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[EPODOC: SS 10] 6

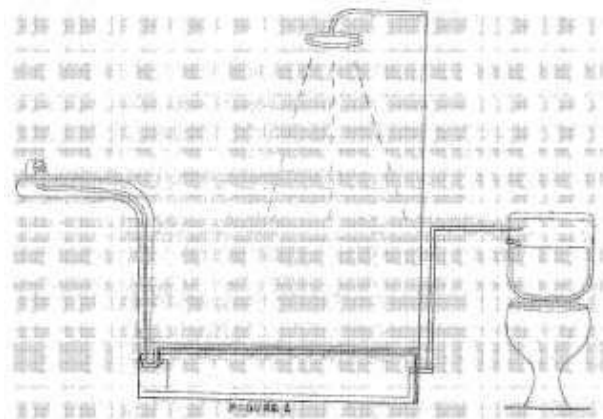
Results in EPODOC 22

[SS 11] ..li



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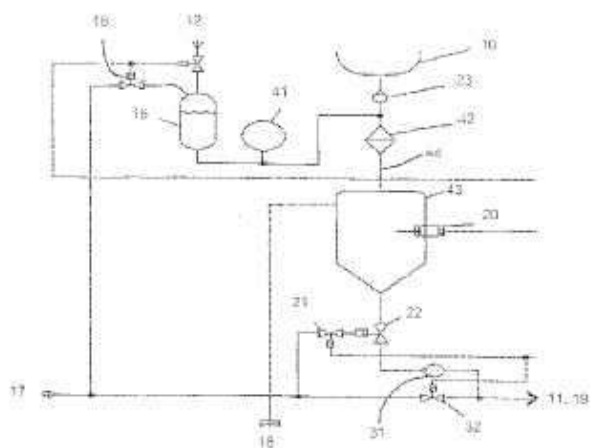
- PN - [GB2524715](#) A 20151007
- PR - GB20140001402 20140128
- AP - GB20140001402 20140128
- DT - *; Rep
- CT - || STSE (A)
[GB2488554](#) A 20120905 [] (SMIRNOVA POLINA [GB]);
[GB2440742](#) A 20080213 [] (GIBSON ALAN [GB]);
[DE102007030938](#) A1 20090108 [] (INTEWA INGENIEUR GES FUER EN U [DE])
- CCI - [E03B1/041](#) ; [E03C1/01](#)
- CNOI - [E03B1/041](#) ; [E03C1/02](#)
- CCA - [E03C1/14](#) ; [E03B2001/045](#) ;
[Y02A20/302](#) ; [Y02A20/148](#) ;
[Y02A20/304](#)
- PA - MANCINI FRANCESCA [GB]
- TI - Integrated washbasin and **shower gray water** recycling system for flushing the toilet
- AB - An integrated washbasin and **shower** unit comprising a waterfall washbasin and a waterfall **shower** tray which convey **gray water** into the **shower** base / container and it is used to flush the toilet. The **gray water**



collected inside the **shower** base, equipped with a filter, a pump and a UV light, is sent to the toilet cistern when flushing the toilet by means of a float switch allocated into the cistern.

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PN - [EA201290756](#) A1 20130228
 PNFP - EA024117 B1 20160831
 PR - DE20101007115
 20100205; WO2011EP51692
 20110204
 AP - EA20120090756 20110204
 DT - I
 CT - || STSE (B1)
[DE10229799](#) A1 20040129 [
] (AIRBUS GMBH [DE]);
[CA2285808](#) A1 20010413 [
] (LEBLANC PAUL [CA]);
[EP1690789](#) A2 20060816 [
] (AIRBUS GMBH [DE]);
[FR2498656](#) A1 19820730 [
] (HYCO AULAS [FR]);
[US5520805](#) A 19960528 [
] (MAJOLA TAUNO [FI])
 CCI - [E03B1/042](#) ; [E03B7/074](#)
 CCA - [E03B2001/045](#) ;
[Y02A20/302](#) ; [Y02A20/148](#)
 PA - (B1)
 EVAC GMBH [DE]
 TI - (B1)
 FLUSHING **WATER**CONTAINER
 SYSTEM FOR FLUSHING **WATER**
 OF A MOBILE TOILET
 AB - (B1)
 Flushing **water** container
 system for flushing **water** of a
 mobile toilet (11), in
 particular a mobile vacuum
 toilet (11), comprising a
 flushing **water** container (43)
 having a flushing **water**
 container inflow (44),
 characterized in that the
 flushing **water** container (43)
 is designed to receive **gray**
water from a basin (10),
 which is in particular a hand
 wash basin or a **shower** wash



basin, and a metering device (41) is provided, which is fluidically connected to the flushing **water** container (43) and designed to treat the **gray water** by feeding a lime-dissolving and/or bactericidal treatment agent, wherein the flushing **water** container (43) is designed to release the treated **gray water** as flushing **water** to the mobile toilet (11).

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PN - **US2013036539** A1 20130214

PNFP - US9428887 B2 20160830

PR - DE20101007115
20100205; WO2011EP51692
20110204

AP - US201113576981 20110204

DT - **

CT - || R141 (A1)
US2004045910 A1 20040311
 [] (HOFFJANN CLAUS [DE], et
 al);

US2005015870 A1 20050127
[] (BRINGMANN DONALD
[US]);

US4284500 A 19810818 [] (KECK DAVID R);

US4303376 A 19811201 [
] (SIEKMANN REM);

US5035011 A 19910730 [
] (ROZENBLATT MIKE M [US],
et al);

US5106493 A 19920421 [
] (MCINTOSH TODD [US]);

US5147532 A 19920915 [] (LEEK JR KENNETH F [US]);

[US5611465](#) A 19970318 [
] (LEE KUO-CHOU [TW], et al);

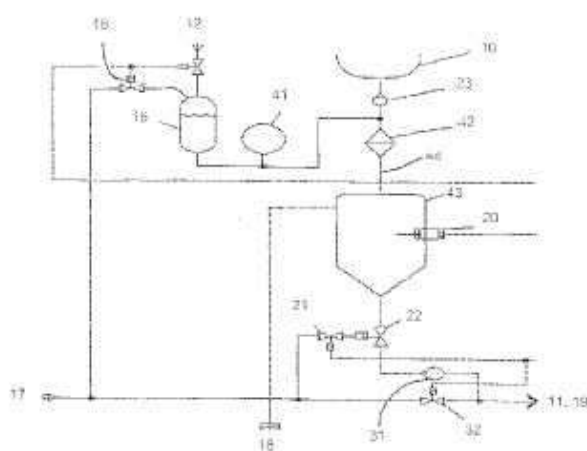
US5937455 A 19990817 [
] (DONATI WILLIAM R [US]);

