine or a mixture thereof. The aromatic agent can prevent the mosquito from being approach to the net.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2002981600000
Patent duration : 2012.09.02

Key words

mosquito, net, aromatic, herb

Category



Title of invention

INSECTICIDE COLLECTOR FOR FOUR SEASONS

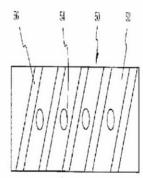
Bibliographic data

Application number : 1019990054677 Publication number : 1020000012408
Date of filing : 1999.12.03 Publication date : 2000.03.06
Applicant : GUNWOO ENVIRONMENT CO., LTD. Inventor : KANG, BYEONG SIK

Int. CI: A01M 1/00 Priority:

Summary

An insecticide collector can be used for one year by inserting a vermin-inducing agent and a vermicide in the insecticide collector. The vermin collector(50) of the insecticide collector is placed with rice straws which is mixed with the vermin-inducing agent(54). A pheromone in the vermin-inducing agents has a strong activation and species peculiarity and is dissolved well without virulence and resistance to human beings and livestock. In addition, the pheromone emits a sexual pheromone when and an aggregate pheromone for gathering vermin living in a group. The insecticide collector consists of a main body of clothes or vinyl sheet, rice straws in the main body, an adhesive member disposed at both sides of the main body, the vermin-inducing agent including a jelly or powder of fermented fruit juice, syrup or pheromone, a insecticide of stomach poison 2 wt %, emulsifier 1 wt %, solvent1 wt %, vegetable protein 90 wt %, carbohydrate 2 wt %, etc.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1003486450000
Patent duration : 2019.12.03

Key words

insecticide collector, vermin, agent

Category



Title of invention

FOLDABLE MOSQUITO NET EQUIPMENT FOR BED

Bibliographic data

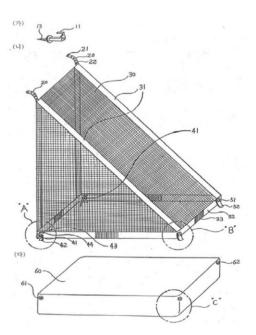
Application number : 2020050036440 Publication number : Date of filing : 2005.12.27 Publication date :

Applicant: JUNG, JAE HOON Inventor: JUNG, JAE HOON

Int. CI: A47C 29/00 Priority:

Summary

A mosquito net equipment for a bed is suitable for pregnant women, infants, and young boys because risk of fire can be prevented. The mosquito net equipment for a bed can be easily set up. The mosquito net equipment comprises a mosquito net(30) of pentahedron structure, two strings(20) for a rack formed at both edges of the corner portions(31) of the mosquito net, rack holes(21, 22) which can be connected with the coupling part(11) to secure the upper portion of the mosquito net, snap fasteners(41, 51, 61) which can be coupled with the mattress(60), and fastening rubber bands(33) formed in the middle of the lower portion of the mosquito net. The mosquito net equipment can be folded or unfolded. When it is sleeping time, a folded net is unfolded to the end of the bed and then the snap fasteners are coupled. The vertical cross section of the net is a triangle structure. Two summits contacting with the mattress are fixed to the mattress by the upper coupling device and the lower coupling device. One summit is fixed to the rack hole by the string.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2004107340000
Patent duration : 2015.12.27

Key words

mosquito, net, bed

Category



5. Agriculture

- 1) Equipment(12)
- 2) Methods(7)
- 3) Tools(12)



Title of invention

DEVICE FOR REPELLING BIRDS BY GENERATING LIGHT AND SOUND FROM NATURAL WINDS

Bibliographic data

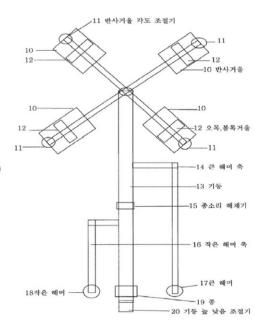
Application number : 2020040023102 Publication number : Date of filing : 2004.08.10 Publication date :

Applicant KIM, SEONG JA Inventor: KIM, SEONG JA

Int. CI: A01M 1/08 Priority:

Summary

The present invention relates to a device for repelling birds regardless of presence of humans. The device generates light and sound day and night using natural winds. The device for repelling birds is formed like a pinwheel. Reflecting mirrors(10) are attached on the wings and reflect the sunlight or moonlight. Concave mirrors and convex mirrors(12) are attached on the reflecting mirrors in order to reflect the light a short distance and a long distance uniformly. An angle adjuster adjusts the angle of reflecting mirrors. If the wings rotate, a big hammer(17) and a small hammer(18) hit a bell(19). By hitting the bell, a low tone and a high tone are generated. The sounds repel the birds and wild animals.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2003708960000
Patent duration : 2014.08.10

Key words

expelling, birds, wild animals, pinwheel, reflecting mirrors

Category



Title of invention

NET FOR PROTECTING FRUITS FROM BIRDS. REPTILES. AND HARMFUL INSECTS

Bibliographic data

Application number: 2019980011263
Date of filing: 1998.06.26
Applicant LEE, DU SAM

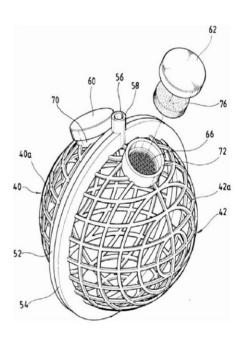
LEE, GANG CHEOL

Publication number : 202000001511
Publication date : 2000.01.25
Inventor : LEE, GANG CHEOL

Int. CI: A01G 13/02 Priority:

Summary

The present invention relates to a net which protects fruits from birds, reptiles, and harmful insects. The net can also prevent fruits from damage caused by falling down. The net for protecting fruits comprises a transparent protection net(40, 42), a transparent flange(52, 54), an inlet(56, 58) for a branch, a chemical container(70, 72), and a chemical discharging member. The transparent protection net has a plurality of holes(40a, 42a). The inlet for a branch is formed at the upper part of the transparent flange. The branch holding fruits passes through the inlet. The chemical container is opened and closed by a cap(60,62). A net is installed in the passage from the transparent protection net to the inside. The chemical discharging member discharges chemicals to the inside of an inlet for a branch in order to prevent harmful insects from entering the transparent protecting net.



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Legal status

Final disposal of an application: Withdrawal

Patent registration number:

Patent duration:

Key words

agricultural product, harvesting, irregularity wheel

Category



Title of invention

EXTERMINATING DEVICE USING A BEAM HARMLESS TO ANIMALS AND PLANTS

Bibliographic data

Application number : 1020060103508 Publication number : Date of filing : 2006.10.24 Publication date :

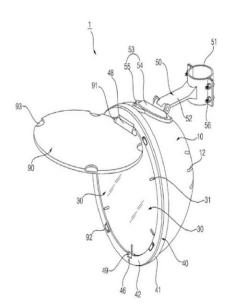
Applicant PARK, KYOUNG BO Inventor: PARK, KYOUNG BO

CHAMIT

Int. Cl: A01M 1/22, A01M 1/04 Priority:

Summary

A device can exterminate most vermin effectively using a light beam with a wavelength disturbing physiology of vermin so as to prevent every kind of damage caused by them. Because the beam is beam harmless to animals and plants, the device can produce environment-friendly agricultural products. The exterminating device(1) includes a housing(10), a reflector arranged inside the housing, a transparent plate(30) arranged in the opening of the housing, a detachable fixing cover(40), a support(50), a light source, and a controller. The housing has an opening in its front face. The transparent plate is arranged in the opening of the housing. The detachable fixing cover is mounted in the front face of the housing, so as to fasten the transparent plate and the reflector in the opening. One side of the support is connected to the housing, and the other side has a clamp(51). The light source is arranged in a front part of the reflector, and irradiates a light beam with a wavelength for disturbing the physiology of vermin. The controller is arranged in a rear part of the reflector, and controls the light source.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1007954350000
Patent duration : 2026.10.24

Key words

vermin, environment-friendly, beam

Category



Title of invention

ARTIFICIAL CONSTRUCTION PIPE MADE OF COCONUT AND BAMBOO AND A METHOD FOR MANUFACTURING THEREOF

Bibliographic data

Application number : 1020070078373 Publication number : 1020090013638

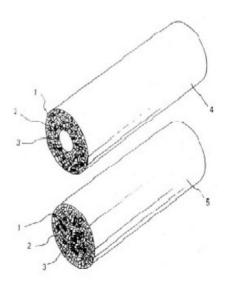
Date of filing : 2007.08.02 Publication date : 2009.02.05

Applicant CHOI, HYUN UI Inventor : CHOI, HYUN UI

Int. CI: B29C 45/00, B29B 17/00, B29D 23/00 Priority:

Summary

The present invention relates to a method for manufacturing an artificial construction pipe which is made of coconut, bamboo, or recycling material. Because of low material cost, the manufacturing cost is low. Also, the artificial construction pipe can allow a user to conveniently set up and semi-permanently protects the pipe from corroding. The method for manufacturing the artificial construction pipe comprises the following steps. First, collect the wasted materials from a coconut from which the necessary materials such as oil, milk, and chemical sources have been already extracted. Second, add azodicarbonamide, a preexisting additive, to a coconut, then cut the coconut in 2 - 6M / M(2) and bamboo powder(1). Third, injection-mold the above results after mixing with regeneration polyethylene(3). The injection molding process works under a condition in which the inner temperature of an injection molding machine maintains 160~195 degrees.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1009111770000
Patent duration : 2027.08.02

Key words

artificial construction pipe, coconut, bamboo, recycling material

Category



Title of invention

DEVICE FOR EXPELLING WILD ANIMALS USING A PLURALITY OF EXPLOSIVES

Bibliographic data

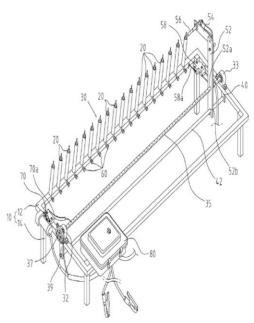
Application number : 2020070006214 Publication number : Date of filing : 2007.04.16 Publication date :

