

Diego Gonzalez Castillo

1) Family number: 77223338 (CA3009925A)

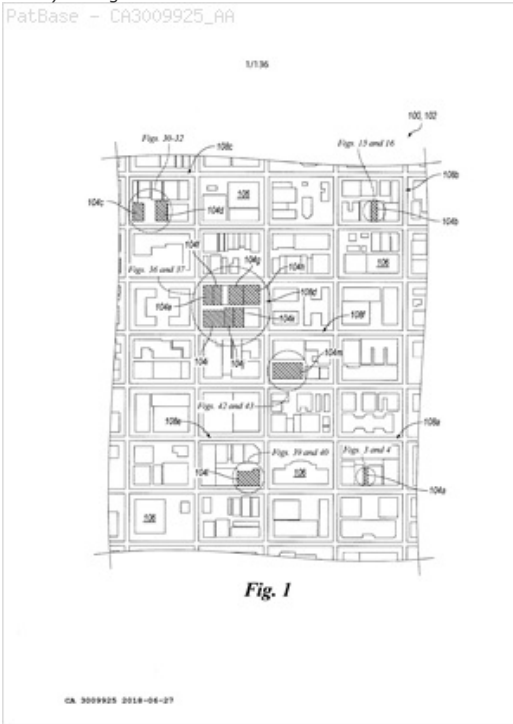
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Title: RETROFITTED REAL ESTATE AND RELATED TECHNOLOGY

Abstract: A real estate unit in accordance with a particular embodiment of the present technology includes an interior space at the ground floor of a commercial building. The interior space can have a purpose-built use (e.g., retail, warehouse, school, garage, etc.) and can be reversibly retrofitted to accommodate an alternative use (e.g., lodging, residential, office, assembly, etc.). The real estate unit can include reusable components (e.g., bathroom, wall, barrier, etc.) well suited for rapid deployment, removal, and redeployment. Use of these components can allow revenue from operating the real estate unit to exceed costs associated within transitioning the interior space from the purpose-built use to the alternative use even if the real estate unit is only operated for a short period of time. Furthermore, capital embodied in the components can be readily relocatable in response to long-term and short-term (e.g., seasonal) changes in demand.

Classifications:

International (IPC 8-9): E03C1/00 E04H1/00 E04H3/02
G06Q90/00 (Advanced/Invention);
G06Q50/12 G06Q50/16 (Advanced/Non-invention)
CPC: E04H1/00 E04H3/02 G06Q50/12 G06Q50/16 G06Q10/06
G06Q50/163



Family:

Publication number	Publication date	Application number	Application date
CA3009925 AA	20191227	CA20183009925	20180627

Priority:

CA20183009925 20180627

Probable Assignee: BAKER THEODORE W

Assignee(s): (std): BAKER THEODORE W

Inventor(s): (std): BAKER THEODORE W

2) Family number: 77319067 (AU2019204397A)

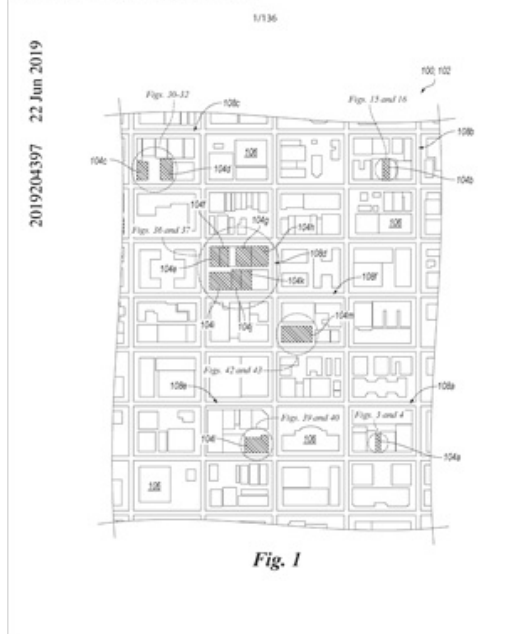
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Title: RETROFITTED REAL ESTATE AND RELATED TECHNOLOGY

Abstract: A real estate unit in accordance with a particular embodiment of the present technology includes an interior space at the ground floor of a commercial building. The interior space can have a purpose-built use (e.g., retail, warehouse, school, garage, etc.) and can be reversibly retrofitted to accommodate an alternative use (e.g., lodging, residential, office, assembly, etc.). The real estate unit can include reusable components (e.g., bathroom, wall, barrier, etc.) well suited for rapid deployment, removal, and redeployment. Use of these components can allow revenue from operating the real estate unit to exceed costs associated within transitioning the interior space from the purpose-built use to the alternative use even if the real estate unit is only operated for a short period of time. Furthermore, capital embodied in the components can be readily relocatable in response to long-term and short-term (e.g., seasonal) changes in demand. -378-

Classifications:

International (IPC 8-9): A47K4/00 E04B1/343 E04H1/12 E04H3/02
G06Q50/12 G06Q50/16 (Advanced/Invention)
CPC: A47K4/00 E03C1/01 E03C1/02 E03C1/122 E04B1/34315
E04B1/34336 E04B1/34869 E04H1/1266 E04H3/02 G06Q50/163

**Family:**

Publication number	Publication date	Application number	Application date
AU2019204397 AA	20200116	AU20190204397	20190622

Priority:

AU20180902322 20180628

Probable Assignee: BAKER THEODORE**Assignee(s):** (std): BAKER THEODORE ; BAKER THEODORE W**Inventor(s):** (std): BAKER THEODORE W**Agent(s):** BAKER THEODORE W**3) Family number: 31727286 (US2006144800A)**

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Title: SEWAGE TREATMENT SYSTEM FOR USE IN MARINE TOILET AND OTHER REMOTE TOILETS

Abstract: The method for marine sewage treatment comprises the steps of (a) dispensing with each toilet flush a controlled amount of heterotrophic bacteria culture into the boat's holding tank in order to substantially denitrify the sewage and liquefy the solids, (b) pumping raw sewage from said holding tank to fill a radiation loop, (c) applying microwave energy for a predetermined duration to the raw sewage contained within said radiation loop in order to disinfect said sewage, and (d) passing the disinfected hot sewage through a phosphate filter to substantially reduce the phosphate level. The marine sewage treatment system comprises: a toilet, a connection from a water source to said toilet, a connection from a dispenser of heterotrophic bacteria culture to said toilet, a holding tank for toilet sewage having an inlet coupled to said toilet, a macerator pump having an inlet coupled to the outlet of said holding tank and an outlet coupled to the inlet of a radiation loop, a phosphate filter having an inlet connected to the outlet of said radiation loop, an effluent discharge pump having an inlet coupled to the outlet of the phosphate filter and an outlet coupled to an effluent discharge opening to the sea and structure for applying microwave energy to said radiation loop to substantially disinfect and heat the waste water effluent in said radiation loop before filtering out the phosphates and discharging the treated effluent into the sea.