US7422121 B2 20080909 [] (STADELMANN HEINZ W [FR]);

US2012091050 A1 20120419
[] (PARKINSON DAVID J [GB],
et al):

GB2460144 A 20091125 [
] (AQUACYC LTD [HK])

- || STSE (B2)



[US4284500](#) A 19810818 [
] (KECK DAVID R);
[US4303376](#) A 19811201 [
] (SIEKMANN REM);
[US5035011](#) A 19910730 [
] (ROZENBLATT MIKE M [US],
 et al);
[US5106493](#) A 19920421 [
] (MCINTOSH TODD [US]);
[US5147532](#) A 19920915 [
] (LEEK JR KENNETH F [US]);
[US5611465](#) A 19970318 [
] (LEE KUO-CHOU [TW], et al);
[US5937455](#) A 19990817 [
] (DONATI WILLIAM R [US]);
[US7422121](#) B2 20080909 [
] (STADELMANN HEINZ W [FR]);
[US2004045910](#) A1 20040311
 [] (HOFFJANN CLAUS [DE], et
 al);
[US2005015870](#) A1 20050127
 [] (BRINGMANN DONALD
 [US]);
[US2012091050](#) A1 20120419
 [] (PARKINSON DAVID J [GB],
 et al);
[GB2460144](#) A 20091125 [
] (AQUACYC LTD [HK])

CCI - [E03B1/042](#) ; [E03B7/074](#)
 CCA - [E03B2001/045](#) ;
[Y02A20/302](#) ; [Y02A20/148](#)
 PA - (A1)
 ZAHIR TARIQ [DE]; WENDT
 TOBIAS [DE]; BOTH DETLEV [DE]
 - (B2)
 ZAHIR TARIQ [DE]; WENDT
 TOBIAS [DE]; BOTH DETLEV
 [DE]; EVAC GMBH [DE]
 TI - (A1)
 FLUSHING **WATER** CONTAINER
 SYSTEM FOR FLUSHING **WATER**
 OF A MOBILE TOILET
 - (B2)
 Flushing **water** container
 system for flushing **water** of a
 mobile toilet
 AB - (A1 B2)
 A flush **water** container
 system for the flush **water** of
 a mobile toilet (11), in
 particular of a mobile
 vacuum toilet (11),

comprising a flush **water** container (43) having a flush **water** container inflow (44), characterized in that the flush **water** container (43) is designed to receive **gray water** from a washbasin (10), which in particular is a wash hand basin or a **shower** washbasin, and a metering device (41) is provided, which is in fluidic communication with the flush **water** container (43) and is designed to treat the **gray water** by feeding a descaling and/or bactericidal treatment agent, wherein the flush **water** container (43) is designed to release the treated **gray water** as flush **water** to the mobile toilet (11).

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PN - [CN102782222](#) A 20121114

PNFP - CN102782222B B 20141210

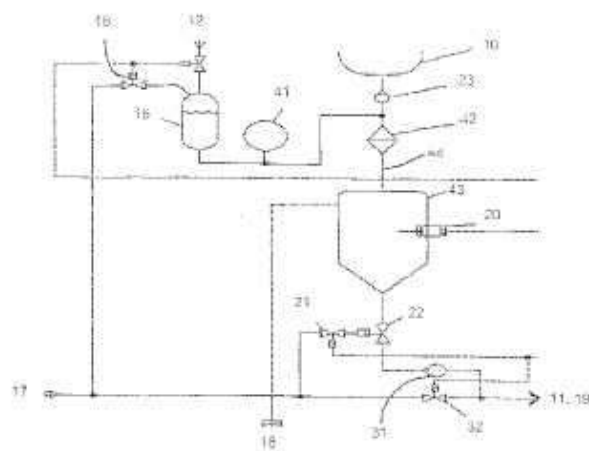
PR - WO2011EP51692
20110204; DE20101007115
20100205

AP - CN2011808521 20110204

DT - I

CT - || STSE (A)
[FR2498656](#) A1 19820730
[Y] (HYCO AULAS [FR])
[Y] 11、13-15;
[US5520805](#) A 19960528
[A] (MAJOLA TAUNO [FI])
[A] 1-15;
[EP1690789](#) A2 20060816
[A] (AIRBUS GMBH [DE])
[A] 1-15;
[CN200971529Y](#) Y 20071107
[XY] (XIAO SHUXUN [CN])
[X] 1-11、13-15
[Y] 1-11、13-15;
[US2004045910](#) A1 20040311
[Y] (HOFFJANN CLAUS [DE], et
al)
[Y] 5-11、15

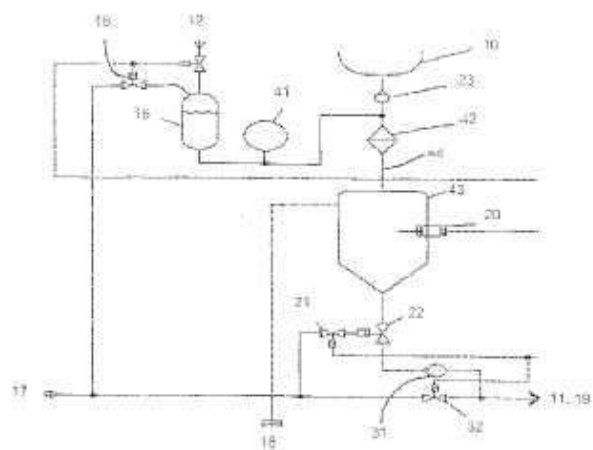
CCI - [E03B1/042](#) ; [E03B7/074](#)



CCA	- E03B2001/045 ; Y02A20/302 ; Y02A20/148
PA	- (A B) EVAC GMBH
TI	- (A B) Flushing water container system for flushing water of a mobile toilet
AB	- (A) Flushing water container system for flushing water of a mobile toilet (11), in particular a mobile vacuum toilet (11), comprising a flushing water container (43) having a flushing water container inflow (44), characterized in that the flushing water container (43) is designed to receive gray water from a basin (10), which is in particular a hand wash basin or a shower wash basin, and a metering device (41) is provided, which is fluidically connected to the flushing water container (43) and designed to treat the gray water by feeding a lime- dissolving and/or bactericidal treatment agent, wherein the flushing water container (43) is designed to release the treated gray water as flushing water to the mobile toilet (11).

