

[No database/cluster active] ..fi epodoc



Database: EPODOC

[EPODOC: SS 1] /ic A47J31/44 or A47J31/02

Results in EPODOC 29.884

[SS 2] beverage 1w capsule

Results in EPODOC 665

[SS 3] fit or fix or anchorage or support

Results in EPODOC 3.289.316

[SS 4] 1 and 2 and 3

Results in EPODOC 1

[SS 5] ..li



1/1 © EPODOC / EPO

PN - [WO2014078893](#) A1 20140530

PR - AU20120905060 20121121

AP - WO2013AU01338 20131121

DT - *; Rep

CT - |AU| ISR (A1)

[US2010212520](#) A1 20100826 [X] (FRANSSEN GUY-JACQUES [BE]);

[WO2011051867](#) A1 20110505 [X] (PINESCHI MASSIMILIANO [IT]);

[WO2010136601](#) A1 20101202 [X] (BOUQUET CHRISTOPHE [FR]);

[FR2944420](#) A1 20101022 [X] (FRANCQ GAETAN [FR]);

[US2010050880](#) A1 20100304 [X] (SUTER JUERG [CH], et al)

CCI - [A47J31/3638](#) ; [A47J31/44](#)

CUI - [B07C5/16](#) ; [B30B9/00](#)

PA - BREVILLE R & D PTY LTD [AU]

TI - CAPSULE COMPACTION DEVICE

AB - A separation apparatus for separating the organic and inorganic components of a spent **beverage capsule**. The apparatus includes: a **support** element for temporarily restraining the spent capsule; a separation ram; wherein the separation ram moves with respect to the spent capsule to bring the spent capsule into abutting engagement with a surface defined by a first sub- chassis, such that further relative movement collapses the spent capsule and ejects organic contents through an aperture in the first

sub- chassis into a waste collection chamber.

[SS 5] ..v

[EPODOC: SS 5] 1 and 3

Results in EPODOC 1.862

[SS 6] flange and 5

Results in EPODOC 19

[SS 7] ..li



1/19 © EPODOC / EPO

PN - [CN206745181U](#) U 20171215

PR - CN201621301122U 20161130

AP - CN201621301122U 20161130

DT - I

PA - GUANGDONG MIDEA DOMESTIC ELECTRICAL APPLIANCE MFG CO LTD

TI - Liquid heating container

AB - The utility model provides a liquid heating container, include: the kettle body, the top is equipped with the opening, the lateral part at the kettle body is installed to the handle, and the top of handle is equipped with the storage tank, and the fixed bolster sets firmly in the storage tank, pot lid, its outward **flange** have set firmly commentaries on classics movable **support**, change movable **support** and open or seal the open end of the kettle body with fixed bolster pivotally connected to in order to drive the pot lid, are equipped with the rotation groove that supplies to change the movable **support** activity on the fixed bolster, spacing subassembly sets up in the bottom of rotating the groove, the downstream when being changeed movable **support**'s lower surface butt of spacing subassembly to the upward movement supports the upper surface that changes movable **support** to reseing in order to end when the end that is changeed movable **support** is crossed, close and cover the subassembly, install the lateral part at the handle, can apply the yawing force to spacing subassembly, make spacing subassembly downstream in order to relieve changeing only supporting of movable **support** upper surface. The utility model provides a liquid heating container covers the closed kettle body in subassembly realization pot lid whereabouts through pressing to close, promotes the user and uses experience.

2/19 © EPODOC / EPO

PN - [US2017112318](#) A1 20170427

PR - US201715397218 20170103; EP20100162741 20100512; EP20100169374 20100713; US201213697303 20121109; WO2011EP57670 20110512

AP - US201715397218 20170103

DT - **

CCI - [A47J31/22](#) ; [A47J31/4492](#) ; [B65D85/8043](#)

CUI - [A23L2/38](#) ; [B65D25/205](#) ; [G06K19/00](#) ; [G06K19/06018](#) ; [G06K19/0614](#)

CCA - [B65D2203/06](#) ; [Y02W90/13](#)

PA - NESTEC SA [CH]

TI - **SUPPORT** AND CAPSULE FOR PREPARING A BEVERAGE BY CENTRIFUGATION, SYSTEM AND METHOD FOR PREPARING A BEVERAGE BY CENTRIFUGATION

AB - A capsule for the preparation of a beverage can include a container and a beverage ingredient contained therein. The container can include at least one **support** having a section on which a plurality of sequences of symbols is represented; each symbol is sequentially readable, by a reading arrangement of an external device, while the capsule is rotated along an axis of rotation. Each sequence can code a set of information related to the capsule, and at least one of the sequences can include symbols defining a preamble sequence that allows determination of a position of the symbols in the associated sequence coding the set of information related to the capsule. The container can include a cup-shaped body having a **flange**-like rim and a lid connected to the body, the **support** can be on a bottom of the rim, and the bottom of the rim can be opposed to the lid.