Applicant PARK, BO RAN Inventor: PARK, BO RAN

Int. Cl: A01M 29/04, A01M 29/00 Priority:

Summary

The present invention relates to a device which can repel wild animals using a plurality of explosives. The device can move to the right and left with the plurality of explosives, and successively light the explosives for a given period, so the device can repel wild animals conveniently. The device for repelling wild animals comprises an upper frame(12), a frame(10), a plurality of explosive holding units(20), a igniter(30), and a controller(80). The frame is installed under the upper frame. The explosive holding units are arranged on the rear part of the upper frame and are equidistant from each other. The explosives are held by the explosive holding units. The igniter is arranged along the length on the upper frame and ignites the explosives. The controller is mounted on the upper frame and controls the operation of the igniter.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2004376860000
Patent duration : 2017.04.16

Key words

green tract, greenfield, sandy wind, windbreak wall, on-site soil, soil improver

Category



Title of invention

FRUIT COVER TO KEEP BIRDS AWAY FROM FRUITS

Bibliographic data

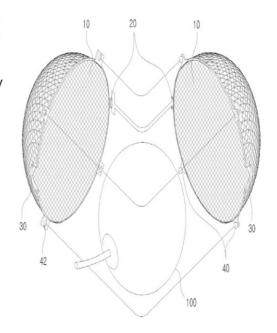
Application number : 2020060008555 Publication number : Date of filing : 2006.03.31 Publication date :

Applicant KIM, BYUNG JOO Inventor: KIM, BYUNG JOO

Int. Cl: A01G 13/04 Priority:

Summary

The present invention relates to a fruit tree pest-control method which is capable of keep birds off fruits using a fruit cover. The cover is to protect fruits which have a similar shape, such as apple, pear, and others from birds. The fruit cover is provided to harvest good quality fruits by protecting the fruits from birds. The fruit cover comprises a pair of cover bodies(10) with a half sphere shape which forms a spherical shape when combined together with a fruit(100) such as an apple or a pear located inside the combined cover body. The pair of cover bodies have a hinge connection(20), and a plurality of combining protrusions and receptacles are formed to strongly maintain the covering state.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2004189120000
Patent duration : 2016.03.31

Key words

fruit, cover, bird

Category



Title of invention

BIRD REPELLENT SCARECROW

Bibliographic data

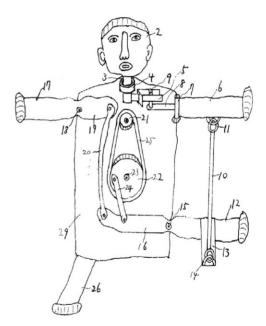
Application number : 202003000565 Publication number : Date of filing : 2003.01.03 Publication date :

Applicant SONG, JOO TAK Inventor: SONG, JOO TAK

Int. Cl: A01M 29/00 Priority:

Summary

The present invention relates to a scarecrow which is capable of using wind power to protect crops and keep birds away from the crops. The scarecrow comprises: a small pulley(21) which moves as a vane turns with the wind, a big pulley(22) which is connected to the small pulley with a belt(25), a right leg which is connected to the big pulley by a pulley connector(24), a right arm which is connected to the right leg(12) by a right arm connector(10), a head(2) which is connected to the right arm, a left arm which is connected to the right leg with a left leg connector(20), and a left leg which makes the scarecrow stand. As the big pulley turns around, the right leg moves up and down. The right arm moves left and right following the movement of the right leg. The head spins following the movement of the right arm. In addition, the left arm also moves up and down as the right leg moves. The scarecrow is able to keep birds away from the crops effectively by moving.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2003088850000
Patent duration : 2013.01.03

Key words

bird, repell, scarecrow

Category



Title of invention

FARMING EQUIPMENT FOR PROVIDING SHADE FROM SUN

Bibliographic data

Application number : 2019960022644 Publication number : 2019960033326

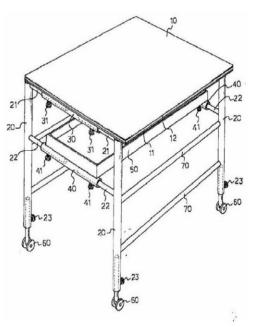
Date of filing : 1996.07.23 Publication date : 1996.11.19

Applicant CHO, DONG YOUNG Inventor : CHO, DONG YOUNG

Int. CI: A45B 23/00 Priority:

Summary

The present invention is related to farming equipment which is capable of shading a user from the sun while farming in a field. In addition, the farming equipment is able to hold and carry various farming devices or farming products. The shading equipment comprises: a tent(10) which shades the user from the sun located over a supporting plate(11) and a polystyrene(12), four supporting pipes(20) which support the supporting plate, a primary width-adjusting pipe(30) which adjusts the distance between two supporting pipes, a secondary width-adjusting pipe(40) which adjusts the width between the two supporting pipes, a shelf(50) which is located over the second width-adjusting pipe, four wheels(60) which are connected to the bottom of each supporting pipe. The height of the supporting pipes is adjustable.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2001277480000
Patent duration : 2011.07.23

Key words

farming, equipment, shade

Category



Title of invention

PROTECTING COVER FOR FRUIT PREVENTING DAMAGE FROM BIRDS AND FOR EXPELLING BIRDS

Bibliographic data

Application number : 1019990037006 Publication number : 1019990083946

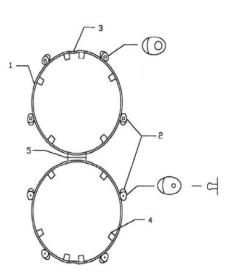
Date of filing : 1999.09.01 Publication date : 1999.12.06

Applicant PARK, NO IK Inventor : PARK, NO IK

Int. CI: A01G 13/02 Priority:

Summary

The present invention relates to a fruit-tree pest-control method which is capable of protecting fruits from birds using a protecting cover for fruits. The protecting cover is provided to protect ripening fruit by wrapping up a fruit and to be used in recycling by making the cover with hardness. The protecting cover for fruit comprises the following: a cover(1) such as a type of net, a chain, a bar; a snap button(2) to prevent separation of a cover; a hole(3) for a stem; a hinge. The protecting cover for fruits has a dual structure to prevent the beak of a bird from reaching the fruit in the protecting cover.



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Legal status

Final disposal of an application: Withdrawal

Patent registration number :

Patent duration:

Key words

fruit, bird, protect, wrap

Category



Title of invention

APPARATUS FOR CONTINUOUS DRINKING WATER SUPPLY FOR LIVESTOCK

Bibliographic data

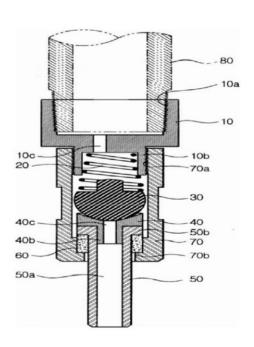
Application number : 2019990030676 Publication number : Date of filing : 1999.12.31 Publication date :

Applicant JUNG, YOUNG HEE Inventor: JUNG, YOUNG HEE

Int. Cl: A01K 7/00 Priority:

Summary

An apparatus for supply drinking water for livestock smoothly operates by a pressing drain tap. The apparatus comprises a connection pipe of which an upper part has a primary screw thread connected to a water pipe and a lower part has a coupling screw portion(10b), a supply pipe(70) of which inner surface has a second screw thread for the coupling screw portion and lower surface has a bent supporting jaw, a pressing drain tap(50) which is bent and coupled to be rotated to the supporting jaw through the supply pipe, rubber packing for preventing a water leak which is formed between the jaw and the supply pipe, a rotation contact part(40) made of elastic material which has a semicircular supply hole in its own inner surface and is inserted in the pressing drain tap, a rolling ball(30) for opening and closing the supply hole, and an elastic member which in formed in the coupling screw part and contacts the rolling ball with the bent inner surface.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2001864790000
Patent duration : 2009.12.31

Key words

drinking water, livestock, rubber, drain

Category



Title of invention

ASSEMBLED FENCE FOR OBSTRUCTING WIND, HARMFUL ANIMALS

Bibliographic data

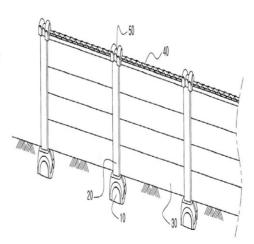
Application number : 2020060005443 Publication number : Date of filing : 2006.02.28 Publication date :

Applicant LIM, TAE SEUNG Inventor: LIM, TAE SEUNG

Int. Cl: **E04H 17/14, E04H 17/20** Priority:

Summary

An assembled fence can be formed by assembling a concrete unit, a basic block and a pillar and can be used for obstructing wind and harmful animals and preventing corrosion caused by rainwater. Also, the design of the assembled fence is in the shape of a tile roof so that it goes well with a residential area. The assembled fence consists of the basic block(10) which has a coupling hole at its center and a pillar(20) having a coupling groove connected to the basic block, a roof member(40) for rainwater, a board(30) and a cover(50) for the pillar. The roof member is connected to an upper part of the board. A round cover for the pillar is formed at the uppermost part of the pillar. The basic block can be made of concrete. The pillar is stacked with boards using a coupling groove. The space between the boards is filled with a filler such as mortar. The roof member for rainwater is parallel with the boards to obtain stability. Various patterns can be formed on the roof member.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2004167990000
Patent duration : 2016.02.29

Key words

fence, concrete, roof, filler

Category



Title of invention

BAND FOR PREVENTING ACCESS OF ANIMALS AND INSECTS

Bibliographic data

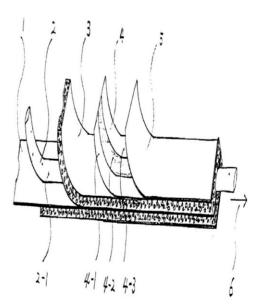
Application number : 2020010030285 Publication number : Date of filing : 2001.09.27 Publication date :

