

Search history

Search 1: FT=(kitchen* and taps* and mesh* and pressure* and flow) (Results 151)
Search 2: FT=(kitchen* and plumbing* and mesh* and pressure* and flow) (Results 351)
Search 3: (2) AND IPC=(E03) (Results 62)

1) Family number: 54594047 (BRPI1104596A)

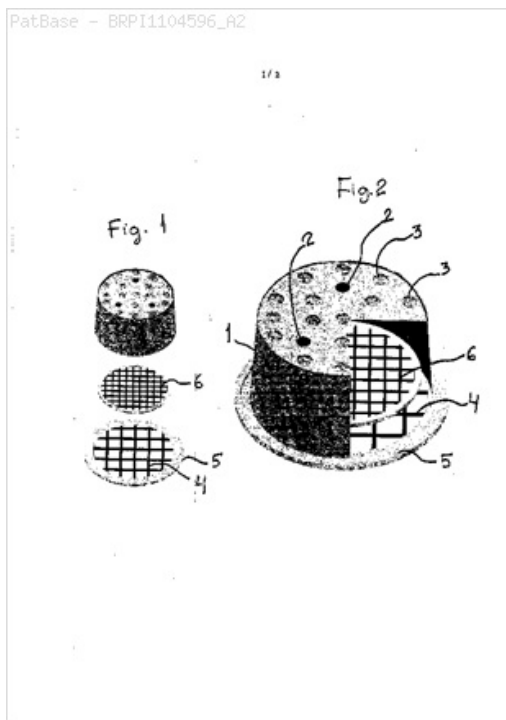
© PatBase

Title: REDUTOR COLORIDO DE VAZCO DE AGUA PARA TORNEIRAS GEAR COLORED WATER FOR TAPS VAZCO (Machine translation)

Abstract: Source: BRPI1104596A [PT] REDUTOR COLORIDO DE VAZCO DE AGUA PARA TORNEIRAS. Patente de invencao para um redutor de vazao de agua para torneiras que e compreendido por um recipiente conico ou cilindrico, alongado e verticalizado 1, vazados na parede superior com orificios de vazao 2 para reduzir a vazao de agua da torneira, dotado de boca inferior com uma peneira externa de tela grossa 4 e uma peneira interna de tela fina 6 para reterem fragmentos encontrados na agua que poderiam rapidamente entupir os orificios de vazao. O corpo externo do redutor e colorido para identificar a quantidade de orificios. **Machine translation:** VAZCO GEAR COLORED WATER FOR TAPS. Patent for reducing water flow to taps and understood by a container conical or cylindrical, elongated and one vertical, hollow on the upper wall with two holes flow to reduce the water flow from the tap, endowed with the lower mouth a sieve external screen coarse sieve 4:01 6 inner thin screen to retain fragments found in the water that could quickly clog the holes flow. The outer body of the reducer and colored to identify the amount of holes.

Classifications:

International (IPC 8-9): A47K1/00 E03B7/07
F16K21/00 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
BRPI1104596 A2	20130813	BR2011PI04596	20110920

Priority:

BR2011PI04596 20110920

Probable Assignee:

JU HAN SOO

Assignee(s): (std):

JU HAN SOO

Assignee(s):

HAN SOO JU

Inventor(s): (std):

JU HAN SOO

Inventor(s):

HAN SOO JU

2) Family number: 55321071 (US2015191365A)

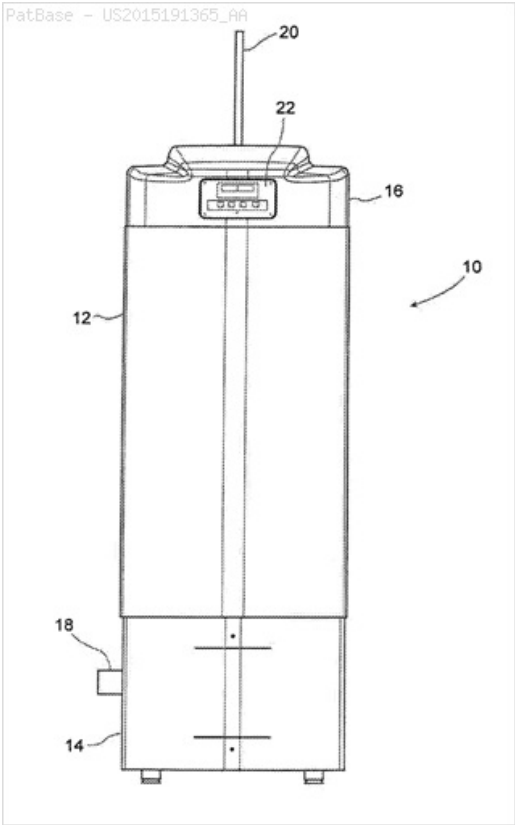
© PatBase

Title: SYSTEM AND METHOD OF GREYWATER RECOVERY AND REUSE

Abstract: A greywater recovery and reuse system is shown, including a body for collecting, conditioning and discharging greywater. The body has an inlet connection to a source of greywater; a filter for filtering the greywater; a tank for receiving the filtered greywater; a disinfectant for disinfecting the filtered greywater; a pump for discharging the conditioned greywater from said tank to a toilet that needs flushing water; a discharge connection to a sanitary sewer system; a fresh water connection and a control system for controlling the operation of the greywater recovery and reuse system. The system includes a controller for operating the system and dealing with certain alarm and status conditions. Methods of operating the system are also comprehended.

Classifications:

International (IPC 8-9): B01D21/24 B01D29/60 B01D29/90
B01D36/04 C02F C02F1/00 C02F1/50 C02F1/76 C02F9/00 C02F9/04
E03C E03C1/12 (Advanced/Invention);
C02F1/68 C02F103/00 (Advanced/Non-invention)
CPC: C02F1/008 B01D29/904 B01D29/603 B01D29/605 B01D29/606
B01D36/04 B01D21/245 C02F2001/007 C02F1/001 C02F1/76
C02F2103/002 C02F2103/005 C02F2209/03 C02F2209/40
C02F2209/42 C02F2209/44 C02F2303/02 C02F2303/04 E03C1/12
E03C1/1222 E03C1/126 C02F1/68 C02F1/686 C02F9/005
C02F2209/006 C02F2301/046 C02F2303/16 E03C2201/40
US: 210/104 210/106 210/138 210/142 210/202 210/206 210/741
210/87 210/93



Family:

Publication number	Publication date	Application number	Application date
AU2013271326 AA	20131212	AU20130271326	20130605
BR112014030487 A2	20170808	BR20141130487	20130605
CA2779705 AA	20131206	CA20122779705	20120606
CN104395245 A	20150304	CN201380030232	20130605
EP2858953 A1	20150415	EP20130800469	20130605
EP2858953 A4	20151202	EP20130800469	20130605
IN10698DN2014 A	20150828	IN2014DN10698	20141215
MX2014015011 A1	20150305	MX20140015011	20130605
RU2014151764 A	20160727	RU20140151764	20130605
US2015191365 AA	20150709	US20130406033	20130605
US10138138 BB	20181127	US20130406033	20130605
WO13181747 A1	20131212	WO2013CA00551	20130605
ZA201409064 A	20160330	ZA20140009064	20141210

Priority:

CA20122779705 20120606 WO2013CA00551 20130605

Probable Assignee: CANPLAS IND LTD

Assignee(s): (std): CANPLAS IND LTD

Assignee(s): GAY STACEY CHARLEEN ; MANTYLA JAMES BRIAN ; POUPORE TIMOTHY JAMES HENDRIE ; ROBB CARL L ; VAN KAMPEN LEO PETER ; WILSON MICHEAL F ; RECOVER WATER TECH INC ; BALDWIN N SCOTT

Inventor(s): (std): BALDWIN N SCOTT ; BALDWIN SCOTT N ; CARL L ROBB ; GAY STACEY CHARLEEN ; JAMES BRIAN MANTYLA ; KAMPEN LEO PETER VAN ; LEO PETER VAN KAMPEN ; MANTYLA JAMES BRIAN ; MICHAEL F WILSON ; N SCOTT BALDWIN ; POUPORE TIMOTHY JAMES HENDRIE ; ROBB CARL L ; SCOTT N BALDWIN ; STACEY CHARLEEN GAY ; TIMOTHY JAMES HENDRIE POUPORE ; VAN KAMPEN LEO ; VAN KAMPEN LEO PETER ; WILSON MICHAEL F ; WILSON MICHEAL F

Inventor(s): N BALDWIN CARL L ROBB ; JAMES BRIAN MANTYLA SCOTT

Agent(s): BALDWIN INTELLECTUAL PROPERTY; PIASETZKI NENNIGER KVAS LLP; BEATTIE ALEX THOMAS STEWART; POLSINELLI PC; NENNIGER JAMES T

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 IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW 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

3) Family number: 62910103 (US2016200616A) © PatBase

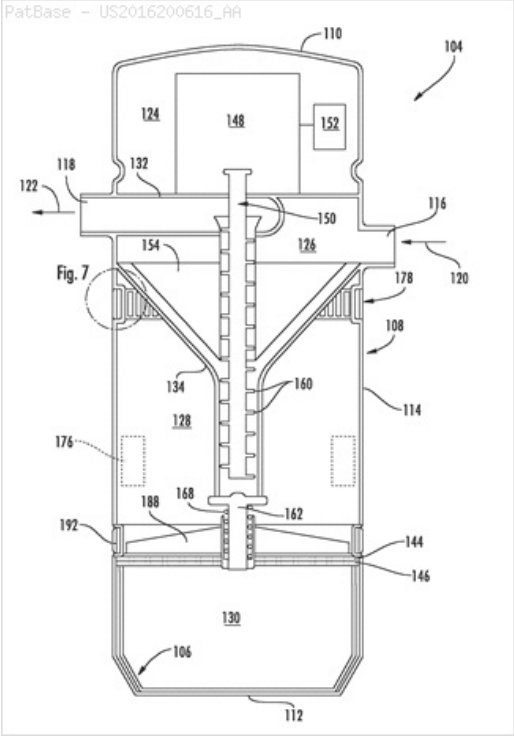
Title: UNDER-SINK WASTE PROCESSING UNIT

Abstract: An under-sink waste processing unit may generally include a housing defining an inlet and an outlet. The inlet may

be configured to receive water and waste discharged from a waste disposal. The housing may also define a separation chamber in fluid communication with the inlet and a processing chamber separate from the separation chamber. The waste processing unit may also include a rotatable drive shaft extending within the separation chamber and a screw thread associated with the drive shaft. The screw thread may be configured to be rotated with the drive shaft within the separation chamber so as to at least partially separate the water from the waste received within the inlet. The separated waste may be configured to be dispersed from the separation chamber into the processing chamber for further processing thereof.

Classifications:

International (IPC 8-9): B01D35/02 B01D35/30 B02C18/00
B02C23/10 C02F11/16 C02F9/00 E03C1/266 (Advanced/Invention)
CPC: C02F11/16 B02C23/10 E03C1/2665 B02C18/0092
US: 210/113 210/179 210/256



Family:

Publication number	Publication date	Application number	Application date
US2016200616 AA	20160714	US20150595481	20150113
US9862630 BB	20180109	US20150595481	20150113

Priority:

US20150595481 20150113

Probable Assignee: HAIER US APPLIANCE SOLUTIONS INC

Assignee(s): (std): GEN ELECTRIC ; HAIER US APPLIANCE SOLUTIONS INC

Assignee(s): GENERAL ELECTRIC CO

Inventor(s): (std): ALVORD REBECCA ANN ; GORMLEY JOSEPH EMIL ; PLATTS LAUREN NICOLE

Agent(s): DORITY AND MANNING PA

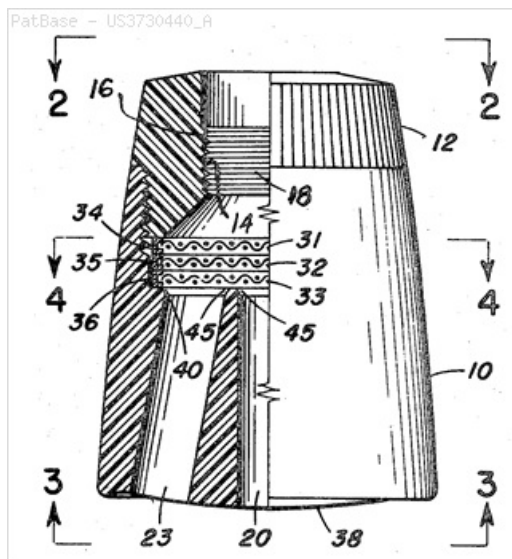
4) Family number: 19274116 (US3730440A) © PatBase

Title: LAMINAR-FLOW SPOUT-END DEVICES

Abstract: This invention comprises a fluid flow device for producing a coordinated stream of fluid from a spout. The exiting stream will be substantially free of splashes when the exiting stream is flowing at normal velocities. The fluid flow device includes a body having a plurality of independent nozzles, which may be seven in number, for example. In a preferred embodiment, one of the nozzle sections will be centrally disposed with its axis coinciding with the axis of the device, while the remaining nozzle sections will be spaced equally from the central nozzle section and peripherally arranged about the central section and pitched at substantially the same relative angle with respect to the central section. The diameters of all of the nozzle sections will be uniform and the lengths of all of the nozzle sections will be substantially the same.

Classifications:

International (IPC 8-9): E03C1/084 E03C1/086 (Advanced/Invention);
E03C1/02 (Core/Invention)
International (IPC 1-7): B05B1/18 B05B1/22 E03C1/00 E03C1/08
E03C1/086
CPC: E03C1/086 E03C1/084
European: E03C1/084 E03C1/086
US: 239/590.5



Family:

Publication number	Publication date	Application number	Application date
BR6909550 A0	19730208	BR19690209550	19690606
DE1927695 A1	19691211	DE19691927695	19690530
DE1927695 B2	19780720	DE19691927695	19690530
DE1967072 A1	19761111	DE19691967072	19690530
DE1967072 B2	19780914	DE19691967072	19690530
DE1967072 C3	19811119	DE19691967072	19690530
DE6921769 U	19691113	DE19691021769U	19690530
ES368232 A1	19710501	ES19690368232	19690531
FR2010255 A1	19700213	FR19690018179	19690603
FR2010255 B1	19750822	FR19690018179	19690603
GB1216155 A	19701216	GB19690028501	19690605
US3730440 A	19730501	US19710182121	19710920

Priority:

US19680734994 19680606 US19710182121 19710920

Probable Assignee: AMERICAN STANDARD INC

Assignee(s): (std): AMERICAN STANDARD INC ; AMERICAN STANDARD INC EINE GES ; AMERICAN STANDARD INC US

Assignee(s): CHEMICAL BANK COLLATERAL AGENT AS ; AMERICAN STANDARD INC GES N D GESETZEN D STAATES DELAWARE NEW YORK N Y V ST A ; AMERICAN STANDARD INC GES N D GESETZEN D STAATES DELAWARE NEW YORK N Y US ; AMERICAN STANDARD INC EINE GESELLSCHAFT DES STAATES ; AMERICAN STANDARD INC EINE GESELLSCHAFT DES STAATES DELAWARE ; AMERICAN STANDARD INC GES N D GESETZEN D STAATES ; BANKERS TRUST CO ; CHEMICAL BANK AS COLLATERAL AGENT

Inventor(s): (std): PARKISON R ; G PARKISON RICHARD ; PARKISON RICHARD G

Inventor(s): PARKISON RICHARD G LOUISVILLE KY V ST A ; PARKISON RICHARD G LOUISVILLE KY US ; PARKISON R US

5) Family number: 42777131 (US2009007975A)

© PatBase

Title: WATER CONTROL FIXTURE HAVING AUXILIARY FUNCTIONS

Abstract: A water control fixture includes a housing having a plurality of ports defining a hot water inlet port, a cold water port, a fixture outlet port, and an auxiliary port, wherein water is dispensed from the housing via the fixture outlet port. A flow control unit is configured to be selectively positioned in fluid communication with different combinations of the plurality of ports, wherein the flow control unit has a main passage in fluid communication with the hot water inlet port, the cold water port, and the fixture outlet port. The flow control unit controls the flow of water from the hot water inlet port and the cold water port to the fixture outlet port. The flow control unit has an auxiliary passage in fluid communication with the auxiliary port and at least one of the hot water inlet port, the cold water port, and the fixture outlet port to perform an auxiliary function.

Classifications:

International (IPC 8-9): E03B7/04 F16K11/20

G05D23/12 (Advanced/Invention);

F16K11/10 (Core/Invention)

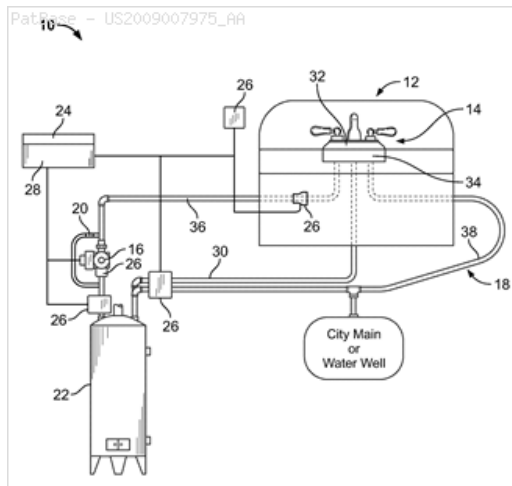
CPC: E03B7/04 E03B1/048 E03B7/045 F24D17/00 F24D17/0094

Y10T137/6497 Y10T137/86815 Y10T137/87249

European: E03B1/04C E03B7/04 E03B7/04B F24D17/00

F24D17/00M

US: 137/337 137/597 137/625.4 236/12.13



Family:

Publication number	Publication date	Application number	Application date
US2009007975 AA	20090108	US20080165165	20080630
US2013180611 AA	20130718	US20120552348	20120718
US8231064 BB	20120731	US20080165165	20080630

Priority:

US20070958145P 20070702 US20080165165 20080630 US20120552348 20120718

Probable Assignee: GRUNDFOS PUMPS CORP

Assignee(s): (std): GRUNDFOS PUMPS CORP ; KEMPF DALE ; LUM KEN

Inventor(s): (std): LUM KEN ; KEMPF DALE

Agent(s): THE SMALL PATENT LAW GROUP LLP; SMALL PATENT LAW GROUP LLP; DEAN

6) Family number: 24863158 (WO9405866A1)

© PatBase

Title: APPARATUS AND METHOD FOR WASTE WATER RECYCLING

Abstract: A method of recycling waste water including collecting and storing grey water in a holding tank assembly (11), providing a make-up water supply (18) to the holding tank assembly (11) for maintaining the water level therein between desired levels delivering water from the holding tank assembly to a water flush toilet (17) for flushing the toilet. Preferably, the method further includes providing the water flush toilet with a flushing cistern (17), providing the holding tank assembly with an overflow to waste (12) selecting the desired levels as a lower level sufficient to refill the cistern and an upper level below the overflow to waste, and causing the make-up water to enter the tank from an inlet disposed above the overflow to waste, with the holding tank assembly positioned for gravitational feed of grey water thereto. Preferably a pump assembly (13) is provided for pumping water from the holding tank assembly to the cistern. Additionally, the grey water supply to the holding tank assembly may be treated prior to entry to the holding tank assembly such as by filtration (14) and/or chemical treatment.

Classifications:

International (IPC 8-9): E03B1/04 E03B11/00

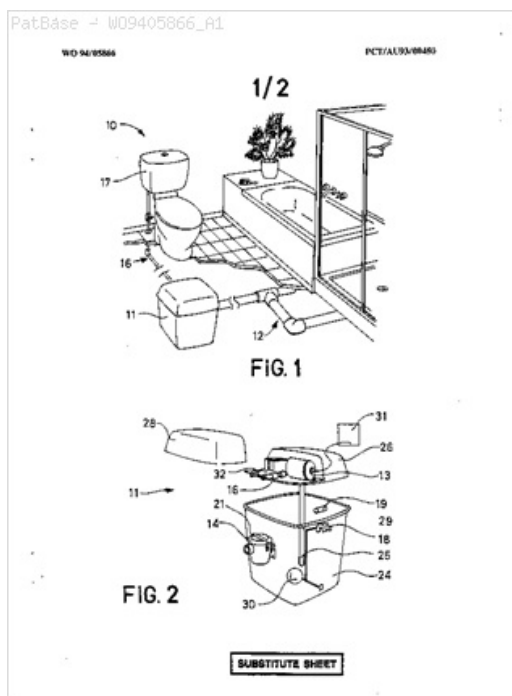
E03C1/12 (Advanced/Invention);

E03B1/00 E03B11/00 E03C1/12 (Core/Invention)

International (IPC 1-7): E03B11/00 E03C1/12

CPC: Y02A20/302 Y02A20/304 E03B1/04 E03B2001/045

European: E03B1/04 P03B1/04B20



Family:

Publication number	Publication date	Application number	Application date
AU199349354 A1	19940329	AU19930049354	19930903
WO9405866 A1	19940317	WO1993AU00450	19930903

Priority:

AU1992PL04490 19920903 AU19930049354 19930903 WO1993AU00450 19930903

Probable Assignee: HYDROSAVE RECYCLING SYSTEMS PT**Assignee(s):** (std): BISHOP RONALD EDWARD ; DODD BARRIE ERIC ; HYDROSAVE RECYCLING SYSTEMS PT ; PARRY ALAN CHARLES**Assignee(s):** HYDROSAVE RECYCLING SYSTEMS PT LTD**Inventor(s):** (std): BISHOP RONALD EDWARD ; DODD BARRIE ERIC ; PARRY ALAN CHARLES**Agent(s):** PIZZEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD**Designated states:** AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KR KZ LK LU MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA US VN**7) Family number: 72978187 (WO19014743A1)**

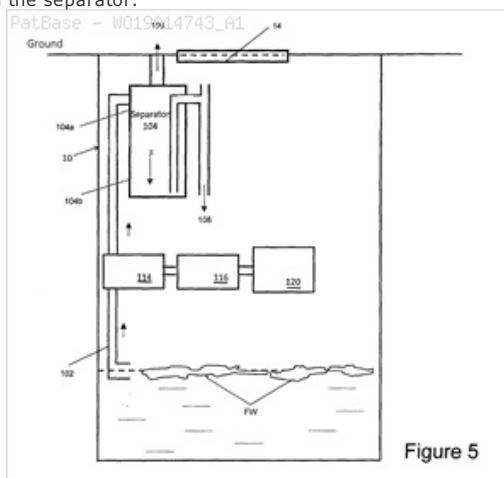
© PatBase

Title: METHOD AND SYSTEM FOR MANAGEMENT OF SEWER WASTE

Abstract: Method and system for treatment of a wastewater stream at a location is disclosed. The wastewater stream includes a floating waste component such as sewer FOG or oil and an aqueous component such as water. The wastewater stream is directed from the location to a separator through an intake which is fluidly connected to the location and the separator. The separator separates the floating waste component from the aqueous component. The separated floating waste component is directed to a floating waste discharge outlet associated with the separator and the separated aqueous component is directed to an aqueous discharge outlet associated with the separator.

Classifications:**International (IPC 8-9):** C02F1/00 C02F1/40

E03F5/14 (Advanced/Invention)

CPC: C02F1/00 C02F1/40 E03F5/14**Family:**

Publication number	Publication date	Application number	Application date
CA2974059 AA	20190121	CA20172974059	20170721
WO19014743 A1	20190124	WO2018CA00020	20180131

Priority:

CA20172974059 20170721 US20170535585P 20170721

Probable Assignee: MUDDY RIVER TECH INC**Assignee(s):** (std): MUDDY RIVER TECH INC**Assignee(s):** GARDNER MICHAEL STEPHEN ; JACK PETER DOUGLAS ; MUDDY RIVER TECHNOLOGIES INC ; STEPHENSON ROBERT JOHN**Inventor(s):** (std): GARDNER MICHAEL STEPHEN ; JACK PETER DOUGLAS ; STEPHENSON ROBERT JOHN**Agent(s):** EDWARDS ANTONY C; EDWARDS ANTHONY C**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**8) Family number: 61317198 (US2016095794A)**

© PatBase

Title: FLUSHING SYSTEM FOR A SAFETY SYSTEM

Abstract: Methods and apparatus for improving emergency wash systems. Various embodiments pertain to compact, low flow emergency eyewash systems that provide tepid water at low flow rates. Still further embodiments pertain to emergency washing systems that are adapted and configured to reduce the exposure of users to Legionnaire's Disease with washing system features that permit quick, efficient, high flow rate flushing of the plumbing providing water to the washing system. Still further embodiments pertain to emergency eyewash systems that provide tepid water from a thermostatically controlled mixing valve that has a multi-function body.

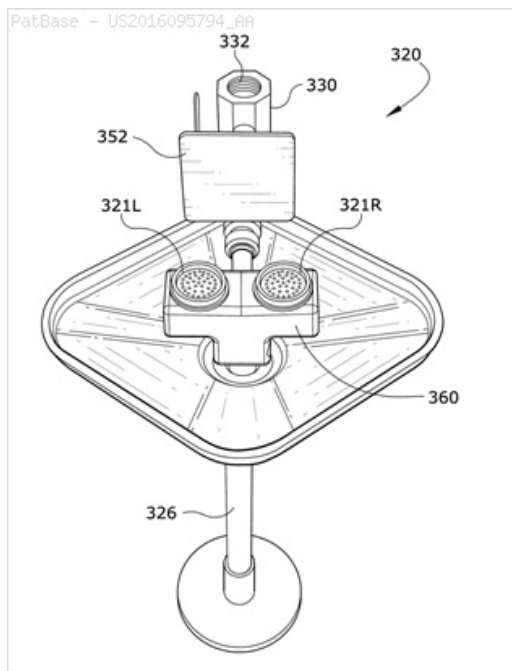
Classifications:**International (IPC 8-9):** A47K3/00 A61H33/00 A61H35/02 E03C1/10

E03C1/16 F16K11/00 (Advanced/Invention)

CPC: A61H35/02 A61H2201/0207 A61H2201/0228 A61H2201/0188

A61H2201/5058 A61H2201/5082

US: 4/620



Family:

Publication number	Publication date	Application number	Application date
CA2895915 AA	20151227	CA20152895915	20150629
US2016095794 AA	20160407	US20150753963	20150629
US2018333329 AA	20181122	US20170852898	20171222
US9855189 BB	20180102	US20150753963	20150629

Priority:

US20140018278P 20140627 US20150113028P 20150206 US20150753963 20150629
US20170852898 20171222

Probable Assignee: MAGARL LLC

Assignee(s): (std): MAGARL LLC

Assignee(s): WEST CAMERON ; BAKER THOMAS R ; EVELEIGH ROBERT B

Inventor(s): (std): BAKER THOMAS R ; EVELEIGH ROBERT B ; WEST CAMERON

Agent(s): MACRAE AND CO; JOHN V; BINGHAM GREENEBAUM DOLL LLP

9) Family number: 72981205 (WO19018722A2)

© PatBase

Title: LIQUID WASTE RECEPTOR

Abstract: A strainer assembly for use with a floor waste receptor having vertical walls and a floor forming a well into which liquid waste material can be collected and directed toward a well discharge opening and then into a drain pipe, the vertical walls having an outer flange extending outward from the vertical walls at a position below the top surface formed by the vertical walls, and an inner ledge formed below the top surface, and the floor shaped to form a ledge around the drain opening, comprising: a well discharge opening strainer assembly; a basket strainer sized to fit in the well and over the well discharge opening strainer assembly and sit on the floor ledge, the basket strainer provided with openings sized to permit liquid waste matter of a second predetermined size to move from the floor receptor well through the basket strainer and into the well discharge opening strainer assembly, and a grate strainer sized to sit on the interior ledge.