3/19 © EPODOC / EPO

PN - [CN205286057U](#) U 20160608

PR - CN2016227568U 20160108

AP - CN2016227568U 20160108

DT - I

PA - CHENG JIAN

TI - Water dispenser

AB - The utility model relates to a water dispenser field has especially related to a water dispenser who has teapot heat preservation function, discloses a water dispenser, including casing (1), be equipped with holding chamber (3) that are used for placing the teapot on casing (1), the bottom of holding chamber (3) is equipped with conducting strip (4) that are the disc shape, fixed be equipped with grip block (5) in below of conducting strip (4), be equipped with between conducting strip (4) and grip block (5) PTC heat-generating body (2), it is equipped with **flange** plate (8) still to **fix** on grip block (5), conducting strip (4) are withstood in **flange** plate (8), still include bolt (6), nut (7), bolt (6), the quantity of nut (7) is two, the bolt head of two bolt (6) all welds on conducting strip (4). The utility model discloses simple structure, low in production cost, and can effectively realize keeping warm to the drinking water of pouring into in the teapot.

4/19 © EPODOC / EPO

PN - [CN203693338U](#) U 20140709

PR - CN2014213965U 20140109

AP - CN2014213965U 20140109

DT - I

PA - ZHOU LIYUN

- TI - Heating disk fixing structure of liquid heater
- AB - A heating disk fixing structure of a liquid heater comprises an inner container and a heating disk assembly arranged at the bottom of the inner container. The heating disk assembly comprises a heating disk **support** and a heating disk body arranged on the top of the heating disk **support**. The bottom of the heating disk body is provided with a plurality of butt-weld screws, and the heating disk body is fixed to the heating disk **support** through locking nuts. The outer edge of the heating disk body is provided with a downward **flange**. The top of the heating disk **support** is provided with a recessed slot position. A gap is formed among the **flange**, the recessed slot position and the inner container. A sealing element is arranged in the gap. The heating disk assembly further comprises a heating unit arranged at the bottom of the heating disk body. According to the heating disk fixing structure of the liquid heater, the sealing effect between the heating disk assembly and the inner container is good, the inner container can be made to have a special-shaped cross section in style, and therefore the requirement for abundant product appearance designs is met; the heating disk **support** is made of high-temperature-resistant plastic or die-cast metal, so that the limit of a large drawing depth of a traditional sheet metal part is overcome, the technological requirement for the depth of a heating disk does not exist, and therefore the purpose of simplifying the process is achieved.

5/19 © EPODOC / EPO

- PN - [CN203643605U](#) U 20140611
- PR - CN20132662311U 20131025
- AP - CN20132662311U 20131025
- DT - I
- PA - SUZHOU ENYI PREC MACHINERY CO LTD
- TI - Bump jumping distance measuring device of coffee pot steam switch detection machine
- AB - The utility model discloses a bump jumping distance measuring device of a coffee pot steam switch detection machine; the bump jumping distance measuring device comprises a bottom plate arranged on a work table; two inverted L-shaped plates are arranged on a rear end of a plane of the bottom plate; a top plate is arranged on the L-shaped plates and provided with a dotting cylinder; an end face of a short edge of the L-shaped plate is fixedly provided with a dual-shaft cylinder **flange** having a dual-shaft cylinder; a piston rod of the dual-shaft cylinder is provided with a U-shaped clamp head; an opening of the U-shaped clamp head faces downwards and right opposite to a positioning seat fixed on the bottom plate; the right side of the positioning seat is provided with an inserted pipe inflation head fixed on the bottom plate; a reflection type infrared ray range finding switch is arranged through a small **support** between the two inverted L-shaped plates; a range finding head of the reflection type infrared ray range finding switch is arranged opposite to the positioning seat. By employing the said mode, the bump jumping distance measuring device of the coffee pot steam switch detection machine can fast and effectively detect the jumping distance, can replace artificial work for fast detection, improves detection efficiency, and saves labor cost.