Applicant SHIN, HYUN JIN Inventor: SHIN, HYUN JIN

Int. CI: A01M 29/00 Priority:

Summary

A band (1) for preventing the access of animals and insects has small tubes(2) which are filled with a foam resin(3) of a bad-smelling liquid and have fine holes. The animals are mainly birds such as magpies, migratory birds, and ducks. Also, the band has a light-reflection film(4) for scattering the light formed on the foam resin to prevent the approach of pests. A coating layer is formed on the light-reflection film. If you use it for a short period, for example the harvesting season or within one month, you should fill the foam resin with the bad-smelling liquid. If you use it for a long period such as more than one month, you should supply various scent solutions to the resin via a small tube using a motor. Therefore, the band can be used in a farm or an airport where there are many birds.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002645430000
Patent duration : 2011.09.27

Key words

band, bird, airport

Category



Title of invention

MANUFACTURING METHOD AND MANUFACTURING DEVICE OF RAW MATERIAL OF PULP, CAPABLE OF SUBSTITUTING EMPTY FRUIT BUNCH FROM PALM TREE FOR WOOD

Bibliographic data

Application number: 1020040081451
Date of filing: 2004.10.12
Applicant CHO, KWANG HO

JANG, CHUL

Publication number : 1020060032495

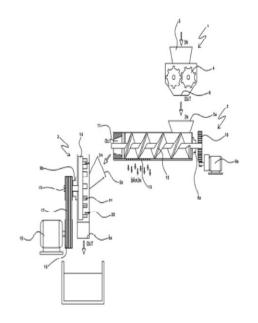
Publication date : 2006.04.17 Inventor : CHO, KWANG HO

JANG, CHUL

Int. CI: **D21H 11/12** Priority:

Summary

A manufacturing method and a manufacturing device of raw material of pulp can substitute an empty fruit bunch from a palm tree for wood. The manufacturing method is as follows. First, prepare the empty fruit bunch that has come into disuse after making palm oil and kernels from the fruit of the palm tree. Second, crush the empty fruit bunch with a crusher to separate fibrous tissues. Third, put the crushed empty fruit bunch in a compressing dehydrator to remove moisture absorbed in fibers, to wrench the fibrous binding tissues, to compress the fibers, and to expand the fibers owing to elasticity. Forth, put the compressed and dehydrated fibers in a cutting grinder to grind the fibers. The crusher(1) is equipped on both inside shafts with helical crushing roller gears(4), and it presses and crushes the empty fruit bunch inserted through an inlet(5), and discharges the crushed material through an outlet(6). The compressing dehydrator(2) dehydrates the fibers inserted through an inlet(5a), separates the binding tissues, discharges the separated tissues to an outlet using a compressing screw(12) installed inside, and separates moisture and oil using a drain(13).



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Legal status

Final disposal of an application: Withdrawal

Patent registration number:

Patent duration:

Key words

pulp, palm tree, wood, fruit bunch, crusher, fiber

Category

Primary: Agriculture Sub: Method



Title of invention

METHOD OF DEVELOPING GREEN TRACT OF LAND FOR PREVENTION OF DESERTIFICATION BY INSTALLATION OF WINDBREAK WALLS

Bibliographic data

Application number : 1020060129518 Publication number : Date of filing : 2006.12.18 Publication date :

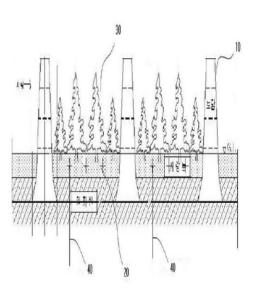
Applicant HANSANG CONSTRUCTION CO., LTD. Inventor: KIM, NAM KYU HANSANG DEVELOPMENT AND KIM, NAM IL

CONSULTING PARK, SANG KWON

Int. CI: A01G 1/00 Priority:

Summary

A method of developing a green tract of land can prevent direct collision of grass with sandy wind and protect the grass by obstructing wild animals. The method of developing a green tract of land is as follows. First, make a block by mixing 40 to 60 parts by weight of cement or slaked lime, 0.1 to 1 parts by weight of a reacting agent and 0.5 to 1.5 parts by weight of a solidification agent, based on 100 parts by weight of onsite soils and solidification treatment. Second, install a plurality of windbreak walls(10) in a transverse direction by heaping the blocks. Third, place planting soils(20) between the windbreak walls. Forth, bury a porous pipe(40) into the ground and feed water to plants(30) through the porous pipe. The planting soils are prepared by a solidification treatment of on-site soils and soil improvers or mixing 100 parts by weight of on-site soils and 10 to 15 parts by weight of sludge.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1007121380000
Patent duration : 2026.12.18

Key words

green tract, greenfield, sandy wind, windbreak wall, on-site soil, soil improver

Category



Title of invention

METHOD FOR PLANTING TREES IN DESERTS AND DRY REGIONS BY SUPPLYING MINIMUM WATER

Bibliographic data

Application number: 1020060114984

Date of filing: 2006.11.21

Applicant YU, HEUNG SIK

JIN, SUNG KYUN

Publication number : 1020080045830

Publication date : 2008.05.26

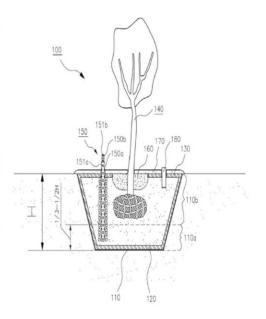
Inventor : YU, HEUNG SIK

JIN, SUNG KYUN

Int. CI: A01G 23/02, A01G 1/00 Priority:

Summary

A tree-planting method for deserts and dry regions can plant a tree for a long period (about 12~60 months) even though water is supplied only once. The method can store rainwater to use as supply water. Thus, additional irrigation facilities are not needed. The tree-planting method for deserts and dry regions is as follows. First, prepare trees(140) and form a hollow(110) for planting trees. Second, cover the inner surface of the hollow with a primary waterproof cover(120) to prevent the water in the hollow from seeping into the ground. Third, equip the covered hollow with an air/water supply device(150), and fill the hollow with soil at a level of 1/4~1/3 based on the depth of the hollow to form a first layer(110a). Forth, plant the trees in the hollow, and fill it with soil completely to form a second layer(110b). Fifth, cover the surface of the second layer with a secondary waterproof cover(130). Sixth, cover the second waterproof cover with soil to protect it. Seventh, supply a fixed amount of water to the inside of the hollow through the air/water supply device.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008649580000
Patent duration : 2026.11.21

Key words

tree-planting, deserts, dry region, water, rainwater

Category



Title of invention

SOIL FERTILITY REINFORCER FOR CULTIVATING AGRICULTURAL PRODUCTS USING CHARCOAL POWDER AND YELLOW SOIL

Bibliographic data

Application number : 1020050010890 Publication number : 1020060090042

Date of filing : 2005.02.04 Publication date : 2006.08.10

Applicant JANG, JI HWAL Inventor : JANG, JI HWAL

Int. Cl: A01N 61/02, A01N 61/00, A01N 25/12 Priority:

Summary

A fertility reinforcer can improve soil fertility, cultivate various agricultural products, and prevent various soil blight diseases by utilizing charcoal powder and yellow soil. The fertility reinforcer for cultivating agricultural products, prepared by powderizing charcoal into particles of a regular size, is characterized in that it is prepared by mixing the charcoal powder crushed into the sized powder or particles, yellow soil powder having a regular size, and water, and then being dried. The mixture ratio of the charcoal powder and the yellow soil powder is 5-30:95-30. By scattering the mixture of charcoal and yellow soil on the soil, acidification is prevented and the productivity of soil is increased.

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Legal status

Final disposal of an application : Rejection

Patent registration number:

Patent duration:

Key words

soil, fertility, reinforcer, charcoal, yellow soil, agriculture

Category



Title of invention

MASS-PRODUCTION METHOD OF SEED POTATO BY NUTRICULTURE

Bibliographic data

Application number : **1019950009369**Date of filing : **1995.04.20**

Applicant REPUBLIC OF KOREA(MANAGEMENT:

RURAL DEVELOPMENT ADMINISTRATION)

Publication number: 1019960036908

Publication date: 1996.11.19
Inventor: CHOI, GWAN SOON

KIM, BYUNG HYUN KIM, HYUN JOON KIM, JUNG GAN KIM, SEUNG YUL RYOO, SEUNG YUL UM, YUNG HYUN

Int. Cl: A01G 31/00 Priority:

Summary

The present invention relates to a mass-production method of seed potato by nutriculture. A production method of a new seed potato is provided to multiply a healthy seed tuber not infected from virus by grafting a hydroponic-culture technique on a plant tissue-culture technique. A manufacturing method is composed of: obtaining a rooting seedling by a tissue culture to obtain a healthy nutrient solution for growing the seedling by hardening the rooting seedling, generating the root by culturing the healthy nutrient solution for growing the seedling while supplying oxygen through a bubble generator in water, supplying a nutrient solution discontinuously in a bed low surface water spilling method to prevent a potato tuber from rotting or lenticel from fattening, and adding a growth-adjusting agent in the tuber forming period to promote the formation of the stem tuber. Therefore, the method can produce 300 times as many potatoes as the conventional artificial production method of the seed potato while lowering production cost.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1001378770000
Patent duration : 2015.04.20

Key words

seed potato, production

Category



Title of invention

METHOD FOR CULTIVATION OF GINGER OR GARLIC USING PAPER COVERING TO PREVENT GROWTH OF WEEDS, INCREASE YIELD, AND SHADE GINGER OR GARLIC FROM STRONG SUNLIGHT

Bibliographic data

Application number : 1020030052855 Publication number : 1020050014286

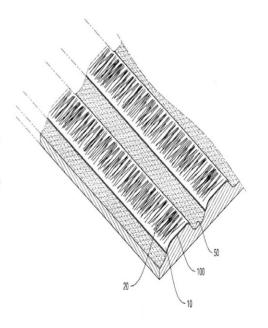
Date of filing : 2003.07.30 Publication date : 2005.02.07