Classifications:

International (IPC 8-9): B01D21/00 B01D21/30 C02F1/00 C02F1/02 C02F1/30 C02F3/30 C02F9/04 C02F9/12 C02F9/14

E03F11/00 (Advanced/Invention); C02F1/00 C02F1/30 C02F1/52 C02F3/28 C02F3/30 (Advanced/Non-invention);

B01D21/00 B01D21/30 C02F1/00 C02F1/02 C02F1/30 C02F3/30 C02F9/00 C02F9/08 C02F9/14 E03F11/00 (Core/Invention); C02F1/00 C02F1/30 C02F1/52 C02F3/28 C02F3/30 (Core/Non-invention)

International (IPC 1-7): B01D21/02 B01D21/30

CPC: Y02W10/37 C02F3/30 B01D21/0006 B01D21/003 B01D21/02 B01D21/10 B01D21/2416 B01D21/2444 B01D21/34 B01D221/02 C02F2201/009 C02F2209/006 C02F2209/42 B01D21/302 Y02A20/216 Y02A20/212 C02F1/5236 C02F1/008 B63B29/16 B63J4/004 C02F1/302 C02F1/705 C02F3/302 C02F9/00 C02F2103/005 C02F2103/008 C02F2209/008 C02F2303/04 B01D21/00 B01D21/0039 B01D21/2405

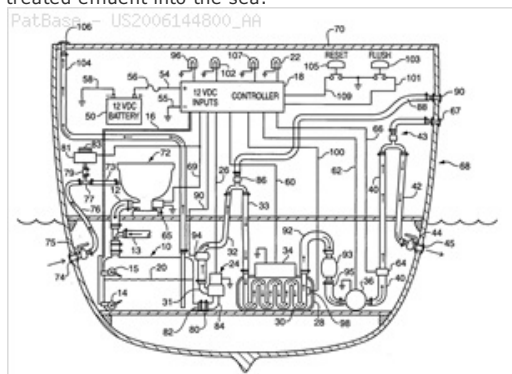
European: B01D21/00 B01D21/00C B01D21/00M B01D21/02

B01D21/10 B01D21/24A4 B01D21/24G B01D21/30 B01D21/34 C02F1/00T C02F1/30B C02F1/52F2 C02F1/70C C02F3/30 C02F3/30D C02F9/00 C02F9/00Z L01D221/02 M02F1/30B M02F201/00I M02F201/00P M02F209/00T2 M02F209/00T4 M02F209/42

US: 210/121 210/121S 210/143 210/187 210/532.2 210/744 210/748 210/748.07 210/748.070S

Family:

Publication number	Publication date	Application number	Application date
CA2538635 AA	20060903	CA20062538635	20060302
EP1698593 A2	20060906	EP20060004166	20060302
EP1698593 A3	20061025	EP20060004166	20060302
US2006144800 AA	20060706	US20060363028	20060227



Priority:

US20020306325 20021127 US20050072946 20050303 US20060363028 20060227
CA20062538635 20060302

Probable Assignee: BARRERAS DANIEL E

Assignee(s): (std): BARRERAS DANIEL E ; BARRERAS FRANCISCO J ; BARRERAS FRANCISCO J SR

Assignee(s): BARRERAS SR FRANCISCO J

Inventor(s): (std): BARRERAS SR FRANCISCO J ; BARRERAS DANIEL E ; BARRERAS FRANCISCO J ; BARRERAS FRANCISCO J SR

Inventor(s): BARRERAS FRANCISCO JSR ; BARRERAS DANIEL ; BARRERAS FRANCISCO

Agent(s): SADIK ACHMED N; WELSH AND KATZ LTD; THOMAS R

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU

4) Family number: 268768 (US3535712A)

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Title: TOILET AND WASTE STORAGE SYSTEM

Abstract: ABSTRACT OF THE DISCLOSURE

A system that receives and treats waste from and furnishes flushing liquid to a toilet includes first and second tanks, a valved conduit between them to maintain waste in the first tank within two predetermined levels. The first tank receives waste from a toilet. In the second tank a heater removes at least some of the aqueous content of the waste and part may be condensed to provide flushing liquid. Preferably, a filter and a pump withdraw filtered liquid from the first tank to provide the flushing liquid. B

Classifications:

International (IPC 8-9): A47K11/02 E03D5/016 (Advanced/Invention); A47K11/00 E03D5/00 (Core/Invention)

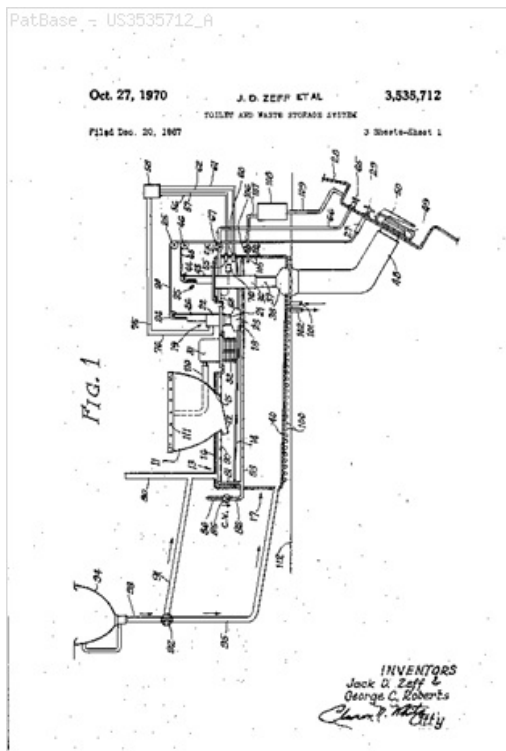
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CPC: Y10S4/19 Y10S4/13 E03D5/016

European: E03D5/016

US: 210/97 4/10 4/316 4/317 4/320 4/322 4/323 4/DIG.13 4/DIG.19

Locarno class: 4 /10



Family:

Publication number	Publication date	Application number	Application date
DE1816518 A1	19690724	DE19681816518	19681218
FR1599386 A	19700715		19681220
GB1255617 A	19711201	GB19680060527	19681219
JP50008264 B4	19750403	JP19680093188	19681220
US3535712 A	19701027	US19670692062	19671220
US3536196 A	19701027	US19680761731	19680923

Priority:

US19670692062 19671220 US19680761731 19680923

Probable Assignee: GEN AM TRANSPORT

Assignee(s): (std): GEN AM TRANSPORT

Assignee(s): GENERAL AMERICAN TRANSPORTATION CORP ; CHAMBERLAIN MFG ; CHAMBERLAIN MFG CORP

Inventor(s): (std): ZEFF JACK D ; ROBERTS GEORGE C ; D ZEFF JACK ; C ROBERTS GEORGE

Inventor(s): JACK D ZEFF ; GEORGE C ROBERTS

5) Family number: 32657479 (DE102004042147A1)

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Title: TOILET ARRANGEMENT FOR USE IN E.G. RAILWAY VEHICLE, HAS BOWL AND INTERMEDIATE CHAMBER INTEGRALLY ACCOMMODATED IN SEWAGE WATER TANK, AND INTEGRAL UNIT ASSIGNED TO CHAMBER FOR EVACUATION OF

Abstract: The arrangement has a sewage water tank (20) supporting a toilet bowl (12), and an intermediate chamber (16) between the bowl and tank. The bowl and the chamber are integrally accommodated in the tank. The bowl and the chamber and/or the chamber and the tank are directly connected with each other by sink valves. An integral unit for evacuation of the chamber and for producing high pressure in the chamber is assigned to the chamber. An independent claim is also included for utilization of a toilet arrangement in a stationary system of a building or in a movable system of a land vehicle and/or air vehicle and/or water vehicle and/or spacecraft.

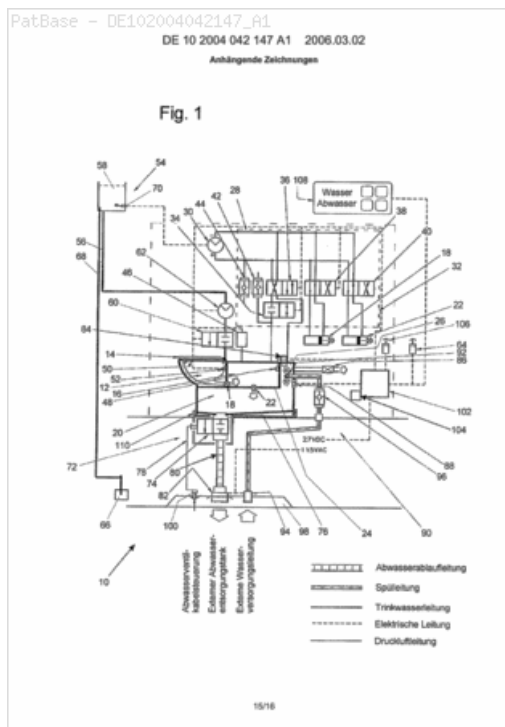
Classifications:

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A47K11/00 (Core/Invention)

CPC: B61D35/007 E03F1/006

European: B61D35/00C2 E03F1/00C



Family:

Publication number	Publication date	Application number	Application date
DE102004042147 A1	20060302	DE200410042147	20040831

Priority:

DE200410042147 20040831

Probable Assignee: AOA LUFTFAHRTGERAETE GAUTING G

Assignee(s): (std): AOA LUFTFAHRTGERAETE GAUTING G

Assignee(s): AOA LUFTFAHRTGERAETE GAUTING GMBH

Inventor(s): (std): HARTEN JENS ; ANTONCZYK VOLKER ; KLOOCK SILBERT ; EBELING FRANK RUEDIGER ; LUX THOMAS

6) Family number: 62474967 (US2018249671A)

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Title: MODULAR APPARATUS FOR CLEANING PET TOILET DEVICE

Abstract: The present invention relates to a modular apparatus for cleaning a pet toilet device and, more specifically, to an apparatus for cleaning a pet toilet device, the apparatus being improved so as to prevent the problem of overflowing or unnecessary flow of water, and comprising three structures of: a main structure, which automatically cleans the toilet device after a pet defecates, particularly, after urination; a sub-structure; and a water container, which are formed and coupled into modular units so as to be slim and compact, wherein cleaning can be carried out by only the main structure without the sub-structure.

Classifications:

International (IPC 8-9): A01K1/01 A01K23/00 A01K29/00

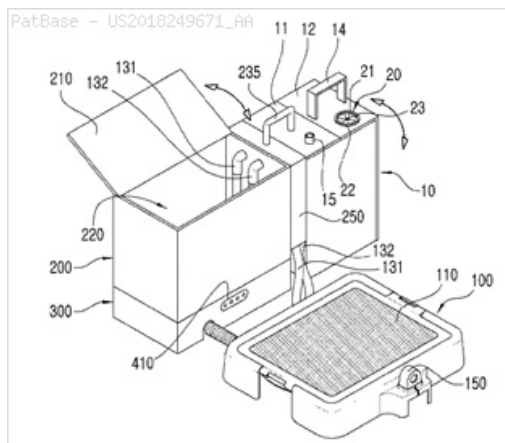
B01D35/02 B08B3/02 F04D13/08 F04D27/00

G05D9/12 (Advanced/Invention)

CPC: A01K1/011 B08B3/02 A01K23/005 A01K29/005 B01D35/02

F04D13/08 G05D9/12

US: 1/1 119/161



Family:

Publication number	Publication date	Application number	Application date
CN107949276 A	20180420	CN201580082859	20151215
JP2018526004 T2	20180913	JP20180511386T	20151215

KR101624467 B1	20160531	KR20150124058	20150902
US2018249671 AA	20180906	US20150756948	20151215
US10537090 BB	20200121	US20150756948	20151215
WO17039076 A1	20170309	WO2015KR13721	20151215

Priority:

KR20150124058 20150902 WO2015KR13721 20151215

Probable Assignee: DOGTOTO CO LTD

Assignee(s): (std): DOGTOTO CO LTD

Assignee(s): DOG TOTO LTD ; DOGTOTO CO

Inventor(s): (std): ROH JUHWAN ; ROH JU HWAN

Agent(s): MASCHOFF BRENNAN; JUN SANG YOON

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

7) Family number: 61653283 (KR20170017048A)

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Title: DEVICE FOR RECYCLING A DOMESTIC SEWAGE