6/19 © EPODOC / EPO

- PN - [CN203539114U](#) U 20140416

PR - CN20132692399U 20131104
 AP - CN20132692399U 20131104
 DT - I
 PA - GUANGDONG ETERNAL ELECTRICAL TECHNOLOGY CO LTD; ZHOU WENLE
 TI - Capsule falling device of beverage dispenser
 AB - The utility model relates to a capsule falling device of a beverage dispenser. The capsule falling device of the beverage dispenser comprises a **support**, a capsule and an upper cover, wherein the **support** comprises a containing cavity and an opening located in the rear of the containing cavity, and a guide block is arranged in the position, corresponding to the opening, of the containing cavity; the capsule can be contained in the containing cavity and comprises a cup body and an annular **flange** extending outward from the top of the cup body; the upper cover is connected to the **support** through a transmission mechanism so as to be opened or closed relative to the **support**, and an abutting block is arranged at one end of the upper cover downwards. When the upper cover is opened through the transmission mechanism relative to the **support**, the abutting block abuts against and lifts the capsule in the containing cavity and makes the capsule turn towards the opening with the guide block as the pivot till the capsule falls into the opening under the action of gravity. Compared with the prior art, the capsule falling device of the beverage dispenser is simple in structure, and the capsule falling effect can be achieved with few parts.

7/19 © EPODOC / EPO

PN - [CN203493431U](#) U 20140326
 PR - CN20132572192U 20130916
 AP - CN20132572192U 20130916
 DT - I
 PA - JOYOUNG CO LTD
 TI - Soybean milk machine
 AB - The utility model relates to a soybean milk machine including a cup body and a machine head arranged on the cup body, the machine head includes an upper cover and a metal lower cover, the upper end of the metal lower cover is provided with a metal **flange**, a transition **support** is arranged between the metal **flange** and the upper cover, a first sealing member is arranged between the upper cover and the transition **support**, a second sealing member is arranged between the transition **support** and the metal **flange**, and the soybean milk machine is characterized in that an injection-moulded hole is arranged in the transition **support**, and the first sealing member and the second sealing member are integrally injection-moulded with the transition **support** via the injection hole. According to the utility model, the first sealing member and the second sealing member are integrally injection-moulded with the transition **support** via the injection hole, so that components can be reduced, assembling procedures can be simplified, and the assembling cost can be greatly reduced. The first sealing member, the second sealing member, and the transition **support** are integrated into one body, the sealing members cannot come off the transition and are free of improper assembling, so that the sealing reliability is enhanced.

8/19 © EPODOC / EPO

- PN - [CN103616694](#) A 20140305
- PR - CN20131509726 20131025
- AP - CN20131509726 20131025
- DT - I
- CT - || STSE (A)
[CN203643605U](#) U 20140611 [R] (SUZHOU ENYI PREC MACHINERY CO LTD)
[R] 1
权利要求1
[US2006011067](#) A1 20060119 [A] (SPENCER WILLIAM L [US])
[A] 1
全文
[JP2012152484](#) A 20120816 [A] (PANASONIC CORP)
[A] 1
全文
[DE102012103861](#) A1 20131107 [A] (WIK FAR EAST LTD [HK])
[A] 1
全文
[CN201175272Y](#) Y 20090107 [A] (UNITPAK IND CO LTD [HK])
[A] 1
全文
- CNOI - [A47J31/44](#) ; [G01S17/08](#) ; [G01S7/481](#)
- PA - SUZHOU ENYI PREC MACHINERY CO LTD
- TI - A bump ejecting distance measuring device of a coffee pot steam switch detection machine
- AB - The invention discloses a bump ejecting distance measuring device of a coffee pot steam switch detection machine. The bump ejecting distance measuring device comprises a base plate installed on an operating tabletop. Two inverted L-shaped plates are disposed on the rear end of the top surface of the base plate. A top board is disposed on the tops of the L-shaped plates. A dotting cylinder is installed on the top board. A dual-shaft cylinder **flange** is fixed on the end faces of the short sides of the L-shaped plates. A dual-shaft cylinder is installed on the dual-shaft cylinder **flange**. A U-shaped clamp head is disposed on the piston rod of the dual-shaft cylinder and has a downward opening rightly facing a positioning seat. The positioning seat is fixed on the base plate. A pipe-inserting inflating head is disposed on the right side of the positioning seat and is fixed on the base plate. A reflective infrared distance-measuring switch is installed between the two inverted L-shaped plates through a small **support** and has a distance-measuring head rightly facing the positioning seat. With the above manner, the bump ejecting distance measuring device may fast and effectively detect ejected force and ejected distance, substitute for manual fast detection, increase detection efficiency, and save manpower cost.