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PN	- CA2789121 A1 20110811
PNFP	- CA2789121 C 20180320
PR	- DE20101007115 20100205; WO2011EP51692 20110204
AP	- CA20112789121 20110204
DT	- I
CCI	- E03B1/042 ; E03B7/074
CCA	- E03B2001/045 ; Y02A20/302 ; Y02A20/148
PA	- (A1 C) EVAC GMBH [DE]



- TI - (A1 C)
FLUSH **WATER** CONTAINER
SYSTEM FOR FLUSH **WATER**
FOR A MOBILE TOILET
- AB - (A1)
Flushing **water** container
system for flushing **water** of a
mobile toilet (11), in
particular a mobile vacuum
toilet (11), comprising a
flushing **water** container (43)
having a flushing **water**
container inflow (44),
characterized in that the
flushing **water** container (43)
is designed to receive **gray**
water from a basin (10),
which is in particular a hand
wash basin or a **shower** wash
basin, and a metering device
(41) is provided, which is
fluidically connected to the
flushing **water** container (43)
and designed to treat the **gray**
water by feeding a lime-
dissolving and/or
bactericidal treatment agent,
wherein the flushing **water**
container (43) is designed to
release the treated **gray water**
as flushing **water** to the
mobile toilet (11).
- (C)
A flush **water** container
system for the flush **water** of
a mobile toilet (11), in
particular of a mobile
vacuum toilet (11),
comprising a flush **water**
container (43) having a
flush **water** container inflow
(44), characterized in that the
flush **water** container (43) is
designed to receive **gray**
water from a washbasin (10),
which in particular is a wash
hand basin or a **shower**
washbasin, and a metering
device (41) is provided, which
is in fluidic communication
with the flush **water**
container (43) and is
designed to treat the **gray**

water by feeding a descaling and/or bactericidal treatment agent, wherein the flush **water** container (43) is designed to release the treated **gray water** as flush **water** to the mobile toilet (11).

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PN - [WO2011095611](#) A1 20110811

PR - DE20101007115 20100205

AP - WO2011EP51692 20110204

DT - **

CT - |EP| ISR (A1)

[DE10229799](#) A1 20040129

[IDY] (AIRBUS GMBH [DE])

[ID] 1,3,4,6-10,13-15

* the whole document *

[Y] 1-9,11,13-15;

[CA2285808](#) A1 20010413

[XY] (LEBLANC PAUL [CA])

[X] 1,3,4,9,13-15

* the whole document *

[Y] 2,11;

[EP1690789](#) A2 20060816

[Y] (AIRBUS GMBH [DE])

[Y] 1-9,13-15

* the whole document *;

[FR2498656](#) A1 19820730

[Y] (HYCO AULAS [FR])

[Y] 11

* the whole document *;

[US5520805](#) A 19960528

[A] (MAJOLA TAUNO [FI])

[A] 12

* the whole document *

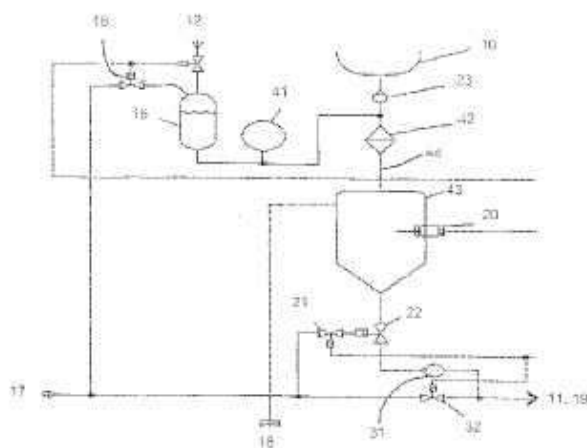
CCI - [E03B1/042](#) ; [E03B7/074](#)

CCA - [E03B2001/045](#) ;
[Y02A20/302](#) ; [Y02A20/148](#)

PA - EVAC GMBH [DE]; ZAHIR TARIQ [DE]; WENDT TOBIAS [DE]; BOTH DETLEV [DE]

TI - FLUSHING **WATER**CONTAINER SYSTEM FOR FLUSHING **WATER** OF A MOBILE TOILET

AB - Flushing **water** container system for flushing **water** of a mobile toilet (11), in particular a mobile vacuum toilet (11), comprising a



flushing **water** container (43)
 having a flushing **water**
 container inflow (44),
 characterized in that the
 flushing **water** container (43)
 is designed to receive **gray**
water from a basin (10),
 which is in particular a hand
 wash basin or a **shower** wash
 basin, and a metering device
 (41) is provided, which is
 fluidically connected to the
 flushing **water** container (43)
 and designed to treat the **gray**
water by feeding a lime-
 dissolving and/or
 bactericidal treatment agent,
 wherein the flushing **water**
 container (43) is designed to
 release the treated **gray water**
 as flushing **water** to the
 mobile toilet (11).

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PN - [CN201688716U](#) U 20101229

PR - CN20102216485U 20100607

AP - CN20102216485U 20100607

DT - I

CCA - [Y02P10/283](#) ; [Y02P70/34](#) ; [Y02P80/152](#)

PA - LUOYANG BLUE SEA IND CO LTD

TI - Low-temperature flue gas waste heat utilization apparatus containing
 desulphurization technology

AB - The utility model discloses a low-temperature flue gas waste heat utilization
 apparatus containing desulphurization technology, principally composed a **shower**
 and a sprayer head (3), a rotary tube bundle heat exchanger (4), a **water** spray
 circulation pump (7), and a **water** pool (10), wherein the rotary tube bundle heat
 exchanger is provided between the air flue (2) between the boiler or furnace kiln flue
 gas draught fan and the chimney, a **shower** and a sprayer head are provided at the
 upper part and lower part of the rotary type tube bundle heat exchanger, a **water**
 pool is provided at the lower part of the rotary type tube bundle heat exchanger,
 the **shower** is communicated to the **water** pool through the **water** spray circulation
 pump to constitute a circulation loop. By a mode of combine desulphurization with
 low-temperature flue gas waste heat utilization, the low-temperature condensation
 corrosion and viscosity **gray** scale problem produced thereby can be effectively
 resolved, to achieve the objective of waste heat recovery applications and
 simultaneously performing desulphurization processing to the flue gas.