Applicant LEE, WON WOO Inventor : LEE, WON WOO

Int. CI: A01G 1/00 Priority:

Summary

The present invention relates to a method for cultivating ginger or garlic using a paper covering which is capable of preventing growth of weeds, increase yield, and shade the ginger or garlic from strong sunlight. The method for cultivation of ginger or garlic using a paper covering comprises the following steps of: preparing superior seeds of ginger or garlic, adding compost and fertilizer into the soil and plowing the soil to form ridges(100) and furrows(50), seeding the ginger or garlic in the ridges(100), covering the ridges(100) with paper(10), covering the paper(10) with rice straw or pine leaves, and supplying water and fertilizer to the ginger or garlic shoots penetrating the paper cover.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1005197250000
Patent duration : 2023.07.30

Key words

cultivate, ginger, garlic, paper, cover

Category



Title of invention

WARNING SYSTEM FOR PLANTATION OF AGRICULTURAL AND STOCKBREEDING PRODUCTS

Bibliographic data

Application number : 2019980016815 Publication number : 2020000005896

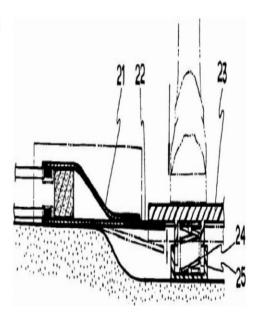
Date of filing : 1998.09.04 Publication date : 2000.04.06

Applicant DOGUN TECHNOLOGY CO., LTD. Inventor : BAEK, YUN GANG

Int. CI: A01G 9/14 Priority:

Summary

A warning system for plantation of agricultural and stockbreeding products prevents burglary in the field and is suitable for the wide area. The main body of the warning system which has a telephone for emergencies, a lamp, an alarm, a central control part for comparing signals detected by an outside detection wire. The warning system comprises: the main body, a primary sensor which has a snap button connected to the detection wire and the main body and is fixed to crops or a pillar by a fine wire, a secondary sensor which has upper lower detecting plates(21, 22), a pressure-sensing part(23) having a lower box(25) and an elastic member(24), a tertiary sensor which is connected to the detection wire and is contacted with the right and left contact point, a forth sensor which generates a signal caused by combustion of wire coating, a fifth sensor which presses the snap button by a signal generated by the pressure-sensing part. The fine wires are set in entry routes to detect an intruder. When the intruder touches the fine wire, a signal is generated to operate an alarm.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002667650000
Patent duration : 2013.09.04

Key words

warning system, plantation, agricultural, stockbreeding, sensor

Category



Title of invention

FRUIT-PICKING DEVICE CAPABLE OF PICKING FRUIT REGARDLESS OF HEIGHT OF FRUIT

Bibliographic data

Application number: 1019890015195
Date of filing: 1989.10.23
Applicant LEE, JEOM SU

LEE, JEOM SIK

Publication number: 1019910007409

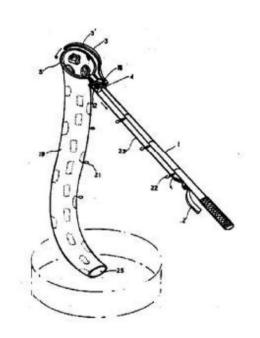
Publication date: 1991.05.30 Inventor: LEE, JEOM SU

LEE, JEOM SIK

Int. CI: A01D 46/24 Priority:

Summary

The present invention relates to a device for picking fruit at an orchard or a farm. Because the length of the device is adjustable, the device can pick fruit which is located at a high place. The fruit-picking device comprises a pole(1), a joining member(4), a cutter(3), and a picking net(19). The pole is formed like a fishing rod so it can be extended or bent, and includes a lever(2) and a plurality of hooks(22) which are arranged at each bend of the pole. The joining member is arranged at one end of the pole and joins the pole, the cutter, and the picking ring. The picking net is attached to the picking ring. The end of the cutter is connected with the lever through an iron string. The cutter is operated by the pressure of the lever. If the pressure of the lever stops, the cutter is placed at the outer circumference of the picking ring by a spring(12).



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Legal status

Final disposal of an application : Rejection

Patent registration number:

Patent duration:

Key words

fruit, picking, orchard, farm, picking net

Category



Title of invention

AGRICULTURAL HARVESTING MACHINE, CAPABLE OF MASS-HARVESTING AGRICULTURAL PRODUCTS WITH LESS LABOR FORCE IN A SHORT TIME

Bibliographic data

Application number : 2019980019753 Publication number : 2020000008141

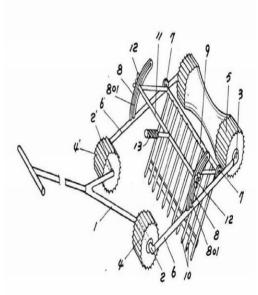
Date of filing : 1998.10.13 Publication date : 2000.05.15

Applicant KIM, DONG GI Inventor : KIM, DONG GI

Int. CI: A01D 13/00 Priority:

Summary

The present invention relates to a machine for massharvesting agricultural products such as potatoes or sweet potatoes in a short time. Irregularity wheels(4,4') are combined to axes(2,2') which are fixed to a pulling bar(1). The axes are connected to connecting bars(6,6') which are combined with irregularity wheels(5). A guiding bar on which a guiding hole(801) is formed is fixed to the connecting bars. A protruding part(7) is formed on the connecting bars. Through the guiding hole, an adjusting member moves in order to adjust the angle of the harvesting member(10). A handle(13) moves the adjusting member upwardly and downwardly. If the harvesting member is stuck into the ground and the pulling bar is pulled, the irregularity wheels rotate and the harvesting member moves. The movement of the harvesting member picks sweet potatoes or potatoes out of the ground. The depth of the harvesting member under the ground can be adjusted by the operation of the handle.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002212390000
Patent duration : 2013.10.13

Key words

agricultural product, harvesting, irregularity wheel

Category



Title of invention

FARMING EQUIPMENT FOR PULING UP A STALK OF A FARM PRODUCT

Bibliographic data

Application number : 2019970028152 Publication number : 2019990014982

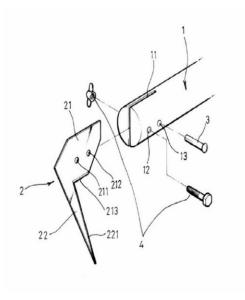
Date of filing : 1997.10.10 Publication date : 1999.05.15

Applicant LIM, JUNG JAE Inventor : LIM, JUNG JAE

Int. Cl: A01D 45/00 Priority:

Summary

The present invention relates to farming equipment which is capable of pulling up a stalk of a crop. The present farming equipment comprises: a handle (1) which has an inserting groove(11) for fitting a blade (2) and two inserting holes(12,13) to fix the blade to the handle, the blade which is stuck into a crop to pull up the crop from the earth,a connecting pin(4) which connects the blade to the groove of the handle; and a fixing pin(3) which is detachable from the handle and limits the rotation of the blade. The farming equipment helps a farmer to easily pull out crops from the earth using the blade unit, and increases work efficiency by changing the length of the handle depending on the person.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2001639380000
Patent duration : 2012.10.10

Key words

farming, equipment, device, pull

Category



Title of invention

FARMING TOOL WITH MULTIPLE FUNCTIONS

Bibliographic data

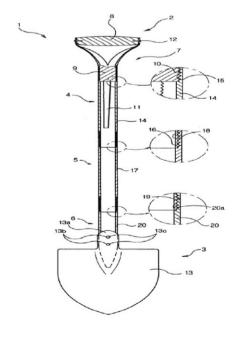
Application number : 2020010005587 Publication number : Date of filing : 2001.03.02 Publication date :

Applicant KIM, YONG TAE Inventor: KIM, YONG TAE

Int. Cl: A01B 1/02, A01B 1/00 Priority:

Summary

The present invention relates to farming tool with multiple functions which is capable of being used as a shovel, a rake, and a hoe. The present farming tool combines a shovel, a rake, and a hoe into a single body for use in multiple purposes. The farming equipment is composed of a handle(2), a shove blade(3), and a connecting helve(1,2,3). The handle includes a body unit(7) and a holding unit(8). The body unit is a cylindrical shape and a primary male screw(10) is inserted in the surface of the cylindrical main body. A saw(11) is equipped inside the cylindrical main body. The shovel blade is fixed in the low part of the cylindrical main body and the shovel blade has a plurality of holes(13b,13c) to mount it to the cylindrical main body.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002460870000
Patent duration : 2011.03.02

Key words

farming, equipment, device, multiple, function, shovel, rake, hoe

Category



Title of invention

MULTI-PURPOSE TRANSPLANT BAR

Bibliographic data

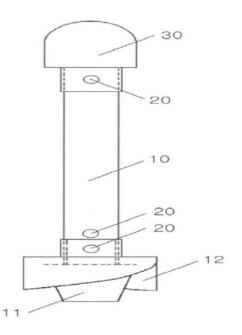
Application number : 2020050024024 Publication number : Date of filing : 2005.08.20 Publication date :

Applicant SON, KONG JOO Inventor: SON, KONG JOO

Int. Cl: A01B 1/22 Priority:

Summary

The present invention relates to farming equipment which is capable of being used for transplanting young plants. The farming equipment is a transplant bar with multiple functions, so the transplant bar is able to attach a shovel, a sickle, etc. The transplant bar has a connecting hole(20) in both ends. A shovel blade(30) is attached to one end of the transplant bar. A transplant bar head(11) which makes a hole to plant young plants is attached to the other end of the transplant bar, and the transplant bar head has a transplant bar blade to cut the vinyl covering of the plowed rows in a field.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2004011400000
Patent duration : 2015.08.20