9/19 © EPODOC / EPO

- PN - [EP2721973](#) A1 20140423
- PNFP - EP2721973 B1 20161123
- PR - EP20120401208 20121017

AP - EP20120401208 20121017

DT - *; Rep

CT - || STSE (A1)
[WO2009013778](#) A2 20090129 [X] (SAECO IPR LTD [IE], et al)
[X] 1-2,4-14
* figure 1 *

CCI - [A47J31/4403](#) ; [A47J31/4428](#)

PA - (A1 B1)
MIELE & CIE [DE]

TI - (A1 B1)
Beverage preparation machine

AB - (A1)
The beverage machine has an outlet device (1) equipped with hot water nozzle (17) and several drink delivery nozzles for delivery of coffee drink. A drip tray is provided for the collection of liquid residues. A lining element (3) is removably connected to the drip tray, through an auxiliary frame. A **support flange** is formed at the lining element or at the auxiliary frame. A sensor device such as micro switch is provided for sensing the lining element.

10/19 © EPODOC / EPO

PN - [CN202112913U](#) U 20120118

PR - CN20102665816U 20101217

AP - CN20102665816U 20101217

DT - I

PA - GD XINBAO ELEC APPL HOLDINGS

TI - Capsule ejection apparatus of capsule coffee machine

AB - A capsule ejection apparatus of a capsule coffee machine comprises a water seat and a brewing seat which perform opening and closing movements mutually along a straight line through a driving mechanism; the water seat is provided with a brewage cavity for receiving a coffee capsule; one flanged side of the coffee capsule is directed to the brewing seat, which is provided with a seal ring used for sealing the coffee capsule and a push rod capable of separating the coffee capsule from the seal ring; the front side of the brewing seat is provided with a **support** component; the push rod is disposed before the seal ring in a vertically sliding manner through the **support** assembly; the upper portion of the push rod is provided with a limiting projection capable of limiting a maximum downward sliding distance of the push rod; and the lower portion of the push rod is provided with a slant tongue corresponding to the **flange** of the coffee capsule. With the push rod which is disposed on the brewing seat and is capable of ejecting the coffee capsule downward, the capsule ejection apparatus guarantees that the coffee capsule can fall off from the seal ring smoothly; and the capsule ejection apparatus is simple and reasonable in design, easy to operate, safe and reliable to use, and applicable to different kinds of capsule coffee machines.

11/19 © EPODOC / EPO

PN - [US2011219956](#) A1 20110915

PNFP - US8424448 B2 20130423

PR - US20100721816 20100311

AP - US20100721816 20100311

DT - *; Rep

CT - || R141 (A1)
[US4164645](#) A 19790814 [] (DOGLIOTTI AMILCARE [IT]);
[US6177655](#) B1 20010123 [] (TOMAN JOSEPH G [US]);
[US6314866](#) B1 20011113 [] (MELTON BRUCE W [US]);
[US6520070](#) B1 20030218 [] (HECZKO JAMES [US]);
[US2006071008](#) A1 20060406 [] (SADLIER CLAUS E [US]);
[US7279660](#) B2 20071009 [] (LONG TOM [US], et al);
[US2008078824](#) A1 20080403 [] (SPRIEGEL ANDREW RAYMOND [US], et al);
[US2010263549](#) A1 20101021 [] (LEE THERESA H [US]);
[USD513681S](#) S 20060124 [] (PICOZZA AUGUSTO [US], et al);
[US6513683](#) B1 20030204 [] (KULL CHERYL R P [US]);
[USD536205S](#) S 20070206 [] (JENSEN CLAUS [DK], et al);
[US5609092](#) A 19970311 [] (CHEN CHIEN-CHOU [TW]);
[US2008060526](#) A1 20080313 [] (GILBERT TYLER SEAN [US]);
[US2009056557](#) A1 20090305 [] (LIN SHIN-SHUOH [US]);
[US7032506](#) B2 20060425 [] (SCOTT MICHAEL JAMES [GB], et al);
[US6072161](#) A 20000606 [] (STEIN TODD ANTHONY [US]);
[US6403928](#) B1 20020611 [] (FORD TRACY L [US]);
[US7073428](#) B2 20060711 [] (CHUNG MING-CHI [TW], et al);
[US5787797](#) A 19980804 [] (ARIKI SEIO [JP]);
[US4772777](#) A 19880920 [] (WELLER ALBRECHT [DE], et al);
[US4864921](#) A 19890912 [] (ROSS GARY [US]);
[US2002175158](#) A1 20021128 [] (SANONER HUGHES [CN], et al);
[US3998351](#) A 19761221 [] (SMITH ROBERT J, et al)