Classifications:

International (IPC 8-9): B01D33/00 B01D35/30 B32B27/28

C02F1/40 E03F5/14 E03F5/16 E04B5/02

F16L55/07 (Advanced/Invention)

CPC: A47L15/00

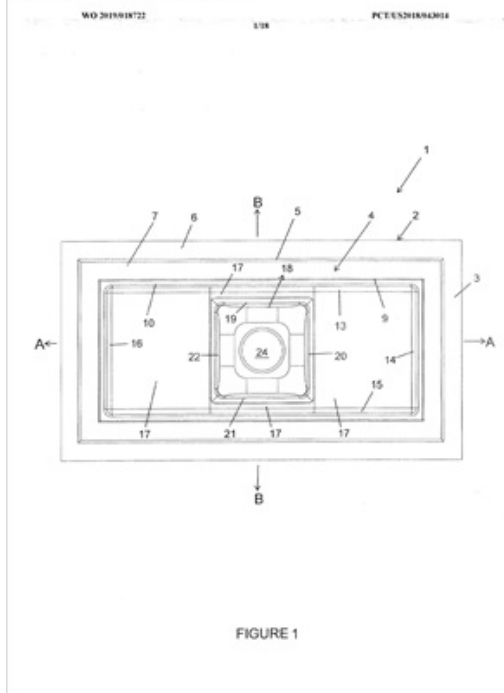


FIGURE 1

Family:

Publication number	Publication date	Application number	Application date
WO19018722 A2	20190124	WO2018US43014	20180720
WO19018722 A3	20190404	WO2018US43014	20180720

Priority:

US20170535644P 20170721

Probable Assignee: ROBILLARD FRED WAYNE**Assignee(s):** (std): ROBILLARD FRED WAYNE ; ROBILLARD RUSSELL WAYNE**Inventor(s):** (std): ROBILLARD FRED ; ROBILLARD RUSSELL**Inventor(s):** ROBILLARD RUSSELL WAYNE ; ROBILLARD FRED WAYNE**Agent(s):** KIESEL WILLIAM D ET AL

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

10) Family number: 32018218 (US2008017567A)

© PatBase

Title: FILTER ASSEMBLY

Abstract: A floor waste (10) including a filter basket (16) having a magnet (18). The magnet (18) attracts a movable valve member (27) upwardly from a seat (22) to allow liquid to pass through the seat (22). When the basket (15) is removed the movable valve member (27) closes the seat (22). In one embodiment the valve member (27) includes a valve disk 29 that prevents the flow of liquid through the seat (22) when engaged therewith, while in another embodiment the disk (29) has a series of passages (31) that permits the flow of liquid through the seat when the disk (29) is engaged with the seat (22).

Classifications:**International (IPC 8-9):** B01D29/35 B01D35/02 B01D35/15

B01D35/153 E03C1/26 E03C1/262 E03F5/04

E03F5/14 (Advanced/Invention);

B01D29/31 B01D35/00 B01D35/14 E03C1/26 E03F5/04

E03F5/14 (Core/Invention)

International (IPC 1-7): B01D29/35 B01D35/153 E03C1/26

E03C1/262 E03C1/264 E03F5/04 E03F5/14 E03F7/02

CPC: B01D29/35 B01D35/153 E03C1/26 E03F5/0407 E03F2005/0417

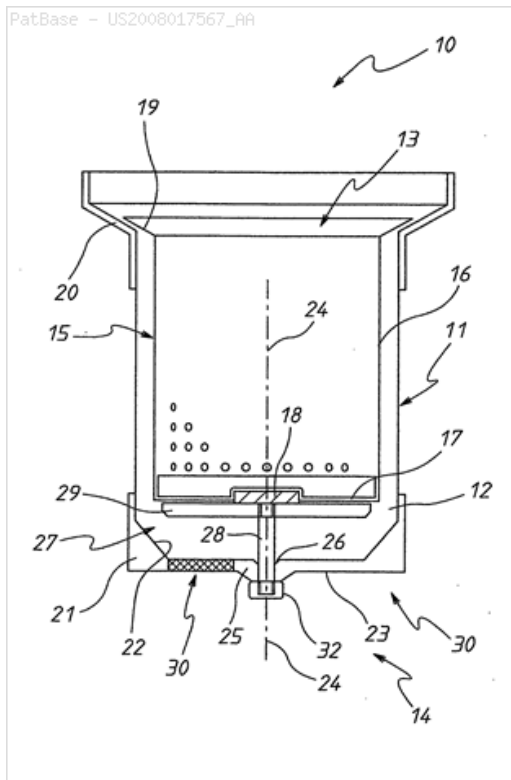
B01D29/96 B01D35/16

European: B01D29/35 B01D35/153 E03C1/26 E03F5/04 E03F5/04D

P03F5/04S2

US: 210/163 210/234 210/235 210/359 210/474 210/482 4/286

4/287 4/290 4/292 4/668

**Family:**

Publication number	Publication date	Application number	Application date
AU2004297290 AA	20050623	AU20040297290	20041201
AU2004297290 BB	20091001	AU20040297290	20041201
NZ548054 A	20090131	NZ20040548054	20041201
US2008017567 AA	20080124	US20040582030	20041201
US7517452 BB	20090414	US20040582030	20041201
WO05056942 A1	20050623	WO2004AU01682	20041201

Priority:

AU20030906884 20031210 AU20040297290 20041201 WO2004AU01682 20041201

Probable Assignee: SPECIALITY PLUMBING SUPPLIES PTY LTD

Assignee(s): (std): CHAPMAN RAYMOND GEORGE ; CREASY DAVID WILLIAM ; SPECIALITY PLUMBING SUPPLIES P ; SPECIALITY PLUMBING SUPPLIES PTY LTD ; SPECIALITY PLUMBING SUPPLIES

Assignee(s): SPECIALITY PLUMBING SUPPLIES PTY LTD

Inventor(s): (std): CHAPMAN RAYMOND G ; CHAPMAN RAYMOND GEORGE ; CREASY DAVID W ; CREASY DAVID WILLIAM

Inventor(s): RAYMOND GEORGE CHAPMAN ; DAVID WILLIAM CREASY

Agent(s): SPRUSON AND FERGUSON; SPECIALITY PLUMBING SUPPLIES PTY LTD; TOWNSEND AND TOWNSEND AND CREW LLP

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 SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

11) Family number: 34068261 (US2007000038A)

© PatBase

Title: SHOWER SHIELD SYSTEM FOR BATHROOM SHOWER DRAIN AREAWAYS

Abstract: A Shower Shield System to be engaged with the Shower drain in order to protect the drain area way as well as protect the loss and/or damage of inanimate objects and/or material. The inventive device includes plastic canvas mesh materials, and a solid plastic ring adhesively bonded together. A Shower Shield System to be engaged with the Shower drain in a shower drain areaway to protect and prevent the loss of inanimate objects down the drain areaway. The inventive device includes plastic canvas mesh materials, plastic strips, and a solid plastic ring securely fastened together with bonding adhesive. This inventive device includes, but is not limited to canvas mesh plastic, plastic strips, and a solid plastic ring materials and bonding adhesive.

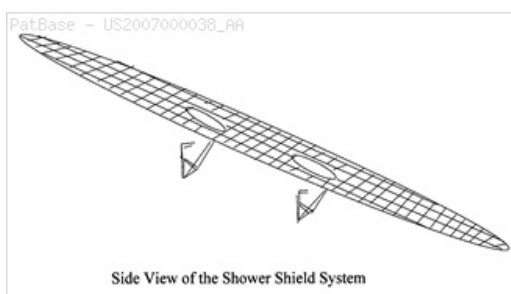
Classifications:

International (IPC 8-9): A47K1/14 E03C1/26 (Advanced/Invention); A47K1/00 E03C1/26 (Core/Invention)

CPC: E03C1/264

European: E03C1/264

US: 4/286



Family:

Publication number	Publication date	Application number	Application date
US2007000038 AA	20070104	US20060455509	20060911

Priority:

US20050691626P 20050620 US20060455509 20060911

Probable Assignee: JORDON DIAHANN M

Assignee(s): (std): JORDON DIAHANN M ; JORDON DOROTHY L ; JORDON HAMSON L ; JORDON LOLITA R

Inventor(s): (std): JORDON DIAHANN M ; JORDON DOROTHY L ; JORDON HAMSON L ; JORDON LOLITA R

Inventor(s): JORDON LOLITA RENEE ; JORDON HAMSON LEE ; JORDON LOLITA ; JORDON DOROTHY LEE ; JORDON HAMSON ; JORDON DIAHANN MICHELLE ; JORDON DOROTHY ; JORDON DIAHANN

Agent(s): DIAHANN MICHELLE JORDON

12) Family number: 30568280 (US2004089350A)

© PatBase

Title: IN-LINE SCREENS FOR THERMOSTATIC VALVES

Abstract: A thermostatic valve for mixing hot water and cold water includes a valve body defining a first inlet, a second inlet, a mixing chamber, a first passageway between the first inlet and the mixing chamber, and a second passageway between the second inlet and the mixing chamber. The thermostatic valve includes first and second flow control assemblies and first and second screen assemblies assembled into the valve body. A first screen assembly is positioned downstream of a first flow control assembly and a second screen assembly is positioned downstream of a second flow control assembly. Each screen assembly is removable from the valve body and includes a screen body having a screening portion with a lower open end and a top portion. The screen assembly includes a closing cap to retain accumulated particulate matter. A retaining clip is used to hold the screen assembly in position within the valve body.

Classifications:

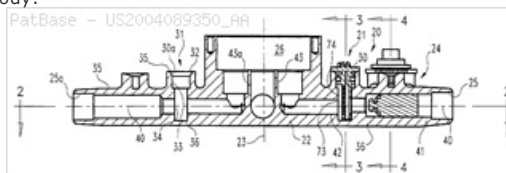
International (IPC 8-9): B01D35/02 B01D35/04 B01F5/06 F16K11/00 F16K11/22 G05D23/01 G05D23/13 (Advanced/Invention); B01D35/00 B01F5/06 F16K11/00 F16K11/10 G05D23/01 (Core/Invention)

International (IPC 1-7): B01D35/02 B01D35/04 B01F5/06 B05B1/30 E03B3/18 E03B7/07 F16K11/00 F16K11/22 G05D23/13

CPC: Y10T137/8122 Y10T137/87684 G05D23/01 B01D2201/305

European: G05D23/01 L01D201/30C6

US: 137/550 137/606 210/447 210/454 210/463 236/12.15

**Family:**

Publication number	Publication date	Application number	Application date
CA2445012 AA	20040508	CA20032445012	20031010
CA2445012 C	20070807	CA20032445012	20031010
CN100371048 C	20080227	CN200310115604	20031110
CN1512094 A	20040714	CN200310115604	20031110
MXPA03010112 A1	20050411	MX2003PA10112	20031105
US2004089350 AA	20040513	US20020290860	20021108
US6910501 BB	20050628	US20020290860	20021108

Priority:

US20020290860 20021108 CA20032445012 20031010

Probable Assignee: MASCO OF INDIANA CORP

Assignee(s): (std): MARTY GARRY R ; MASCO CORP ; MCNERNEY GERALD J

Assignee(s): MASCO OF INDIANA CORP ; MARTY GARY R

Inventor(s): (std): JERALD J ; MARTY GARRY R ; MARTY GARY R ; MARTY JARRY R ; MCNERNEY GERALD J ; MENERNEY ; GERALD J MCNERNEY

Inventor(s): JARRY R MARTY

Agent(s): DIMOCK STRATTON LLP; PIASETZKI NENNIGER KVAS LLP; WOODARD EMHARDT MORIARTY MCNETT AND HENRY LLP

13) Family number: 55143293 (US2014075663A)

© PatBase

Title: URINAL SCREEN

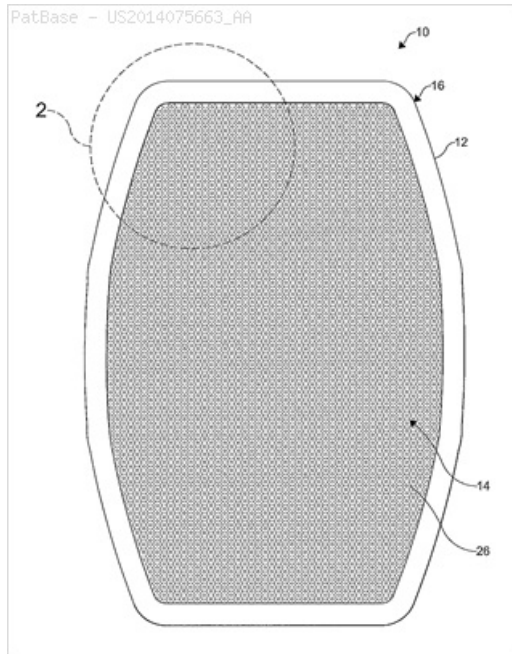
Abstract: A urinal screen including a body having a plurality of openings formed therein and a frame disposed around at least a portion of the body, the frame having a substantially concave shape. The urinal screen is adapted to be positioned in a substantially upright position in the urinal with a first end of the urinal screen adjacent a bottom of the urinal and a second end of the urinal screen adjacent a rear surface of the urinal,

Classifications:

International (IPC 8-9): A47G27/02 A47K3/00 A47K3/02 A61L2/00 A61L9/04 A61L9/05 A61L9/12 E03C1/264 E03D11/00 E03D13/00 E03D9/00 E03D9/02 G05B13/02 G06F7/00 G08B29/00 (Advanced/Invention); E03D13/00 (Core/Invention)

CPC: A47G27/0206 A61L2/00 E03D13/005 A61L9/05 A61L2209/15 Y10T428/23 Y10T428/237 A61L9/042 A61L9/12 E03D9/007 E03C1/264 E03D13/00

US: 1/1 134/6 239/6 239/60 264/177.1 4/228.1 4/292 422/5 428/68 428/74



Family:

Publication number	Publication date	Application number	Application date
CA2825795 AA	20140314	CA20132825795	20130829
CN203531108 U	20140409	CN201320566844U	20130912
DE102013110030 A1	20140320	DE201310110030	20130912
GB201315818 A0	20131023	GB20130015818	20130905
GB2506980 A1	20140416	GB20130015818	20130905
ITMI20131499 A1	20140315	IT2013MI01499	20130910
MX2013010538 A1	20140324	MX20130010538	20130913
US2014075663 AA	20140320	US20130804686	20130314
US2014076358 AA	20140320	US20130826005	20130314
US2014076983 AA	20140320	US20130804987	20130314
US2014076984 AA	20140320	US20130053729	20131015
US2014076991 AA	20140320	US20130803327	20130314
US2016101205 AA	20160414	US20150971013	20151216
US2016326734 AA	20161110	US20160215617	20160721
US9234338 BB	20160112	US20130804987	20130314
US9278152 BB	20160308	US20130053729	20131015
US9309657 BB	20160412	US20130826005	20130314
US9422697 BB	20160823	US20130803327	20130314
US9863131 BB	20180109	US20160215617	20160721
US9895463 BB	20180220	US20150971013	20151216
WO14043318 A1	20140320	WO2013US59404	20130912
WO14043425 A2	20140320	WO2013US59577	20130913
WO14043425 A3	20140530	WO2013US59577	20130913
WO14043427 A1	20140320	WO2013US59579	20130913

Priority:

US20120700926P 20120914	US20130804686 20130314	US20130826005 20130314
US20130803327 20130314	US20130804987 20130314	US20130053729 20131015
US20150971013 20151216	US20160215617 20160721	

Probable Assignee: IMPACT PRODUCTS LLC

Assignee(s): (std): DUKES STEPHEN A ; GAYER JEFFERY C ; GAYER JEFFREY C ; HAYES ROBERT JAMES ; IMPACT PRODUCTS LLC ; STAUFENBERG DONALD JAMES ; IRWIN JOHN T ; NEW PIG CORP

Inventor(s): (std): STAUFENBERG DONALD JAMES ; DUKES STEPHEN A ; HAYES ROBERT JAMES ; GAYER JEFFREY C ; IRWIN JOHN T ; GAYER JEFFERY C ; KRATZER BRIAN DENNIS ; JACKSON DANE R ; WOYTOWICH MARK S ; ROBERT JAMES HAYES ; JEFFREY C GAYER ; STEPHEN A DUKES ; DONALD JAMES STAUFENBERG ; JOHN T IRWIN

Agent(s): LESPERANCE AND MARTINEAU SENC; JAMES D; FRASER CLEMENS MARTIN AND MILLER LLC; SHUMAKER LOOP AND KENDRICK LLP; MILLER JAMES D

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 IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

14) Family number: 40843300 (US2007272604A)

© PatBase

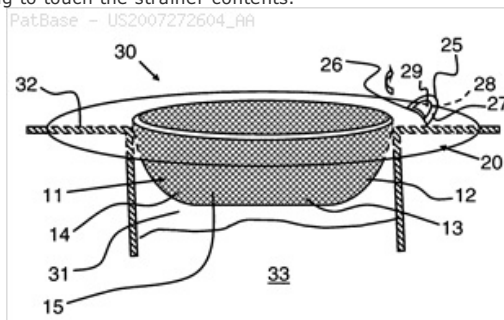
Title: DISPOSABLE SINK DRAIN STRAINER

Abstract: A disposable drain strainer is removably received within a drain opening having an adjacent drain rim substrate. The strainer has a strainer portion, a ring portion, and a seal release mechanism. Top and bottom surfaces of the ring portion are adapted to sealingly engage the drain rim substrate. The seal release mechanism is integral with the ring portion, and facilitates release of the seal so that the strainer can be readily be removed from the sink and discarded. In one aspect, the

seal release mechanism comprises a tab. In another aspect, the seal release mechanism comprises a press-release component, wherein the ring portion has arced ring walls having convex and concave configurations. During sealing engagement with the drain rim, the ring portion is in the convex configuration. Pressure applied to the ring portion causes it to move to the concave configuration. The seal between the ring portion and the substrate is released, and the strainer can be readily removed from the drain opening for disposal without having to touch the strainer contents.

Classifications:

International (IPC 8-9): B01D35/00 B01D35/02 C02F1/00 E03C1/26 E03F5/14 (Advanced/Invention);
B01D35/00 C02F1/00 E03C1/26 E03F5/14 (Core/Invention)
CPC: E03C1/264
European: E03C1/264
US: 210/163 210/166 210/474 210/767 4/290 4/292



Family:

Publication number	Publication date	Application number	Application date
US2007272604 AA	20071129	US20060440760	20060525
US2009025128 AA	20090129	US20080284568	20080923
US2010213111 AA	20100826	US20100799332	20100422
US2010213140 AA	20100826	US20100799331	20100422
US7442296 BB	20081028	US20060440760	20060525
US7736499 BB	20100615	US20080284568	20080923

Priority:

US20060440760 20060525 US20080284568 20080923 US20100799332 20100422
US20100799331 20100422

Probable Assignee: WON HAION

Assignee(s): (std): CHONG JESSICA ; WON HAION

Inventor(s): (std): CHONG JESSICA ; WON HAION

Agent(s): ERNEST D BUFF ERNEST D BUFF AND ASSOCIATES LLC; ERNEST D BUFF AND ASSOCIATES LLC; BUFF ERNEST D; LACROIX MARGARET A; ERNEST D; MARGARET A

15) Family number: 28516328 (US2003079281A)

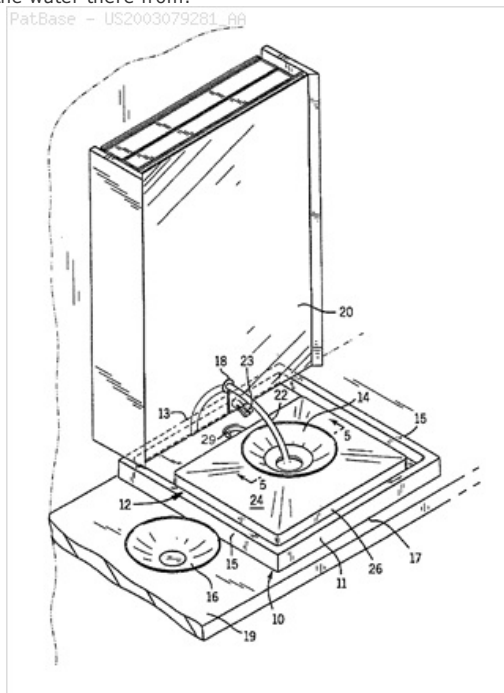
© PatBase

Title: Washing platform

Abstract: A washing platform has a generally flat upper work surface. A spout is located adjacent the washing platform and provides a stream of fluid which impinges the work surface. The bowl can be removably placed on the washing platform to receive water from the spout. The bowl has an aperture through the bottom and a gasket which is attached to an exterior surface of the bowl around the aperture. When the bowl is placed on the work surface, the gasket provides a seal that inhibits flow of fluid there between until a user lifts the bowl to drain the water there from.

Classifications:

International (IPC 8-9): A47K A47K1/00 A47K1/04 E03C1/04 E03C1/18 E03C1/186 G06F G06F11/00 (Advanced/Invention);
A47K1/00 (Core/Invention);
A47K (Subclass/Invention)
International (IPC 1-7): A47K1/0 A47K1/04 E03C1/00 E03C1/12 G06F11/00
CPC: A47K1/04 E03C1/0404 E03C1/042 E03C1/18 E03C1/186
European: A47K1/04 E03C1/042 E03C1/04D E03C1/18 E03C1/186
US: 4/613 4/619 4/619P 4/654



Family:

Publication number	Publication date	Application number	Application date
AT544386 E	20120215	AT20020776308T	20021025
AU2002342142 AA	20030506	AU20020342142	20021025
AU2002342142 BB	20070524	AU20020342142	20021025
AU2004271957 AA	20050324	AU20040271957	20040825

AU2004271957 BB	20100311	AU20040271957	20040825
CA2464407 AA	20040426	CA20022464407	20021025
CA2464407 C	20090120	CA20022464407	20021025
CA2541626 AA	20060405	CA20042541626	20040825
CN100417356 C	20080910	CN200480029044	20040825
CN100420414 C	20080924	CN20028023215	20021025
CN1589118 A	20050302	CN20028023215	20021025
CN1864141 A	20061115	CN200480029044	20040825
DE60242181 D1	20120405	DE20026042181	20021025
EP1446041 A1	20040818	EP20020776308	20021025
EP1446041 A4	20080813	EP20020776308	20021025
EP1446041 B1	20120208	EP20020776308	20021025
EP1668507 A2	20060614	EP20040782113	20040825
EP1668507 A4	20100106	EP20040782113	20040825
ES2378532 T3	20120413	ES20020776308T	20021025
HK1071680 A1	20050729	HK20050104485	20050530
HK1071680 A1	20090612	HK20050104485	20050530
HK1071680 A3	20050729	HK20050104485	20050530
HK1071680 B	20090612	HK20050104485	20050530
HK1092252 A1	20070202	HK20060113940	20061219
HK1092252 A1	20090227	HK20060113940	20061219
HK1092252 A3	20070202	HK20060113940	20061219
HK1092252 B	20090227	HK20060113940	20061219
MXPA04003939 A1	20040622	MX2004PA03939	20021025
MXPA06003782 A1	20060614	MX2006PA03782	20040825
NZ532493 A	20070126	NZ20020532493	20021025
NZ546350 A	20080430	NZ20040546350	20040825
NZ550368 A	20070928	NZ20020550368	20021025
RU2004116078 A	20050310	RU20040116078	20021025
RU2006110930 A	20071020	RU20060110930	20040825
RU2314740 C2	20080120	RU20040116078	20021025
RU2350247 C2	20090327	RU20060110930	20040825
US2003079281 AA	20030501	US20020116441	20020404
US2004103473 AA	20040603	US20030656742	20030905
US6631525 BB	20031014	US20020116441	20020404
US7000266 BB	20060221	US20030656742	20030905
WO03034884 A1	20030501	WO2002US34279	20021025
WO05025396 A2	20050324	WO2004US27553	20040825
WO05025396 A3	20051013	WO2004US27553	20040825

Priority:

US20010346003P 20011026 US20020116441 20020404 EP20020776308 20021025
 NZ20020532493 20021025 WO2002US34279 20021025 US20030656742 20030905
 WO2004US27553 20040825

Probable Assignee: KOHLER CO

Assignee(s): (std): GORDON WILLIAM F ; KOHLER CO ; KOULER KO ; PIATT JAMES M

Assignee(s): KOHLER CO 444 HIGHLAND DRIVE KOHLER WI 53044 UNITED STATES UNITED

Inventor(s): (std): GORDON UILL JAM F ; GORDON WILLIAM ; GORDON WILLIAM F ; JAMES M PIATT ; PIATT DZHEJMS M ; PIATT JAMES ; PIATT JAMES M ; PIATT JAMES M GORDON WILLIAM F ; WILLIAM F GORDON

Inventor(s): PIATT JAMES M SHEBOYGAN FALLS ; PAJEHTT DZHEJMS M. ; GORDON WILLIAM F SHEBOYGAN FALLS ; GORDON UILL'JAM F. ; GORDON VILL'JAM F.