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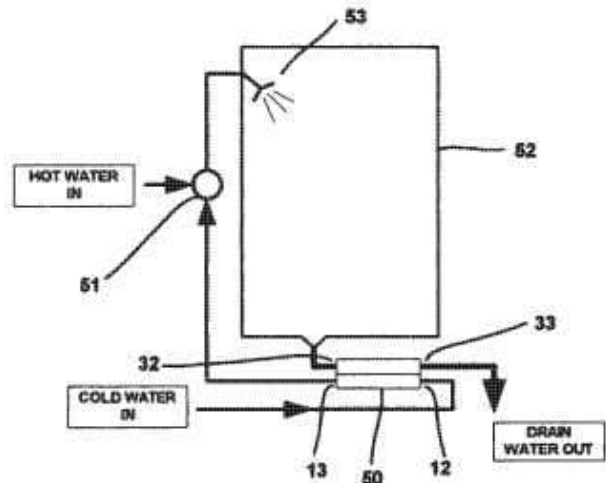
PN - [CA2652143](#) A1 20090828

PR - US20080067269P 20080228

AP - CA20092652143 20090219
DT - I
CCI - [E03B1/041](#) ; [E03B1/042](#)
CCA - [E03B2001/045](#) ; [E03B2001/047](#) ; [Y02A20/108](#) ; [Y02A20/148](#) ; [Y02A20/304](#)
PA - DANGERFIELD BRUCE D [CA]
TI - GREY **WATER** RECYCLING SYSTEM
AB - The invention as presently conceived discloses a system and method by which waste (**gray**) **water** from bathtubs and showers can be stored, filtered, and reused for irrigation, washing of vehicles and can also be redirected for use by toilet and similar applications. The system utilizes a separate drainpipe from the bathtub and **shower** and gravity routes the **gray water** through a filtration and treatment system that is connected to a storage tank. The treated **gray water** is stored in the tank until needed. When needed, a separate supply system powered through a pump delivers the **water** for non-drinking or cooking uses. The pump is controlled by pressure switch that would automatically activate when a valve in the supply system is opened.

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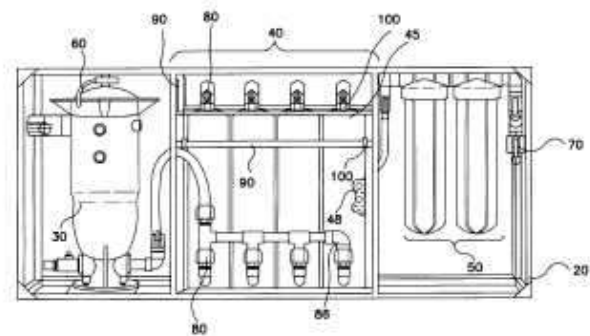
PN - [US2008257535](#) A1 20081023
PR - US20080148735
20080421; US20070925635P
20070423
AP - US20080148735 20080421
DT - *; Rep
CT - || R141 (A1)
[US941215](#) A 19091123 [
] (WADE GEORGE H [US]);
[US2565816](#) A 19510828 [
] (JONES SAM P);
[US3882934](#) A 19750513 [
] (KNOOS STELLAN, et al);
[US3912003](#) A 19751014 [
] (SCHRADE JEAN);
[US4304292](#) A 19811208 [
] (CARDONE JEREMIAH V, et
al);
[US4343349](#) A 19820810 [
] (BUSCH JR CHARLES H);
[US4454911](#) A 19840619 [
] (ARBABIAN MORTEZA [US]);
[US4524822](#) A 19850625 [
] (HAGE MANFRED [DE], et al);
[US5165466](#) A 19921124 [
] (ARBABIAN MORTEZA);
[US2001004009](#) A1 20010621
[] (MACKELVIE WINSTON
[CA]);
[JPS558526](#) A 19800122 [
] (MATSUSHITA ELECTRIC
WORKS LTD);
[DE3717720](#) A1 19871217 [
]



- CCI -] (BAUAKADEMIE DDR [DD])
 - [E03C1/00](#) ; [F24D17/0005](#) ;
[F28D15/0275](#)
- CCA - [Y02B30/566](#) ; [F28D21/0012](#) ;
[F24D2200/20](#) ; [F28F2255/14](#) ;
[Y02A20/302](#)
- TI - **Shower** trap heat recovery apparatus
- AB - A plurality of isolated heat pipe cells (21) are in serial thermal communication with counter-flowing drain **gray water** discharge channel (31) and cold **water** supply channel (11) in a compact plastic-molded assembly.

10/22 © EPODOC / EPO

- PN - [US5972216](#) A 19991026
- PR - US19970957119 19971024
- AP - US19970957119 19971024
- DT - *; Rep
- CT - || STSE (A)
[US3182803](#) A 19650511 [] (CHISHOLM JAMES R);
[US3420709](#) A 19690107 [] (BARRETT HAROLD E JR, et al);
[US4383920](#) A 19830517 [] (MULLER RICHARD S, et al);
[US4448695](#) A 19840515 [] (GORDON JR EDWARD C [US], et al);
[US4642192](#) A 19870210 [] (HESKETT DON E [US]);
[US4659460](#) A 19870421 [] (MULLER RICHARD S [US], et al);
[US5059317](#) A 19911022 [] (MARIUS DIETRICH [AT], et al);
[US5122274](#) A 19920616 [] (HESKETT DON E [US]);
[US5135654](#) A 19920804 [] (HESKETT DON E [US]);
[US5198118](#) A 19930330 [] (HESKETT DON E [US]);
[US5244579](#) A 19930914 [] (HORNER KENNETH J [CA], et al);
[US5269932](#) A 19931214 [] (HESKETT DON E [US]);