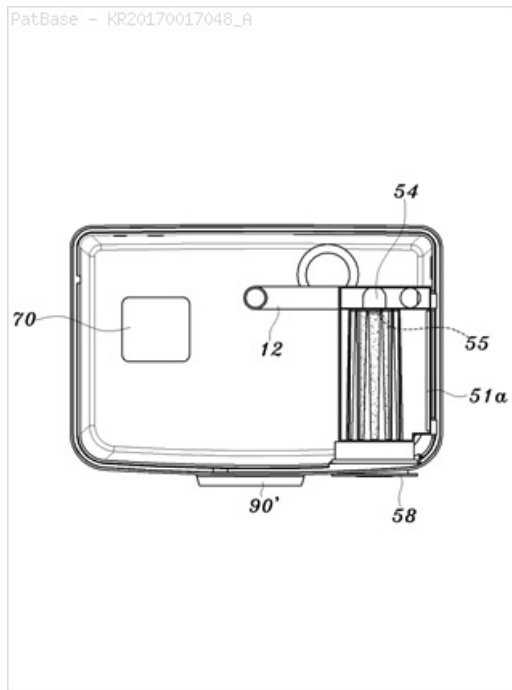
Abstract: The present invention relates to an apparatus to recycle washed water for a toilet, and more specifically, relates to an apparatus to recycle washed water for a toilet capable of storing water from a wash basin (10) in a reservoir (20) and then supplying it to a water tank (30) and reusing in a toilet (40), comprising: a hexahedral reservoir (20) filtering washed water from a wash basin (10), and storing the washed water; a filter means (50) filtering the washed water; first and second water level sensors (60, 60); a water pump (70); a washing liquid insertion means (80) placing the washing liquid in the reservoir (20); a control board (90) including a display panel (90); and a public water and washed water dividing means (100) supplying public water with the washed water. The apparatus for recycling washed water for a toilet is able to minimize an amount of discharged waste water in a flushing toilet and minimizes waste of water for living by filtering the washed water generated in a basin and storing the washed water; is able to prevent malodors, a pump malfunction due to foreign materials included in the recycled water, or a pipe blockage by preventing pollutants included in a recycled water from being perished by periodically placing washing liquid including antiseptic into the recycled water; is able to keep costs low by a simple structure; is able to allow noise not to be generated when the filtered water is introduced into the reservoir; is able to automatically display a water level of the reservoir and is able to conveniently be maintained by easily replacing the filter on the front surface; and can provide user convenience by automatically displaying the water level sensor number on a display unit.

Classifications:

International (IPC 8-9): E03C1/01 E03C1/122 E03D5/00

E03D9/03 (Advanced/Invention)

CPC: E03C1/01 E03D5/006 E03D9/033



Family:

Publication number	Publication date	Application number	Application date
CN106088259 A	20161109	CN201510552771	20150901
KR101593009 B1	20160212	KR20150061683	20150430
KR101943594 B1	20190418	KR20150110178	20150804
KR20170017048 A	20170215	KR20150110178	20150804

Priority:

KR20150061683 20150430 KR20150110178 20150804

Probable Assignee: YIBYEONGHUI

Assignee(s): (std): CHOE HEE WOOK ; LEE BYUNG HEE

Assignee(s): YIBYEONGHUI ; CHOEHUIUK

Inventor(s): (std): RHO SEONG SOON ; KIM MYUNG JIN ; YUN SANG HAN ; LEE BYUNG HEE ; CHOE HEE WOOK

Title: WATER REUSE SYSTEM

Abstract: A used water reuse system includes a gray water holding tank to which gray water is supplied up to a maximum level through a filter and gray water drain line. Gray water sources such as kitchen and bathroom sinks, clothes and dishwashers, tubs and showers, and the like have drains connected through valves to the gray water drain line and to a conventional sewer line. Gray water is transferred, upon demand, from the gray water holding tank to noncritical water use devices, such as a toilet tank, for reuse and subsequent discarding. A sensor detects achievement of a maximum level in the gray water holding tank and causes the valves at the gray water sources to disconnect the latter from the gray water drain line, so as to discard any further gray water from the sources to the sewer line, and also closes a fail-safe valve to preclude flow from the gray water line to the gray water holding tank. Upon reduction of tank water level the sensor reopens the valves. A further sensor notes draining of the tank to a preselected minimum level for admitting fresh water thereto. Means interposed between the sensors, on the one hand, and the gray water valves and valving for the fresh water, on the other hand, respond to a power failure in a fail-safe manner to close such valves.

Classifications:

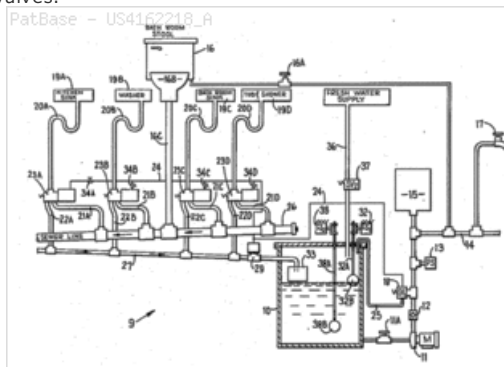
International (IPC 8-9): C02F9/00 E03B1/04 E03C1/00
E03C1/122 (Advanced/Invention);
C02F9/00 E03B1/00 E03C1/00 E03C1/122 (Core/Invention)

International (IPC 1-7): C02B3/08 C02C1/40

CPC: E03B1/04 C02F1/006 C02F1/008 C02F2103/002 C02F2209/42
E03B1/042 E03B1/044 E03B2001/045 E03C1/122 Y10T137/7287
Y02A20/148 Y02A20/302 Y02A20/304

European: C02F1/00R C02F1/00T E03B1/04 E03B1/04B2
E03B1/04B2B E03C1/00 E03C1/122 M02F103/00C M02F209/42
P03B1/04B20

US: 137/386 210/104 210/167.01 210/258 210/259 4/661 4/663
4/665

**Family:**

Publication number	Publication date	Application number	Application date
US4162218 A	19790724	US19770810039	19770627

Priority:

US19770810039 19770627

Probable Assignee:

MCCORMICK GERALD L

Assignee(s): (std):

MCCORMICK GERALD L

Inventor(s): (std):