Agent(s): GRIFFITH HACK; RIDOUT AND MAYBEE LLP; SMART AND BIGGAR; HANSMANN U VOGESER; WIGHTMAN DAVID ALEXANDER; WONG YAU CHUN FLAT B 38 F SOUTH TOWER 3 RESIDENCE BEL AIR ISLAND SOUTH; LIU SHEN AND ASSOCIATES; GEORGE E; QUARLES AND BRADY

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

16) Family number: 57263337 (US2014238511A)

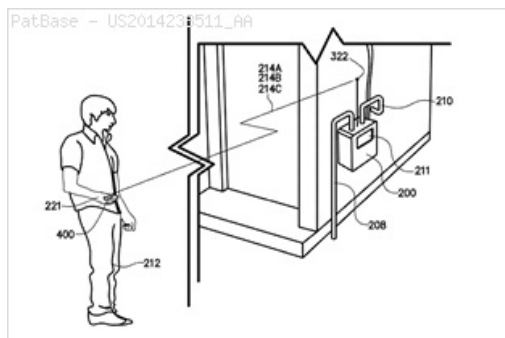
© PatBase

Title: WATER DAMAGE PREVENTION SYSTEM

Abstract: The present invention is a water damage prevention system that has a residential or industrial/commercial facility water supply interruption system. The system is comprised of a remotely controllable base station with shut-off/on mechanism that is in wireless or wired communication with a convenient controller. The base station with shut-off/on mechanism is interposed within a water line from a water main to the living or operating quarters portion of a residential or a industrial/commercial facility or building, such that activation of the base station with shut-off/on valve operates to prevent flow of water from the water main to the living quarters when the residential home or industrial/commercial facility or building is vacated or unsupervised. In this manner, damage to the living quarters or the industrial/commercial facility or building from failure of water pipes running through the living or working quarters is prevented during times that the shut-off mechanism is activated.

Classifications:

International (IPC 8-9): E03B7/07 E03B7/09 E03B7/12 F16K31/02
 F16K31/05 G01D4/00 G01F1/00 G01F15/06 G01F15/075 G01M3/00
 G06Q50/06 G08B21/18 H04M1/725 H04W4/02
 H04W76/02 (Advanced/Invention);
 G01F1/10 G01F1/32 G01F1/58 G01F1/66 G01F1/68 G01F1/84
 H04W84/18 (Advanced/Non-invention)
CPC: F16K31/02 F16K31/05 G01M3/00 G06Q50/06 H04M1/72533
 G08B21/18 E03B7/12 E03B7/071 Y10T137/8158 Y10T137/86389
 H04W4/021 G01F1/10 G01F1/3209 G01F1/58 G01F1/66 G01F1/68
 G01F1/84 G01F15/066 G01F15/0755 H04W84/18 Y10T137/86397

**Family:**

Publication number	Publication date	Application number	Application date
US2014238511 AA	20140828	US20130776963	20130226
US2015204701 AA	20150723	US20140561271	20141205
US2016076909 AA	20160317	US20150596460	20150114
US2016163177 AA	20160609	US20160016178	20160204
US9297150 BB	20160329	US20130776963	20130226
US9494480 BB	20161115	US20140561271	20141205
US9749792 BB	20170829	US20150596460	20150114

Priority:

US20070877860	20071004	US20070877860	20071024	US20090539150	20090811
US20100530150	20100615	US20100877094	20100907	US20110986341	20110108
US20110216497	20110824	US20110216521	20110824	US20120541819	20120705
US20120729653P	20121126	US20130776963	20130226	US20140561271	20141205
US20140095024P	20141221	US20150596460	20150114	US20160016178	20160204

Probable Assignee:	KLICPERA MICHAEL EDWARD
Assignee(s): (std):	KLICPERA MICHAEL EDWARD
Assignee(s):	REIN TECH INC
Inventor(s): (std):	KLICPERA MICHAEL EDWARD
Agent(s):	MICHAEL EDWARD

17) Family number: 8480346 (US5372718A)

© PatBase

Title: FILTERING DEVICE

Abstract: A housing including an inlet conduit and an outlet, carrying a reservoir for collecting filtered liquid. The reservoir is secured within the housing by a lid. A separator assembly is carried by the reservoir and includes a strainer assembly for removing materials from a liquid inflowing from the inlet conduit, an inner container and an outer container. The outer container is covered by a lid having an opening for sealably receiving the inlet conduit. The inner and outer container cooperate to hinder the flow of liquid, giving materials more dense than the fluid time to settle, and materials less dense than the liquid time to rise to and be contained by the lid.

Classifications:

International (IPC 8-9): B01D29/11 B01D35/02 B01D35/147

B01D36/04 E03C1/282 (Advanced/Invention);

B01D29/11 B01D35/14 E03C1/28 (Core/Invention)

International (IPC 1-7): B01D29/54 B01D29/58 B01D35/02

B01D36/04

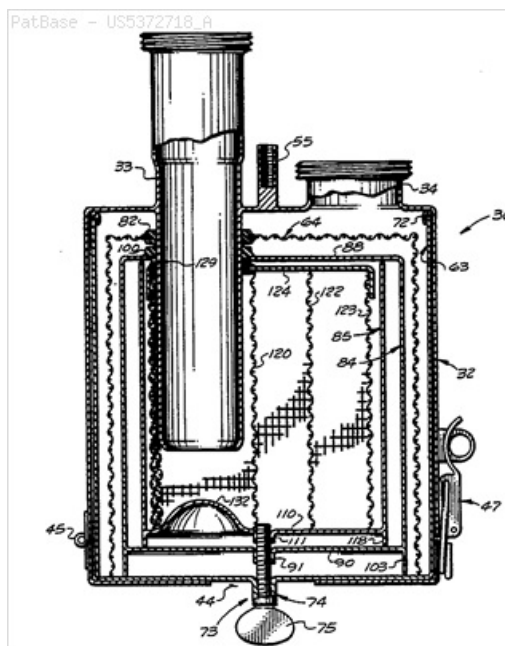
CPC: Y10S4/14 Y10S4/19 E03C1/282 B01D29/117 B01D35/147

B01D2201/188 B01D2201/48 B01D29/23 B01D29/58 B01D29/902

B01D29/94 B01D29/96

European: B01D29/11G B01D35/147 E03C1/282 L01D201/18M L01D201/48

US: 210/301 210/305 210/315 210/436 210/455 210/458 210/460 210/472 210/499 4/290 4/DIG.14 4/DIG.19

**Family:**

Publication number	Publication date	Application number	Application date
AU199459121 A1	19941222	AU19940059121	19940328
CA2119681 AA	19941219	CA19942119681	19940323
US5372718 A	19941213	US19930077747	19930618

Priority:

Probable Assignee: ZEBIAN GHASSAN W**Assignee(s):** (std): GHASSAN W ZEBIAN ; ZEBIAN GHASSAN W**Inventor(s):** (std): ZEBIAN GHASSAN W**Inventor(s):** GHASSAN W ZEBIAN**Agent(s):** SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; MARCUS AND ASSOCIATES**18) Family number: 30248358** (US6096197A)

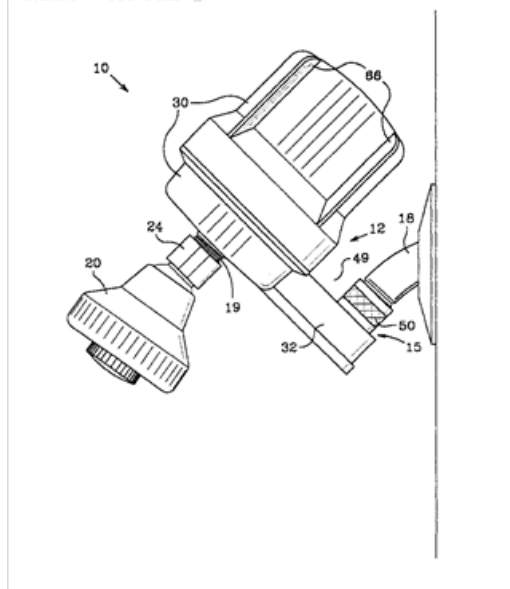
© PatBase

Title: Shower filter for chlorine removal and scale deposit prevention

Abstract: Embodiments of a multi-purpose shower/tub filter unit are shown and described, the filter unit containing a chlorine-removal media and a scale-inhibiting media. The housing of the filter unit is adapted to attach universally to various water sources, such as a pipe or faucet and to a showerhead or hand-held spray unit. The filter unit preferably has an arm extending out from the main body of the filter unit, and the filter unit preferably extends upward and outward from the attachment point on the pipe or faucet. This way, a single filter unit may either be positioned a) substantially above a shower pipe to place the showerhead generally at a similar level as it would be without the filter unit in place, as in a United States shower configuration; or b) to fit under but extend out from a tub faucet, as in a European shower configuration. The filter unit has a replaceable cartridge that includes a carbon block and scale-deposit-inhibiting phosphate spheres contained in a space inside the carbon block. The filter unit housing is designed to be opened by hand for easy replacement of the filter cartridge and to have seals between two portions of the housing and between the filter cartridge and the housing which are held securely in place and are, therefore, not prone to damage during cartridge change-out. The filter cartridge is designed to be symmetrical and bi-directional, in that it can be inserted into the filter housing with either end in an upward orientation, to make installation trouble-free. Connections to plumbing, showerheads, and hand-held sprayers may be adapted to a wide variety of baths/shower around the world, by threading changes or by couplers or showerheads designed for particular configurations.

Classifications:**International (IPC 8-9):** C02F1/00 E03C1/04 (Advanced/Invention); C02F1/00 E03C1/04 (Core/Invention)**International (IPC 1-7):** B01D27/08 B01D27/14 B01D35/04**CPC:** C02F1/003 C02F2307/06 E03C1/04 E03C2201/40**European:** C02F1/00D4 E03C1/04 M02F307/06 P03C201/40**US:** 210/232 210/266 210/282 210/443 210/449 210/460 210/944/615

PatBase - US6096197_A

**Family:**

Publication number	Publication date	Application number	Application date
AU199919089 A1	19990628	AU19990019089	19981210
US6096197 A	20000801	US19970988866	19971211
US6267887 BA	20010731	US20000489762	20000124
WO9929391 A1	19990617	WO1998US26283	19981210

Priority:

US19970988866 19971211 WO1998US26283 19981210 US20000489762 20000124

Probable Assignee: 3M CO**Assignee(s):** (std): DOUGLASS E HUGHES ; HUGHES DOUGLASS E**Assignee(s):** POLLY ACQUISITION INC ; 3M CO ; 3M INNOVATIVE PROPERTIES CO ; BUHLER RICH ; BUHLER RICH E ; CUNO INC**Inventor(s):** (std): HUGHES DOUGLASS E ; BUHLER RICH E**Inventor(s):** DOUGLASS E HUGHES**Designated states:** AT AU BE CA CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE**19) Family number: 57187361** (US2016084509A)

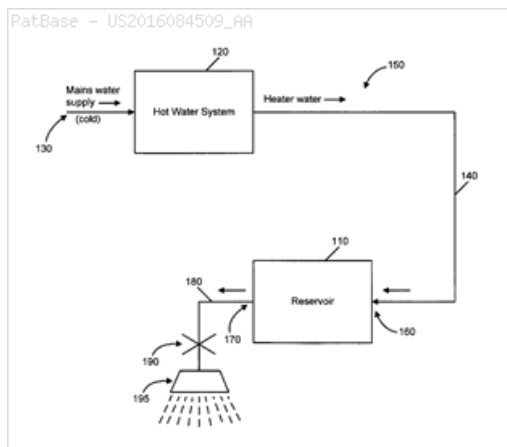
© PatBase

Title: WATER SAVING APPARATUS

Abstract: A water saving apparatus for use with a hot water system, the apparatus being sized and shaped for installation proximate one or more water outlet fixtures for delivery of heated water from the hot water system for use. The apparatus comprises an insulated reservoir having an inlet and an outlet to enable the reservoir to be installed in line with the flow of heated water from the hot water system to the one or more fixtures to store a quantity of heated water. Water that has cooled in the hot water pipe between the hot water system and the reservoir mixes with the stored heated water in the reservoir as water flows from the hot water system to the water outlet fixture.

Classifications:

International (IPC 8-9): E03B1/04 E03B7/04 E03B7/07 E03C1/02 E03C1/044 F24D17/00 (Advanced/Invention)
CPC: E03B7/045 F24D17/0031 F24D17/0089 F24D17/0078 F24D17/0094 E03B1/048 Y02A20/411
US: 122/13.3 137/339



Family:

Publication number	Publication date	Application number	Application date
AU2013202532 AA	20140821	AU20130202532	20130404
AU2013202532 BB	20150219	AU20130202532	20130404
AU2014214540 AA	20151001	AU20140214540	20140207
US2016084509 AA	20160324	US20140782279	20140207
US9890960 BB	20180213	US20140782279	20140207
WO14121335 A1	20140814	WO2014AU00093	20140207

Priority:

AU20130900385 20130207 AU20130202532 20130404 WO2014AU00093 20140207
AU20140214540 20140207

Probable Assignee: HUTS ADAM

Assignee(s): (std): HUTS ADAM ; HUTS ADAM WILLIAM

Inventor(s): (std): HUTS ADAM WILLIAM

Agent(s): GRIFFITH HACK; KNOBBE MARTENS OLSON AND BEAR LLP

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

20) Family number: 41730366 (US2008087587A)

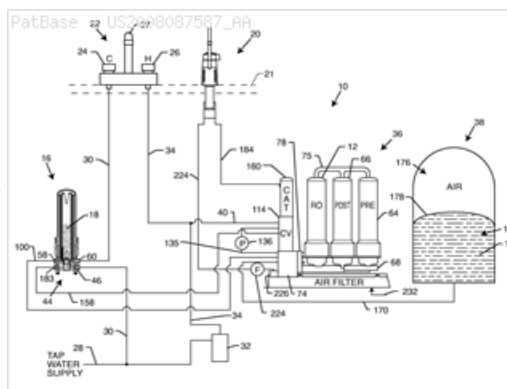
© PatBase

Title: DRAINLESS REVERSE OSMOSIS WATER PURIFICATION SYSTEM

Abstract: A drainless reverse osmosis (RO) water purification system provides relatively pure water for on-demand dispensing, while recycling brine to a domestic hot water system. The drainless purification system includes a pre-filter catalyst cartridge for removing chlorine-based contaminants from a tap water supply upstream from an RO membrane. The catalyst is regularly refreshed by a high through-flow of water to a conventional cold water dispense faucet, thereby significantly prolonging the service life of the RO membrane. The RO membrane is incorporated into a multi-cartridge unit adapted for facilitated slide-out removal and replacement as needed. A control valve recycles brine from the RO membrane to the hot water system during pure water production, and recirculates tap water through the RO membrane when a pure water reservoir is substantially filled. The multi-cartridge unit may further include an air filtration system for providing a flow of filtered air.

Classifications:

International (IPC 8-9): B01D24/28 B01D24/38 B01D24/40 B01D35/04 B01D35/143 B01D35/157 B01D35/30 B01D37/02 B01D61/02 B01D61/04 B01D61/08 B01D61/10 B01D61/12 B01D65/00 B01J23/06 B01J23/80 C02F1/00 C02F1/02 C02F1/28 C02F1/44 C02F1/68 C02F1/70 C02F1/72 C02F9/00 C02F9/04 E03C1/10 (Advanced/Invention); C02F1/00 C02F1/72 C02F101/12 (Advanced/Non-invention); B01D24/00 B01D35/14 B01D37/00 B01D61/02 B01J23/06 B01J23/76 C02F1/02 C02F1/28 C02F1/44 C02F1/68 C02F1/70 C02F9/00 E03C1/10 (Core/Invention)
CPC: C02F9/005 B01D35/04 B01D35/306 B01D61/025 B01D61/04 B01D61/08 B01D2311/00 B01D2311/04 B01D2313/16 B01D2313/18 B01D2313/243 B01D2313/50 C02F1/001 C02F2209/05 B01D2311/2649 B01D2311/2696 C02F1/003 B01D35/143 C02F2101/12 B01D2313/42 B01D2313/44 C02F2201/006 C02F2307/06 C02F1/441 C02F1/725 B01D24/28 B01D24/38 B01D24/40
European: B01D61/04 B01D61/08 C02F9/00B L01D311/00 L01D311/04 L01D313/16 L01D313/18 L01D313/24B L01D313/50 M02F1/00D M02F1/44B M02F209/05
US: 1/1 210/109 210/109S 210/110 210/137 210/181 210/181S 210/188 210/188S 210/193 210/193S 210/195.2 210/195.3 210/196 210/196S 210/203 210/209 210/232 210/234 210/235 210/235S 210/236 210/236S 210/237 210/255 210/255S 210/257.1 210/257.2 210/258 210/259 210/321.6 210/323.1 210/335 210/435 210/435S 210/440 210/443 210/449 210/450 210/638 210/85 210/85P 210/86 210/86P 210/87 210/94 210/96.2 210/97 55/490



Family:

Publication number	Publication date	Application number	Application date
AU2007307626 AA	20080417	AU20070307626	20071012
AU2007307626 BB	20120705	AU20070307626	20071012
AU2012203884 AA	20120719	AU20120203884	20120702
CA2672930 AA	20090414	CA20072672930	20071012

EP2086890 A1	20090812	EP20070853980	20071012
EP2086890 A4	20101201	EP20070853980	20071012
JP2010506704 T2	20100304	JP20090532595T	20071012
US2008087587 AA	20080417	US20070870316	20071010
US2009173683 AA	20090709	US20090395115	20090227
US2010270217 AA	20101028	US20100795342	20100607
US2013048549 AA	20130228	US20120663396	20121029
US2016280575 AA	20160929	US20160179108	20160610
US2019112213 AA	20190418	US20180230590	20181221
US7837866 BB	20101123	US20070870316	20071010
US8298420 BB	20121030	US20100795342	20100607
US8398852 BB	20130319	US20090395115	20090227
US9371245 BB	20160621	US20120663396	20121029
US10196292 BB	20190205	US20160179108	20160610
WO08046037 A1	20080417	WO2007US81202	20071012

Priority:

US20060829178P 20061012	US20070951265P 20070723	US20070870316 20071010
AU20070307626 20071012	WO2007US81202 20071012	US20090395115 20090227
US20100795342 20100607	AU20120203884 20120702	US20120663396 20121029
US20160179108 20160610	US20180230590 20181221	

Probable Assignee: DS SERVICES OF AMERICA INC

Assignee(s): (std): BRUCE BURROWS ; BURROWS BRUCE ; BURROWS BRUCE D ; DS SERVICES OF AMERICA INC

Assignee(s): JPMORGAN CHASE BANK NA ; KELLY AND KELLEY LLP ; REMINGTON INC

Inventor(s): (std): BURROWS BRUCE D

Inventor(s): BRUCE D BURROWS

Agent(s): GRIFFITH HACK; MURRAY TRENTON AND ASSOCIATES PTY LTD; GOWLING LAFLEUR HENDERSON LLP; RUSCHKE HANS EDVARD; KELLY LOWRY AND KELLEY LLP; KELL LOWRY AND KELLEY LLP; LOWRY BLIXSETH LLP; SCOTT M; KOPPEL PATRICK HEYBL AND PHILPOTT; SEYFARTH SHAW LLP; MICHAELS BRIAN; LOWRY STUART O ET AL

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

21) Family number: 11671389 (US5251346A)

© PatBase

Title: WATER RECYCLING DEVICE FOR FLUSH TOILET USE

Abstract: A compact, modular gray water recycling system includes a control and reservoir unit for storing gray water, which is received from a source such as a sink drain, and pumping it to the household toilet as necessary. The single unit houses a pump, flow signals, filters, and an overflow. The system may also utilize a second storage reservoir and separate control unit for added gray water storage. The secondary storage and control units may also be adapted to receive water from an outside source such as rainfall runoff.

Classifications:

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

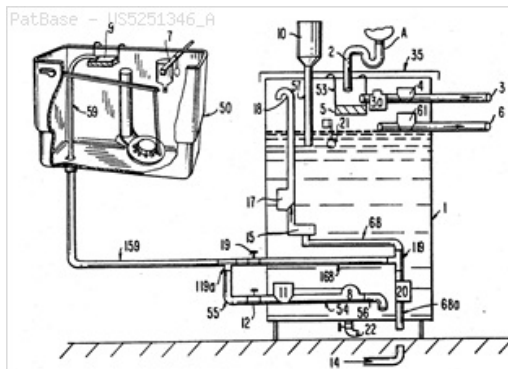
International (IPC 1-7): A47K4/00

CPC: Y10T137/7413 Y10T137/7423 Y02A20/148 Y02A20/304

E03D5/006 C02F2103/002 E03B1/04 E03B2001/045

European: E03B1/04 E03D5/00B1 M02F103/00C P03B1/04B20

US: 137/426 137/429 4/415 4/665



Family:

Publication number	Publication date	Application number	Application date
AU199456705 A1	19940608	AU19940056705	19931118
US5251346 A	19931012	US19920978814	19921119
US5406657 A	19950418	US19930134281	19931007
US5937455 A	19990817	US19950511841	19950807
WO9410892 A1	19940526	WO1993US11156	19931118

Priority:

US19920978814 19921119	US19930134281 19931007	WO1993US11156 19931118
US19940227005 19940413	US19950511841 19950807	

Probable Assignee: DONATI WILLIAM R

Assignee(s): (std): DONATI WILLIAM R ; WILLIAM R DONATI

Inventor(s): (std): DONATI WILLIAM R

Inventor(s): WILLIAM R DONATI

Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KR LK LU MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA

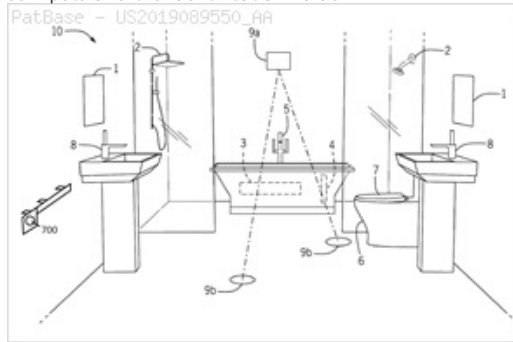
Title: BATHROOM SPEAKER

Abstract: A voice controlled device comprises a housing, a dock, a coupling mechanism, and a microphone. The dock is configured to connect the housing to a plurality of host appliances. The coupling mechanism is configured to receive an identification value indicative of docking between the voice controlled device and a currently connected host appliance of the plurality of host appliances. The microphone is configured to receive one or more voice inputs for the currently connected host appliance. A command is provided based on the one or more voice inputs and the identification value.

Classifications:

International (IPC 8-9): A47K13/30 A47K17/00 C02F1/00 C02F1/50 C02F1/68 E03C1/05 G01N33/18 G01N35/00 G05B15/02 G05B19/418 G06F1/32 G06F3/16 G10L15/18 G10L15/22 G10L15/26 G10L15/30 G10L21/06 H04L12/28 H04L29/08 H04R3/00 H04R5/027 H04R5/04 (Advanced/Invention)

CPC: A47K13/305 A47K2010/3226 A47K2010/3668 A47K2201/00 E03C1/057 G05B15/02 G05B2219/2642 G06F3/167 H04L12/2816 H04R5/04 A47K17/00 G06F1/3287 G06F1/3231 H04R5/027 H04L12/282 G10L15/1822 G10L2015/223 G10L21/06 G10L15/22 A47K5/1217 E03C1/055 E03D5/105 E03D9/002 C02F1/001 C02F1/685 C02F1/50 C02F2307/06 G01N2035/009 G01N2035/00881 C02F2209/006 C02F2209/008 G01N35/00871 G01N33/1826 H04R3/005

**Family:**

Publication number	Publication date	Application number	Application date
CN109507896 A	20190322	CN201811082808	20180917
CN109613832 A	20190412	CN201811083033	20180917
CN109617936 A	20190412	CN201811082980	20180917
CN109634126 A	20190416	CN201811081571	20180917
CN109634127 A	20190416	CN201811083066	20180917
CN109634128 A	20190416	CN201811083224	20180917
EP3457227 A1	20190320	EP20180194376	20180914
EP3457228 A1	20190320	EP20180194377	20180914
EP3457229 A1	20190320	EP20180194378	20180914
US2019089550 AA	20190321	US20180126942	20180910
US2019090056 AA	20190321	US20180126949	20180910
US2019120809 AA	20190425	US20180126913	20180910

Priority:

US20170559199P 20170915 US20180126913 20180910 US20180126942 20180910
 US20180126949 20180910

Probable Assignee: KOHLER CO

Assignee(s): (std): KOHLER CO

Inventor(s): (std): REXACH RAFAEL ; PLATE ERIC ; ESTIBAN MARWAN ; BEINING NONA ; WILTERDINK ALYSSA ; BOOTH SHAWN ; LILLY THOMAS E ; DIEMEL JR DOUG ; PETCH LESLIE ; PLATE ERIC M ; ZHANG SHI CHAO ; SPRINGER ASHLEY ; ARCINIEGA MIGUEL ; SCHROEDER JESSICA ; ALLIS NICOLE ; REXACH RAFAEL A ; ESTIBAN MARWAN E ; BRADLEY JONATHAN D

Agent(s): BARKER BRETTELL LLP

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Title: SANITARY FITTING

Abstract: A sanitary fitting including a fitting body with at least one supply channel and at least one discharge channel, at least one supply line which is flow-connected to the supply channel for providing flow connection to a supply network, a drain arm which is flow-connected to the discharge channel, at least one actuating element for adjusting the amount of flow and/or flow temperature, and a fastening element for fastening the fitting body to a base, the fastening element including at least one receiver for frictionally engaging the at least one supply thereby removably securing the fitting body to the base.