Key words

transplant, bar, farming

Category



Title of invention

SOWING DEVICE FOR SMALL SEEDS

Bibliographic data

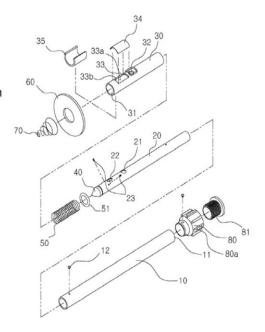
Application number : 2020040017834 Publication number : Date of filing : 2004.06.23 Publication date :

Applicant LEE, SOONG HEE Inventor: LEE, SOONG HEE

Int. CI: A01C 7/02 Priority:

Summary

The present invention relates to a sowing device for sowing small seeds on a field. The sowing device is provided to allow a worker to sow seeds while walking upright and to dispense a constant number of seeds to increase work efficiency. The sowing device comprises: a seed-supply unit(10), a seed-dispensing unit(20) which is inserted into the seed supply unit, a seed-inducing unit(30) which dispenses seeds, a digging weight(40) which makes a hole to plant a seed, an elastic unit(50) inserted in the seed-dispensing unit between the seedsupply unit and the seed-inducing unit, a supporting plate(60), and a molding unit(70) which puts soil over a sowed seed. The seeds stored in the seed supply unit come out from the hole(21) in the seed-dispensing unit. The seeds are induced by the seed-inducing unit and dispensed through a dispensing hole(31) to be sowed.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2003608250000
Patent duration : 2014.06.23

Key words

sow, seed, field, farming

Category



Title of invention

TROWEL WITH HOE-INSTALLATION FLAP TO IMPROVE PORTABILITY

Bibliographic data

Application number : 1019990005617 Publication number : 1020000056366

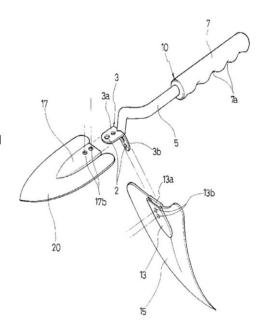
Date of filing : 1999.02.19 Publication date : 2000.09.15

Applicant DAESUNG PLASTIC CO., LTD. Inventor : KWON, GI YONG

Int. Cl: A01B 1/02 Priority:

Summary

A trowel with a hoe-installation flap can be used for planting seeds or removing weeds by combining a hoe and a trowel selectively, and removes inconvenience of possessing two tools and lowers production cost. The trowel with a hoe installation flap comprises: a main body(10) with a hoe installation flap(3) bent in the shape of an L rotated in a 180-degree arc clockwise, wherein the flap(3) has a horizontal part(3a) and a perpendicular part(3b) each having two connecting holes(2) in one end of a support bar(5) of which the other end is fastened in the center of the handle(7); a hoe(15) and a trowel(20) each having two holes(13b, 17b) and a groove(13a) at the center of its inner side, which are selectively combined by a connection instrument. The trowel and the hoe can be respectively coupled with the flap of the main body as needed.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1003079340000
Patent duration : 2019.02.19

Key words

trowel, seeding, weed, hoe

Category



Title of invention

TRANSPLANTING SPADE WITH ELEVATING SHAFT

Bibliographic data

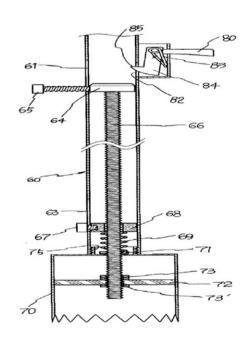
Application number : 2020010004777 Publication number : Date of filing : 2001.02.23 Publication date :

Applicant SEOUL BIO CO., LTD. Inventor: CHO, JEONG HYEON

Int. Cl: A01C 11/02 Priority:

Summary

A transplanting spade dips soil effectively by installing an elevating shaft when planting a seed in a greenhouse. The transplanting spade comprises a hollow body(60), a handle formed in the upper portion of the hollow body, a planting cap(70) having a discharge plate(72) formed in the lower portion of the hollow body, a changing lever formed at the upper portion, a protrusion fixed or loosened by the changing lever, an elevating shaft(66) having an impacting member between the protrusion and the discharge plate, a fixing ring(68) passed through the elevating shaft and a coil spring(69) formed between the fixing ring and the impacting member. The changing lever can be rotated by a pin spring(83). The impact member(71) is fixed to the elevating shaft by welding or bolts and nuts. A controlling screw(67) is used for securing the fixing ring. Therefore, the soil can be easily dipped out.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002329080000
Patent duration : 2011.02.23

Key words

transplanting spade, seeding, green house

Category



Title of invention

TROWEL HAVING SAW-TOOTHED EDGE

Bibliographic data

Application number : 2020060013242 Publication number : Date of filing : 2006.05.18 Publication date :

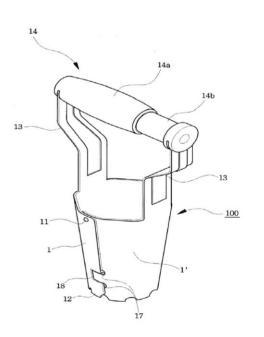
Applicant YOO IN JOTROWEL HAVING AN EDGE Inventor:

OF SAW TOOTH

Int. Cl: A01B 1/02 Priority:

Summary

A trowel(100) makes uniform pits for seeds quickly and maximizes the efficiency of seeding. The body of the trowel consists of a pair(1, 1') of semicircular cylinders which can be opened and closed by a hinge. The lower portion of the trowel is an edge(12) of saw-toothed or concavo-convex shape which makes digging easy. A handle(14) consists of a male handle(14a) and a female handle(14b). A guide groove is formed at both ends of the trowel. A bending part(13) connects the male handle and the female handle. The male handle is inserted into the female handle by thumb. The male handle is pushed out by a spring in the male handle. As the male handle is pressed, it compresses the spring to move to the female handle, and then the semicircular cylinders can be opened. The trowel is pushed and rotated on the ground to form a hole. Therefore, the pits can be quickly made in plowed rows in a field at the same time, and molding can be smoothly accomplished.



YOO, IN JO

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Legal status

Final disposal of an application : Registration
Patent registration number : 2004228440000
Patent duration : 2016.05.18

Key words

trowel, seeding, saw, tooth

Category



Title of invention

GARDEN TROWEL FOR TRANSPLANTING SEEDS EASILY

Bibliographic data

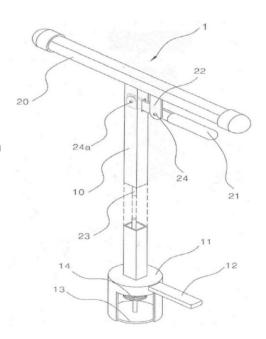
Application number : 2020060019796 Publication number : Date of filing : 2006.07.22 Publication date :

Applicant SEOL, SAM SEOK Inventor: SEOL, SAM SEOK

Int. CI: A01B 1/02 Priority:

Summary

A garden trowel solves the problem that a wood stick punches through a vinyl sheet covering the soil and a hoe digs a pit to plant a seed and then the soil covers the pit so that a worker has to bend his back and move so he should be sitting to lower the working efficiency. The garden trowel is easy and quick to use. The garden trowel comprises a handle(20), a main body(10), and a cylindrical blade(11). A fixing plate(22) is connected to the handle. A lever(21) is fixed to the fixing plate and can be rotated with a fixing pin. The end of the lever is connected to the connection bar(23) by a fixing pin(24a). A foot supporter is formed in the side of the cylindrical blade. A spring is formed in the upper portion of the foot supporter. A pressure plate which can be moved up and down in the cylindrical blade is connected to the connection bar.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2004296520000
Patent duration : 2016.07.22

Key words

garden, trowel, seeding

Category



Title of invention

WALKING REAPER FOR WET LAND ESPECIALLY USED IN TROPICAL ZONE OR SWAMPY LAND

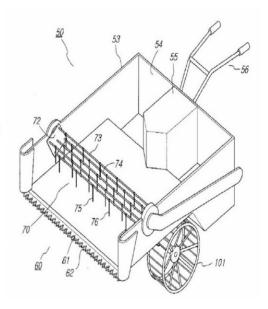
Bibliographic data

Application number: 1020010027593 Publication number: 1020020088261
Date of filing: 2001.05.21 Publication date: 2002.11.27
Applicant ASIA TECHNOLOGY CO., LTD. Inventor: KIM, UNG GIL

Int. Cl: A01D 44/00 Priority:

Summary

A walking reaper for wet land easily reaps crops regardless of the terrain, even on wet land. In a walking reaper for wet land, a store hopper(53) has a concavity(54) in the rear thereof for covering an engine on an upper frame and storing the reaped crops temporarily. A protrusion(55) is located in the center of the concavity of the store hopper to cover the engine. A control handle(56) is drawn from the frame in the rear of the store hopper. A reaper part(60) for reaping the crops is located below the store hopper and in a transverse direction of the apex portion of the store hopper. The reaper part includes an upper knife blade and a lower knife blade which are driven with power from a driving box connected to the engine and a power-transfer axis. Gathering plates (75, 76) are disposed downward to reaper axes(73, 74) mounted in a transverse direction to a rotating plate(72) in order to supply the reaped crops to the store hopper. A reaper part(70) drives the rotating plate. A part for controlling height is provided below the store hopper to maintain a predetermined height regardless of the terrain.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1003908290000
Patent duration : 2021.05.21

Key words

walking, reaper, hopper

Category



Title of invention

GARLIC SEEDER FOR SIMPLIFYING MANUFACTURING PROCESS AND IMPROVING PRODUCTIVITY

Bibliographic data

Application number: 1020040078440 Publication number: 1020060029475

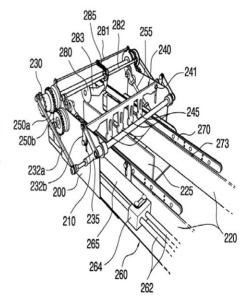
Date of filing: 2004.10.01 Publication date: 2006.04.06

Applicant PARK, HYOUNG KAP Inventor: PARK, HYOUNG KAP

Int. CI: A01C 7/08 Priority:

Summary

A garlic seeder reduces the number of accessories, and lets a linkage between accessories move smoothly by simplifying a seeding device and a seeding platetransferring device. The garlic seeder comprises a base frame(200), a seeding device, and a seeding platetransferring device. The base frame is installed on the inside of a garlic seeder, and bent at both sides of the base frame in an upper direction. A plurality of guide rails(220) are installed at the base frame. Each guide rail has a guide rod(262) at an end thereof. Guide grooves(210) are placed at both sides of the base frame. The seeding device is formed to push garlic on a seeding plate to a chute by letting a push member(240) slide back and forth along the guide grooves(210). The seeding plate-transferring device is formed to transfer the seeding plate by letting a guide block(264) move back and forth along the guide rods. Therefore, the production cost can be reduced and the predictability can be improved.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1006844940000
Patent duration : 2024.10.01

Key words

garlic, seeder, seeding

Category

6. Transport

- 1) Vehicles(9)
- 2) Handles(2)



Title of invention

HAND TRUCK-CUM-BICYCLE

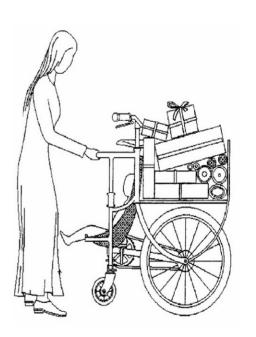
Bibliographic data

Application number: 1019970051591 Publication number: 1019990031040
Date of filing: 1997.10.08 Publication date: 1999.05.06
Applicant: KANG, HYO DONG Inventor: KANG, HYO DONG

Int. CI: **B62K 7/04, B62J 7/00** Priority:

Summary

The invention solves inconvenience in custody by changing the form of the existing bicycle with the simple operation, and improves economical efficiency. The invention is used not only as a hand truck and a bicycle but also as a stroller. A user doesn't need to purchase a bicycle, a stroller and a hand truck respectively by using the invention. A user can use the invention as a hand truck by folding a bicycle in a "U" shape. The invention has an auxiliary wheel to be used as the hand truck. The invention is used as a bicycle in a road, and is used as a stroller or a hand truck in a shopping mall, a department store, and so on.



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Legal status

Final disposal of an application : Rejection

Patent registration number:

Patent duration:

Key words

inconvenience in custody, economical efficiency, stroller, hand truck

Category



Title of invention

THREE-WHEEL BICYCLE WHICH IS DRIVEN BY A FOOT PUSHING POWER OR A POWER MEANS

Bibliographic data

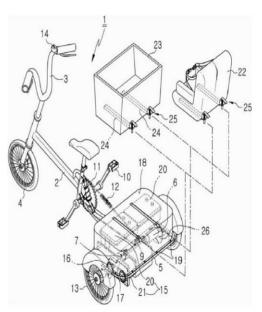
Application number : 2020040033670 Publication number : Date of filing : 2004.11.27 Publication date :

Applicant : HAN, SANG GYU Inventor : HAN, SANG GYU

Int. Cl : **B62K 5/02, B62K 9/02** Priority :

Summary

The invention improves driving convenience by driving a bicycle with both a foot pushing power and a power means, and improves the function by selectively combining a baby spare chair(22) for safely carrying a baby or a loading basket(23). The invention is composed of a front wheel(4) steered by a steering handle(3), a support frame(5) combined to the back of a mainframe(2), a driving shaft(7), a pair of rear wheels(13), and a pedal(10) which is connected with a sprocket(11) and a chain(12) installed in the driving shaft and installed under the mainframe. The drive shaft is bisected and mutually connected by a differential gear system(6). The power means(15) like a small engine or a motor(21) driven by a battery(2) is installed in the support frame(5), and the speed of the power means is controlled by a controller(14) installed in the steering handle. A rear wheel protection cover(18) is fixed on the support frame, and the baby spare chair or the loading basket is combined on the rear wheel protection cover.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2003758970000
Patent duration : 2014.11.27

Key words

baby spare chair, driving convenience, battery

Category



Title of invention

SLIDING CART BICYCLE IN WHICH A BICYCLE AND A CART ARE COMBINED IN ONE

Bibliographic data

Application number : 2020050017445 Publication number : Date of filing : 2005.06.17 Publication date :

Applicant : HONG, IL SU Inventor : HONG, IL SU

Int. Cl: **B62K 7/00, B62J 7/00** Priority:

Summary

The invention is formed by combining a bicycle(17) and a cart(11) in one. The cart whose front wheels are removed is mounted to the back of the bicycle which has three wheels and a sliding system(10) is installed in the cart which has only rear wheels(13). The whole volume of the bicycle is reduced by pushing up the cart with the sliding system when a user generally rides the invention as a bicycle, and the bottom of the cart comes up when pushing up the cart with the sliding system. The invention has effects of loading lots of goods and preventing the bicycle from falling over by pulling up the cart when the user wants to load goods in the invention. An electronic motor(16) is installed under a seat of the bicycle and is connected to a driving toothed wheel with a chain, and the electronic motor is used as needed when the user want to go up a steep slope.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2003987420000
Patent duration : 2015.06.17

Key words

sliding cart, bicycle, electronic motor, sliding system

Category



Title of invention

TRAILER FOR A BICYCLE

Bibliographic data

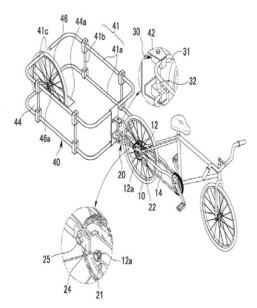
Application number : 2020050028793 Publication number : Date of filing : 2005.10.10 Publication date :

Applicant : LEE, DONG MYEONG Inventor : LEE, DONG MYEONG

Int. CI: B62J 7/04 Priority:

Summary

The invention is manufactured by connecting a trailer(40) to a rear wheel(10) of a bicycle and has economical effect in manufacture and maintenance. The trailer moves with a bicycle integrally. A user is able to load and carry heavy goods in a narrow road by using the invention. The invention is composed of a shaft connector(20), a horizontal rotation link(30) which is installed in the back of the shaft connector and has a link pin(32), and the trailer. The trailer is composed of an outer frame(41), a link connector(42), a loading plate(44), and an auxiliary wheel(46). The trailer is able to be applied to not only a bicycle but also a motorcycle. When manufacturing the invention, a user secures the wide loading space if installing the auxiliary wheel under the loading plate.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2004056450000
Patent duration : 2015.10.10

Key words

trailer, bicycle, loading plate, auxiliary wheel, carryer

Category



Title of invention

BICYCLE CONNECTOR AND A HIGH-OCCUPANCY BICYCLE WHICH IS EASILY CONTROLLED WITH A STEERING HANDLE BY USING THE BICYCLE CONNECTOR

Bibliographic data

Application number: 1020090018189 Publication number: 1020090029253

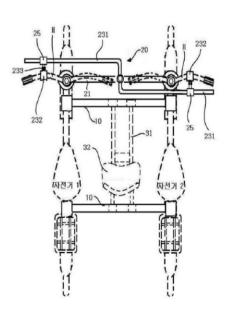
Date of filing: 2009.03.03 Publication date: 2009.03.20

Applicant: SONG, YEONG GWAN Inventor: SONG, YEONG GWAN

Int. Cl: B62K 13/08, B62K 13/06, B62K 13/00 Priority:

Summary

The invention is used to connect two bicycles each other, and makes the manipulation of the steering handle smooth. The connected two bicycles are always rotated at the same angle because steering handles of two bicycles are interlocked each other. A bicycle connector is composed of a plurality of main body connecting device(10) having a main body fixing device which is attached to both ends of a main body connecting rod and fixed to a body frame of the bicycle, and a steering handle connection device(20). The steering handle connection device comprises a lower connecting rod(21) whose both ends are respectively fixed to the body frame of the bicycle, a vertical rod perpendicularly attached to the center of the lower connecting rod, and a rotation fixing device for making an upper connecting rod rotate based on the vertical rod. The upper connecting rod is composed of a connection arm(231), a sliding unit(25), and a steering handle fixing device(232).



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Legal status

Final disposal of an application : Registration
Patent registration number : 1008924320000
Patent duration : 2027.06.15

Key words

high-occupancy bicycle, bicycle connector, steering handle, connecting rod

Category



Title of invention

PARALLEL JOINTED BICYCLE WITH A SAFE SEAT OR A LOADING BASKET

Bibliographic data

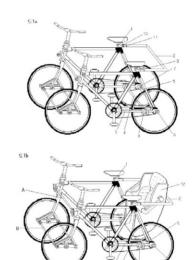
Application number : 2020010036097 Publication number : Date of filing : 2001.11.23 Publication date :

Applicant : KWON, BYEONG HA Inventor : KWON, BYEONG HA

Int. CI: B62K 13/02 Priority:

Summary

In the invention made by connecting two bicycles in parallel, A user is able to attach a safe seat(12) for carrying a person additionally or a loading basket for loading goods to a U-connecting rod(2) for connecting a first connecting rod(4), a second connecting rod(5), and each seat pipe. The invention improves the value and application of the parallel jointed bicycle. The first connecting rod is connected between vertical hinges(8) mounted to chain pipes. The second connecting rod is connected between hinge joint nuts(7) of rear wheel shafts(6). The seat and the basket are kept up at the perpendicular state to protect a person which sits on the seat or goods which is loaded on the basket regardless of the inclined of the first connecting rod, the second connecting rod, and the U-connecting rod.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002657350000
Patent duration : 2011.11.23

Key words

parallel jointed bicycle, bicycle with a seat or a basket, u-connecting rod

Category



Title of invention

THREE WHEEL BICYCLE FOR THE HANDICAPPED

Bibliographic data

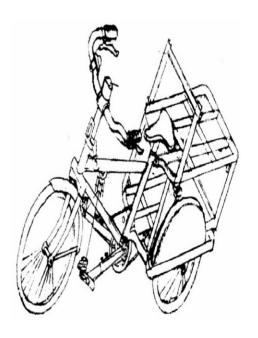
Application number : 202000003897 Publication number : Date of filing : 2000.02.14 Publication date :