MCCORMICK GERALD L

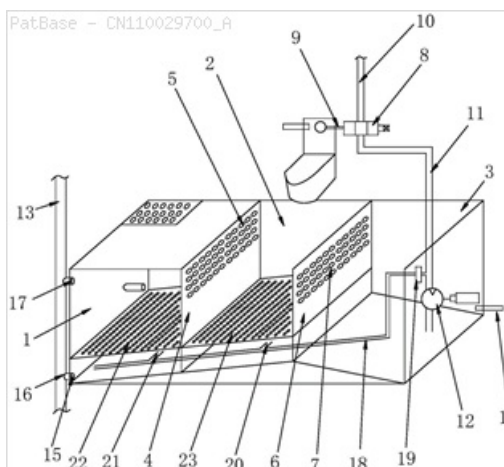
Title: INTELLIGENT HOUSEHOLD SEWAGE TREATMENT CIRCULATION DEVICE FOR TOILET CAISSON

Abstract: The invention relates to the technical field of household sewage treatment, in particular to an intelligent household sewage treatment circulation device for a toilet caisson. The intelligent household sewage treatment circulation device comprises a coarse filter pool, a fine filter pool and a water storage tank, and the intelligent household sewage treatment circulation device further comprises an electromagnetic reversing valve, a closetool water pipe, a tape water pipe, a water outlet pipe, a water pump, a sewer pipe and a water level sensor, wherein the water level sensor is installed in the water storage tank, the water outlet pipe protrudes into the bottom in the water storage tank, one end of the water outlet pipe is connected with the water pump, and the water outlet pipe, the closetool water pipe and the tape water pipe are connected with the electromagnetic reversing valve correspondingly. The intelligent household sewage treatment circulation device is novel and simple in structure, can filter and purify sewage, can be used for flushing of a toilet, saves resources effectively, facilitates recycling of water sources, is environmentally friendly, can be matched with tapwater input to use different water sources according to different situations, ensures the normal use of closetool flushing, achieves an intelligent effect and is convenient to use.

Classifications:

International (IPC 8-9): B01D36/02 E03B1/04 E03C1/12 E03D5/00
E03F5/10 (Advanced/Invention)

CPC: B01D36/02 E03B1/04 E03B1/041 E03B2001/045 E03C1/12
E03D5/003 E03F5/10

**Family:**

Publication number	Publication date	Application number	Application date
CN110029700 A	20190719	CN201910309476	20190417

Priority:

CN201910309476 20190417

Probable Assignee:

ZHONGSHAN POLYTECHNIC

Assignee(s): (std): ZHONGSHAN POLYTECHNIC
Inventor(s): (std): ZHENG CHONGLIN ; JIANG WUJI

10) Family number: 43215540 (ES2319076B) © PatBase

Title: INODORO QUE, EN SI MISMO, INTEGRA LA CAPTACION Y ALMACENAMIENTO DE LAS AGUAS GRISES DE LAVABOS, DUCHA, BIDE, PARA EFECTUAR SU PROPIA LIMPIEZA DE AGUAS NEGRAS.

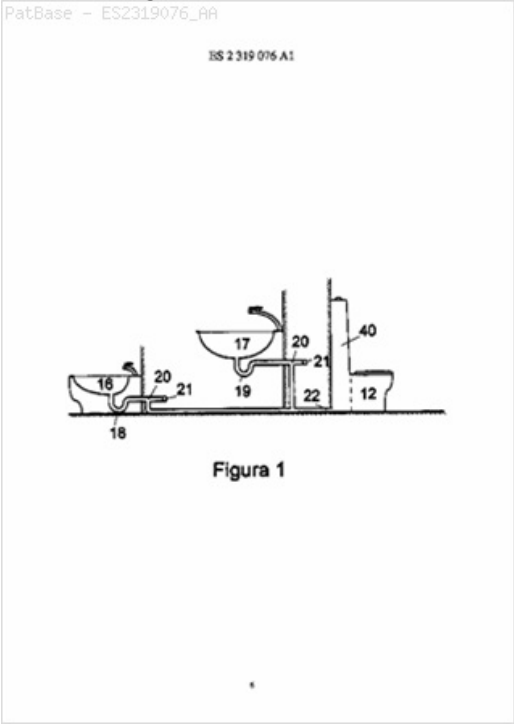
Abstract: Source: ES2319076B [ES] Inodoro que, en si mismo, integra la captacion y almacenamiento de las aguas grises de lavabos, ducha, bide, para efectuar su propia limpieza de aguas negras. Todo este proceso se desarrolla en el cuerpo principal, que recibe a traves de un tubo colector las aguas grises de los sanitarios, y tras un filtrado, son bombeadas a dos depositos, uno es la cisterna y el otro el deposito almacen, situado bajo la cisterna, que junto con los mecanismos y sistemas de captacion forman un cuerpo principal, que unido con el cuerpo del inodoro forma un equipo compacto. Siendo su funcionamiento totalmente automatico, nos permite elegir el agua con la que limpiar el inodoro: agua de la red de abastecimiento, aguas grises, o ambas a la vez, reduciendo el elevado consumo de agua.

Classifications:

International (IPC 8-9): E03D5/00 (Advanced/Invention); E03D5/00 (Core/Invention)

CPC: E03D5/003

European: E03D5/00B



Family:

Publication number	Publication date	Application number	Application date
ES2319076 AA	20090501	ES20080001195	20080425
ES2319076 BA	20100407	ES20080001195	20080425

Priority:

ES20080001195 20080425

Probable Assignee: LARRAURI ZUZUARREGUI JOSE MIGU

Assignee(s): (std): LARRAURI ZUZUARREGUI JOSE MIGU

Assignee(s): LARRAURI ZUZUARREGUI JOSE MIGUEL ; JOSE MIGUEL LARRAURI ZUZUARREGUI

Inventor(s): (std): LARRAURI ZUZUARREGUI JOSE MIGUEL

Inventor(s): JOSE MIGUEL LARRAURI ZUZUARREGUI

11) Family number: 48198845 (CN101949166A) © PatBase

Title: VEHICLE-MOUNTED MOBILE ENVIRONMENTALLY-FRIENDLY TOILET

Abstract: The invention provides a vehicle-mounted mobile environmentally-friendly toilet, which comprises a toilet room and a liquid tank, a foaming tank, an air pump, a toilet stool and a crushing pump which are arranged in the toilet room, wherein the foaming tank is connected with the toilet stool through a foam channel, the air pump is connected with the foaming tank through an air pipe, the liquid tank is connected with the foaming tank through a pipe, the toilet stool is connected with the crushing pump through a sewage draining opening, the crushing pump is connected with a liquid collecting device and a waste tank through a filter respectively, the liquid collecting device has an opening through which the medicines are added, and the liquid collecting device is connected with the liquid tank through a fully automatic water pump; and the connecting pipe of the liquid tank and the foaming tank is provided with an electromagnetic valve, a liquid level sensor is arranged on the inner wall of the foaming tank, a gravity sensing cover plate is arranged at the sewage draining opening, and the electromagnetic valve, the liquid level sensor, the gravity sensing cover plate, the air pump and the crushing pump are all connected with a fully-automatic control system. The vehicle-mounted mobile environmentally-friendly toilet can isolate odors, crush excrement and tissue paper, recycle water internally and save water.