Classifications:

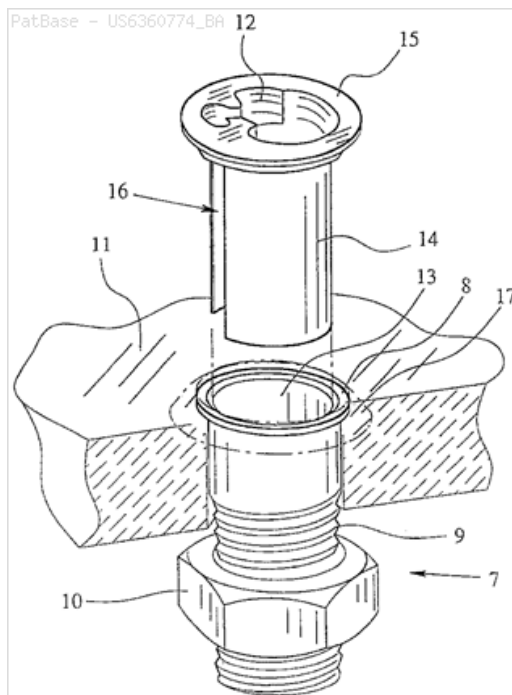
International (IPC 8-9): E03C1/04 E03C1/042 (Advanced/Invention); E03C1/04 E03C1/042 (Core/Invention)

International (IPC 1-7): E03C1/04 E03C1/042

CPC: E03C1/042 Y10T137/6977 Y10T137/9464 E03C1/0402 E03C1/0401

European: E03C1/042 E03C1/04B E03C1/04B2

US: 137/359 137/801 4/677



Family:

Publication number	Publication date	Application number	Application date
DE19743982 A1	19981105	DE19971043982	19971006
DE19743982 C2	20010927	DE19971043982	19971006
DE19758291 A1	19981001	DE19971058291	19971231
DE19758291 C2	20020314	DE19971058291	19971231
DE59808698 D1	20030717	DE19985008698	19980310
EP0968335 A1	20000105	EP19980913693	19980310
EP0968335 B1	20030611	EP19980913693	19980310
ES2201472 T3	20040316	ES19980913693T	19980310
US6360774 BA	20020326	US19990381280	19990920
WO9841698 A1	19980924	WO1998EP01367	19980310
WO9918295 A1	19990415	WO1998EP06204	19981001

Priority:

DE19971011188	19970318	DE19971015976	19970417	DE19971043982	19971006
DE19971058291	19971231	DE19971058291	19971231	DE19985008698	19980310
WO1998EP01367	19980310				

Probable Assignee: IDEAL STANDARD GMBH AND CO OHG

Assignee(s): (std): BECKER ALBERT ; BEHR JOSEF ; IDEAL STANDARD ; IDEAL STANDARD GMBH AND CO OHG

Assignee(s): IDEAL STANDARD GMBH ; IDEAL STANDARD GMBH 53121 BONN DE

Inventor(s): (std): BECKER ALBERT ; BEHR JOSEF

Inventor(s): BECKER ALBERT 54516 WITTLICH DE ; BEHR JOSEF 54552 SCHALKENMEHREN DE

Designated states: AT BE BR CH CY DE DK ES FI FR GB GR IE IT JP KR LU MC NL PT SE US

24) Family number: 65134490 (US2018244541A)

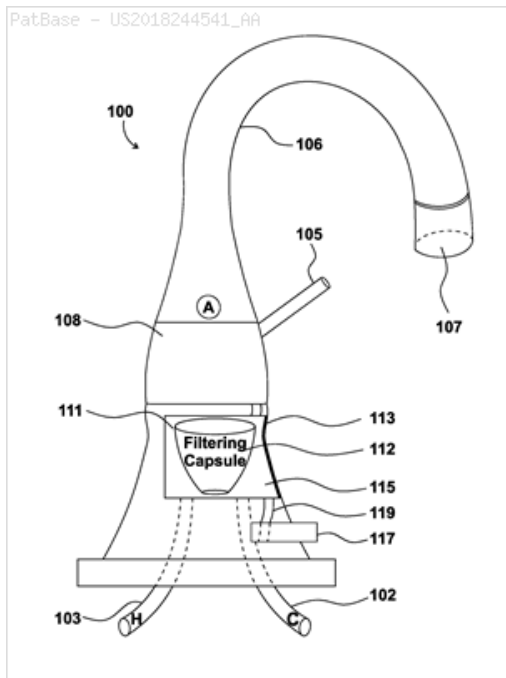
© PatBase

Title: WATER FAUCET HAVING A CAPSULE-BASED FILTER

Abstract: A water faucet or water tap includes, in its base area or other suitable area or region, a built-in or embedded or integrated filtering mechanism. The filtering mechanism includes a non-electrical filtering chamber, having a cavity for securing therein a replaceable water-filtering capsule. A suitable water-filtering capsule, having an active filtering component or a passive filtering component, is inserted into the non-electrical filtering chamber, and can be removed from it for periodical replacement. Optionally, the water-filtering capsule includes a scent-producing agent, a flavor-producing agent, or a nutrient or a supplement, which are added to the filtered water. Optionally, a bypass mechanism or water-diverting mechanism enables to select between: a first mode in which a first water-outlet outputs non-filtered mixed hot-and-cold water; and a second mode in which a second water-outlet outputs filtered cold water or filtered room-temperature water.

Classifications:

International (IPC 8-9): A47J A47J31/00 B01D35/04 B01D39/06
C02F1/00 C02F1/28 E03B7/07 E03C1/04 (Advanced/Invention);
A47J31/00 B01D39/06 C02F1/28 C02F1/68 (Advanced/Non-invention)
CPC: C02F2209/40 C02F2303/14 A47J31/00 C02F1/003 B01D39/06
B01D35/04 C02F2303/02 B01D2101/02 B01D2257/2025
B01D2201/29 B01D2221/02 C02F1/283 C02F2201/006 C02F2307/06
E03C1/04 E03C2201/40 C02F1/68 C02F2301/043

**Family:**

Publication number	Publication date	Application number	Application date
CN108138474 A	20180608	CN201680059604	20160828
EP3344818 A1	20180711	EP20160840974	20160828
EP3344818 A4	20190313	EP20160840974	20160828
IL257756 A0	20180430	IL20160257756	20160828
US2018244541 AA	20180830	US20160756062	20160828
WO17037701 A1	20170309	WO2016IL50942	20160828

Priority:

US20150211789P 20150830 US20160756062 20160828 WO2016IL50942 20160828

Probable Assignee: HAMAT SANITARY FITTING AND CASTING LTD

Assignee(s): (std): HAMAT SANITARY FITTING AND CASTING ; HAMAT SANITARY FITTINGS AND CASTING LTD ; HAMAT SANITARY FITTINGS AND CASTINGS LTD

Assignee(s): SHLOMO PIRUTIN

Inventor(s): (std): PIRUTIN SHLOMO

Inventor(s): SHLOMO PIRUTIN

Agent(s): SCHULZ JUNGHANS PATENTANWALTE PARTGMBB; BEN DAVID YIRMIYAHU M

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM 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

25) Family number: 59291498 (CA2832531A)

© PatBase

Title: SYSTEM AND METHOD FOR COLLECTING AND STORING WATER

Abstract: Examples of a rain harvesting system are disclosed. The system comprises a water container for collecting and storing water. The container has a bottom wall, a top wall and a side wall defining an inner cavity of the container. An inlet port can be formed at an upper portion of the container. A collecting means, such as a guttering system and pipes, can collect rainwater from a roof and can direct the rainwater into the water container through the inlet port. An outlet port can be formed at a lower portion of the container. The outlet port is connected to a distributing means, such as water distributing pipes, to distribute the stored water from the water container to a water outlet, e.g. a toilet flush tank. The system further comprises a wave dampening means placed in the water container to at least partially fill the inner cavity of the container. The wave dampening means are configured to damp any waves generated into the water container while allowing unobstructed flow of the water into and out of the water container. The wave dampening means can be made from low resolution polyether foam.

Classifications:

International (IPC 8-9): E03B3/02 F16K31/26 (Advanced/Invention)

CPC: E03B1/042 E03B1/041 E03B2001/047 Y02A20/108

CA_000000

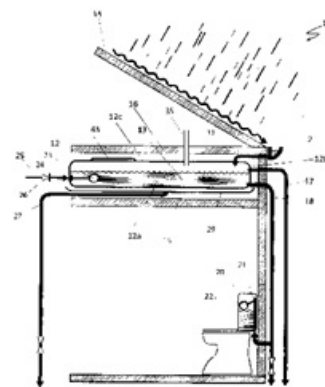


FIGURE 1

Family:

Publication number	Publication date	Application number	Application date
CA2832531 AA	20150512	CA20132832531	20131112

Priority:

CA20132832531 20131112

Probable Assignee:

SAGHEB MASUD AHMADI M A S

Assignee(s): (std):

SAGHEB MASUD AHMADI M A S

Inventor(s): (std):

SAGHEB MASUD AHMADI M A S

Agent(s):

JERMILOVA SVETLANA

26) Family number: 10998504 (US5176165A)

© PatBase

Title: AIR GAP APPARATUS

Abstract: An air gap apparatus particularly adapted for use in reverse osmosis (RO) units in which reject water must be carried off to a drain line. The apparatus is adapted for incorporation in an RO unit as original equipment or for addition later as an after market item. It provides air gap protection against backsiphoning, and also includes a deflector wall and supplemental opening for shunting to atmosphere any high velocity backflow from the drainage line. Various forms of check valves are disclosed for use with the air gap apparatus to provide further protection against contamination of the potable water system by backflows, the check valves being adapted in certain embodiments for connecting together conduit sections within which the check valves have been installed. Also, a compact and inexpensive form of trap is disclosed for use in systems which do not include a conventional drain trap.

Classifications:

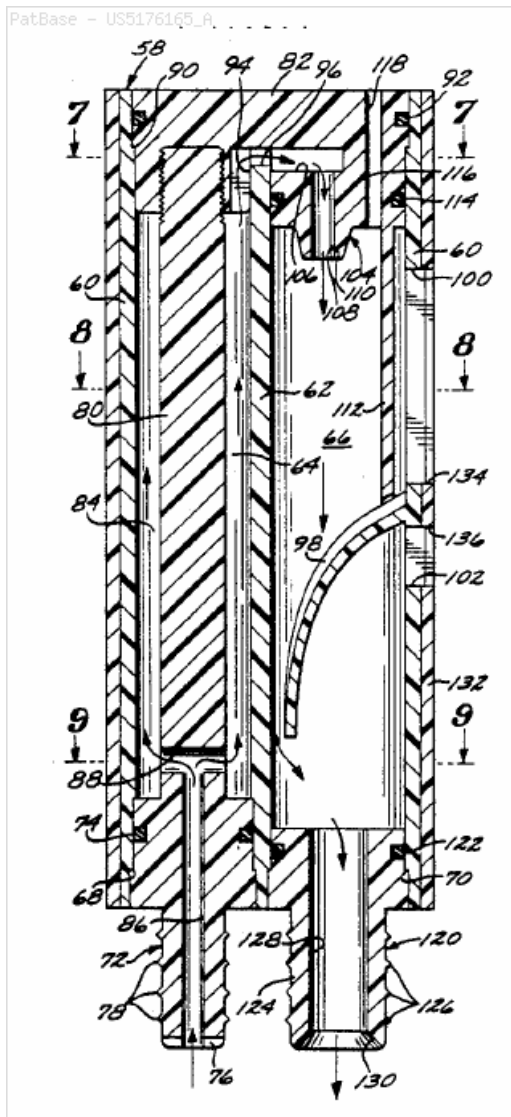
International (IPC 8-9): E03C1/10 E03C1/12 (Advanced/Invention);
E03C1/10 E03C1/12 (Core/Invention)

International (IPC 1-7): E03C1/12

CPC: E03C1/104 E03C1/108 E03C1/1225 E03C1/102 E03C1/12
Y10T137/3185 Y10T137/3222 Y10T137/4463 Y10T137/7854
Y10T137/7856 Y10T137/7873 Y10T137/698 Y02A20/202

European: E03C1/10 E03C1/10A E03C1/12 E03C1/122B2

US: 137/216 137/216.1 137/247.11 137/360 137/515 137/515.5
137/519.5

**Family:**

Publication number	Publication date	Application number	Application date
US5176165 A	19930105	US19910781751	19911023
US5305778 A	19940426	US19920999222	19921231

Priority:

US19910781751 19911023 US19920999222 19921231

Probable Assignee:

TRAYLOR PAUL L

Assignee(s): (std):

TRAYLOR PAUL L

Inventor(s): (std):

TRAYLOR PAUL L

27) Family number: 29771509 (US2003226918A)

© PatBase

Title: SAFETY AND WATER CONSERVING FLUSH SYSTEM FOR COMMUNUTING APPARATUS

Abstract: A waste comminuting system and method of use therefore is disclosed, including enhanced safety and water conserving features. The apparatus includes sensor and programming means for enabling coordinated, automated operation of the waste comminuting system based on a schedule of operating conditions, further enabling programmable scheduling of a safety shutter and a water supply common to fluid flow from an automated dishwasher, during concurrent operation of the dishwasher upon actuation by a common controller.

Classifications:

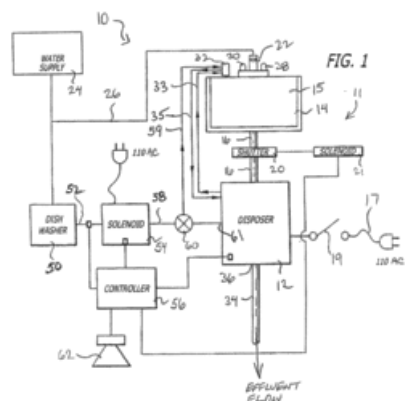
International (ipc 8-9): B02C25/00 E03C1/266 (Advanced/Invention);
B02C25/00 E03C1/26 (Core/Invention)

International (ipc 1-7): B02C25/00

CPC: B02C25/00 E03C1/2665

European: B02C18/42 B02C25/00 E03C1/266B

US: 241/3 241/30 241/46.012 241/46.013

**Family:**

Publication number	Publication date	Application number	Application date
US2003226918 AA	20031211	US20020164122	20020605

Priority:

US20020164122 20020605

Probable Assignee:

GERSTEL JAN

Assignee(s): (std):

GERSTEL JAN

Inventor(s): (std):

GERSTEL JAN

28) Family number: 13289550 (GB2301390A)

© PatBase

Title: WASTE WATER RECYCLER

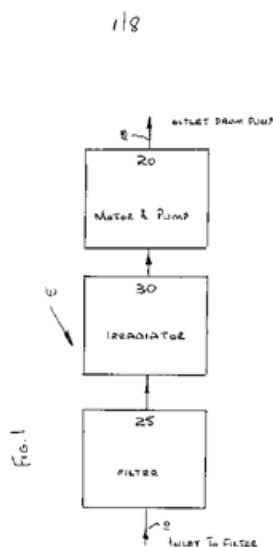
Abstract: Apparatus for recycling waste water comprises: ``a water purification device comprising an inlet, an outlet and a pump means, and between the inlet and outlet a conduit forming a convoluted path, the conduit being associated with and at least partially transparent to one or more radiation sources; `` means for drawing water to the inlet of the device from one or more sources; and `` means for drawing purified water from the outlet of the device to a water storage vessel.

Classifications:**International (IPC 8-9):** E03B1/04 (Advanced/Invention);

E03B1/00 (Core/Invention)

International (IPC 1-7): C02F1/32 E03B7/07**CPC:** Y02A20/304 E03B1/04 E03B2001/045**European:** E03B1/04 P03B1/04B20

PatBase - GB2301390_A1

**Family:**

having a plurality of apertures at its upstream end for converting incoming water into a plurality of jets of water; a substantially cylindrical body having an upper shoulder to support the diaphragm and having apertures to admit air to be mixed with the water jets produced by the diaphragm; and a pair of spaced screens of different dimensions downstream of the diaphragm for additionally mixing and emitting the air and water combination. The incoming air and the water jets developed by the diaphragm are combined and mixed in the space or chamber above the two screens before being discharged through the discharge outlet of the aerator. The diaphragm embodies a so-called "crush ring" positioned peripherally at its upstream end. The crush-ring contacts a flat ring near the end of the faucet spout and, because it is "crushed" or distorted to overcome and absorb irregularities in the end of the spout, it forms a primary obstruction to prevent leakage through the narrow spaces formed by the threaded segments that hold the aerator against the faucet spout. The body also provides additional spaces along its periphery to aspirate water that may be otherwise leaked out of the above-noted threaded portions of the structure and hence such water will be emitted from the downstream discharge end of the aerator, thereby avoiding leakage from the device.

Classifications:

International (IPC 8-9): B05B1/14 E03C1/08 E03C1/084

E03C1/086 (Advanced/Invention);

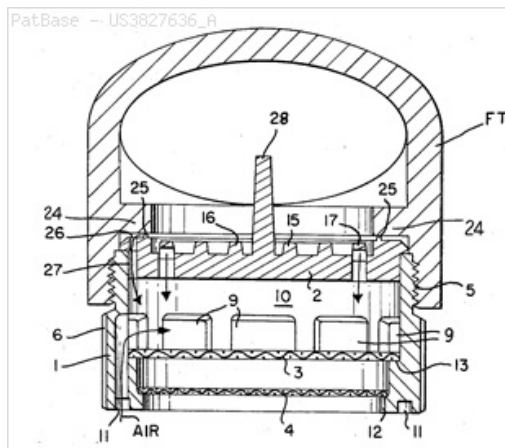
B05B1/14 E03C1/02 (Core/Invention)

International (IPC 1-7): B05B1/14 E03C1/08 E03C1/086 F16K5/08

CPC: E03C1/086 Y10S261/22 E03C1/084

European: E03C1/084 E03C1/086

US: 210/449 239/42.8.5 239/428.5 239/553 239/590.3 261/DIG.22 285/328



Family:

Publication number	Publication date	Application number	Application date
BR7309655 A0	19740924	BR19730009655	19731210
CA982192 A1	19760120	CA19730180669	19730910
CA982193 A1	19760120	CA19730179257	19730816
DE2408403 A1	19741205	DE19742408403	19740221
FR2229823 A1	19741213	FR19740008647	19740314
FR2229823 B1	19780106	FR19740008647	19740314
GB1452974 A	19761020	GB19740002337	19740117
US3827636 A	19740806	US19730332982	19730215
US3851825 A	19741203	US19730359948	19730514

Priority:

US19730332982 19730215 US19730359948 19730514

Probable Assignee: AMERICAN STANDARD INC

Assignee(s): (std): AMERICAN STANDARD INC

Assignee(s): AMERICAN STANDARD INC US ; BANKERS TRUST CO ; CHEMICAL BANK AS COLLATERAL AGENT ; CHEMICAL BANK COLLATERAL AGENT AS ; FICHTER BARRY S ; PARKISON RICHARD G

Inventor(s): (std): PARKINSON RICHARD G ; PARKINSON RICHARD G ; FICHTER BARRY S ; PARKISON R ; FICHTER B

Inventor(s): G PARKINSON RICHARD ; PARKISON R US ; FICHTER B US

31) Family number: 22457579 (US3103225A)

© PatBase

Title: DISHWASHER RECIRCULATING ASSEMBLY

Abstract: (Claim 1) 1. An automp-tic dishwasher having a washwater circulating cycle and a drain cycle comprising, a dish-receiving cabinet having a sump section, a drain, a pump having an inlet cominunicating with said sump and an outlet connected to said drain, screening means to remove and retain food particles strained from washwater passing from said cabinet into said pump inlet, a conduit connecting said pump outlet to said cabinet to return washwater thereto, valve means selectively to open said piimp outlet to said conduit and close said pump outlet to drain during the circitilating cycle an to close said conduit and open said drain durin- the drain cycle, and means operated in timed relation with the drain cycle to cause the flow of washwater to pass through sa_id screening means during the circulating cycle to remove food _particles from said -_ashwater and to ca-Lise the washwater to pass across and past said screening means and ' o said pump inlet int during the entire drain cycle to remove the food particles therefrom.

Classifications:

International (IPC 8-9): A47L15/42 E03C1/184

E03C1/266 (Advanced/Invention);

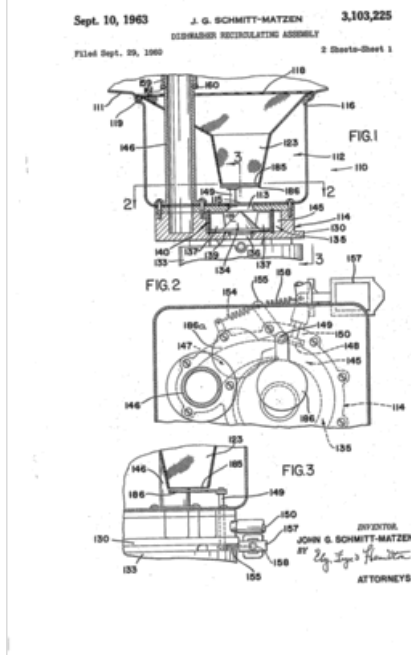
A47L15/42 E03C1/18 E03C1/26 (Core/Invention)

International (IPC 1-7): A47L15/14 A47L15/42 B02C18/42 E03C1/184

CPC: A47L15/4208 A47L15/4219 E03C1/184 E03C1/2665

European: B02C18/42

US: 134/104.1 134/111 134/115G 134/183 134/186 134/56D 134/58D 210/106 210/138 210/391 210/409 210/420

**Family:**

Publication number	Publication date	Application number	Application date
US3103225 A	19630910	US19600059295	19600929
US3129711 A	19640421	US19630280186	19630501

Priority:

US19600059295 19600929 US19630280186 19630501

Probable Assignee:

GORMAN RUPP IND INC

Assignee(s): (std):

GORMAN RUPP IND INC

Assignee(s):

GORMAN RUPP INDUSTRIES INC

Inventor(s): (std):

SCHMITT MATZEN JOHN G

32) Family number: 54912600 (AU2013101137A)

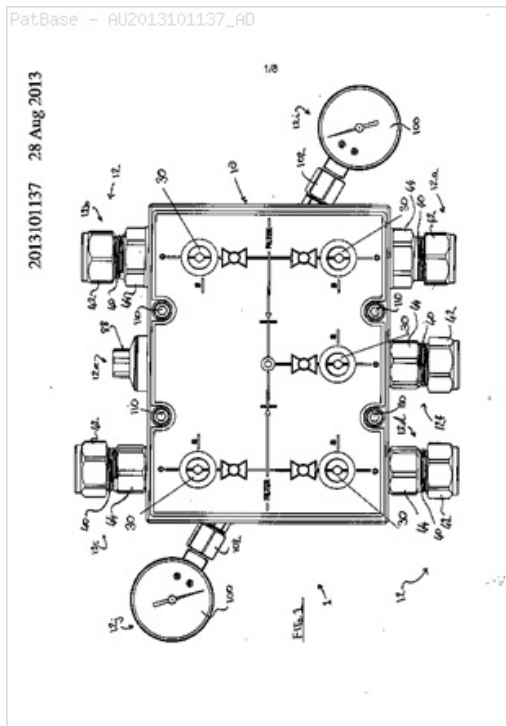
© PatBase

Title: Water Mixing and Flow Apparatus

Abstract: Abstract A water mixing and flow apparatus 1 has a housing 10 and cartridges 12 for flow of water therethrough. The cartridges 12 extend into the housing 10. The cartridges 12 include respective water flow cartridges 12a, 12b, 12c and 12d. One of the water flow cartridges 12a and 12b is able to receive cold water into the apparatus 1, and one of the water flow cartridges 12c and 12d is able to receive hot water into the apparatus 1. The cartridges 12 also include a thermostatic mixing cartridge 12e and a tempered water outlet cartridge 12f. The thermostatic mixing cartridge 12e is provided to mix cold water and hot water to produce tempered water. The tempered water outlet cartridge 12f is in fluid communication with the thermostatic mixing cartridge 12e to deliver the tempered water from the apparatus 1.

Classifications:

International (IPC 8-9): B01D35/153 E03C1/04 F16K31/70
 G05D23/00 G05D23/13 (Advanced/Invention)

**Family:**

Publication number	Publication date	Application number	Application date
AU2013101137 AD	20131003	AU20130101137	20130828

Priority:

AU20120903721 20120829

AU20130101137 20130828

Probable Assignee:

BSP ENTERPRISES PTY LTD

Assignee(s): (std):

BSP ENTERPRISES PTY LTD

Inventor(s): (std):

MORRIS PETER JOHN ; PARR LES

Agent(s):

GOLJA HAINES AND FRIEND

33) Family number: 73587612 (US2019086890A)

© PatBase

Title: USER IDENTITY IN HOUSEHOLD APPLIANCES

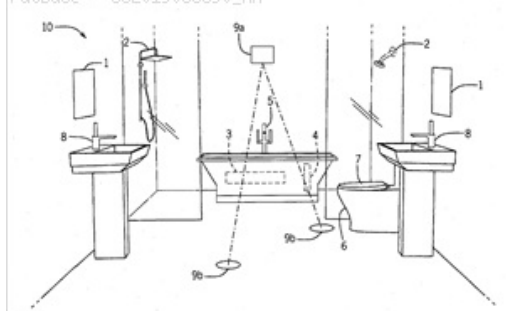
Abstract: A system of household appliances is configured to provide services according to user identity. The system includes a first appliance, a server or other network device, and a second appliance. The first appliance is configured to collect sensor data associated with an identity of a user. The server or other network device is configured to receive the sensor data from the first appliance and analyze the sensor data to determine the identity of the user. The second appliance is configured to provide a device function to the user based on the identity determined from the sensor data collected by the first appliance.

Classifications:

International (IPC 8-9): A47K13/30 A61B5/00 A61B5/01 A61B5/024 A61B5/1172 A61B5/16 B05B1/18 B05B12/02 B05B12/12 E03C1/05 E03D5/10 E03D9/00 G05B19/042 G05B19/048 G05D7/06 G06F17/30 G10L15/22 (Advanced/Invention)

CPC: G05B19/048 G10L15/30 G05D7/0617 G05B19/042 G10L15/22 E03D5/105 E03C1/057 E03D9/002 B05B12/02 B05B1/185 B05B12/12 A47K13/305 A61B5/01 A61B5/024 A61B5/165 A61B5/0075 A61B5/1172 G05B2219/2642 G05B2219/25297 G06F17/30864 G06F16/951 G10L15/1822 G06F3/167

PatBase - US2019086890_AA

**Family:**

Publication number	Publication date	Application number	Application date
US2019086890 AA	20190321	US20170706182	20170915

Priority:

US20170706182 20170915

Probable Assignee: KOHLER CO**Assignee(s):** (std): KOHLER CO**Inventor(s):** (std): ALLIS NICOLE ; BRADLEY JONATHAN D ; ESTIBAN MARWAN ; REXACH RAFAEL**34) Family number: 68984624** (IN201841004393A)

© PatBase

Title: BIDET FOR TEMPERATURE CONTROLLED DELIVERY OF AIR AND WATER JET

Abstract: The normal bidet provides hot and cold water jets but fails to cleanse microbial germs and also leads to wet zones in toilet and kitchen areas. Hence the present air bidet and air-cum-water bidet designs are provided. The air bidet allows a temperature controlled dispensing of air that can be utilized in drying the areas such as kitchen, toilet seats, bathroom floor and human body. The rapid drying of such reduces chances of microbial growth and hence increase hygiene. The air-cum-water bidet design allows a user to receive temperature controlled air and water jet during bathing, hand-washing and cleansing of utensils. The detachable nature of the air bidet allows a single air bidet to be used in a plurality of places.