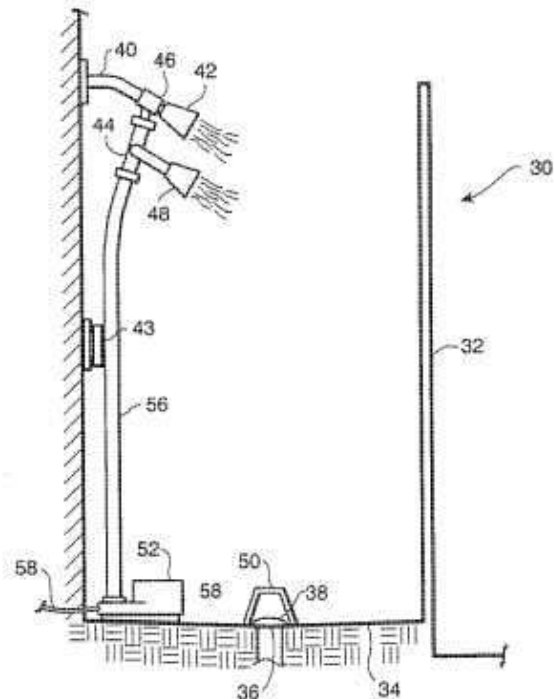


- [US5300224](#) A 19940405 [
] (FARLEY FREDERICK A [US]);
[US5415770](#) A 19950516 [
] (HESKETT DON E [US]);
[US5547584](#) A 19960820 [
] (CAPEHART JIMMIE D [US]);
[US5632892](#) A 19970527 [
] (KLEIN KIM C [US])
- CCI - [C02F9/005](#)
- CCA - [C02F1/001](#) ; [C02F1/283](#) ;
[C02F1/42](#) ; [C02F1/441](#) ;
[Y02A20/214](#)
- PA - TERRA GROUP INC [US]
- TI - Portable multi-functional
modular **water** filtration unit
- AB - A portable multi-functional
modular **water** filtration unit
having configurable modules
that can be adapted to render
environmental **water** potable
or to isolate contaminants
from groundwater or **water**
from other sources such as
backwash from reverse
osmosis **water** purification
units (ROWPU) or **shower** and
laundry **water** ("**gray water**")
such that the **water** may be
recycled or discharged in full
compliance with applicable
laws. Plural treatment tanks
as well as inlet and outlet
filters are coupleable via
pressure gauge bearing quick
connect fittings in series and
parallel arrangements, to
allow changes of filter
elements (for replacement or
substitution of a different
active material) and to
accommodate flow in
filtration arrays. The **water**
purification system
specifically addresses the
changing **water** purifying
needs that arise during troop
deployment, training and
maneuvers, disaster relief
and environmental cleanup.

- PR - US20010928481 20010814; US20010266438P 20010206
- AP - US20010928481 20010814
- DT - *
- CT - [US1636186](#) A []; [US1844038](#) A [];
[US2188213](#) A []; [US2852784](#) A [];
[US3629875](#) A []; [US5277209](#) A [];
[US5774908](#) A []; [US6049919](#) A []
- CCI - [H02G3/14](#) ; [A47K3/325](#)
- TI - Portable **shower** apparatus
- AB - A portable **shower** is collapsible so that it takes up a relatively small amount of space when not in use. The portable **shower** has a top member, a bottom member, a **shower** curtain, a supply **water** tank, and a disposal **water** tank. Pumps are provided for the supply **water** tank and the disposal **water** tank, which are powered by vehicle power connected via a cigarette lighter adapter in order to heat the **water** and to run the pumps for the portable **shower**. In the collapsed condition, the top member and the bottom member of the portable **shower** are fitted together to enclose the supply **water** tank, the **shower** curtain, and the disposal **water** tank. The top member and the bottom member are releasably secured together by latches in the closed condition. In an open condition, the top member and the bottom member are pulled apart, and supported from above. Alternately, at least one support rod is placed between the bottom member and the top member, in the open position. The supply **water** tank is heated by the sun, or provided with **water** and heated using power from the vehicle via the cigarette lighter adapter. The **water** is pumped from the supply **water** tank to the top member, and used **water** (**gray water**) is collected by the bottom member. The used **water** is then pumped to the disposal **water** tank, for later disposal at a remote **gray water** disposal location.

12/22 © EPODOC / EPO

- PN - [US5353448](#) A 19941011
- PR - US19920906418 19920630
- AP - US19920906418 19920630
- DT - *
- CT - [US2308452](#) A []; [US3341865](#) A [];
[US3606618](#) A []; [US3717142](#) A [];
[US4224700](#) A []; [US4893364](#) A [];
[US5165456](#) A []; [FR2432292](#) A1 [];
[FR2565811](#) A1 []
- CCI - [E03C1/00](#) ; [E03C1/06](#)
- PA - LEE GARY M [US]
- TI - **Water** recycling system using spent recycled **water** with fresh **water**
- AB - A **water** recycling system primarily adapted for use in **shower** facilities enabling the user to increase both the



time duration of a **shower** and the quantity of **water** experienced by a user, by maintaining **water** in a semi-closed system, while both maintaining **water** and energy conservation. The system preferably operates with fresh and recirculated hot **water**. The system utilizes spent hot **shower water** located in the catchment area of a **shower** or tub and recycles this **water** to one or more spray heads located at or in the proximity of the regular **water** dispensing head or so-called "spray head" of that **shower**. A selected **water** temperature can be maintained by periodically introducing fresh **water** or continuously introducing the fresh **water** at a very low flow rate from a fresh **water** source, and mixing that **water** with the recycled **water** from a **water** catchment area.

Recycled **water** can also be reheated and issued again. The apparatus of the system may be provided with an adapter for quick connect and disconnect such that the apparatus can be moved from **shower** to **shower**. A manifold forming part of the apparatus includes a check valve arrangement to preclude **gray water** or spent hot **water** from entering into the **water** supply system.

PN - [US2003009954](#) A1 20030116

PR - US20010903558 20010713

AP - US20010903558 20010713

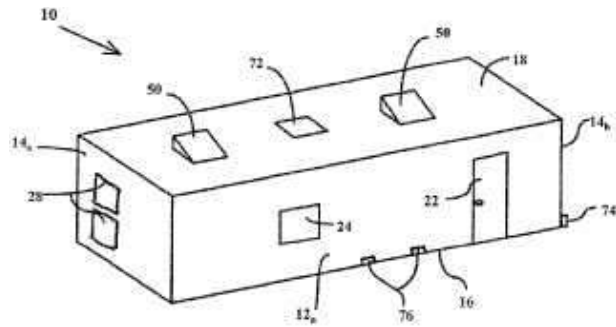
DT - *

CCI - [E04H1/1205](#)

CCA - [E04H2001/1283](#)

TI - Self-contained transportable dwelling

AB - A self-contained, portable dwelling fabricated from a cargo container is described. The dwelling includes windows and a door in its walls and a plurality of solar panels on the roof. The solar panels collect solar power, which is transferred to storage batteries. The solar panels, storage batteries, and a power inverter make up a self-contained electrical system for the dwelling. The dwelling includes a self-contained sewage and **water** system including a black **water** tank, a **gray water** tank, a potable **water** storage tank, a toilet, a **shower**, and a sink. Various electrical appliances, such as an air conditioner, microwave, refrigerator, may be included. Further, a solar powered exhaust fan and a skylight may be included. The dwelling includes International Standards Organization (ISO) locking devices to allow transport on ISO compliant transporting vehicles.