Classifications:

International (IPC 8-9): E03D7/00 E03D9/00 (Advanced/Invention)



Priority:

CN201720772481U 20170629

Probable Assignee: NANJING INST TECH**Assignee(s):** (std): NANJING INST OF TECH ; NANJING INST OF TECHNOLOGY ; NANJING INST TECH**Inventor(s):** (std): LI WEI ; XU JIAWEI ; ZHANG HAOBING**13) Family number: 28900184** (EP1338709A2)

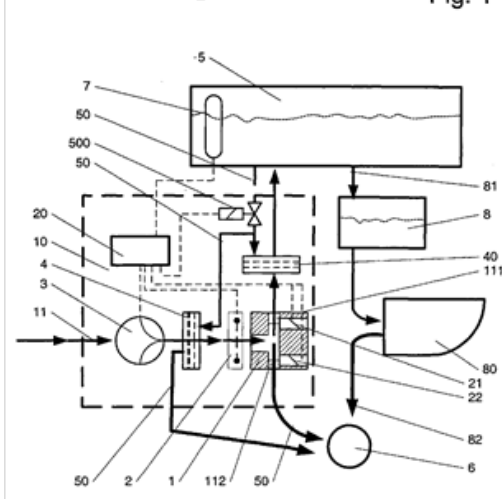
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Title: DEVICE TO RE-USE GREY WATER

Abstract: The device has a separation device (1) through which the waste water is passed and that passes clear water into a gray water tank (6) and dirty water into the sewer system (6). The waste water flow is fed by a pump (3) in the separation device and a sensor (2) detects the degree of turbidity of the waste water and feeds this to an electronic circuit (20), which opens an outlet to the gray water tank until a certain degree of turbidity is reached. AN Independent claim is also included for the following: an arrangement for using waste water, especially from baths and/or showers.

Classifications:**International (IPC 8-9):** E03D5/00 (Advanced/Invention); E03D5/00 (Core/Invention)**International (IPC 1-7):** E03C1/122 E03D5/00**CPC:** Y02A20/148 Y02A20/302 E03B1/04 E03B2001/045**European:** E03B1/04 P03B1/04B20

PatBase - EP1338709_A2

Fig. 1**Family:**

Publication number	Publication date	Application number	Application date
DE10207162 A1	20030828	DE20021007162	20020220
EP1338709 A2	20030827	EP20030003305	20030213
EP1338709 A3	20040922	EP20030003305	20030213

Priority:

DE20021007162 20020220

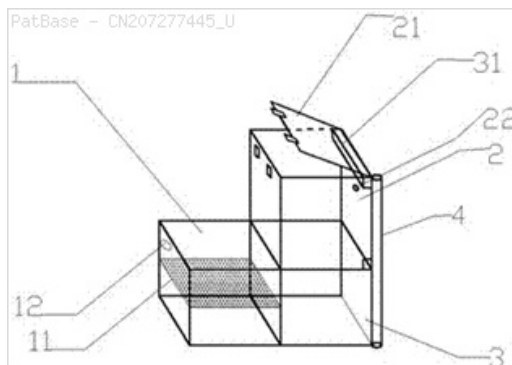
Probable Assignee: GROHE WATER TECHNOLOGY AND CO AG KG**Assignee(s):** (std): GROHE ARMATUREN FRIEDRICH ; GROHE WATER TECH AG AND CO KG ; GROHE WATER TECH AND CO AG KG ; GROHE WATER TECHNOLOGY AND CO AG**Assignee(s):** GROHE WATER TECHNOLOGY AND CO AG KG ; FRIEDRICH GROHE AG AND CO KG ; FRIEDRICH GROHE AND CO AG KG ; GROHE WATER TECHNOLOGY AG AND CO KG**Inventor(s):** (std): GRANSOW ECKARD ; GRANSOW ECKHARD ; ELLERBROCK HOLGER ; RAADTS THOMAS ; LINDE HANS JUERGEN ; NEUMANN UWE ; REHKLAU ANDREAS**Designated states:** AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT SE SI SK TR**14) Family number: 69475702** (CN207277445U)

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Title: DOMESTIC WATER REUSE DEVICE OF INTELLIGENCE

Abstract: The utility model belongs to the technical field of domestic waste water cyclic utilization and specifically relates to a domestic water reuse device of intelligence is disclosed. The utility model discloses a technical scheme do: a domestic water reuse device of intelligence, includes the rose box, goes up storage water tank and lower storage water tank, the rose box sets up with lower storage water tank side by side, go up water storage cargo position above storage water tank down, be provided with nanometer sterilization filter screen membrane in the rose box, rose box and lower storage water tank intercommunication, go up side wall of water storage box and be provided with abrupt groove, be provided with the water pump in the lower storage water tank, suddenly the inslot is provided with the PLC controller, upward be provided with level sensor in the storage water tank, level sensor and water pump all are connected with the PLC controller, it highly is higher than the toilet tank height to go up the storage water tank bottom. Preferably, side wall of the filter box is provided with the sewage water inlet. The utility model has the characteristics of simple structure, convenient to use just practice thrift the electric energy.