Classifications:

International (IPC 8-9): E03D9/08 (Advanced/Invention)

Family:

Publication number	Publication date	Application number	Application date
IN201841004393 A	20180323	IN201841004393	20180206

Priority:

IN201841004393 20180206

Probable Assignee:

GULSHAN ANAND

Assignee(s):

GULSHAN ANAND ; RACHNA ANAND

Inventor(s):

GULSHAN ANAND ; RACHNA ANAND

35) Family number: 65075634 (US2017058500A)

© PatBase

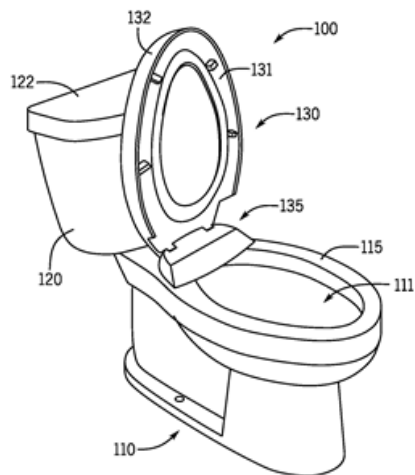
Title: CLEAN TOILET AND ACCESSORIES

Abstract: A toilet that includes a bowl, a tank configured to hold water, and a flush valve within the tank. The flush valve includes a valve body fluidly connecting the tank and the bowl, a float moveable relative to the valve body to open and close the flush valve, and a guide member coupled to the valve body for guiding movement of the float, where the guide member includes a chamber that is configured to hold a cleaning compound including a chemical compound and water. The cleaning compound is configured to be dispensed into the bowl through the valve body with the flush valve open.

Classifications:

International (IPC 8-9): A47K13/30 A47K17/00 C11D11/00 C11D7/04 E03D1/36 E03D11/13 E03D5/10 E03D9/00 E03D9/03 E03D9/05 E03D9/052 G08B21/18 G08B5/36 (Advanced/Invention)
CPC: A47K17/00 G08B21/182 C11D7/04 E03D9/031 E03D9/033 E03D9/038 E03D9/05 E03D9/005 G08B5/36 E03D9/032 A47K13/307 C11D11/0052 E03D11/13 E03D1/36 E03D5/10 E03D2009/024 E03D2009/028
US: 4/314

PatBase - US2017058500_AA

**Family:**

Publication number	Publication date	Application number	Application date
CN108603368 A	20180928	CN201680049311	20160824
CN108915053 A	20181130	CN201810593664	20160824
CN108915054 A	20181130	CN201810593842	20160824
EP3341533 A1	20180704	EP20160759936	20160824
EP3378999 A1	20180926	EP20180168655	20160824
EP3382115 A1	20181003	EP20180168662	20160824
EP3406811 A1	20181128	EP20180168664	20160824
EP3431672 A1	20190123	EP20180168653	20160824
IN201817008245 A	20180601	IN201817008245	20180306
US2017058500 AA	20170302	US20160245996	20160824
US2019063054 AA	20190228	US20180900933	20180221
WO17035246 A1	20170302	WO2016US48419	20160824

Priority:

US20150209198P 20150824
US20160245996 20160824

CN201680049311 20160824
WO2016US48419 20160824

EP20160759936 20160824
US20180900933 20180221

Probable Assignee: KOHLER CO**Assignee(s):** (std): KOHLER CO**Inventor(s):** (std): GARRELS CLAYTON ; KURU WILLIAM ; LUETTGEN MICHAEL ; DENZIN PETER W ; DENZIN PETER**Agent(s):** BARKER BRETTELL LLP; SPROW MARCUS ET AL

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

Title: TROUGH TYPE STRAINER BOX

Abstract: A trough type strainer apparatus comprising a housing with bottom and side walls defining an interior chamber, an inlet trough assembly and an outlet conduit connected to said side walls and communicating with said chamber. A support structure is mounted inside the housing secured to at least one wall and a perforated strainer basket provided with a mounting flange on its upper edge allows the strainer basket to be seated on the support structure within the housing. The perforated strainer basket has an angled perforated baffle panel which extends upward past the outlet conduit when the basket is seated within the housing.

Classifications:

International (IPC 8-9): B01D29/35 E03C1/264 (Advanced/Invention);
B01D29/31 E03C1/26 (Core/Invention)

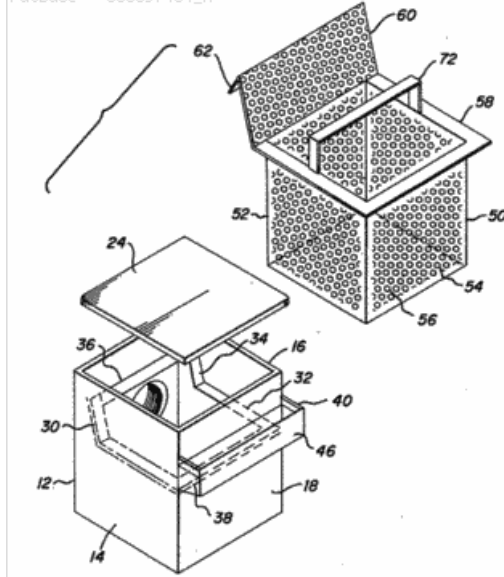
International (IPC 1-7): B01D35/02

CPC: B01D29/96 E03C1/264 B01D29/35 E03F5/0404

European: B01D29/35 E03C1/264 E03F5/04C4

US: 210/163 210/248 210/473 210/483 4/288

PatBase - US5397464_A

**Family:**

Publication number	Publication date	Application number	Application date
US5397464 A	19950314	US19930062007	19930517

Priority:

US19930062007 19930517

Probable Assignee:

HANNON STEPHEN R

Assignee(s):

HANNON STEPHEN R

Inventor(s): (std):

HANNON STEPHEN R

Title: FOUNTAIN ATTACHMENT FOR FAUCETS

Abstract: (Claim 1) 1. A drinking fountain attachment for a faucet, comprising a housing, an aperture in said housing, means for attaching said housing to the end of said faucet whereby said aperture is aligned with the outlet of said faucet, said housing aperture being located in an off center position in said housing, a fountain outlet in said housing, a disc positioned in said housing and rotatable therein, an aperture located in an off center position in said disc, the disc aperture being positionable in alignment with the housing aperture and providing passage therethrough for the down stream flow of water from said faucet, a raised boss on the top side of said disc surrounding said disc aperture, said boss occupying a portion only of said disc, the remainder of the top of said disc forming a channel between itself and said housing, said boss operating when said disc aperture is aligned with the faucet outlet to prevent water from entering into said channel, said disc being movable rotatably into a position where communication is established between the outlet of said faucet and said channel and in which position said channel is in communication with said fountain outlet in said housing.

Classifications:

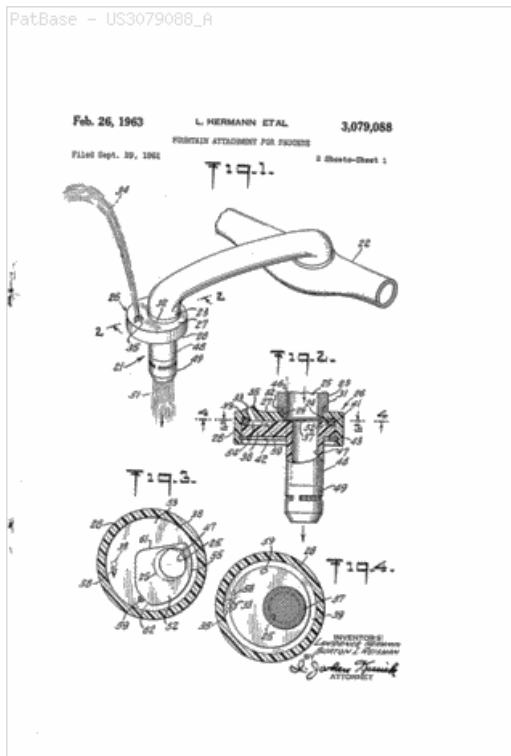
International (IPC 8-9): E03B9/20 E03C1/086 (Advanced/Invention);
E03B9/00 E03C1/02 (Core/Invention)

International (IPC 1-7): E03B9/20

CPC: E03C1/086 E03B9/20 Y10T137/86863

European: E03B9/20 E03C1/086

US: 137/625.46 239/25 D7/304

**Family:**

Publication number	Publication date	Application number	Application date
US3079088 A	19630226	US19610141817	19610929

Priority:

US19610141817 19610929

Probable Assignee: LAWRENCE HERMANN**Assignee(s):** (std): LAWRENCE HERMANN ; REISMAN BURTON I**Inventor(s):** (std): LAWRENCE HERMANN ; REISMAN BURTON I**Inventor(s):** HERMANN LAWRENCE**38) Family number: 7302677 (US3730439A)**

© PatBase

Title: SINGLE NOZZLE FLUID DEVICE

Abstract: This invention relates to a fluid flow device for a spout or a spout-end which is designed to produce a single laminar flow stream that is substantially splash-less at normal fluid flow rates. The device embodies a plurality of screens which are intimately in contact with each other and arranged to be spherical or concave in shape, together with a strainer which is positioned up-stream of the screens. The housing for the screens and the strainer is so shaped that the fluid passing the screens is pointed-toward the center or axis of the device.

Classifications:

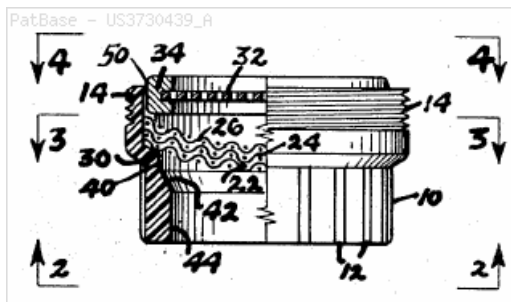
International (IPC 8-9): E03C1/084 E03C1/086 (Advanced/Invention); E03C1/02 (Core/Invention)

International (IPC 1-7): B05B1/14 E03C1/086

CPC: E03C1/084 E03C1/086

European: E03C1/084 E03C1/086

US: 239/590.3

**Family:**

Publication number	Publication date	Application number	Application date
US3730439 A	19730501	US19710182263	19710920

Priority:

US19670735138 19670606 US19710182263 19710920

Probable Assignee: PARKISON R**Assignee(s):** (std): PARKISON R**Assignee(s):** PARKISON R US ; AMERICAN STANDARD INC ; BANKERS TRUST CO ; CHEMICAL BANK AS COLLATERAL AGENT ; CHEMICAL BANK COLLATERAL AGENT AS**Inventor(s):** (std): PARKISON R**Inventor(s):** PARKISON R US

Title: WATER CONTROL FIXTURE HAVING THERMOSTATICALLY CONTROLLED BYPASS VALVE

Abstract: A water control fixture having an operating valve and a thermostatically controlled bypass valve disposed in the fixture for bypassing water away from the fixture until the water temperature reaches a desired level. When pressurized water from the hot water heater reaches the desired temperature level at the fixture, the bypass valve closes and hot water is made available to the fixture. The bypass valve has a thermal actuator element that is thermally responsive to the temperature of the water. The fixture can have a housing with an interior chamber for operatively receiving the bypass valve. Various passages or channels can be provided to facilitate communication between the bypass valve and the water supply lines. Alternatively, the bypass valve can be positioned in the operating valve, including the moveable ball and the replaceable cylindrical valving cartridge types. A system using the in-fixture bypass valve is also provided.

Classifications:

International (IPC 8-9): E03B7/04 E03B7/07 E03B7/09 E03C1/00 F16K31/00 F16K31/64 F16K49/00 F16L53/00 F24D17/00 G05D23/02 G05D23/10 G05D23/12 G05D23/13 G05D23/185

G05D27/13 (Advanced/Invention);

E03B7/00 E03C1/00 F16K31/64 F16K49/00

G05D23/01 (Core/Invention)

International (IPC 1-7): F16K49/00 F16L53/00 G05D23/12 G05D23/13 G05D23/185 G05D7/00

CPC: F24D17/0078 E02B7/045 F16K31/002 G05D23/022

G05D23/134 G05D23/12 Y10T137/6497 Y10T137/6416

Y10T137/7737 Y10T137/86815 Y10T137/5109 Y10T137/6977

Y10T137/698 Y10T137/7043 E03B7/045 E03B7/09 E03B1/048

G05D23/1346 G05D23/1333 Y02A20/411

European: E03B1/04C E03B7/04B E03B7/09 F16K31/00C

G05D23/02B2 G05D23/12 G05D23/13B4D G05D23/13B4D2

US: 122/13.3 137/269 137/334 137/334S 137/337 137/337S

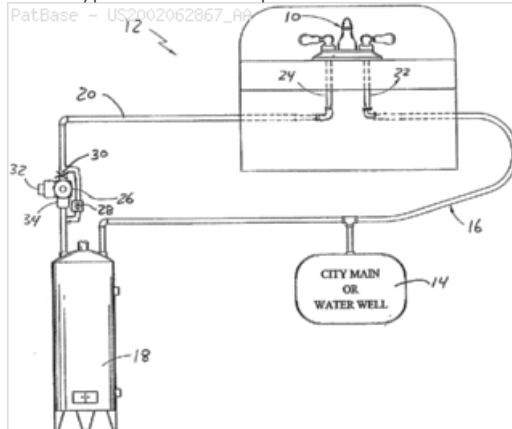
137/359 137/360 137/377 137/468 137/625.4 236/101.00D

236/101.00RS 236/101D 236/101R 236/12.1 236/12.100P

236/12.100S 236/12.11 236/12.110P 236/12.13 236/12.130P

236/12.130S 236/93.00A 236/93.00R 236/93A 236/93R 236/99.00J

236/99.00K 236/99J 236/99K 4/638 4/732 417/32 47/32

**Family:**

Publication number	Publication date	Application number	Application date
US2002062867 AA	20020530	US20010006970	20011204
US2003140966 AA	20030731	US20030394795	20030321
US2004194825 AA	20041007	US20040832492	20040427
US2005242198 AA	20051103	US20050172681	20050701
US2005242199 AA	20051103	US20050173572	20050701
US2006049267 AA	20060309	US20050203913	20050816
US2007114290 AA	20070524	US20060594470	20061108
US2007131783 AA	20070614	US20070702743	20070205
US2007137709 AA	20070621	US20070702744	20070205
US2007278318 AA	20071206	US20070827926	20070712
US2009230200 AA	20090917	US20090426635	20090420
US2010096025 AA	20100422	US20090643616	20091221
US2011132989 AA	20110609	US20100977827	20101223
US2012222757 AA	20120906	US20110313084	20111207
US2012325918 AA	20121227	US20120538681	20120629
US2013299010 AA	20131114	US20130944729	20130717
US2014034166 AA	20140206	US20130944640	20130717
US6536464 BA	20030325	US20000697520	20001025
US6929187 BB	20050816	US20010006970	20011204
US7073528 BB	20060711	US20030394795	20030321
US7140382 BB	20061128	US20050172681	20050701
US7198059 BB	20070403	US20040832492	20040427
US7287707 BB	20071030	US20050173572	20050701
US7475703 BB	20090113	US20070702744	20070205
US7648078 BB	20100119	US20070827926	20070712
US7874498 BB	20110125	US20060594470	20061108
US8091793 BB	20120110	US20090643616	20091221
US8210441 BB	20120703	US20100977827	20101223
US8505830 BB	20130813	US20110313084	20111207
US8522814 BB	20130903	US20090426635	20090420
US8820652 BB	20140902	US20120538681	20120629
US8820653 BB	20140902	US20130944729	20130717

Priority:

US20000697520	20001025	US20000251122P	20001205	US20010006970	20011204
US20030394795	20030321	US20030465854P	20030428	US20040832492	20040427
US20050172681	20050701	US20050173572	20050701	US20050203913	20050816
US20060850171P	20061005	US20060594470	20061108	US20070702743	20070205
US20070702744	20070205	US20070827926	20070712	US20090426635	20090420
US20090643616	20091221	US20100977827	20101223	US20110313084	20111207
US20120538681	20120629	US20130944729	20130717	US20130944640	20130717

Probable Assignee: GRUNDFOS PUMPS MFG CORP

Assignee(s): (std): GRUNDFOS PUMP MFG CORP ; GRUNDFOS PUMPS CORP ; KEMPF DALE ; LUM KEN ; GRUNDFOS PUMPS MFG CORP ; HARRIS KEITH ; GRUNDFOS PUMP CORP ; GRUNDFOS PUMPS MFG CO

Assignee(s): GRUFOS PUMP MANU CTURING FA ; GRUNFOS PUMPS MFG CORP ; GRUNDFOS PUMP MFG ; GRUNFOS PUMPS MANU CTURING FA ; GRUNFOS PUMPS MFG ; GRUNDFOS PUMPS MFG

Inventor(s): (std): HARRIS KEITH ; KEMPF DALE ; LUM KEN

Agent(s): RICHARD A RYAN ATTORNEY AT LAW; DEAN D SMALL ARMSTRONG TEASDALE LLP; DEAN D SMALL SMALL PATENT LAW GROUP LLP; THE SMALL PATENT LAW GROUP LLP; SMALL PATENT LAW GROUP LLP; RYAN RICHARD A; RICHARD A; ARMSTRONG TEASDALE LLP; DEAN D; SMALL PATENT LAW GROUP; DEAN O; SMALL DEAN D; HOETTE JAY J; JAY J; DEAN; JAY; SMALL PATENT LAW GROUP LLC

Title: APROVECHAMIENTO AUTONOMO DE AGUAS RECICLADAS EN CHALET, VIVIENDA ADOSADA O PAREADA RECYCLED WATER USE IN INDEPENDENT VILLA, SEMI-DETACHED HOUSE OR SEMIDETACHED (Machine translation)

Abstract: Source: ES2306584B [ES] Aprovechamiento autonomo de aguas recicladas en chalet, vivienda adosada o pareada. Constituido a partir de una arqueta que recoge las aguas procedentes de los botes sifonicos de la vivienda, ademas de las aguas procedentes de lavadoras, equipos de aire acondicionado y azoteas o tejados. De esta arqueta pasa el agua a un deposito subterraneo provisto de un kit de depuracion consistente en un conjunto compuesto por una bomba impulsora precedida de un segundo filtro de malla y seguida inmediatamente de un filtro de arena. La bomba es activada automaticamente por medio de sensores de nivel impulsando el agua depurada a un deposito elevado de donde cae el agua a las cisternas de los inodoros de la casa, a puntos de agua no potable situados en el garaje o en el jardin.

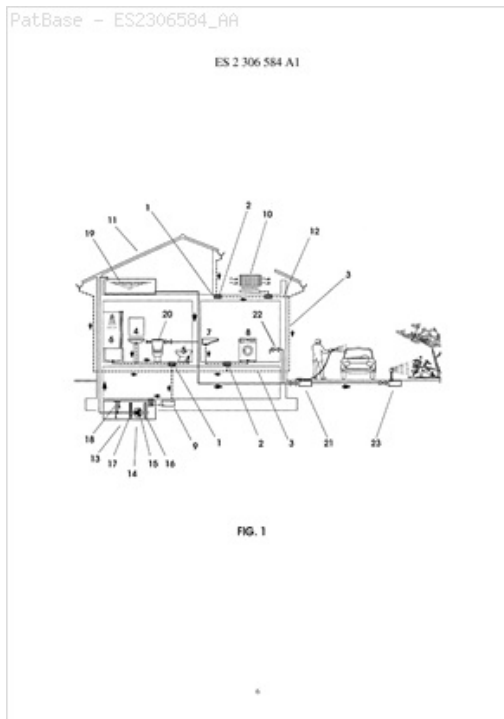
Machine translation: Use self-contained water recycled villa, townhouse or townhouse. Formed from a pit that collects water from the boats Traps of housing, in addition to the water from washing machines, air conditioners and flat roofs or roofs. This casket goes underground water to a tank equipped with a purification kit consisting of a set consisting of a booster pump preceded by a second mesh filter and immediately followed by a sand filter. The pump is activated automatically by sensors driving the purified water level to an elevated tank where the water falls to flush toilets in the house, drinking water points located in the garage or in the garden.

Classifications:

International (IPC 8-9): E03B1/04 (Advanced/Invention)

CPC: E03B1/04

European: E03B1/04



Family:

Publication number	Publication date	Application number	Application date
ES2306584 AA	20081101	ES20060002252	20060824
ES2306584 BA	20090916	ES20060002252	20060824

Priority:

ES20060002252 20060824

Probable Assignee: PIGNER MORAL ANTONIO RICARDO

Assignee(s): (std): PIGNER MORAL ANTONIO RICARDO ; RODRIGUEZ HINOJOSA JESUS ; RUIZ ROMAN RAFAEL ; TORRES BRACERO GERARDO

Assignee(s): GERARDO TORRES BRACERO

Inventor(s): (std): TORRES BRACERO GERARDO

Inventor(s): GERARDO TORRES BRACERO

Title: TOILET SYSTEM ATTACHED A MULTI-PURPOSE HAND HELD SPRAYER

Abstract: This invention relates to an improved toilet system affording upgraded hygienic environment by attachment of a multi-purpose hand held sprayer and addition of new features on the existing toilet system. The multi-purpose hand held sprayer that incorporates a manual shut-off valve delivers various patterns of water spray via an extension bar and a spray tip, which further employs a flexible hose, a valve to regulate the flow, a Y-adaptor assembly to supply water from an existing plumbing fixture, a hose hanger mounted on the existing toilet fasteners, a holder for placing the sprayer, and a holder for placing lavatory items. The new features include an improved toilet seat having an additional opening with guidelines and an embedded fortifying element at the frontal area for facilitating placement of the sprayer, a toilet bowl having the same guidelines, and an improved water tank together with its lid having cutouts at the edges and holes on the side wall for mounting the holders.

Classifications:

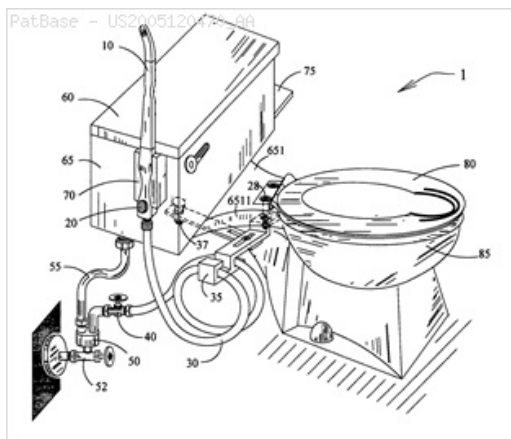
International (IPC 8-9): A47K13/00 A47K3/22 A62C2/08 A62C37/08

B05B1/12 B05B1/14 B05B9/04 E03D9/00 E03D9/08 E21F5/04

F16K1/48 F23D11/38 (Advanced/Invention);

B05B1/12 B65D83/00 E03D9/08 (Advanced/Non-invention);

A47K13/00 A62C2/00 A62C37/00 A62C37/08 B05B1/00 B05B1/14 B05B9/04 E03D9/00 E03D9/08 E21F5/00 F23D11/36 (Core/Invention); B65D83/00 (Core/Non-invention); A62C B05B E21F F23D (Subclass/Invention)
International (IPC 1-7): A47K3/20 A47K4/00 A61H35/00 A62C2/08 A62C37/08 B05B1/12 B05B1/14 B05B1/30 B05B15/06 B05B7/02 B05B9/01 E03D11/02 E03D9/08 E21F5/04 F16K15/00 F23D11/38
CPC: A47K13/24 E03D9/085 A47K13/00
European: A47K13/00 A47K13/24 E03D9/08 E03D9/08B
US: 239/525 239/525P 239/526 239/526S 239/532 239/532S 239/548 239/569 239/569S 239/600 251/321 251/321P 251/322 4/300.3 4/300.300P 4/420.1 4/420.4 4/420.400P 4/420.5 4/443 4/448 4/448P 44/201 44/204 44/205 44/43 44/48



Family:

Publication number	Publication date	Application number	Application date
AU2004304869 AA	20050707	AU20040304869	20041115
BRPI0417490 A	20070522	BR2004PI17490	20041115
CA2547208 AA	20060525	CA20042547208	20041115
CN1889998 A	20070103	CN200480036714	20041115
EP1711232 A2	20061018	EP20040811139	20041115
IL176114 A0	20061005	IL20040176114	20041115
IN00789MN2006 A	20070223	IN2006MN00789	20060707
JP2007513758 T2	20070531	JP20060543835T	20041115
KR100740709 B1	20070718	KR20040045675	20040618
KR20050026987 A	20050317	KR20040044399	20040616
KR20050105918 A	20051108	KR20040045675	20040618
MXPA06006554 A1	20070126	MX2006PA06554	20041115
RU2006124607 A	20080120	RU20060124607	20041115
US2005120470 AA	20050609	US20040751546	20040105
US2005120471 AA	20050609	US20040026671	20041231
US2005121542 AA	20050609	US20030731180	20031209
US2005121641 AA	20050609	US20040980007	20041103
US2005144713 AA	20050707	US20040983552	20041108
US2006096015 AA	20060511	US20050165682	20050624
US6941590 BB	20050913	US20040751546	20040105
US7000898 BB	20060221	US20040980007	20041103
US7051959 BB	20060530	US20030731180	20031209
US7127750 BB	20061031	US20040983552	20041108
VN7402 A1	20090126	VN20060001093	20041115
WO05060474 A2	20050707	WO2004US38322	20041115
WO05060474 A3	20060323	WO2004US38322	20041115
WO05067773 A1	20050728	WO2005US00056	20050103
ZA200605604 A	20071227	ZA20060005604	20060707

Priority:

US20030731180 20031209	US20030731180 20031209	US20040751546 20040105
US20040980007 20041103	US20040983552 20041108	WO2004US38322 20041115
US20040026671 20041231	US20050165682 20050624	

Probable Assignee: HOWARD LIM

Assignee(s): (std): HOWARD LIM ; HOWARD TAK SU LIM ; LIM HOWARD T S ; LIM HOWARD TAK SU ; SU LIM HOWARD T ; TAK SU LIM HOWARD

Assignee(s): LIM HOWARD TS ; LIM HOWARD

Inventor(s): (std): LIM HOWARD T S ; LIM HOWARD TAK SU ; SU LIM HOWARD T ; TAK SU LIM HOWARD ; HOWARD TAK SU LIM ; HOWARD LIM

Inventor(s): SU LIM HOWARD TAK ; LIM HOWARD ; LIM HOWARD TS ; SU LIM HOWARD

Agent(s): ACACIA LAW; MACPHERSON LESLIE AND TYERMAN LLP; HOWARD TAK SU LIM

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 KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

42) Family number: 62728709 (US2016177545A)

© PatBase

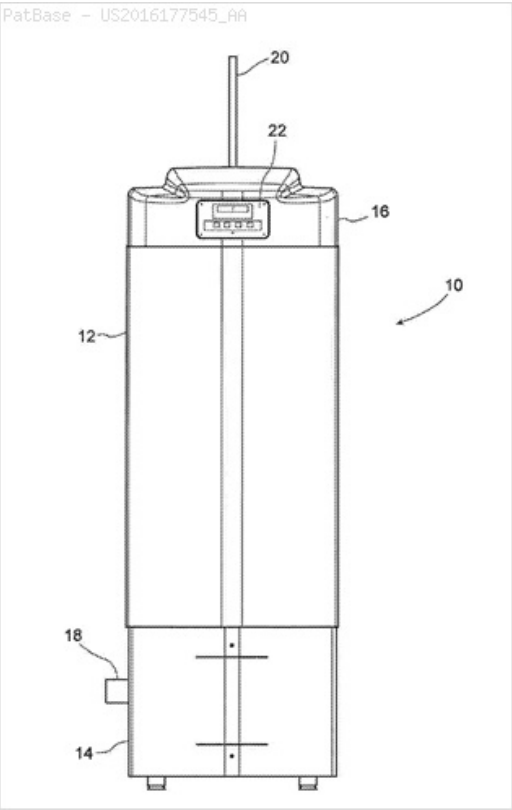
Title: SYSTEM AND METHOD OF GREYWATER RECOVERY AND REUSE

Abstract: A greywater recovery and reuse system is shown, including a body for collecting, reconditioning and discharging greywater. The body has an inlet connection to a source of greywater; a filter for filtering the greywater; a tank for receiving the filtered greywater; a disinfectant for disinfecting the filtered greywater; a pump for discharging the reconditioned greywater from said tank to a toilet that needs flushing water; a discharge connection to a sanitary sewer system; a fresh water connection and a control system for controlling the operation of the greywater recovery and reuse system. The system includes a controller for operating the system and dealing with certain alarm and status conditions. Methods of operating the system are also comprehended.