PN - [US5243719](#) A 19930914

PR - US19920820476 19920114

AP - US19920820476 19920114

DT - *; Rep

CT - || STSE (A)
[US3112497](#) A 19631203 [
] (CALL ROYAL G);
[US3183525](#) A 19650518 [
] (O'BRIEN ROBERT F, et al);
[US3318449](#) A 19670509 [
] (JENNINGS CLYDE E, et al);
[US3543294](#) A 19701124 [
] (BOESTER CARL F);
[US3594825](#) A 19710727 [
] (REID JAMES S);
[US4030144](#) A 19770621 [
] (ALEMAN AUGUSTOCUEVAS);
[US4162218](#) A 19790724 [
] (MCCORMICK GERALD L [US]);
[US4197597](#) A 19800415 [
] (TOMS ED P [US]);
[US4349436](#) A 19820914 [
] (KAUMP ROLAND F);
[US4924536](#) A 19900515 [
] (HOUGHTON CONNIE H [US]);
[US5106493](#) A 19920421 [
] (MCINTOSH TODD [US]);
[DE3434267](#) A1 19860327 [
] (GEBERT ARNE);
[DE3722240](#) A1 19880310 [
] (ROTHBERG SIMONE [DE]);
[DE3828528](#) A1 19900301 [
] (HASSE HELMUTH [DE], et al);
[DE3932022](#) A1 19901122 [
] (GREDIGK HANS WERNER [DE])

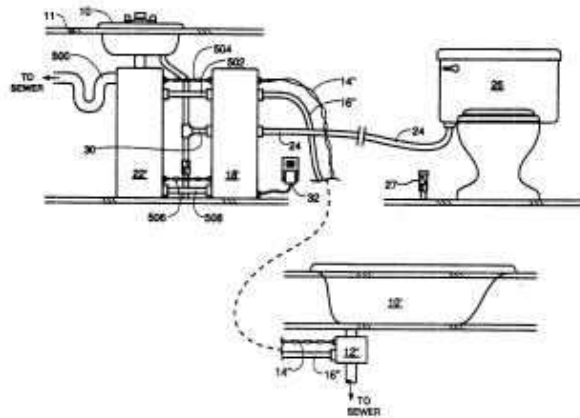
CCI - [E03B1/04](#)

CCA - [E03B2001/045](#) ;
[Y02A20/302](#) ; [Y02A20/148](#) ;
[Y02A20/304](#)

PA - MCDONALD JOHN R [US];
 HENRY MIKE [US]; STEELE
 RONALD J [US]

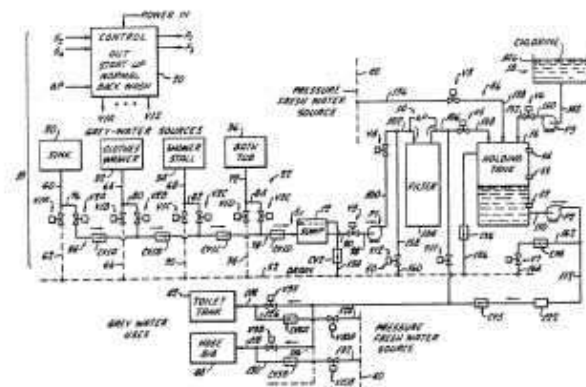
TI - **Gray water** recycle system

AB - A modular, retrofittable, and
 portable drain **water** recycle
 system, for installation into,
 and removal from, an existing
 host plumbing system having
 a host **water** supply, a sink, a
 tub or **shower**, a toilet, and a



sewer. The modules include a drain fixture module, a system control module, and a storage tank module, all interconnectable. **Gray water** is collected from a tub, **shower**, or sink, by a drain fixture module, and is stored in a storage tank module for reuse in flushing a toilet. The drain fixture module and storage tank module are controlled by the system control module. Capacity can be altered by adding or removing storage tank modules. Different host systems can be accommodated by adding or removing drain fixture modules and system control modules. Drain fixture modules replace or are installed nearby existing P-traps, normally accessible. Storage tank modules and system control modules are of such shape and size as to fit under a typical sink inside the sink cabinet.

- 15/22** © EPODOC / EPO
- PN - [US5106493](#) A 19920421
- PR - US19910649472 19910201
- AP - US19910649472 19910201
- DT - *; Rep
- CT - || STSE (A)
[US3425936](#) A 19690204 [] (CUIP GORDON L, et al);
[US3911938](#) A 19751014 [] (WILTROUT DALE E);
[US4145279](#) A 19790320 [] (SELBY III HOWARD W);
[US4228006](#) A 19801014 [] (HANNA DANIEL C);
[US4317732](#) A 19820302 [] (SHOQUIST WILLIAM A);
[US4828709](#) A 19890509 [] (HOUSER JACK L [US], et al)
- CTNP - || STSE (A)
[] -
Alteration of in House



Wastewater Flow with Low
Flush Toilet Fixtures and
Graywater Recycle Boyle, W.
C., Siegrist, R. L. & Anderson P.
L. 1982 Reidel Pub. Co.

- CCI - [C02F1/76](#) ; [C02F9/00](#) ;
[E03B1/04](#)
- CCA - [E03B2001/045](#) ;
[Y02A20/148](#) ; [Y02A20/304](#)
- PA - MCINTOSH TODD [US]
- TI - **Gray-water** reclamation and
reuse system
- AB - A **gray-water** reclamation and
reuse system for collecting,
filtering and storing
waste **water** (i.e., **gray-water**)
for reuse where potable
quality **water** is not required
comprises a sump for
collecting the waste **water**; a
filter connected for filtering
the waste **water** collected in
the sump; a tank for holding
the filtered filtered
waste **water**; and plumbing
and electrically-operated
valves for providing
waste **water** to said sump
from one or more
waste **water** sources,
including **shower** stalls,
bathtubs, sinks and/or
clothes washers, the valves
being operable by electric
controls for diverting the
waste **water** from the sources
between the sump and a
conventional waste **water**
drain pipe to a sewer, septic
tank or the like. A first pump
is included for pumping
waster **water** from the sump
into and through the filter
and into the holding tank and
a second pump is included
for pumping filtered
waste **water** from the holding
tank to one or more recycling
uses such as toilet tanks,
hose bibs, and/or lawn
sprinklers. Another pump is
provided for chlorinating

waste **water** in the holding tank. Other electrically-operated valves and plumbing are included for enabling the adding of non-waste **water** to the holding tank as make-up **water** and for enabling the back washing of the filter. Electric controls, including a microprocessor, are included for controlling the operation of the various valves and pumps for START UP, NORMAL OPERATION, and BACK WASH modes of operation of the system. In a variation, a replacement stopper is provided for **shower** stalls and bathtubs; a suction pump and plumbing draw waste **water** from the **shower** stall or bathtub to the sump.