Applicant : KIM, YEON SU Inventor : KIM, YEON SU

Int. Cl: B62K 5/02 Priority:

Summary

The invention is a bicycle having three wheels so that the handicapped safely ride a bicycle like the non-handicapped. The three wheel bicycle is more stable than a two wheel bicycle. General bicycles are driven by revolving a pedal at 360 degrees, but on the other hand the invention is driven by vertical movement. A pedal lever is attached to a bearing holder in which a latchet bearing is installed in order to move the bicycle forward without revolving a pedal lever. The invention is easily assembled/disassembled. Users replace and repair parts if parts are out of order. The invention is possible to replace the seat to improve convenience of the user, and is able to be driven by moving the handle back and forth after installing of a long lever having a handle.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2002056960000
Patent duration : 2010.02.14

Key words

three wheel bicycle, handicapped, vertical movement, latchet bearing, bearing holder, pedal lever

Category



Title of invention

BICYCLE CONNECTOR WHICH IS INSTALLED IN A HANDCART TO CONNECT A BICYCLE TO A HANDCART

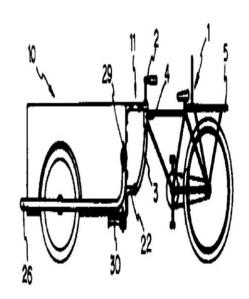
Bibliographic data

Application number : 2019880007225 Publication number : 2019890022861
Date of filing : 1988.05.13 Publication date : 1989.12.01
Applicant : KIM, YEONG JU Inventor : KIM, YEONG JU

Int. Cl : **B62K 27/12** Priority :

Summary

The invention is a bicycle connector(11) for connecting a bicycle(1) and a handcart(10) to easily carry lots of goods, and it is possible to respectively use the bicycle and the handcart because the bicycle connector is detachably installed in the handcart. The connector fixed to the handcart with a bolt is fixed to a support(4) in which a steering handle(2) for the bicycle is installed with a shaft. The connector is made by shaft-installing a fixed end, a connecting end, and a narrow end whose one side narrowed with each hinge pin. The connector is fixed to the upper end of the handcart, and a fixing member(22) in which a screw is formed is fixed to the lower end of the handcart. A hinge screw is formed at both sides of the handcart in which stoppers are fixed. A inserted part of a grip is combined to the hinge screw, and is fixed by a wing nut.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2000584420000
Patent duration : 2003.05.13

Key words

bicycle connector, bicycle, handcart

Category



Title of invention

FOLDABLE BICYCLE-CUM-HANDCART WHICH IS CONVENIENTLY PORTABLE THROUGH A SIMPLE OPERATION

Bibliographic data

Application number: 1020080078239
Date of filing: 2008.08.11
Applicant: CHOI, MIN YEONG

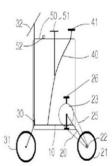
Publication number: 1020080079634
Publication date: 2008.09.01
Inventor: CHOI, MIN YEONG

Int. CI: B62K 5/02, B62K 5/06, B62K 15/00

Priority:

Summary

The invention is used as a handcart to transport articles, and it is possible to simply steer the direction of wheels. The invention comprises a handle frame(30), a driving frame(20), a multipurpose box(50), and a seat frame(40). The handle frame has a front wheel(31) which is rotatably installed at a front lower end of a main frame(10) and a handle(32) which is installed at an upper end. The driving frame is installed at the rear part of the main frame by a hinge, and has a driving unit to drive a rear wheel(21). The multipurpose box is installed on the main frame. The seat frame in which a seat is installed is formed in the multipurpose box. The driving unit has a pedal(26), a driving gear(23), a driven gear(22) installed at a the rotation shaft of the rear wheel, and a chain(25) wound between the driving and driven gears.



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Legal status

Final disposal of an application:

Publication

Patent registration number:

Patent duration:

Key words

foldable bicycle, handcart, portable, simple operation, multipurpose box

Category



Title of invention

REINFORCED GRIP FOR CONVENIENTLY HOLDING UP A SYNTHETIC RESIN CARRYING BOX

Bibliographic data

Application number : 2019940023825 Publication number : 2019960010984

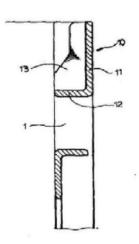
Date of filing : 1994.09.14 Publication date : 1996.04.12

Applicant : NATIONAL PLASTIC CO., LTD. Inventor : KIM, HUI GUK

Int. Cl: **B65D 6/34, B65D 25/28** Priority:

Summary

It is inconvenient to grip and hold up both grips of a carrying box because an upper holding rim of the existing grip is formed in a U-shape, and but it is convenient to grip and hold up both grips of a synthetic resin carrying box by using the reinforced grip. An outer part and a bottom part of an upper holding rim (10) of the both grips of the invention are formed in a L-shape to effectively stand against heavy load in a long time. A plurality of ribs are formed inside the L-shape upper holding rim at regular intervals. The ribs reinforce the upper holding rim of the grip. The upper part of the rib is narrow and the lower part of the rib is wide through a middle incline.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 2001300570000
Patent duration : 2009.09.14

Key words

reinforced grip, I-shape upper holding rim, ribs, synthetic resin carrying box

Category

Primary: Transport Sub: Handle



Title of invention

UPPER HOLDING RIM OF A CARRYING BOX WHICH IS CONVENIENT FOR GRIP AND CARRIAGE

Bibliographic data

Application number : 2019990005697 Publication number : 2020000019273

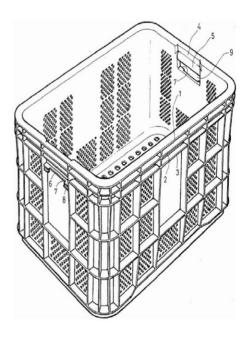
Date of filing : 1999.04.08 Publication date : 2000.11.06

Applicant : NATIONAL PLASTIC CO., LTD. Inventor : SONG, CHANG WON

Int. CI: **B65D 23/10** Priority:

Summary

It is not only convenient to grip and hold up both grips of a carrying box, and but also easy to stand against heavy load in a long time by using the invention. An upper holding rim is formed in the upper part of both grips of a carrying box. An upper inner side between outward upper and middle lateral ribs(1,2) is formed deeper than an inner side of main wall. A lower inner side between outward middle and lower lateral ribs(2,3) is formed shallower than the upper inner side. The lower inner side is formed into the semi-circular shape, and the length is shorter than the upper inner side. So, the grip feeling is good, and it makes the porter easily carry the box.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2002344510000
Patent duration : 2014.04.08

Key words

grip, carrying box, carrying

Category

Primary: Transport Sub: Handle

7. Shelter

- 1) Structures(5)
- 2) Materials(4)



Title of invention

OVABLE TOILET WHICH CAN PRODUCE ORGANIC FERTILIZER BY FERMENTING THE EXCREMENTS

Bibliographic data

Application number : 1019920011275 Publication number : 1019940000076

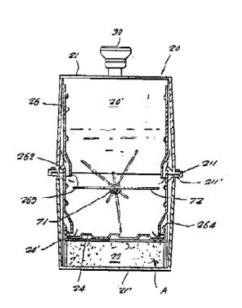
Date of filing : 1992.06.26 Publication date : 1994.01.17

Applicant : MURIM TRADES CO. Inventor : LEE, SANG JEONG

Int. CI: A47K 11/00 Priority:

Summary

The present invention is related to a movable toilet which can produce organic fertilizer by fermenting the excrements. So, the movable toilet is helpful for reducing the environmental pollution. The movable toilet comprises a fermentation chamber(20') for fermenting the excrements, an isolation chamber(22) filled with the permanent media for filtering the liquid excrements, a receiving chamber for receiving the liquid excrements, an agitator for mixing the excrements and the sawdust, an excrement tank(20) having an inlet for the sawdust and an outlet for the fertilized excrement, a chamber pot(30), a ventilation device for exhausting the excrement gas, a circulation device for supplying the liquid excrements to the fermentation chamber, and a discharging device for discharging the excessive excrements.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1000867500000
Patent duration : 2012.06.26

Key words

movable toilet, organic fertilizer, environmental pollution, excrements

Category



Title of invention

ASSEMBLY TYPE TENT WHICH HAS EXCELLENT INSULATION EFFECT ON THE SUNLIGHT

Bibliographic data

Application number: 1019940019414 Publication number: 1019960007968

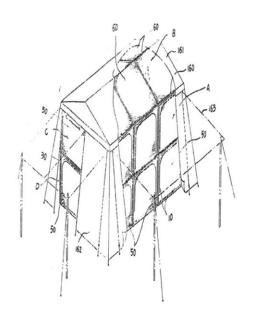
Date of filing: 1994.08.06 Publication date: 1996.03.22

Applicant: LEE, YONG SEOP Inventor: LEE, YONG SEOP

Int. CI: E04H 1/12 Priority:

Summary

The present invention is related to an assembly type tent which can quickly and easily construct the tent and increase/decrease the inner space as user's desire while constructing the structure. The installation of the tent has the following steps. First, constitutes a frame body(10). Second, constitutes an outer frame and a curtain member established inside the frame body and a mothproof net member(50). Third, forms a recessed groove for establishing a mothproof net member and a recessed part for establishing the curtain member and a combination groove for combining with other frame body at the frame body. Forth, equips a fixing rod for fixing the mothproof net member and a fixing ball for supporting the curtain member. Fifth, forms an insertion part inserted into the recessed part at the front end of the fixing ball. Sixth, fixes the fixing ball at the frame body by a rivet.