Classifications:

International (IPC 8-9): C01F1/00 C02F1/00 E03B1/04 E03C1/12 E03D5/00 (Advanced/Invention);

B01D29/00 B01D29/60 B01D29/64 B01D29/88 C02F1/00 C02F1/76 C02F103/00 (Advanced/Non-invention)
CPC: E03B1/042 E03D5/003 E03B2001/045 C02F2103/002 C02F2209/42 C02F2303/16 C02F1/004 B01D29/0077 B01D29/605 B01D29/6438 B01D29/885 C02F1/008 C02F1/76 E03B1/041
US: 137/2 137/551



Family:

Publication number	Publication date	Application number	Application date
CA2875412 AA	20160619	CA20142875412	20141219
US2016177545 AA	20160623	US20150658707	20150316
US10214880 BB	20190226	US20150658707	20150316
WO16095010 A1	20160623	WO2015CA00594	20151207

Priority:

CA20142875412 20141219 US20150658707 20150316

Probable Assignee: CANPLAS IND LTD

Assignee(s): (std): RECOVER WATER TECH INC ; CANPLAS IND LTD

Assignee(s): COOKE ROBERT ; GAY STACEY CHARLEEN ; BALDWIN N SCOTT ; VAN KAMPEN LEO PETER ; ROBB CARL L ; MANTYLA JAMES BRIAN ; POUPORE TIMOTHY JAMES HENDRIE ; WILSON MICHAEL F

Inventor(s): (std): BALDWIN N SCOTT ; BALDWIN SCOTT N ; COOKE ROBERT ; GAY STACEY CHARLEEN ; MANTYLA JAMES BRIAN ; POUPORE TIMOTHY JAMES HENDRIE ; ROBB CARL L ; VAN KAMPEN LEO PETER ; WILSON MICHAEL F

Agent(s): PIASETZKI NENNIGER KVAS LLP; POLSINELLI PC; KELLER DAN

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 HW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

43) Family number: 43179730 (WO09050317A1) © PatBase

Title: AUTONOMOUS USE OF RECYCLED WATER IN DETACHED, SEMI-DETACHED AND TERRACED HOUSING

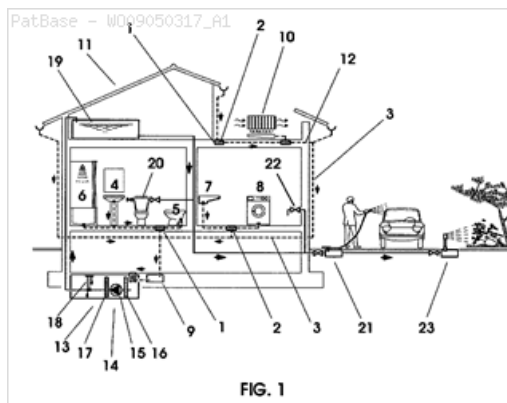
Abstract: Autonomous use of recycled water in detached, semi-detached and terraced housing. The system is based on a chamber which collects water from the siphon traps, and also water from washing machines, air conditioning units and roofs. The water passes from this chamber to an underground tank equipped with a purification kit consisting in a unit comprising an impeller pump preceded by a second mesh filter and immediately followed by a sand filter. The pump is activated automatically by means of level sensors driving the purified water to a raised tank from where the water descends to the toilet cisterns of the house and to non-drinking water outlets located in the garage or garden.

Classifications:

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

CPC: Y02A20/108 Y02A20/154 E03B1/04 E03B2001/045 E03B2001/047

European: E03B1/04 P03B1/04B20 P03B1/04B22



Family:

Publication number	Publication date	Application number	Application date
ES2322747 AA	20090625	ES20070002731	20071017
ES2322747 BA	20100420	ES20070002731	20071017
WO09050317 A1	20090423	WO2008ES00651	20081017

Priority:

ES20070002731 20071017

Probable Assignee: PIGNER MORAL ANTONIO RICARDO

Assignee(s): (std): PIGNER MORAL ANTONIO RICARDO ; PIGNET MORAL ANTONIO RICARDO ; RUIZ ROMAN RAFAEL ; TORRES BRACERO GERARDO

Assignee(s): GERARDO TORRES BRACERO

Inventor(s): (std): PIGNET MORAL ANTONIO RICARDO ; TORRES BRACERO GERARDO ; RUIZ ROMAN RAFAEL ; PIGNER MORAL ANTONIO RICARDO

Inventor(s): GERARDO TORRES BRACERO ; ANTONIO RICARDO PIGNER MORAL ; RAFAEL RUIZ ROMAN

Agent(s): HERRERA DAVILA ALVARO

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

44) Family number: 57438746 (US2014283927A)

© PatBase

Title: AUXILIARY GRAY WATER SOURCE DEVICE FOR COMMERCIAL KITCHENS

Abstract: An auxiliary grey water supply device captures used wash water from a commercial warewashing machine for supply to a pre-rinse station without substantial modification of the commercial warewashing machine. The captured wash water is delivered to a pre-rinse station for pre-rinsing of dishes that will be washed within the commercial warewashing machine.

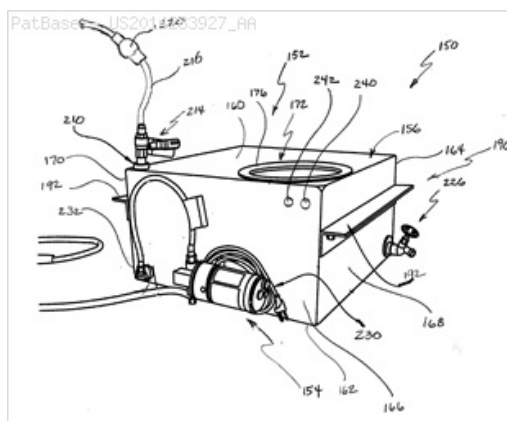
Classifications:

International (IPC 8-9): A47L15/00 A47L15/42 B08B3/00 C02F1/00 D06F39/10 E03B1/04 (Advanced/Invention); C02F103/00 C02F103/32 (Advanced/Non-invention)

CPC: C02F2103/002 Y02B40/46 Y10T29/49716 Y10T137/7039 Y10T137/794 Y10T137/8593 A47L15/4291 A47L15/4223

A47L15/0076 Y02B40/44 E03B1/041 E03B2001/045 A47L15/4217 A47L15/4206 C02F2307/12 A47L2501/01 A47L2501/04 A47L2501/07 C02F2103/32 Y02A20/302 C02F1/001 Y10T29/49826 C02F1/76

US: 134/111 137/376 137/544 137/561R 210/172.6 210/85 210/94 29/401.1 29/428



Family:

Publication number	Publication date	Application number	Application date
CA2907689 AA	20150918	CA20142907689	20140320
EP2976469 A2	20160127	EP20140769609	20140320
EP2976469 A4	20161228	EP20140769609	20140320
MX2015013327 A1	20160516	MX20150013327	20140320
US2014283927 AA	20140925	US20140211332	20140314
US2014283934 AA	20140925	US20130815995	20130321
US2015014228 AA	20150115	US20140493808	20140923
US2017172377 AA	20170622	US20170448486	20170302
US2019117037 AA	20190425	US20180164662	20181018
US9596973 BB	20170321	US20140493808	20140923
US10105033 BB	20181023	US20170448486	20170302
WO14153475 A2	20140925	WO2014US31368	20140320
WO14153475 A3	20141120	WO2014US31368	20140320

Priority:

US20130815995 20130321 US20140211332 20140314 WO2014US31368 20140320
 US20140493808 20140923 WO2015US51551 20150922 US20160365315P 20160721
 US20170448486 20170302 US20180164662 20181018

Probable Assignee: SEVEN HOUR DRIVE LLC

Assignee(s): (std): DICKENSON DANIEL JOHN ; LEE EDUARDO YONG ; SEVEN HOUR DRIVE LLC

Inventor(s): (std): LEE EDUARDO YONG ; DICKENSON DANIEL JOHN ; DICKINSON DANIEL JOHN

Agent(s): SMART AND BIGGAR; RAYNOR SIMON MARK; KNOBBE MARTENS OLSON AND BEAR LLP; DELANEY KAROLINE A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM 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

45) Family number: 71384780 (EP3382110A1)

© PatBase

Title: TAP AND SYSTEM FOR SELECTIVELY DELIVERING PROCESSED AND UNPROCESSED LIQUID ROBINET ET SYSTEME PERMETTANT DE FOURNIR SELECTIVEMENT UN LIQUIDE TRAITE ET NON TRAITE </TI_F

Abstract: A tap includes: a body (17); and a spout (16), mounted to swivel with respect to the body (17). The spout (16) includes an outer tube (24) and at least one internal tube (34), arranged within the outer tube (24) and extending over at least part of a length of the spout (16). A series of passages is defined in the tap to lead liquid from a passage (35) in the body (17) through at least the internal tube (34) to a passage leading to an outlet at an end of the spout (16). The internal tube (34) is connected at at least one end by a tube connector (33,37) to a tap part (17,44) defining one of the series of passages, the tube connector (33,37) placing that passage in sealed liquid communication with an interior of the internal tube (34). The tube connector (33,37) includes a first component (38,45) fixed to the internal tube (34). The tube connector (33,37) also includes a second component (42,48), fixed to the tap part (17,44) and rotatably connected to the first component (38,45).

Classifications:

International (IPC 8-9): E03C1/04 (Advanced/Invention)

CPC: E03C1/0404 E03C1/0407 E03C1/0411 E03C2201/45

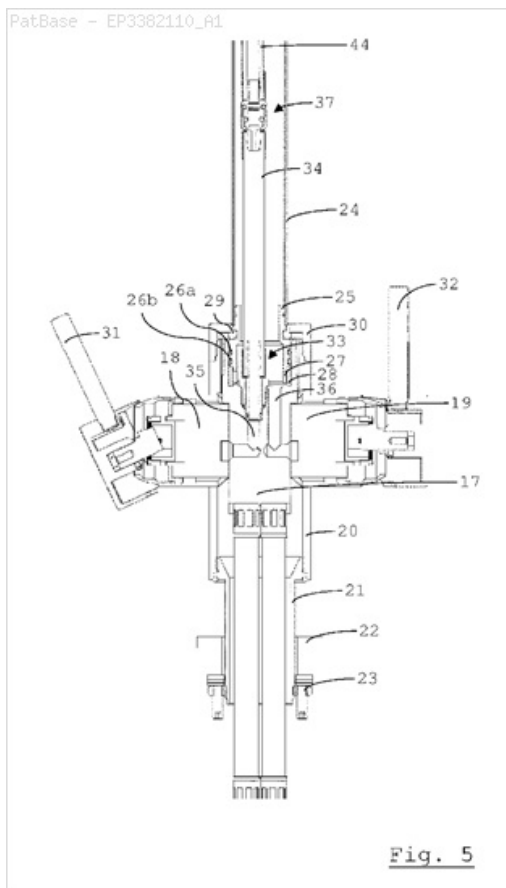


Fig. 5

Family:

Publication number	Publication date	Application number	Application date
EP3382110 A1	20181003	EP20170167542	20170421

Priority:

DE201710107042 20170331

Probable Assignee: BRITA GMBH

Assignee(s): (std): BRITA GMBH

Inventor(s): (std): REIFMUELLER STEFAN

Agent(s): VAN LOOKEREN CAMPAGNE CONSTANTIJN AUGUST

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Family:

Publication number	Publication date	Application number	Application date
AT402302 E	20080815	AT20030777985T	20031029
AU2003286774 AA	20040525	AU20030286774	20031029
AU2003286774 AH	20040525	AU20030286774	20031029
AU2006282054 AA	20070301	AU20060282054	20060123
AU2006282054 BB	20130117	AU20060282054	20060123
CA2554544 AA	20070223	CA20062554544	20060731
CN101111650 A	20080123	CN200680003574	20060123
DE60322414 D1	20080904	DE20036022414	20031029
EP1563148 A2	20050817	EP20030777985	20031029
EP1563148 A4	20060503	EP20030777985	20031029
EP1563148 B1	20080723	EP20030777985	20031029
EP1917406 A2	20080507	EP20060719298	20060123
EP1917406 A4	20110706	EP20060719298	20060123
ES2309369 T3	20081216	ES20030777985T	20031029
HK1113503 A1	20081003	HK20080103621	20080402
HK1113503 A3	20081003	HK20080103621	20080402
IN00809KN2008 A	20081121	IN2008KN00809	20080226
JP2009506235 T2	20090212	JP20080527889T	20060123
JP5073663 B2	20121114	JP20080527889T	20060123
KR101260322 B1	20130506	KR20077017551	20060123
KR20080036948 A	20080429	KR20077017551	20060123
MXPA06009469 A1	20070611	MX2006PA09469	20060818
NZ556300 A	20110331	NZ20060556300	20060123
US2004079040 AA	20040429	US20020282393	20021029
US2005166508 AA	20050804	US20050074814	20050308
US2006048469 AA	20060309	US20050210138	20050823
US2009241442 AA	20091001	US20090476956	20090602
US2012198778 AA	20120809	US20120449117	20120417
US6941703 BB	20050913	US20020282393	20021029
WO04040079 A2	20040513	WO2003US34369	20031029
WO04040079 A3	20040819	WO2003US34369	20031029
WO07024256 A2	20070301	WO2006US02378	20060123
WO07024256 A3	20070607	WO2006US02378	20060123

Priority:

US20020282393	20021029	WO2003US34369	20031029	US20050074814	20050308
US20050210138	20050823	WO2006US02378	20060123	CA20062554544	20060731
US20090476956	20090602	US20120449117	20120417		

Probable Assignee: SANI FLOOR INC**Assignee(s):** (std): LONG DARELL J ; MACLEAN JAMES ; MACLEAN JAMES G ; SANI FLOOR INC ; CHRISTIAN DAVID L**Assignee(s):** DTS ENTERPRISES INC ; STETINA KIT M ; STETINA KIT M ESQ ; NI FLOOR INC SA**Inventor(s):** (std): LONG DARRELL J JR ; LONG JR DARELL J ; MACLEAN JAMES G ; MACLEAN JAMES ; LONG DARRELL J ; LONG DARRELL ; LONG DARELL J ; DARRELL J ; DARRELL J JR LONG ; DAVID L CHRISTIAN ; JAMES G MACLEAN ; LONG DARELL J JR ; CHRISTIAN DAVID L ; CHRISTIAN DAVID**Inventor(s):** LONG DARELL JJR ; JR DARELL J ; LONG ; LONG DARELL ; JAMES MACLEAN**Agent(s):** DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; GOWLING LAFLEUR HENDERSON LLP; GERVASI GEMMA; CLT PATENT AND TRADEMARK HK LTD; STETINA BRUNDA GARRED AND BRUCKER**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 KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG 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**48) Family number: 57726825 (US2016041565A)**

© PatBase

Title: INTELLIGENT ELECTRONIC WATER FLOW REGULATION SYSTEM

Abstract: A control module can include in at least one implementation an electronically actuated water control valve configured to shut off water flow through a water pipe, an electronic flow sensor configured to measure the flow of water through the water pipe, a temperature sensor configured to report water temperature, a water quality sensor, and a processing unit in communication with the electronically actuated water valve and the electronic flow sensor. The processing unit can be further configured to identify irregularities in the flow of the water through the water pipe, and in response to the identified irregularities, shut off the water flow through the water pipe.

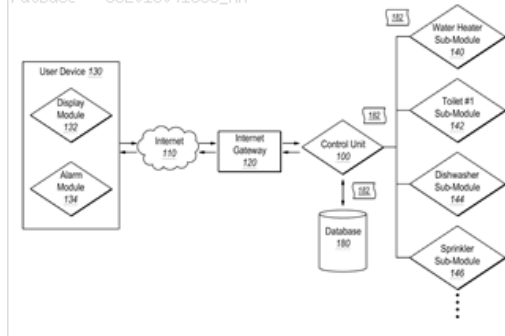
Classifications:

International (IPC 8-9): E03B7/07 F16K31/34 F16L55/10 F24D19/10 G01F1/115 G01F1/20 G01F15/00 G01F15/06 G01F7/00 G01M3/26 G05B11/38 G05B15/02 G05B19/00 G05D23/19 G05D27/02 G05D7/06 G06F19/00 (Advanced/Invention)

CPC: E03B7/071 E03B7/072 G01M3/26 E03B7/075 E03B7/078 F16L55/10 F16L55/1022 F24D19/10 G01F15/003 G01F15/061 G05D7/06 G05D7/0635 G05D23/1919 G05B15/02 G05D27/02 E03C1/00 Y02A20/15 G01M3/04

US: 700/282

PatBase - US2016041565_AH



Family:

Publication number	Publication date	Application number	Application date
GB201502966 A0	20150408	GB20150002966	20140107
GB2527875 A1	20160106	GB20150002966	20140107
US2016041565 AA	20160211	US20140345638	20140107
WO14178920 A2	20141106	WO2014US10480	20140107
WO14178920 A3	20141224	WO2014US10480	20140107

Priority:

US20130817726P 20130430 US20140345638 20140107 WO2014US10480 20140107

Probable Assignee: ARK GLOBAL TECHNOLOGY LTD

Assignee(s): (std): ARK GLOBAL TECHNOLOGY LTD ; FLOOD MONKEY INC

Assignee(s): NORTON STERLING INVESTMENTS LLC D B A ARK GLOBAL TECHNOLOGY

Inventor(s): (std): EDWARDS PHILIP ; EDWARDS PHILIP D

Inventor(s): PHILIP EDWARDS

Agent(s): FRODSHAM MICHAEL J ET AL

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

49) Family number: 40966833 (US3810602A)

© PatBase

Title: CERAMIC DISK FAUCET

Abstract: This covers a control valve for a kitchen or like faucet embodying a cartridge or container housing two contiguous ceramic disk elements and a vertical rotary stem. One of the elements is positioned at the base of the stem and is a rotatable member while the other element is a stationary member upon which the rotatable member is slid. The stationary member has inlet and outlet ports both so arranged that, when the movable member is rotated about its axis through a limited angle, the movable member is rotated about its axis through a limited angle, the movable member will be rotatably slid over both ports of the stationary ceramic member to determine the relative sizes of the openings of both ports. Either hot water or cold water, whichever is fed to the inlet port, may be transmitted through the valve and the angular position of the movable member will alone control the volume of water flow through the valve. The slidable member includes a cavity having a plurality of steps or ridges positioned in the path of the water reaching the slidable member, and they reduce the noise level that would otherwise be developed upon water flow through the valve. The entire flow path within the valve is essentially free of parts which expand or contract to vary the flow as the water temperature changes. Each angular valve setting will correspond to a particular flow rate which may be changed as desired but will remain independent of changes in the water temperature.

Classifications:

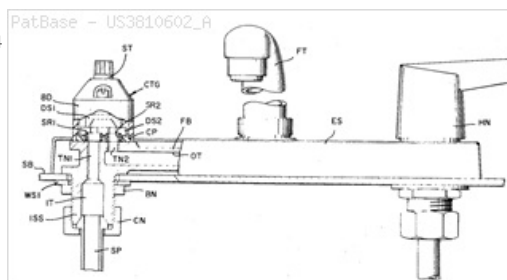
International (IPC 8-9): F16K11/074 F16K11/20 F16K11/22 F16K3/04 F16K3/08 F16K31/60 (Advanced/Invention); F16K11/06 F16K11/10 F16K3/02 F16K31/60 (Core/Invention)

International (IPC 1-7): E03C1/01 F16K11/10 F16K11/20 F16K19/00 F16K21/00 F16K3/08 F16K31/22 F16K31/60 F16K47/14 F16K5/04 F16K5/18

CPC: F16K11/0746 F16K19/00 F16K3/08 F16K19/006 Y10T137/7504 Y10T137/8122 Y10T137/86743

European: F16K11/074C F16K19/00 F16K19/00D F16K3/08

US: 137/454.2 137/55. 137/550 137/625.31 251/180 251/304

**Family:**

Publication number	Publication date	Application number	Application date
BE798365 A	19730816	BE19730130143	19730417
BR7302752 A0	19740627	BR19730002752	19730416
BR7310029 A0	19741022	BR19730010029	19731220
CA981238 A1	19760106	CA19730163295	19730205
CA998035 A1	19761005	CA19730180677	19730910
CH560342 A	19750327	CH19730004788	19730404
DE2314657 A1	19731025	DE19732314657	19730323
DE2349772 A1	19740829	DE19732349772	19731003
DE2349772 C2	19860417	DE19732349772	19731003
ES190607 U	19740516	ES19730190607U	19730412
ES190607 Y	19741116	ES19730190607U	19730412
FR2180744 A1	19731130	FR19730012834	19730410
FR2180744 B1	19780303	FR19730012834	19730410
FR2219350 A1	19740920	FR19740002019	19740122
FR2219350 B1	19770826	FR19740002019	19740122
GB1363835 A	19740821	GB19730010466	19730305
IT983913 A	19741111	IT19730023061	19730416
JP49108638 A2	19741016	JP19730042268	19730416
JP50000421 A2	19750107	JP19740021554	19740225
JP58043635 B4	19830928	JP19740021554	19740225
NL7305405 A	19731019	NL19730005405	19730417
PH10054 A	19760729	PH19730014311	19730205
PH9526 A	19760109	PH19730015049	19730925
US3810602 A	19740514	US19720244503	19720417
US3834416 A	19740910	US19730335616	19730226

Priority:

US19720244503 19720417 US19730335616 19730226

Probable Assignee: AMERICAN STANDARD INC

Assignee(s): (std): AMERICAN STANDARD INC ; PARKISON R

Assignee(s): BANKERS TRUST CO ; CHEMICAL BANK AS COLLATERAL AGENT ; CHEMICAL BANK COLLATERAL AGENT AS ; PARKISON RICHARD G ; AMERICAN STANDARD INC 40 WEST 40TH STREET NEW YORK ; AMERICAN STANDARD INC 40 WEST 40TH STREET NEW YORK N Y 10018 E U A ; AMERICAN STANDARD INC NEW YORK N Y US ; AMERICAN STANDARD INC US

Inventor(s): (std): PARKINSON R ; PARKINSON RICHARD G ; PARKINSON RICHARD G ; PARKISON R ; PARKISON R G

Inventor(s): R G PARKISON ; G PARKINSON RICHARD ; RG PARKISON ; PARKISON R US ; PARKINSON R US ; RICHAAO JIII PAAKISON ; PARKISON RICHARD G SOMERSET N J US ; G PARKISON RICHARD

50) Family number: 72069865 (US2019085543A)

© PatBase

Title: ABSORBENT ARTICLE COMPRISING A SYNTHETIC POLYMER DERIVED FROM A RENEWABLE RESOURCE AND METHODS OF PRODUCING SAID ARTICLE

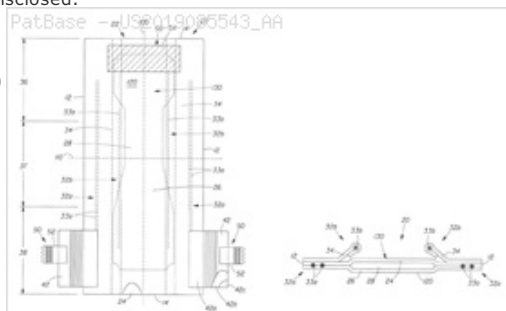
Abstract: An absorbent article is disclosed having a topsheet, a backsheet joined with the topsheet, an absorbent core disposed between the topsheet and the backsheet, and a synthetic superabsorbent polymer derived from a first renewable resource via at least one intermediate compound, wherein said superabsorbent polymer exhibits a defined Saline Flow Conductivity value and Absorption Against Pressure value. Alternately, an absorbent article is disclosed having a synthetic polyolefin derived from a first renewable resource via at least one intermediate compound. The synthetic polyolefin exhibits defined performance characteristics making the polyolefin particularly useful in certain components of the absorbent article. Methods for making the aforementioned absorbent articles are also disclosed.