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PN - [US5317766](#) A 19940607

PR - US19930078828
19930621; US19920820476
19920114

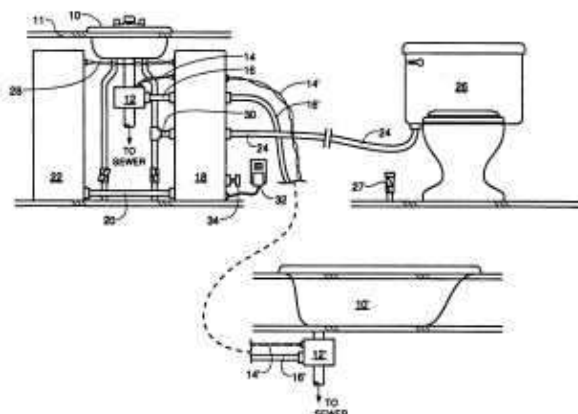
AP - US19930078828 19930621

DT - **

CT - || STSE (A)
[US3112497](#) A 19631203 [
] (CALL ROYAL G);
[US3594825](#) A 19710727 [
] (REID JAMES S);
[US4030144](#) A 19770621 [
] (ALEMANAUGUSTOCUEVAS);
[US4069521](#) A 19780124 [
] (ALEMANAUGUSTOCUEVAS);
[US4162218](#) A 19790724 [
] (MCCORMICK GERALD L [US]);
[US5035011](#) A 19910730 [
] (ROZENBLATT MIKE M [US],
et al);
[DE3434267](#) A1 19860327 [
] (GEBERT ARNE)

CCI - [E03B1/04](#)

CCA - [E03B2001/045](#) ;
[Y02A20/302](#) ; [Y02A20/148](#) ;
[Y02A20/304](#)



- PA - MCDONALD JOHN R [US];
REMBERT EDWARD K [US];
HENRY MICHAEL P [US]
- TI - **Gray water** recycle system
- AB - A modular, retrofittable, and portable drain **water** recycle system, for installation into, and removal from, an existing host plumbing system having a host **water** supply, a sink, a tub or **shower**, a toilet, and a sewer. The modules include a drain fixture module, a system control module, and a storage tank module, all interconnectable. **Gray water** is collected from a tub, **shower**, or sink, by a drain fixture module, and is stored in a storage tank module for reuse in flushing a toilet. The drain fixture module and storage tank module are controlled by the system control module. Capacity can be altered by adding or removing storage tank modules. Different host systems can be accommodated by adding or removing drain fixture modules and system control modules. Drain fixture modules replace or are installed nearby existing P-traps, normally accessible. Storage tank modules and system control modules are of such shape and size as to fit under a typical sink inside the sink cabinet.

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- PN - [US2003121096](#) A1 20030703
- PNFP - US6581218 B1 20030624
- PR - US20020032453 20020102
- AP - US20020032453 20020102
- DT - *
- CT - (B1)
[US979682](#) A []; [US4296838](#) A [];
[US4488584](#) A []; [US4640431](#) A [];

[US5140714](#) A []; [US5168586](#) A [];
[US5392945](#) A []; [US5549227](#) A [];
[US5611377](#) A []; [US5615798](#) A [];
[US5884676](#) A []; [US6360918](#) B1 []

CCI - [E03B1/048](#) ; [E03B1/04](#)

TI - (A1 B1)
WATERCONSERVATIONAPPARATUS

AB - (A1 B1)
A **water** conservation system for use in a **shower** stall or a bathtub having a **shower** head. The system includes a pair of receptacles placed on the floor of the **shower** stall. Each of the receptacles includes a cover, which has a hingedly connected panel to facilitate draining into a selected receptacle while a user is in the **shower**/bathtub. Collection of clear **water** is facilitated by directing the **shower** head at a first one of the receptacles when the **water** is warming up, and pivoting the **shower** head in the opposing direction when rinsing to direct **gray** or soapy **water** into a second one of the receptacles. The appropriate receptacle cover panel is opened depending upon the positioning of the **shower** head. Drains are formed in the tops of both receptacles, the tops having a drainage surface with a concave profile to direct **water** to a centrally positioned drain opening. Each of the receptacles has a removable pour spout, and a locking member is provided to prevent relative movement of the receptacles.

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PN - [TW518387B](#) B 20030121

PR - US20010903558 20010713

AP - TW20010124690 20011005

DT - I

CCI - [E04H1/1205](#)

CCA - [E04H2001/1283](#)

PA - BRADLEYCHARLES O [US]

TI - Self-contained transportable dwelling

AB - A self-contained, portable dwelling fabricated from a cargo container is described. The dwelling includes windows and a door in its walls and a plurality of solar panels on the roof. The solar panels collect solar power, which is transferred to storage batteries. The solar panels, storage batteries, and a power inverter make up a self-contained electrical system for the dwelling. The dwelling includes a self-contained sewage and **water** system including a black **water** tank, a **gray water** tank, a potable **water** storage tank, a toilet, a **shower**, and a sink. Various electrical appliances, such as an air conditioner, microwave, refrigerator, may be included. Further, a solar powered exhaust fan and a skylight may be included. The dwelling includes international standards organization (ISO) locking devices to allow transport on ISO compliant transporting vehicles.

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PN - [MXPA01010147](#) A 20040521

PR - US20010903558 20010713

AP - MX2001PA10147 20011008

DT - I

CCI - [E04H1/1205](#)

- CCA - [E04H2001/1283](#)
- PA - CHUCK BRADLEY [US]
- TI - SELF-CONTAINED TRANSPORTABLE DWELLING.
- AB - A self-contained, portable dwelling fabricated from a cargo container is described. The dwelling includes windows and a door in its walls and a plurality of solar panels on the roof. The solar panels collect solar power, which is transferred to storage batteries. The solar panels, storage batteries, and a power inverter make up a self-contained electrical system for the dwelling. The dwelling includes a self-contained sewage and **water** system including a black **water** tank, a **gray water** tank, a potable **water** storage tank, a toilet, a **shower**, and a sink. Various electrical appliances, such as an air conditioner, microwave, refrigerator, may be included. Further, a solar powered exhaust fan and a skylight may be included. The dwelling includes International Standards Organization (ISO) locking devices to allow transport on ISO compliant transporting vehicles.