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Legal status

Final disposal of an application : Extinguishment
Patent registration number : 1001349370000
Patent duration : 2014.08.06

Key words

tent, frame, shelter, convenient

Category



Title of invention

METHOD FOR CONSTRUCTING A LOESS HOUSE BY CHARGING AND CURING THE LOESS GEL IN A HOUSE MOLD BETWEEN AN INNER PANEL AND AN OUTER PANEL

Bibliographic data

Application number : 1019980008445 Publication number : 1019990074680

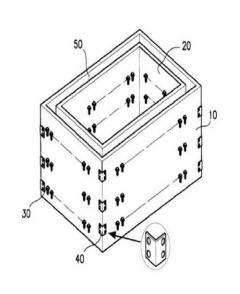
Date of filing : 1998.03.13 Publication date : 1999.10.05

Applicant : KIM, EUL HOE Inventor : KIM, EUL HOE

Int. CI: **E04B 2/00, E04C 2/26** Priority:

Summary

The present invention relates to a method for constructing a loess house which is capable of simply building a loess house and improving the durability of the house. The method of constructing a loess house builds a house frame, the house frame is implemented by an outer panel(10) and an inner panel(20) that make an empty space between the panels. Loess gel(50) is made of combining natural loess, water, and rice straw. The loess gel is filled in the house frame and the loess gel is cured between the inner panel and the outer panel. After the loess gel is cured for a certain time, the inner panel and the outer panel are removed and a wall of a loess house is built.



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Legal status

Final disposal of an application : Reje

Patent registration number:

Patent duration:

Rejection

Key words

loess house, building, durability

Category



Title of invention

PREFABRICATED MOVABLE HOUSE

Bibliographic data

Application number : 1020000018042 Publication number : 1020010094786

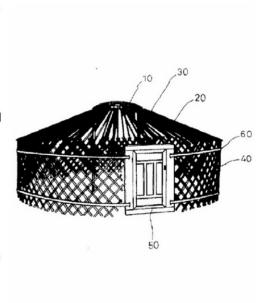
Date of filing : 2000.04.06 Publication date : 2001.11.03

Applicant : KIM, CHUN TAE Inventor : KIM, CHUN TAE

Int. CI: E04H 1/12 Priority:

Summary

The present invention relates to a prefabricated movable house. The prefabricated movable house is provided to install and dismantle easily, to use repeatedly, to use safely under a typhoon and to improve the convenience and value as merchandise with easiness on carrying at the state of dismantlement. The prefabricated movable house comprises a domelike ceiling connector(10) provided with many assembly holes bored along external circumference, a ceiling lattice(20) assembled to the assembly holes of the ceiling connector radially, a column member(30) fixed to the lower part of the ceiling connector to support an interval with the ground at least two spots or more, a wall member(40) arranged at the state of being supported along the end circumference of the ceiling lattices, a door(50) located to an opening of the wall member, a connecting string(60) covering the external circumference of the wall member from the both ends of the door to prevent dispersion, and a cover paper covering the outside of the wall member and the ceiling connector to intercept wind or rain, etc.



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Legal status

Final disposal of an application : Rejection

Patent registration number:

Patent duration:

Key words

movable house, ceiling lattice

Category



Title of invention

CAMPING TENT HAVING A LIFE VEST FUNCTION

Bibliographic data

Application number : 2019850014212 Publication number : 2019870006915

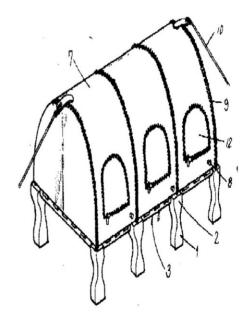
Date of filing : 1985.10.25 Publication date : 1987.05.11

Applicant : CHO, HONG GEUN Inventor : CHO, HONG GEUN

Int. CI: E04H 15/00 Priority:

Summary

The present invention relates to a tent which is capable of being used as a life vest in case of flood. The tent comprises a tent supporting leg(1), a supporting post(2) with pole connecting hole, a gap maintaining pole(3), and a tent cover(7) with air-intake hole(8). The tent cover is separated into several pieces and those are connected by zipper. The bottom of the tent is located above the ground having a space that protects the tent from moisture came out from the ground. Air could be filled in the tent cover through the air-intake hole, so that the inside of the tent kept warm. After separating the tent cover into several pieces, each of the tent cover is used as a life vest by filling air into the air-intake hole.



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Legal status

Final disposal of an application : Registration

Patent registration number:

Patent duration:

Key words

tent, gap maintaining pole, tent cover

Category



Title of invention

RESIDENTIAL HEAT INSULATION CONSTRUCTION AND HEAT INSULATOR TO BE USED

Bibliographic data

Application number : 1020027008838

Date of filing : 2002.07.09

Applicant: MATUMOTOKENKOU KABUSHIKI

KAISHA

MATUMOTO SETUYA SATOU TAKASHI INOUE SADAHIRO AKITAYA YUUMI Publication number: 1020020080364
Publication date: 2002.10.23

Inventor:

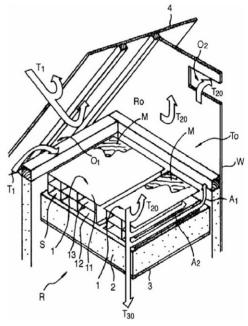
SATOU TAKASHI INOUE SADAHIRO AKITAYA YUUMI

MATUMOTO SETUYA

Int. CI: E04B 1/80 Priority: 2000.09.07 JP 2000 271335

Summary

The present invention relates to a residential heat insulation construction. The present invention is intended to reduce heat storage in a heat insulator applied to the outer periphery of a living room in a residential building, to simplify construction work, to save energy, and to rationalize retention of living environment. The outer surface of a heat insulating member(2) disposed on the outer periphery of a partition panel in a roof, ceiling, wall or the like surrounding a living room is covered with a heat shielding member(1) having a heat reflecting foil, thereby preventing transmission of radiant heat due to heating to the heat insulating member, reducing the heat storage in the heat insulating member.



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Legal status

Final disposal of an application : Registration
Patent registration number : 1004669210000
Patent duration : 2021.09.06

Key words

residential heat insulation, heat storage, building

Category



Title of invention

METHOD OF MANUFACTURING A BLOCK OF DRIED MUD

Bibliographic data

Application number: 201999002053 Publication number: 2019990021994

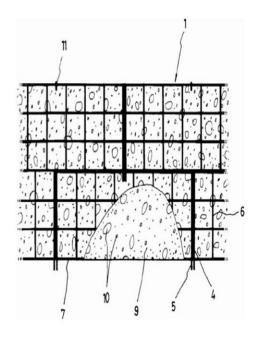
Date of filing: 1999.02.10 Publication date: 1999.06.25

Applicant: DO, JAE GI Inventor: DO, JAE GI

Int. CI: E04C 1/00 Priority:

Summary

The present invention relates to a method of manufacturing a mud block. The method of manufacturing a mud block is implemented by a block molding frame which has plural space in rectangular shape where the mud is filled in to form a block. The block molding frame comprises a width divider(6), a length divider(7), and a vertical divider. Mud and gravel are mixed together and filled in the block molding frame to manufacture blocks.



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Legal status

Final disposal of an application : Rejection

Patent registration number:

Patent duration:

Key words

mud block, molding frame

Category



Title of invention

DEVICE CAPABLE OF PRODUCING BRICKS THROUGH PRESSING SOIL

Bibliographic data

Application number : 2019980007796 Publication number : 2019990041056

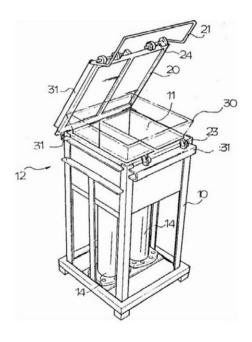
Date of filing : 1998.05.13 Publication date : 1999.12.06

Applicant : LEE, HAK SU Inventor : LEE, HAK SU

Int. CI: B28B 3/00 Priority:

Summary

The present invention is related to a device which can produce solid bricks by pressing soil. The manufacturing cost can be reduced by omitting the selection, pressure, and dry processes. The device produces brick by pressing a pressing plate which is contained in a molding frame with cylinder rod. The molding frame(12) is arranged on a main body of device for producing bricks in order to form a pair of square spaces(11) for bricks. The pressing plate is arranged in the square spaces for bricks and moves up and down by the cylinder rod(14). A handle bar(21) is hinged to the one side of lid(20) which is installed on the molding frame.



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Legal status

Final disposal of an application : Registration
Patent registration number : 2001863160000
Patent duration : 2013.05.13

Key words

bricks, pressing plate, molding frame

Category



Title of invention

BRICK MOLDER CAPABLE OF SIMPLY AND RAPIDLY PRODUCING THE BRICK WITH SOIL

Bibliographic data

Application number: 1019980026095 Publication number: 1020000004634

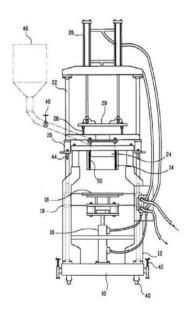
Date of filing: 1998.06.30 Publication date: 2000.01.25

Applicant: MT. GAYA WHANGTOCHON CO., LTD. Inventor: LEE, YUN DONG

Int. CI: B28B 3/00 Priority:

Summary

The present invention is related to a brick molder which rapidly and easily molds brick with soil. The brick molder has an inflow pressure pump(20), a frame(12), a die frame(14), a supporting cylinder(16), and a press cylinder(24). The frame is fixed on the upper base. The both ends of die frame on the frame are empty inside. The supporting cylinder has a supporting plate for closing the lower part of the die frame by pressuring with inflow pressure from the inflow pressure pump, on its upper part. The press cylinder is installed on the frame.



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Legal status

Final disposal of an application : Rejection

Patent registration number:

Patent duration:

Key words

brick molder, soil, press cylinder, inflow pressure pump

Category

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Publication: Multilateral Affairs Division Korean Intellectual Property Office

Gov. Complex Daejeon Bldg. 4, 139, Seonsa-ro, Seo-gu, Daejeon,

302-701, Republic of Korea

TEL +82-42-481-8604

FAX +82-42-472-9314

E-mail ipd@kipo.go.kr

Date of Publication: 2009. 9.