Classifications:

International (IPC 8-9): E03D1/35 E03D11/02 (Advanced/Invention)

CPC: A61F13/15203 A61F13/15617 A61F13/551 A61F13/84

A61L15/24 A61L15/28 A61L15/40 A61L15/60 C12P7/42 C12P2203/00
E03D5/022 E03D1/35 E03D11/00



Family:

Publication number	Publication date	Application number	Application date
US2019085543 AA	20190321	US20180194670	20181119
US2019127962 AA	20190502	US20180195671	20181119
US10138624 BA	20181127	US20160011903	20160201

Priority:

US20060783274P 20060317	US20070724341 20070315	US20100975914 20101222
US20150111711P 20150204	US20160011903 20160201	US20160011930 20160201
US20180194670 20181119	US20180195671 20181119	

Probable Assignee: PROCTER AND GAMBLE CO

Assignee(s): (std): ALCORN A SHANE ; PROCTER AND GAMBLE

Assignee(s): PROCTER AND GAMBLE CO

Inventor(s): (std): HIRD BRYN ; ALCORN A SHANE

Agent(s): KUNZLER PC

51) Family number: 5257877 (US4657186A)

© PatBase

Title: STREAM FORMER

Abstract: A new and improved stream former is provided for attachment to the discharge end of a faucet or the like. The stream issuing from the stream former provides a formed, coherent, non-splash, silent, gentle flow. The stream former includes a sleeve-like casing, of metal or plastic, with an upstream attachment means, and a pair of axially spaced inwardly projecting supports defined on the inner wall of the sleeve-like casing, downstream of the attachment means. A transverse, fine-mesh, support screen is supported on the downstream support. A plastic, cup-shaped, molded transverse member is supported on the upstream support. A plurality of transverse, axial flow holes are provided through the apertured transverse wall of the cup-shaped transverse member. A closely woven, non-shedding, foraminous mat of nylon fibers is positioned between said transverse wall of the upper transverse member and the fine-mesh screen support. The ratio of downstream outlet area of the stream former to area of discharge through the upstream apertured transverse wall is about 30:1. The discharge from the stream former is silent and provides a coherent stream that is silky to the touch, and discharges less than 2.75 g.p.m. at an upstream feed pressure of 85 PSI.

Classifications:

International (IPC 8-9): B05B1/14 E03C1/08 (Advanced/Invention);

B05B15/00 (Advanced/Non-invention);

B05B1/14 E03C1/02 (Core/Invention);

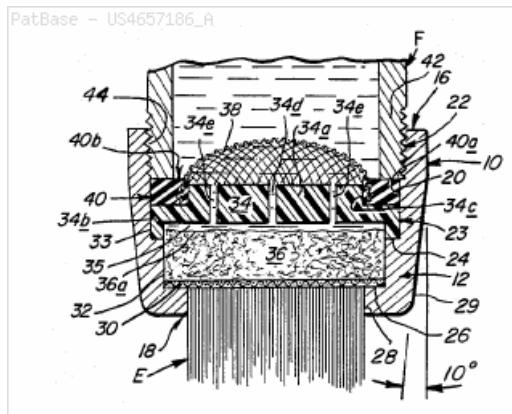
B05B15/00 (Core/Non-invention)

International (IPC 1-7): B05B1/14

CPC: Y10S239/23 B05B1/14 E03C1/08 B05B15/40

European: B05B1/14 B05B15/00G E03C1/08 L05B15/00Y30

US: 239/462 239/590.3 239/590.5 239/600 239/DIG.23

**Family:**

Publication number	Publication date	Application number	Application date
US4657186 A	19870414	US19850784372	19851004

Priority:

US19850784372 19851004

Probable Assignee:

SHAPIRO EUGENE B

Assignee(s): (std):

SHAPIRO EUGENE B

Inventor(s): (std):

SHAPIRO EUGENE B

52) Family number: 28303878 (US2002184704A)

© PatBase

Title: COMBINATION GAME CLEANING STATION, PORTABLE SINK AND ICE CHEST

Abstract: The present invention relates to a portable sink with a lid that is capable of being connected to an existing water supply, such as an outdoor hose or faucet, such that running water can be provided inside the sink in an outdoor environment. The sink preferably has features that make it easy to use in any outdoor environment, such as folding legs, an adjustable spigot, a spray nozzle, a storage drawer, a shelf, a large drain, a funnel, a strainer for the drain, cutting boards, baskets, etc. The lid also enables the sink to be used as a container for storing items during travel. In this respect, the sink can be made of an insulating material so that it can double as an ice chest when desired. A pressurized water tank can be provided which is preferably sized to fit inside the sink and adapted to supply water where no other water supply is available.

Classifications:

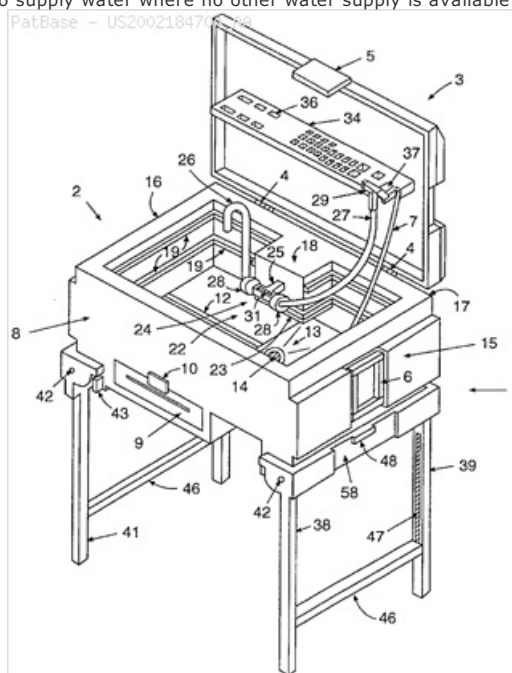
International (IPC 8-9): A22C25/02 A22C25/06 A47B3/00 A47B77/06 A47F3/04 A47G23/02 A47J47/20 A47K1/00 A47K1/02 A47K1/04 A47K1/05 A47K1/08 A47K1/09 A47K5/00 A47K7/02 A47L19/00 A47L19/02 A47L19/04 E03C1/00 E03C1/02 E03C1/04 E03C1/12 E03C1/14 E03C1/18 E03C1/182 E03C1/32 E03C1/326 F16M11/32 F16M11/38 F25D21/14 F25D3/08 (Advanced/Invention); A47B3/00 (Advanced/Non-invention); A22C25/00 A47B3/00 A47B77/06 A47F3/04 A47G23/00 A47J47/00 A47K1/00 A47K1/02 A47K1/08 A47K5/00 A47K7/02 A47L19/00 E03C1/00 E03C1/02 E03C1/04 E03C1/12 E03C1/18 F16M11/20 F25D21/14 F25D3/00 (Core/Invention); A47B3/00 (Core/Non-invention); A47K A47L E03C (Subclass/Non-invention)

International (IPC 1-7): A01K A01K0/00 A47B3/00 A47B77/06 A47G23/02 A47J47/20 A47K1/00 A47K1/04 A47K1/05 A47K1/09 A47K5/00 A47K7/02 A47L19/02 A47L19/04 E03C1/00 E03C1/02 E03C1/12 E03C1/14 E03C1/18 E03C1/182 E03C1/264 E03C1/32 E03C1/326 F16M11 F16M11/32 F16M11/38

IPC: A22C25/025 A22C25/06 A47K1/02 E03C1/18 E03C1/326 A22C17/08

European: A22C17/08 A22C25/02B A22C25/06 A45D19/04 A47K1/02 E03C1/18 E03C1/326

US: 4/619 4/619P 4/643 4/644 4/644 4/646 4/650 4/652 4/654 4/656 62/246 62/246S 62/285 62/285P 62/457.7 62/457.700S

**Family:**

Publication number	Publication date	Application number	Application date
AU200114344 A1	20010606	AU20010014344	20001103
AU200114344 A5	20010606	AU20010014344	20001103
AU2003261381 AA	20040223	AU20030261381	20030806
AU2003261381 BB	20090910	AU20030261381	20030806
AU2003261381 BH	20100121	AU20030261381	20030806
AU2005203265 AA	20050818	AU20050203265	20050726
AU2005203265 BB	20090924	AU20050203265	20050726
AU781095 B2	20050505	AU20010014344	20001103
BRPI0015348 A	20030722	BR2000PI15348	20001103
BRPI0015348 B1	20090505	BR2000PI15348	20001103
BRPI0305742 A	20040928	BR2003PI05742	20030806
CA2433810 AA	20030502	CA20002433810	20001103

CA2433810 C	20090310	CA20002433810	20001103
CA2513199 AA	20050713	CA20032513199	20030806
CA2513199 C	20121009	CA20032513199	20030806
CN100342813 C	20071017	CN20038018963	20030806
CN100473316 C	20090401	CN20008018213	20001103
CN1420741 A	20030528	CN20008018213	20001103
CN1674817 A	20050928	CN20038018963	20030806
DE60342608 D1	20130110	DE20036042608	20030806
EP1237454 A1	20020911	EP20000976592	20001103
EP1237454 A4	20051123	EP20000976592	20001103
EP1534110 A2	20050601	EP20030767215	20030806
EP1534110 A4	20051123	EP20030767215	20030806
EP1534110 B1	20121114	EP20030767215	20030806
IN00894DN2005 A	20090320	IN2005DN00894	20050309
IN245715 B	20110204	IN2002DN00581	20020605
MXPA02004494 A1	20040910	MX2002PA04494	20001103
MXPA05001394 A1	20050428	MX2005PA01394	20030806
US2002184704 AA	20021212	US20020212246	20020806
US2006137379 AA	20060629	US20040020284	20041223
US6427259 BA	20020806	US20000645927	20000825
US6836910 BB	20050104	US20020212246	20020806
US7954183 BB	20110607	US20040020284	20041223
WO0134010 A1	20010517	WO2000US28880	20001103
WO0134010 B1	20011220	WO2000US28880	20001103
WO04012500 A2	20040212	WO2003US24508	20030806
WO04012500 A3	20050210	WO2003US24508	20030806
WO04012500 B1	20050519	WO2003US24508	20030806
ZA200204505 A	20030827	ZA20020004505	20020605
ZA200501886 A	20060531	ZA20050001886	20050304

Priority:

US19990163659P 19991105	US20000645927 20000825	AU20010014344 20001103
WO2000US28880 20001103	WO2002S024508 20020806	US20020212246 20020806
EP20030767215 20030806	WO2003US24508 20030806	US20040020284 20041223

Probable Assignee: CAWTHON ENTERPRISES INC

Assignee(s): (std): CAWTHON ENTERPRISES INC ; CAWTHON ENTPR INC ; CAWTHON GREGORY S ; CAWTHON GREGORY STUART

Inventor(s): (std): CAWTHON GREGORY S ; GREGORY STUART CAWTHON ; STUART CAWTHON GREGORY ; CAWTHON GREGORY STUART

Inventor(s): CAWTHON GREGORY STUART MOBILE ; CAWTHON GREGORY

Agent(s): HODGKINSON MCINNES PATENTS; DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; BLAKE CASSELS AND GRAYDON LLP; VOSSIUS AND PARTNER; J JOHN SHIMAZAKI PATENT OFFICE OF J JOHN SHIMAZAKI; J JOHN

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 CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

53) Family number: 43347880 (WO09070135A1)

© PatBase

Title: METHODS AND SYSTEMS FOR ABRASIVE CLEANING AND BARRIER COATING/SEALING OF PIPES

Abstract: Methods and systems for abrasive cleaning, deburring pipes, providing barrier coatings and sealing leaks in existing pipes, in a single operation. A piping system can be cleaned in one pass set up by intermittent bursts of dry particulates that are forced and pulled by air throughout the piping system by a generator and a vacuum. Pipes can be protected from the effects of water corrosion, erosion corrosion and electrolysis, extending the life of piping systems such as copper, steel, lead, brass, cast iron piping and composite materials. Cleaning and barrier coating techniques described are efficient in pipes up to 2 inches in diameter, so that entire piping systems can be abrasive cleaned, coated and sealed. The leak sealant of approximately 4 mils thick can cover insides of pipes. Piping systems can be returned to service within approximately 24 to 96 hours.

Classifications:

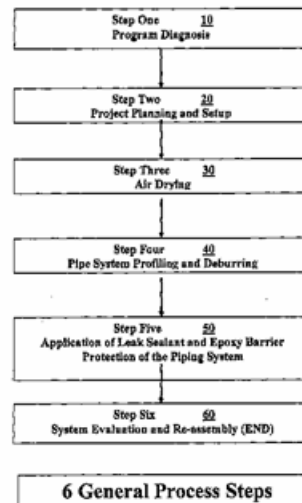
International (IPC 8-9): B05C7/08 B08B9/032 B24C3/32 E03C1/304

F16L58/10 (Advanced/Invention);
B08B9/02 B24C3/00 (Core/Invention)

CPC: B24C3/327 F16L58/1009 F16L2101/10 F16L2101/12
B08B9/0326 B08B9/035 B08B9/057

European: B24C3/32C1 F16L58/10B R16L101/10 R16L101/12

Figure 1



1/7

Family:

Publication number	Publication date	Application number	Application date
CA2707023 AA	20100527	CA20072707023	20071128
CA2707023 C	20130528	CA20072707023	20071128
EP2214869 A1	20100811	EP20070862294	20071128
EP2214869 A4	20121010	EP20070862294	20071128
WO09070135 A1	20090604	WO2007US24504	20071128

Priority:

WO2007US24504 20071128

Probable Assignee: PIPE RESTORATION TECHNOLOGIES**Assignee(s):** (std): GILLANDERS LARRY ; LABORDE JOHN ; PIPE RESTORATION TECHNOLOGIES ; PIPE RESTORATION TECHNOLOGIES L L C ; WILLIAMS STEVE**Assignee(s):** PIPE RESTORATION TECHNOLOGIES LLC**Inventor(s):** (std): GILLANDERS LARRY ; LABORDE JOHN ; WILLIAMS STEVE**Agent(s):** GOWLING LAFLEUR HENDERSON LLP; MCKEOWN YVONNE MARY; STEINBERGER BRIAN S

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

54) Family number: 48531883 (WO11036252A1)

© PatBase

Title: A LIQUID TRAP SYSTEM; ODOUR SEAL

Abstract: Liquid trap system (1009 which is adapted to allow a liquid to pass through the liquid trap system in a downstream direction while preventing gasses from passing through the liquid trap system in an upstream direction. The liquid trap system comprises at least two liquid traps (102', 102'').

Classifications:

International (IPC 8-9): E03F5/04 (Advanced/Invention); E03F5/04 (Core/Non-invention)

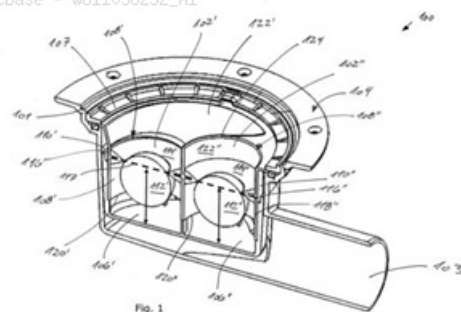
CPC: E03F5/0407 E03F2005/0416**European:** E03F5/04 E03F5/04D P03F5/04S

Fig. 1

Family:

Publication number	Publication date	Application number	Application date
DE602009036652 D1	20160421	DE200960036652T	20090925
DK2305906 T3	20170130	DK20090171390T	20090925
EP2305906 A1	20110406	EP20090171390	20090925

EP2305906 B1	20160309	EP20090171390	20090925
TW201116676 A	20110516	TW20100132548	20100927
TWI551752 B	20161001	TW20100132548	20100927
WO11036252 A1	20110331	WO2010EP64150	20100924

Priority:

EP20090171390 20090925

Probable Assignee: SOEDERSTROEM GERT WILHELM

Assignee(s): (std): SOEDERSTROEM GERT ; SOEDERSTROEM GERT WILHELM ; SOEDERSTROEM JOHNNY

Inventor(s): (std): SOEDERSTROEM JOHNNY ; SOEDERSTROEM GERT

Agent(s): SIMONSEN JAN LYNGBERG; INSPICOS P S; FOGED SOEREN ET AL

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

55) Family number: 65139906 (US9593474B)

© PatBase

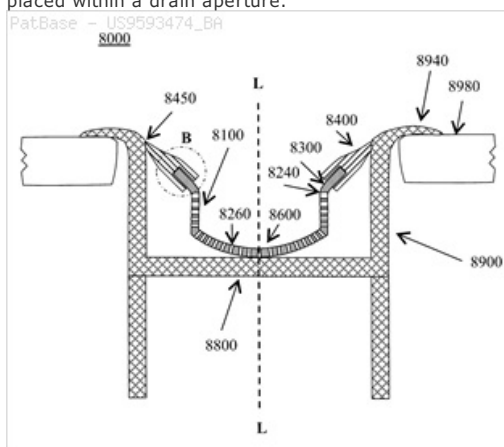
Title: SINK DRAIN STRAINER

Abstract: Certain exemplary embodiments can provide a system, machine, device, and/or manufacture relating to a sink drain strainer for a sink drain body coupled to a drain pipe, the sink drain body coupled to a sink that defines a sink bottom, the sink drain strainer, in an operative embodiment, configured to be placed within a drain aperture.

Classifications:

International (IPC 8-9): E03C1/264 (Advanced/Invention)

CPC: E03C1/264



Family:

Publication number	Publication date	Application number	Application date
US9593474 BA	20170314	US20140274843	20140512
US10053845 BA	20180821	US20170437037	20170220

Priority:

US20140938773P 20140212

US20140274843 20140512

US20170437037 20170220

Probable Assignee: ALTIMARI NICHOLAS

Assignee(s): (std): ALTIMARI NICHOLAS

Inventor(s): (std): ALTIMARI NICHOLAS

Agent(s): MICHAEL HAYNES PLC; MICHAEL N; HAYNES MICHAEL N

56) Family number: 11854906 (US5403498A)

© PatBase

Title: GRAY WATER REUSE CONTROL SYSTEM

Abstract: This invention provides an automatically controllable water reuse system having, in combination, a) a reservoir for water to be reused, b) a switch for controlling the level of water in said reservoir, c) an electrically powered timing mechanism which controls in a timed relationship filtering and pumping apparatus which can be turned "on" by a water level switch in the reservoir. The timer, pumping, filtering, and valve control combination is timed to provide at least four modes of operation including first and second modes to clean moveable solids from first and second filters, a third mode to pump filtered water for reuse to end points of use, e.g. to a toilet water storage tank or to garden irrigation end points and a fourth mode providing either a rest period before beginning the water pumping, filtering, distribution cycle again or for manual operation of the apparatus to direct the water for reuse to a desired reuse endpoint. This apparatus provides a secondary pump/filter combination which is dedicated to the function of cleaning the primary filter in an automatic timed sequence.

Classifications:

International (IPC 8-9): E03B1/04 (Advanced/Invention);

E03B1/00 (Core/Invention)

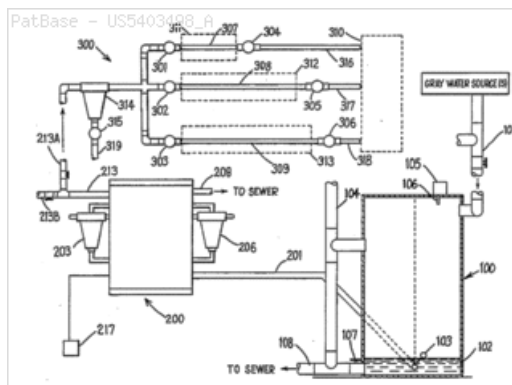
International (IPC 1-7): B01D37/04

CPC: Y02W10/37 E03B1/04 C02F2103/002 E03B2001/045

Y02A20/302 Y02A20/304

European: E03B1/04 M02F103/00C P03B1/04B20

US: 210/136 210/138 210/141 210/257.1 210/332 210/335 210/418 210/767



Family:

Publication number	Publication date	Application number	Application date
US5403498 A	19950404	US19930052776	19930426

Priority:

US19930052776 19930426

Probable Assignee:

ECONECO INC A MICHIGAN CORP

Assignee(s): (std):

ECONECO INC

Assignee(s):

ECONECO INC A MICHIGAN CORP

Inventor(s): (std):

BOWERS JAMES E ; MORRISSEY ALAN P

57) Family number: 64626917 (US2017009432A)

© PatBase

Title: WIRELESS AUTOMATION SYSTEMS AND METHODS FOR CONTROLLING FLUID PRESSURE IN A BUILDING

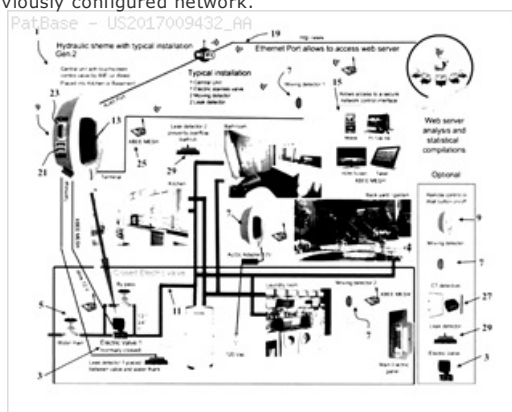
Abstract: A wireless control system for fluids, such as water or gas, controls an electronic valve mechanism located at the main fluid entrance of buildings. The valve is kept closed when no request is made for use of the aquifer or gas system, thus lessening the pressure on the plumbing during the non-use of the system and greatly reduces risk of damage when a break occurs in plumbing. The valve can be controlled by sensors, which could be wirelessly and securely connected; by a central unit accessible via a screen placed directly on the unit; and through several types of interfaces available for better flexibility of the control system. A web interface can be accessed via a computer or mobile on the local network via Wi-Fi or from outside via VPN or web address and a specific port pointed to the previously configured network.

Classifications:

International (IPC 8-9): E03B7/00 E03B7/07 E03C1/00 F17D5/06 G05B19/416 (Advanced/Invention)

CPC: E03B7/071 F17D5/06 E03B7/077 E03B7/075 E03B7/078 E03B7/08 Y02A20/15 G05B15/02 G05B2219/2642

US: 700/282



Family:

Publication number	Publication date	Application number	Application date
CA2935824 AA	20170109	CA20162935824	20160711
US2017009432 AA	20170112	US20160206894	20160711

Priority:

US20150190522P 20150709

US20160206894 20160711

Probable Assignee:

9346678 CANADA INC

Assignee(s): (std):

9346678 CANADA INC

Assignee(s):

BOUCHER BENOIT ; LAPOINTE SERGE

Inventor(s): (std):

BOUCHER BENOIT ; LAPOINTE SERGE

Agent(s):

BROUILLETTE LEGAL INC

58) Family number: 55108926 (US2013291947A)

© PatBase

Title: APPARATUS, METHOD AND SYSTEM FOR STANDARDIZING HAND CARE

Abstract: An apparatus, method and system for providing and dispensing various hand care alternatives from a common point of dispensation, such as a faucet, for standardizing the hand care, washing, sanitizing, and drying process is disclosed. Included is a liquid flow path having an inlet in fluid communication with a liquid source and an outlet in fluid communication with a user reception point. A secondary flow path has an inlet in communication with one or more hand care alternatives and an outlet in communication with the user reception point. A user-perceivable output provides notification of the hand care

operation being provided at the user reception point.

Classifications:

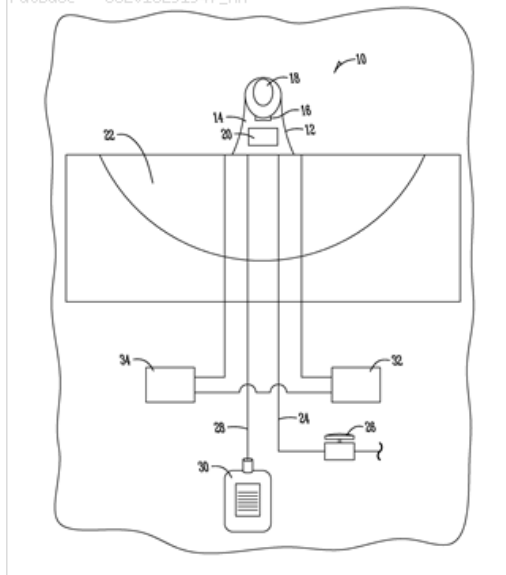
International (IPC 8-9): A47K5/12 A47K5/14 A47K7/00 E03C1/04 E03C1/046 E03C1/05 (Advanced/Invention)

CPC: E03C1/0404 E03C1/046 Y10T137/0318 Y10T137/9464

A47K5/1217 A47K5/14 A47K2005/1218 A47K2210/00 E03C1/057

US: 137/1 4/677 4/678

PatBase - US2013291947_AA



Family:

Publication number	Publication date	Application number	Application date
CA2931200 AA	20160519	CA20142931200	20141023
CA2931200 C	20180814	CA20142931200	20141023
EP2864554 A1	20150429	EP20130785083	20130314
EP2864554 A4	20160330	EP20130785083	20130314
US2013291947 AA	20131107	US20130803039	20130314
US2014259382 AA	20140918	US20130091768	20131127
US2018016773 AA	20180118	US20170719134	20170928
US10087608 BB	20181002	US20130091768	20131127
WO13165585 A1	20131107	WO2013US31417	20130314
WO15080818 A1	20150604	WO2014US61920	20141023

Priority:

US20120642859P 20120504 US20130803039 20130314 WO2013US31417 20130314
US20130091768 20131127 WO2014US61920 20141023 US20170719134 20170928

Probable Assignee: ECOLAB USA INC

Assignee(s): (std): CARLSON BRIAN PHILIP ; CHANDLER DENISE ; DOBIZL KENNETH THOMAS ; ECOLAB USA INC ; GILBERTSON SARAH ; KRAMER ANTHONY LEE

Assignee(s): GILBERTSON SARAH ELISE

Inventor(s): (std): GILBERTSON SARAH ELISE ; KRAMER ANTHONY LEE ; GILBERTSON SARAH ; DOBIZL KENNETH THOMAS ; CHANDLER DENISE ; CARLSON BRIAN PHILIP

Agent(s): BORDEN LADNER GERVAIS LLP; GODEMEYER BLUM LENZE PATENTANWALTE PARTNERSCHAFT MBB; MCKEE VOORHEES AND SEASE PLC; SORENSEN ANDREW D

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM 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

59) Family number: 29438954 (US5603344A)

© PatBase

Title: APPARATUS FOR RECOVERING AND SAVING CHILLED WATER IN HOT WATER LINES HAVING ADJUSTABLE THERMOSTATIC CONTROL

Abstract: A water saving device for use with domestic hot water systems of the noncirculating storage tank heater type uses a hydraulic motor to drive a water pump to pump water from the hot water pipe to a cold water pipe. Pumping begins when a hot water tap connected to the device is turned on and the water in the hot water pipe is cold. Pumping continues until a temperature sensing element senses that hot water has reached the water saving device and actuates a valve. When hot water is present at the device, the valve permits the hot water to pass directly to the tap instead of driving the hydraulic motor.