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- PN - [GB2449697](#) A 20081203
- PNFP - GB2449697 B 20101117
- PR - GB20070010471 20070601
- AP - GB20070010471 20070601
- DT - *; Rep
- CT - || STSE (A B)
[DE20308423U](#) U1 20030918 []
- CTNP - || STSE (A)
 [] Water on wheels tank.
 JOJO tanks Ltd. 30 Gal Water Bags.
 Bay Tec Containers.
 Woodworking Australia's
 Woodwork Forums
 - || STSE (B)
 [] Water on wheels tank.
 JOJO tanks Ltd
 [] 30 Gal Water Bags. Bay
 Tec Containers
 [] Woodworking Australia's
 Woodwork Forums

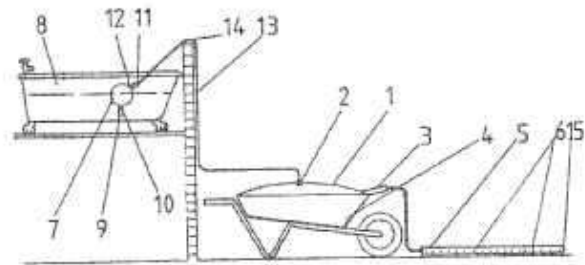


FIGURE 1

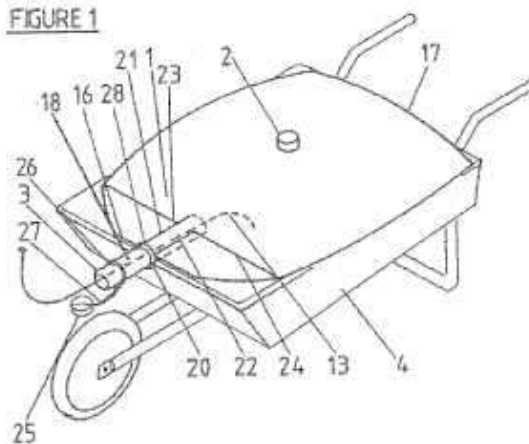


FIGURE 2

- CCI - [A01G25/09](#) ; [B62B1/18](#) ;
[B62B1/26](#)
- CNOI - (A B)
[A01G25/09](#) ; [B62B1/266](#)
- CCA - [B62B2202/50](#)
- PA - (A)
 UNWIN GUY DARELL [GB];
 VICTORY MALCOM GORDON
 [GB]; PLANIT PRODUCTS LTD
 [GB]
 - (B)
 UNWIN GUY DARELL [GB];

VICTORY MALCOLM GORDON
[GB]; PLANIT PRODUCTS LTD
[GB]

- TI - (A)
A flexible bladder **water** tank
for use in a wheelbarrow
- (B)
Water container for
wheelbarrow transport and
method of **water** re-use
- AB - (A)
A flexible **water** or liquid
storage bag 1 may have
separate inlet and outlets 2
and 3 or a combined inlet and
outlet, figure 5. Said **water**
tank may take the form of a
pillow and may be shaped
and sized to fit substantially
within a commercially
available wheelbarrow 4.
Said **water** storage bag may
filled from a mains **water**
source or from a source of
grey, **gray**, **water** such as a
bath, **shower** dishwasher,
storm **water** or rainwater.
Means including gravity,
pumped or siphoning may be
employed to fill said bag. The
bag may be discharged
simply by tipping up the
barrow and the bag therein
and allowing the **water** to run
out or by connecting a pipe 5
to the discharge spout 3 and
allowing the **water** drain
from the bag possibly into an
osmotic drainage system,
either overground or
underground, see fig 3.

21/22 © EPODOC / EPO

- PN - [CN2241275Y](#) Y 19961127
- PR - CN1995236837U 19950520
- AP - CN1995236837U 19950520
- DT - I
- PA - LONG BIAO [CN]
- TI - All-purpose automatic high-efficiency coal-saving stove
- AB - The utility model relates to a universal automatic efficient coal-saving furnace
which is that a steaming and baking oven is arranged in a furnace shell. The

steaming and baking oven is welded with a **water** tank on which a steam valve, a movable baking window, the boiling **water** valve of **water** level and the inlet valve of cold **water**. A tempering cooker plate is welded into the cover of the **water** tank, the top of the steaming and baking oven is provided with a residual heat channel, heat dissipation holes are drilled on a furnace core whose underside is provided with an automatic **gray** unloading device, a **gray** pumping box and a movable air door, and the furnace body above the air door is provided with an automatic door closing device. Owing to heat is directly transferred to the **water** tank by the heat radiation holes of the furnace core and the tempering cooker plate, so **water** in the **water** tank is rendered to be largely heated to boil to form vapor, and thus the utility model has the advantages that the vapor is used for steaming rise, disinfection and simultaneous cooking dishes or foodstuffs are simultaneous baked and boiled or stewed; heat is radiated by the vapor to heat, supply boiling **water** and **shower**; **gray** is automatically unloaded, fire is automatically closed, etc.

22/22 © EPODOC / EPO

PN - [CA2020824](#) A1 19910329

PR - US19890413994 19890928

AP - CA19902020824 19900710

DT - I

CCI - [E03D5/003](#) ; [E03B1/041](#)

CCA - [E03B2001/045](#) ; [E03B2001/047](#) ; [Y02A20/302](#) ; [Y02A20/108](#) ; [Y02A20/148](#)

PA - BARUH BRADFORD G [US]

TI - ARRANGEMENT FOR REUSING **GRAY WATER**

AB - An arrangement for sensing **gray water** in which a bathtub, **shower** stall, self-contained toilet bowl or the like is constructed with respective false bottom **gray water** collecting tanks. The **gray water** collected in the collecting tanks is conducted to a flush tank for flushing a toilet bowl. A pump responsive to the level of the **water** in the flush tank is operated for conducting **gray water** into the flush tank. Rain **water** advancing through downspouts may also be stored in the collecting tanks as **gray water**. The bath tub, the **shower** stall and the self-contained toilet bowl are self-contained units which can be employed respectively or in combination with one or more of the described units.