Classifications:**International (IPC 8-9):** E03B11/02 E03B7/07 (Advanced/Invention)**CPC:** Y02A20/106



Family:

Publication number	Publication date	Application number	Application date
■ CN207277445 U	20180427	CN201720332619U	20170331

Priority:

CN201720332619U 20170331

Probable Assignee:

LIANG SHUAIGANG

Assignee(s): (std):

LIANG SHUAIGANG

Assignee(s):

SHUAI LIANG GANG

Inventor(s): (std):

LIANG SHUAIGANG

15) Family number: 72560699 (CN208280216U)

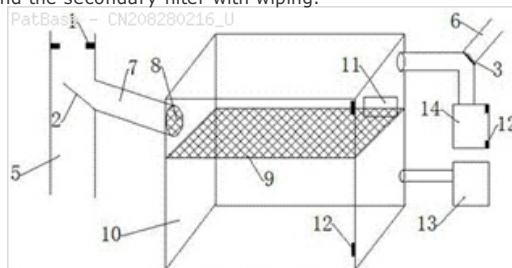
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Title: WATER -SAVING DEVICE

Abstract: The utility model discloses a water -saving device belongs to the household water -saving field, water -saving device include water quality detection sensor, solenoid valve I, solenoid valve II, singlechip, sewer pipe, clear water pipeline, sewer line, filter screen, secondary filter net, contaminated water container, water pump, level sensor, secondary use storage water tank, toilet tank, sewer pipe upper portion install water quality detection sensor, sewer line has been seted up to sewer pipe middle part side direction, sewer pipe is provided with the other one end of solenoid valve I, sewer line with the sewer line junction and is connected with contaminated water container, sewer line exports and is provided with the filter screen, contaminated water container upper portion is provided with water quality detection sensor 0 and nets. The utility model discloses a switching -over of single chip microcomputer control solenoid valve comes the realization and saves with the recycled sewage that runs off, will collect collecting again of the mobile domestic sewage of water pipe, supplies with toilet tank and use after simple the filtration, can be used to use behind the secondary filter with wiping.

Classifications:

International (IPC 8-9): E03B1/04 E03C1/122
E03D5/00 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
■ CN208280216 U	20181225	CN201820654246U	20180504

Priority:

CN201820654246U 20180504

Probable Assignee:

UNIV YUNNAN AGRICULTURAL ; YUNNAN AGRICULTURAL UNIV

Assignee(s): (std):

LI GUOZHI ; PAN PENGFEI ; YANG ZHILEI ; ZHANG JIANQUN

Inventor(s): (std):

16) Family number: 33188964 (WO06081836A1)

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Title: SANITARY UNIT

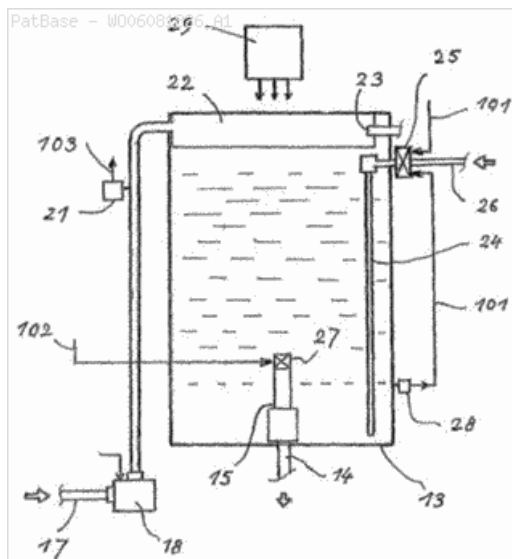
Abstract: The invention concerns a sanitary unit consisting of a cabinet (11) wherein is mounted a water-saving system for dispensing water for flushing a toilet bowl. The water-saving system comprises a backflow pump (8) connected to receive sanitary sewage recovered from the discharge outlet of a bath tub or any other sanitary equipment and for channeling same to a tank (13) wherein it is discharged through a filter (22). A flushing system (15) located in the tank is used to flush the wastewater to flush the bowl (12). A controlled stop valve (25) temporarily introduces into the tank a certain amount of fresh water only when the wastewater reserve contained in the tank is less than a predetermined minimum amount. A rinsing valve (27) controlled by a programming unit (29) temporarily and periodically actuates the flushing system (15) to provide special automatic rinsing in accordance with an adjustable pre-established programme or after a long period of use of the toilet.

Classifications:

International (IPC 8-9): E03D5/00 (Advanced/Invention)

CPC: E03D5/003 E03D5/006

European: E03D5/00B E03D5/00B1



Family:

Publication number	Publication date	Application number	Application date
WO06081836 A1	20060810	WO2005EP01201	20050207

Priority:

WO2005EP01201 20050207

Probable Assignee: BILLON MICHEL

Assignee(s): (std): BILLON MICHEL ; CAVALERI ANTONIO

Inventor(s): (std): CAVALERI ANTONIO

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

17) Family number: 44034190 (CA2629555A)

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Title: RELATED/OVERLAPPING INNOVATIONS IN HEALTH/ENERGY/TRANSPORT/FARMING AND INFRASTRUCTURE

Abstract: (Claim 1) 1.) tissue culture of the stem cells and then differentiating them into desired cells (fruits and/or vegetables, kernels),

Classifications:

International (IPC 8-9): A01N63/02 A01P1/00 A23L3/3562 A61K31/722 A61P31/04 A62D3/00 A99Z99/00 B09C1/00 C02F1/50 C12N1/00 C12N15/00 C12N5/00 C99Z99/00 (Advanced/Invention); A01N63/02 A01P1/00 A23L3/3463 A61K31/716 A61P31/00 A62D3/00 A99Z99/00 B09C1/00 C02F1/50 C12N1/00 C12N15/00 C12N5/00 C99Z99/00 (Core/Invention)

CPC: Y02W10/37 A23G3/36 A23G3/42 A61K31/722 A61K36/00 B09B3/00 B09C1/00 C11D3/227 A23L3/3463 A23L33/10 A23L33/135 A23L33/22

European: A23G3/36 A23G3/42 A23L1/30 A23L1/308A A23L1/30M A23L3/3463 A61K31/722 A61K36/00 B09B3/00 B09C1/00 C11D3/22E10

Family:

Publication number	Publication date	Application number	Application date
CA2629555 AA	20091114	CA20082629555	20080514

Priority:

CA20082629555 20080514

Probable Assignee: VOON GERARD

Assignee(s): (std): VOON GERARD

Inventor(s): (std): VOON GERARD

18) Family number: 65803681 (CN206189919U)

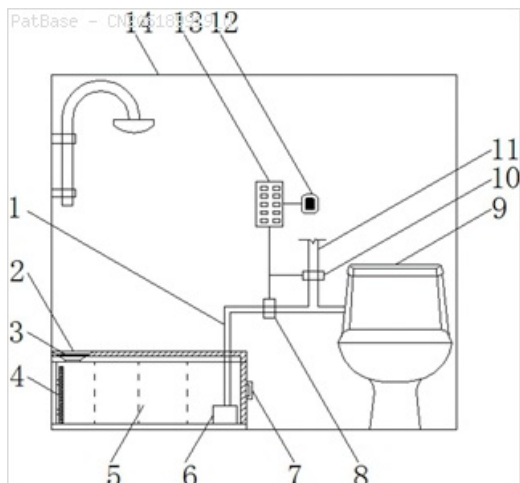
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Title: BETWEEN SHOWER WITH SELF -CLEANING FUNCTION OF SEWAGE