Classifications:

International (IPC 8-9): E03C1/044 F24D17/00

F24H9/12 (Advanced/Invention);

F24D17/00 (Core/Invention)

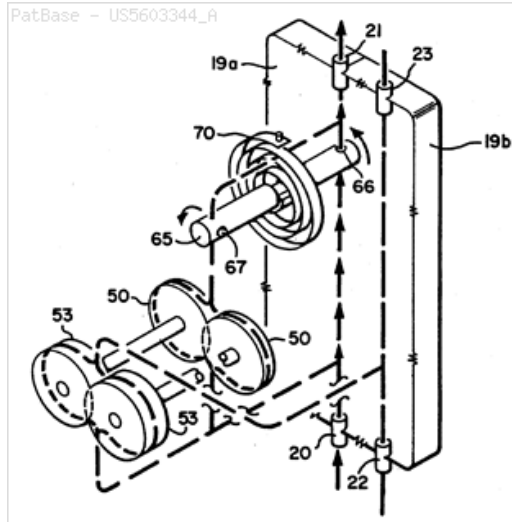
International (IPC 1-7): C07K14/47 E03C1/044 F24D17/00 F24H

F24H1/00 F24H9/12

CPC: F24D17/0094 Y10T137/0324 Y10T137/6497 Y10T137/86171

European: F24D17/00

US: 122/13.3 126/362 126/362.1 137/2 137/337 137/565.35 137/569 417/292

**Family:**

Publication number	Publication date	Application number	Application date
AT247807 E	20030915	AT19970921155T	19970412
AU199727274 A1	19971107	AU19970027274	19970412
CA2252377 AA	19981016	CA19972252377	19970412
CN1108499 C	20030514	CN19971095637	19970412
CN1222227 A	19990707	CN19971095637	19970412
DE69724252 D1	20030925	DE19976024252	19970412
EP0904515 A1	19990331	EP19970921155	19970412
EP0904515 A4	20020619	EP19970921155	19970412
EP0904515 B1	20030820	EP19970921155	19970412
IL126642 A0	19990817	IL19970126642	19970412
IL126642 A1	20001121	IL19970126642	19970412
JP2000508754 T2	20000711	JP19970537245T	19970412
US5603344 A	19970218	US19960634291	19960418
WO9739290 A1	19971023	WO1997US06072	19970412

Priority:

US19960634291 19960418 WO1997US06072 19970412

Probable Assignee: JOHN E HALL JR

Assignee(s): (std): HALL JOHN E ; HALL JOHN E JR ; HALL JR JOHN E ; JOHN E HALL JR ; JOHN E JR HALL

Inventor(s): (std): HALL JOHN E ; HALL JOHN E JR ; HALL JR JOHN E ; JOHN E HALL ; JOHN E HALL JR ; JOHN E JR HALL

Agent(s): RICHES MCKENZIE AND HERBERT LLP; WOLFF BREGMAN AND GOLLER

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CH CN CU CZ DE DK EE ES FI FR GB GE GH GR HU IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SZ TJ TM TR TT UA UG US UZ VN

60) Family number: 43196963 (US2009106891A)

© PatBase

Title: APPARATUS FOR DISPLAYING SHOWER OR BATH WATER PARAMETERS

Abstract: The present invention is a display apparatus for affixation to a shower or bath water supply piping or incorporated within a shower, or bath or faucet head, in an aesthetically pleasing format and comprised of fabrication materials e.g., a polymeric or metallic bases with chrome, brass white or colored finishes or combination of these finishes and materials of construction. The display apparatus includes a power generation, CPU or microprocessor, temperature sensor and/or water flow sensors, timing circuits and a display means. The display means can be an analog or digital display or combination of display means. Ergonomically placed buttons can be incorporated into the display means to change parameter units (e.g. metric to US), set alarm conditions (e.g. temperature over set point, time past a set point, flow rate set points). The display means must be able to provide sufficient lighting in shower conditions. In addition, the display means must be able to sustain capability in moist wet conditions. In the embodiment defined by the attached shower display apparatus, know piping joint technology will be used for installation into both new and presently installed shower systems. In the embodiment defined by the display means incorporate into the shower head the shower head/display assembly can also be installed in both new and presently installed shower systems.

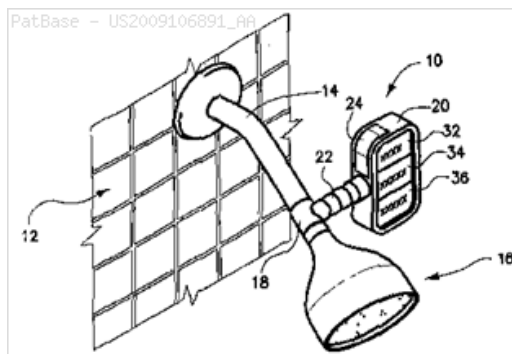
Classifications:

International (IPC 8-9): A47K1/04 A47K1/05 A47K3/00 A47K3/28 B05B1/18 B05B12/00 B05B12/02 B05B12/12 B67D7/08 B67D7/56 E03B7/04 E03B7/07 E03B7/09 E03C1/04 E03C1/06 F16K37/00 G01F1/56 G01F1/68 G01F15/02 G01F15/06 G01F15/075 G01K13/02 G05D23/19 G05D7/06 G06F3/0362 G06F3/0481 G06F3/0482 G06F3/0484 G06F3/0488 G10L15/22 (Advanced/Invention); B05B1/18 (Advanced/Non-invention); A47K3/00 A47K3/28 (Core/Invention)

CPC: G10L15/22 G10L2015/223 E03C1/04 E03B7/071 G01F15/10 Y10T137/86389 B05B12/008 E03B7/04 E03C1/0408 E03C2001/0418 G01F15/024 G01F15/063 G01F15/075 G01F15/0755 G01K13/02 G01K2013/026 G01K2207/00 B05B12/12 E03C1/0404 G01F1/56 G01F1/68 B05B1/18 B05B12/02 Y10T137/8158 G06F3/04847 G06F3/0362 G06F3/0482 G06F3/04817 G06F3/04886 E03B7/07 B05B12/004 Y02A20/218 Y02A20/15

European: B05B12/00S B05B12/00S3D B05B12/02 B05B12/12 E03B7/04 E03B7/07B E03C1/04 E03C1/04E G01F15/02B2 G01F15/06B2 G01F15/075 G01F15/075B G01F15/10 G01K13/02 G10L15/22 L05B1/18 P03C1/04N S01K13/02L S01K207/00 S10L15/22E

US: 1/1 137/551 137/624.11 239/71 239/71P 239/71S 239/74 239/74P 4/597 4/597P 4/601 4/605 4/605P 4/615 4/643 4/678



Family:

Publication number	Publication date	Application number	Application date
US2009106891 AA	20090430	US20070877860	20071024
US2009293189 AA	20091203	US20090539150	20090811
US2011031331 AA	20110210	US20100877094	20100907
US2011068192 AA	20110324	US20100956031	20101130
US2011186154 AA	20110804	US20110986341	20110108
US2011303310 AA	20111215	US20110216497	20110824
US2011303311 AA	20111215	US20110216521	20110824
US2012234409 AA	20120920	US20120491201	20120607
US2012273069 AA	20121101	US20120541819	20120705
US2015224525 AA	20150813	US20150693394	20150422
US2016378322 AA	20161229	US20160163968	20160525
US8347427 BB	20130108	US20110216521	20110824
US8887324 BB	20141118	US20110216497	20110824
US8893320 BB	20141125	US20120491201	20120607
US9061307 BB	20150623	US20090539150	20090811
US9254499 BB	20160209	US20070877860	20071024
US9266136 BB	20160223	US20100877094	20100907

Priority:

US20070877860	20071024	US20090539150	20090811	US20090241111P	20090910
US20100877094	20100907	US20100389709P	20101004	US20100956031	20101130
US20110986341	20110108	US20110216497	20110824	US20110216521	20110824
US20120491201	20120607	US20120541819	20120705	US20150693394	20150422
US20150166067P	20150525	US20160163968	20160525		

Probable Assignee: KLICPERA MICHAEL E**Assignee(s):** (std): KLICPERA MICHAEL ; KLICPERA MICHAEL EDWARD ; LLORENTE DAVID ; SOMERVILLE ALVIS**Assignee(s):** REIN TECH INC ; KLICPERA MICHAEL E**Inventor(s):** (std): KLICPERA MICHAEL ; KLICPERA MICHAEL EDWARD ; SOMERVILLE ALVIS ; LLORENTE DAVID**Agent(s):** MICHAEL E KLICPERA; MICHAEL; MICHAEL EDWARD**61) Family number: 28575968 (US2003097763A)**

© PatBase

Title: COMBINATION DEHYDRATOR AND CONDENSED WATER DISPENSER**Abstract:** A portable, atmospheric dehydrator and water condenser for dehydrating fruits and vegetables while producing pure atmospheric condensation from humidity found in the air and purifying the water for dispensing and drinking purposes.**Classifications:**

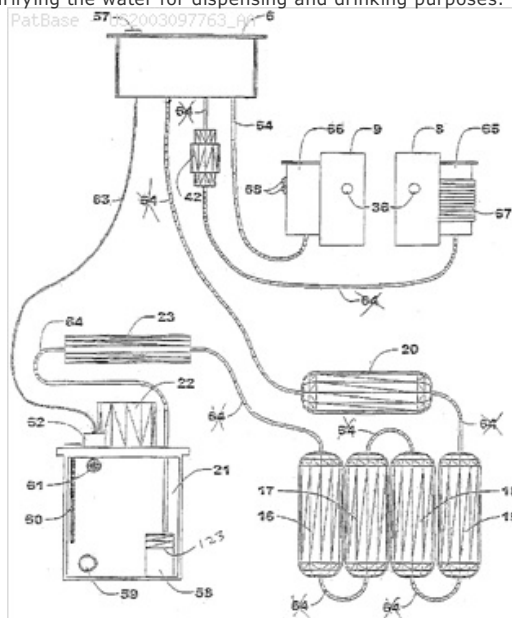
International (ipc 8-9): A23B7/02 C02F1/32 C02F9/10 E03B3/28 F25B39/04 F25D21/14 F26B19/00 F26B21/00 F26B21/08 F26B9/00 F26B9/06 (Advanced/Invention); F25C1/10 (Advanced/Non-invention); C02F1/32 C02F9/08 F25B39/04 F25D21/14 F26B21/00 F26B21/06 F26B9/00 (Core/Invention); F26B (Subclass/Invention)

International (ipc 1-7): A23B7/02 E03B3/28 F25D21/14 F26B F26B19/00 F26B21/06 F26B3/00 F26B7/00

CPC: F25C1/10 F26B9/066 Y02W10/37 F26B9/003 F26B21/001 F26B21/086

European: F26B21/00B F26B21/08C F26B9/00B F26B9/06C R25C1/10

US: 165/61 34/202 34/428 34/468 34/469 34/469P 34/471 34/69 34/71 34/73 34/76 34/20 62/150 62/272 62/291 62/93

**Family:**

Publication number	Publication date	Application number	Application date
AU2003213855 AA	20030929	AU20030213855	20030311
CA2478896 AA	20040910	CA20032478896	20030311
CN1643320 A	20050720	CN20038006900	20030311
MXPA04008899 A1	20060224	MX2004PA08899	20030311
US2003097763 AA	20030529	US20020167966	20020610
US2005160620 AA	20050728	US20030508105	20030311
US2008184720 AA	20080807	US20070739000	20070423
US6931756 BB	20050823	US20020167966	20020610
WO03078909 A1	20030925	WO2003US07632	20030311
ZA200407934 A	20050926	ZA20040007934	20041001
ZA200407934 A	20051130	ZA20040007934	20041001

US20010296472P	20010608
US20020167966	20020610
US20040508105	20040911

US20020363232P	20020312
WO2003US07632	20030311
US20070739000	20070423

US2002036323P 20020312
US20030508105 20030311

Probable Assignee: H20LIQUIDAIR OF FLORIDA LLC

Assignee(s): (std): MICHAEL MORGAN ; MORGAN MICHAEL ; MORGAN JANET

Assignee(s): MORGAN J MICHAEL ; MIKE AND JANET MORGAN LLC ; H20LIQUIDAIR INC ; H20LIQUIDAIR INC (ALSO KNOWN LIQUID AIR INC) AS ; H20LIQUIDAIR INC ALSO KNOWN LIQUID AIR INC AS ; H20LIQUIDAIR OF FLORIDA LLC ; H20LIQUIDAIR OF FLORIDA LLC

Inventor(s): (std): JANET MORGAN ; MICHAEL MORGAN ; MORGAN JANET ; MORGAN MICHAEL

Agent(s): FB RICE; FB RICE PTY LTD; FETHERSTONHAUGH AND CO; KLEINBERG AND LERNER; HUGHES LAW FIRM PLLC

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 CO CR CU CY CZ DE DK DM DZ EC EE 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 NE NL NO OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

62) Family number: 32653993 (US2006085919A)

Title: DYNAMIC CELLULAR PERSON SUPPORT SURFACE

Abstract: A person support surface comprises a multitude of inflatable cells. The cells are inflated and deflated to adjust an interface pressure between the person support surface and a person supported by the surface.

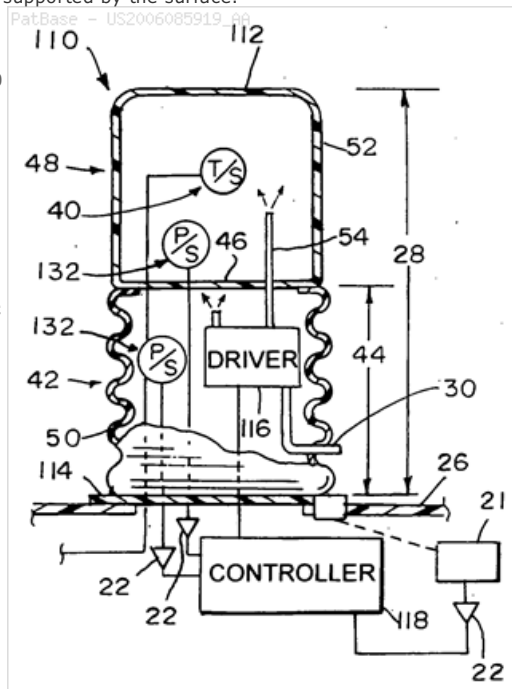
Classifications:

International (p-c 8-9): A47B83/02 A47C1/00 A47C1/02 A47C1/024 A47C1/034 A47C1/035 A47C13/00 A47C16/00 A47C20/00 A47C20/02 A47C20/04 A47C27/08 A47C27/10 A47C27/14 A47C4/00 A47C7/00 A47C7/02 A47C7/14 A47C7/34 A47C7/40 A47C7/50 A47C7/54 A47C7/62 A47C7/68 A47C7/72 A47C7/74 A47K13/00 A47K13/10 A47K17/02 A47K3/28 A47K4/00 A61G12/00 A61G5/00 A61G5/04 A61G5/10 A61G7/00 A61G7/05 A61H15/00 A61H15/02 A61H3/04 A61H7/00 B60K1/02 B60N2/00 B60N2/02 B68G5/00 E03D11/00 E03D11/02 E03D9/08 F16H25/16 (Advanced/Invention); A47C27/10 A47C27/14 (Advanced/Non-invention); A47C1/031 A47C16/00 A47C20/00 A47C27/08 A47C27/10 A47C27/14 A47C4/00 A47C7/00 A47C7/02 A47C7/14 A47C7/40 A47C7/54 A47C7/62 A47C7/72 A61G5/00 A61G7/00 A61G7/05 A61H15/00 A61H7/00 B60N2/00 B60N2/02 B68G5/00 (Core/Invention); A47C27/10 A47C27/14 (Core/Non-invention)

CPC: F16H25/16 Y10S297/10 Y10S180/907 A47C1/022 A47C1/023 A47C1/03 A47C1/035 A47C1/0352 A47C3/38 A47C7/54 A47C7/70 A47C7/72 A47C7/725 A47C7/748 A47C31/008 A61G7/05776 A47C27/082 A47C27/083 A47C27/10 A47C31/126 A61G7/015 A61G7/1021 A61G7/16 A61G2200/32 A61G2200/325 A61G2203/32 A61G2203/34 A61G2203/40 A61G2210/70 A61G2210/90 A61H9/0078 A61H2201/0134 A61H2201/0138 A61H2201/0207 A61H2201/0214 A61H2201/025 A61H2201/1215 A61H2201/1246 A61H2201/149 A61H2201/1664 A61H2201/5002 A61H2201/5061 A61H2201/5071 A61H2201/5082 A61G2203/44 A61G2203/46 Y10T74/18664 A47C7/506 A61G5/0833 A61G5/0891 A61G5/1094 A61G5/125 A61G5/128 A61G7/0527 A61G7/165 A61G5/045 A47C7/62 A47K3/003 A47K3/006 A47K3/122 A47K3/281 A47K3/282 A47K13/10 A47K17/022 A47K17/024 A47K17/026 A61G5/00 A61G5/006 A61G5/042 A61G5/061 A61G5/10 A61G5/1059 A61G5/1075 A61G5/14 A61G7/05 A61G7/1003 A61G7/1007 A61G7/1017 A61G7/1019 A61G7/103 A61G7/1034 A61G7/1038 A61G7/1046 A61G7/1059 A61G7/1088 A61G7/1094 A61G2200/34 A61G2200/36 A61G2200/52 A61G2203/14 A61H2003/043 A61H2201

European: A47C1/022 A47C1/023 A47C1/029 A47C1/03 A47C1/032 A47C1/035 A47C1/035B A47C1/035D A47C1/036 A47C27/08A4 A47C27/08A6 A47C27/10 A47C3/38 A47C31/00R A47C31/12C A47C7/02B A47C7/50 A47C7/54 A47C7/62 A47C7/70 A47C7/72 A47C7/72B A47C7/74H A47K13/10 A47K17/02B A47K17/02B1 A47K17/02D A47K3/00B2 A47K3/00C A47K3/12A A47K3/28B A47K3/28B1 A61G5/00 A61G5/04A2 A61G5/04A6 A61G5/06A A61G5/10 A61G7/015 A61G7/057K1 A61G7/10N6 A61G7/10N8 A61G7/10P4 A61G7/10P8 A61G7/10S6 A61G7/10T10 A61G7/10Z10C A61G7/10Z10F B66B9/08B B66B9/08B1 B66B9/08D K61G200/32 K61G200/32B K61G200/34 K61G200/36 K61G200/52 K61G203/14 K61G203/32 K61G203/34 K61G203/40 K61G210/70 K61G210/90 K61G5/00C K61G5/04A6 K61G5/08A4 K61G5/08R K61G5/10S14 K61G5/10S2 K61G5/10Z7 K61G5/12E K61G5/12H K61G5/14 K61G7/05 K61G7/05W1 K61G7/10A2 K61G7/10A6 K61G7/10N4 K61G7/10N6 K61G7/10N8 K61G7/10P4 K61G7/10P8 K61G7/10R K61G7/10T10 K61G7/10Z10C K61G7/10Z10F K61G7/16 K61G7/16A K61H201/01J K61H3/04A

US: 180/200 180/21 180/65.1 180/65.100S 180/907 187/200 224/407 224/407S 280/250.1 280/304.1 280/304.100P 297/116
297/144 297/144P 297/173 297/180.1 297/180.100S 297/180.14 297/180.140S 297/188.14 297/188.19 297/217.1
297/217.100S 297/217.4 297/217.400S 297/217.6 297/217.600S 297/284.1 297/284.100S 297/284.11 297/284.3
297/284.300P 297/29 297/29P 297/312 297/338 297/344.12 297/354.1 297/354.13 297/362.12 297/362.13 297/411.3
297/411.300S 297/411.32 297/411.320S 297/411.36 297/411.37 297/423.19 297/423.34 297/423.36 297/68 297/DIG.1
297/DIG.10 340/573.1 340/573.100S 5/709 5/710 5/710S 5/713 5/713P 5/714 601/148 601/148P 74/89.34



Family:

Publication number	Publication date	Application number	Application date
AU2005277503 AA	20060302	AU20050277503	20050816
AU2005277535 AA	20060302	AU20050277535	20050816
AU2005277594 AA	20060302	AU20050277594	20050816
EP1788912 A2	20070530	EP20050786750	20050816
EP1789278 A2	20070530	EP20050790116	20050816
EP1802219 A2	20070704	EP20050790108	20050816
JP2008509790 T2	20080403	JP20070527917T	20050816
JP2008509793 T2	20080403	JP20070527936T	20050816
JP2008514243 T2	20080508	JP20070527967T	20050816
US2006085919 AA	20060427	US20050204632	20050816
US2006087097 AA	20060427	US20050204633	20050816
US2006087158 AA	20060427	US20050204609	20050816

US2009236165 AA	20090924	US20090472220	20090526
US2010022926 AA	20100128	US20090575182	20091007
US2011163575 AA	20110707	US20110046812	20110314
US2012043794 AA	20120223	US20110286528	20111101
US2013099546 AA	20130425	US20120708419	20121207
US7409735 BB	20080812	US20050204632	20050816
US7537069 BB	20090526	US20050204633	20050816
US7600817 BB	20091013	US20050204609	20050816
US7905306 BB	20110315	US20090472220	20090526
US8328283 BB	20121211	US20090575182	20091007
US8414074 BB	20130409	US20110286528	20111101
US8419124 BB	20130416	US20110046812	20110314
US8662595 BB	20140304	US20120708419	20121207
WO06023447 A2	20060302	WO2005US28992	20050816
WO06023447 A3	20070419	WO2005US28992	20050816
WO06023479 A2	20060302	WO2005US29075	20050816
WO06023479 A3	20071206	WO2005US29075	20050816
WO06023479 C1	20070329	WO2005US29075	20050816
WO06023539 A2	20060302	WO2005US29229	20050816
WO06023539 A3	20090409	WO2005US29229	20050816

Priority:

US20040601924P 20040816	US20040611407P 20040920	US20050643321P 20050112
US20050659540P 20050308	US20050204609 20050816	US20050204632 20050816
US20050204633 20050816	WO2005US29229 20050816	WO2005US29075 20050816
WO2005US29075 20050816	WO2005US29229 20050816	WO2005US28992 20050816
US20090472220 20090526	US20090575182 20091007	US20110046812 20110314
US20110286528 20111101	US20120708419 20121207	

Probable Assignee: HILL ROM SERVICES INC

Assignee(s): (std): DAVID SCHWANEMANN ; DAVID ULRICH ; DANIEL ULRICH ; DOUGLAS BORGMAN ; DAHNEKE MARSHALL S ; KRAMER KENNETH L ; GANANCE FRANCIS C ; HARDY RUSSELL L ; MILLER JOHN D ; GAAG FRANZ ; KOLOSKI PETER A ; LOTHROP THORNTON K ; GAAG FRANZ R ; MARSHALL DAHNEKE ; KENNETH KRAMER ; JOHN BIONDO ; JOHN MILLER ; HILL ROM SERVICES INC ; ACTON TROY D ; BERGER RYAN R ; BIONDO JOHN P ; BORGMAN DOUGLAS E ; SCHWANEMANN DAVID T ; SCHULTZ SCOTT A ; ULRICH DAVID J ; ULRICH DANIEL J ; TEUFEL RAINER B ; REED WILCOX ; THORNTON LOTHROP ; RAINER TEUFEL ; PETER KOLOSKI ; RYAN BERGER ; WILCOX REED N

Assignee(s): FRANZ GAAG ; HILL ROM SERVICES INC INDIANA CORP ; HILL ROM SERVICES INC INDIANA CORPORATION ; HILL ROM SERVICES INC (INDIANA CORPORATION) ; JPMORGAN CHASE BANK NA COLLATERAL AGENT AS

Inventor(s): (std): ACTON TROY D ; BERGER RYAN R ; BIONDO JOHN P ; BORGMAN DOUGLAS E ; DAHNEKE MARSHALL S ; HARDY RUSSELL L ; GAAG FRANZ ; GAAG FRANZ R ; GANANCE FRANCIS C ; KOLOSKI PETER A ; KRAMER KENNETH L ; MILLER JOHN D ; LOTHROP THORNTON K ; SCHWANEMANN DAVID T ; TEUFEL RAINER B ; SCHULTZ SCOTT A ; ULRICH DANIEL J ; ULRICH DAVID J ; WILCOX REED N

Inventor(s): ACTON TROY ; WILCOX REED ; ULRICH DAVID ; SCHWANEMANN DAVID ; THORNTON K LOTHROP ; TROY D ACTON ; ULRICH DANIEL ; SCOTT A SCHULTZ ; TEUFEL RAINER ; MARSHALL S DAHNEKE ; MILLER JOHN ; PETER A KOLOSKI ; RAINER B TEUFEL ; REED N WILCOX ; RUSSELL L HARDY ; RYAN R BERGER ; SCHULTZ SCOTT ; LOTHROP THORNTON ; KRAMER KENNETH ; HARDY RUSSELL ; GANANCE FRANCIS ; JOHN D MILLER ; JOHN P BIONDO ; KENNETH L KRAMER ; KOLOSKI PETER ; DANIEL J ULRICH ; DAVID J ULRICH ; DAVID T SCHWANEMANN ; DOUGLAS E BORGMAN ; FRANCIS C GANANCE ; FRANZ GAAG ; DAHNEKE MARSHALL ; BORGMAN DOUGLAS ; BIONDO JOHN ; BERGER RYAN

Agent(s): SHELSTON IP; SHELSTON IP PTY LTD; ISSHIKI AND CO; BARNES AND THORNBURG; BARNES AND THORNBURG LLP

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 KM KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG 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