Abstract: The utility model discloses a between shower with self -cleaning function of sewage, including hair filter screen, level sensor, rose box, microcontroller, slide rail and baffle, be equipped with the hair filter screen on the water inlet, the water inlet is linked together with the inside of depositing the storehouse, level sensor locates on the inner wall that deposits the storehouse, the water pump is located among the clear water bin, the water pump is connected with toilet tank through the leading water pipe, be equipped with the solenoid valve on the leading water pipe, the leading water pipe is connected with water pipe, the last check valve that is equipped with of water pipe, check valve and microcontroller electric connection, alarm and microcontroller electric connection, the bottom of rose box is connected with the slide rail, the rose box is inside to be equipped with in proper order from the left hand right side and to precipitate the storehouse, crosses filter pulp storehouse, active carbon storehouse and clear water bin. This between shower with self -cleaning function of sewage simple structure easily realizes, degree of automation is high, in the use, only needs the periodic cleaning rose box can.

Classifications:

International (IPC 8-9): B01D36/04 E03B1/04 E03C1/12 E04H1/12 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN206189919 U	20170524	CN201621252779U	20161118

Priority:

CN201621252779U 20161118

Probable Assignee: FOSHAN NANHAI KANGJIAN SANITARY WARE CO LTD

Assignee(s): (std): FOSHAN NANHAI KANGJIAN SANITARY WARE CO LTD

Assignee(s): FOSHAN NANHAI HEALTH SANITARY WARE ; FOSHAN NANHAI KANGJIAN SANITARY WARE CO

Inventor(s): (std): LIN ZECHENG

19) Family number: 27160472 (WO02102637A1)

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Title: WASTE WATER-RECYCLING INSTALLATION FOR RAILWAYS

Abstract: The invention relates to a waste water-recycling installation for railways that can be used to reduce the normal cleaning, emptying and maintenance work required for this type of installation. The installation receives waste water from the washbasin (4) and the toilet (3), separates the solid matter and purifies the water by means of a biological control system so that said water can be used later in the toilet (3). The inventive installation is provided with different compartments and filters as well as a compartment (23) that is used to evaporate surplus water by means of resistance (24). Said installation also comprises integrated circuits (17, 18) for the compartment cleaning and filling operations.

Classifications:

International (IPC 8-9): B61D35/00 B63B29/16

B64D11/02 (Advanced/Invention);

C02F1/00 C02F1/32 (Advanced/Non-invention);

B61D35/00 B63B29/00 B64D11/00 (Core/Invention);

C02F1/00 C02F1/32 (Core/Non-invention)

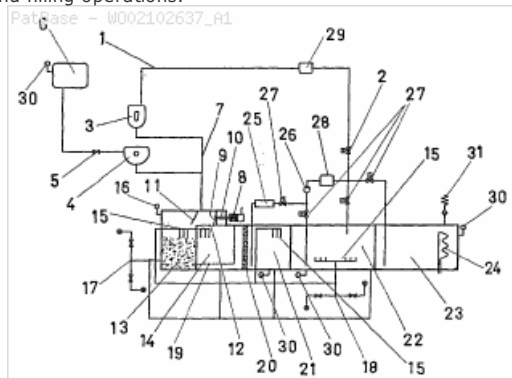
International (IPC 1-7): B61D35/00

CPC: B61D35/007 B63B29/16 B64D11/02 C02F1/001 C02F1/32

C02F2103/005 C02F2201/008

European: B61D35/00C2 B63B29/16 B64D11/02 M02F1/00D

M02F1/32 M02F103/00E M02F201/00M



Family:

Publication number	Publication date	Application number	Application date
AU2001274117 AA	20030102	AU20010274117	20010614
WO02102637 A1	20021227	WO2001ES00242	20010614

Priority:

WO2001ES00242 20010614

Probable Assignee: CONSTRUCCIONES MODULARES Y COM

Assignee(s): (std): CONSTRUCCIONES MODULARES Y COM ; PICH MARTINEZ DAVID

Assignee(s): CONSTRUCCIONES MODULARES Y COMPONENTES DE INTERIOR ; CONSTRUCCIONES MODULARES Y COMPONENTES DE INTERIORISMO S A ; CONSTRUCCIONES MODULARES Y COMPONENTES DE INTERIORISMO SA

Inventor(s): (std): PICH MARTINEZ DAVID

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

20) Family number: 10395388 (DE4123803A1)

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Title: Collector tank for repeated use of waste water in aircraft - has special container enabling wash basin drain water to be used for toilet flushing

Abstract: The system has a special container with a collector facility so that waste water from the hand-wash basin can be used as flushing water for the toilet. This results in no colour variation of drinking water, no formation of froth, no visible particles and no smell, and is available in sufficient quantity. Part of all the waste water is cleansed by a purifying system and jettisoned from the aircraft. USE - Aircraft cabin toilet facility.

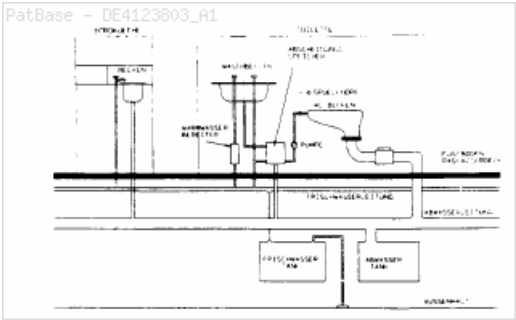
Classifications:

International (IPC 8-9): B60R15/00 B64D11/02 E03B1/04 (Advanced/Invention)

International (IPC 1-7): B60R15/04 B64D11/02 E03D5/016

CPC: B60R15/00 B64D11/02 E03B1/04 E03B2001/045

European: B60R15/00 B64D11/02 E03B1/04 P03B1/04B20



Family:

Publication number	Publication date	Application number	Application date
DE4123803 A1	19930121	DE19914123803	19910718

Priority:

DE19914123803 19910718

Probable Assignee: BLOHM AND VOSS INT

Assignee(s): (std): BLOHM AND VOSS INT

Assignee(s): BLOHM AND VOSS INTERNATIONAL GMBH 2000 HAMBURG D ; BLOHM AND VOSS INTERNATIONAL GMBH 2000 HAMBURG DE

Inventor(s): (std): BLICKLE KLAUS DR ; HOOGEN NORBERT DR