- || STSE (B2)
[US4164645](#) A 19790814 [] (DOGLIOTTI AMILCARE [IT]);
[US6177655](#) B1 20010123 [] (TOMAN JOSEPH G [US]);
[US6314866](#) B1 20011113 [] (MELTON BRUCE W [US]);
[US6520070](#) B1 20030218 [] (HECZKO JAMES [US]);
[US7279660](#) B2 20071009 [] (LONG TOM [US], et al);
[US2006071008](#) A1 20060406 [] (SADLIER CLAUS E [US]);
[US2008078824](#) A1 20080403 [] (SPRIEGEL ANDREW RAYMOND [US], et al);
[US2010263549](#) A1 20101021 [] (LEE THERESA H [US])

CCI - [A47J31/0626](#) ; [A47J31/0636](#) ; [A47J27/21041](#) ; [A47J27/2105](#)

PA - (A1)
RAM IND DESIGN INC [US]

- (B2)
ENGLERT ROBERT S [US]; LEIGH M BIANCA [US]; SUAREZ CARLOS A [US]; RAM IND DESIGN INC [US]

TI - (A1)
BEVERAGE DISPENSER

- (B2)
Beverage dispenser

AB

- (A1 B2)

A beverage apparatus has a portable liquid container having a ledge detail within a top open end; a removable infuser with an annular **support flange**; and a gasket about the infuser below the annular **support flange**, where in use the gasket forms a seal with the container ledge detail and the infuser body, and further spaces the infuser annular **support flange** from the container ledge detail to define a liquid access gap. At least one vertical channel is defined through the gasket to communicate liquid through the gasket between the liquid container and the liquid access gap. A **support** base has an opening to receive and hold a bottom end of the portable liquid container and a heating element to heat liquid within the portable container when the container bottom end is inserted within the opening.

12/19 © EPODOC / EPO

PN - [US2011185913](#) A1 20110804

PNFP - US8539876 B2 20130924

PR - US20110931131
20110125; US20100337301P
20100202

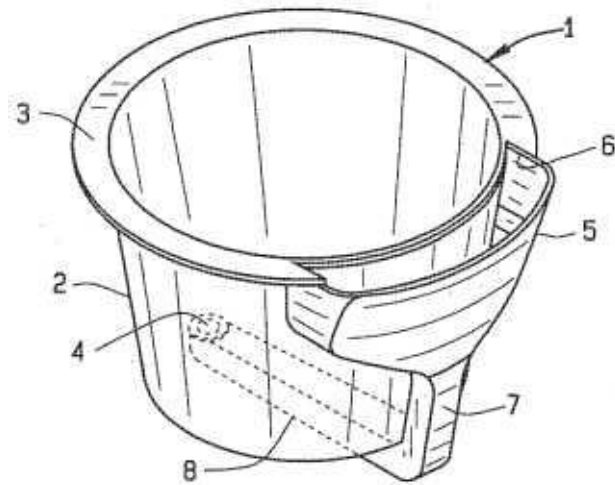
AP - US20110931131 20110125

DT - *; Rep

CT - || STSE (B2)
[US1405662](#) A 19220207 [
] (CLAYTON BIETTE HENRY)
[US5746113](#) A 19980505 [] (KO
LILY [US])
[US6276262](#) B1 20010821 [
] (CHEN JASON C S [US])
[US6279460](#) B1 20010828 [
] (POPE RANDY D [US])
[US6520070](#) B1 20030218 [
] (HECZKO JAMES [US])
[US6575081](#) B2 20030610 [
] (KANBA TAKAO [JP], et al)
[US6786136](#) B2 20040907 [
] (CIRIGLIANO MICHAEL CHARLES
[US], et al)

- || R141 (A1)

[US1405662](#) A [];
[US5746113](#) A [];
[US6276262](#) B1 [];
[US6279460](#) B1 [];
[US6520070](#) B1 [];
[US6575081](#) B2 [];
[US6786136](#) B2 [];
[USD288057S](#) S [];
[US3374897](#) A [];
[US4149454](#) A [];



[USD256079S](#) S [];

[USD241402S](#) S [];

[USD266894S](#) S [];

[US6487961](#) B2 [];

[US6497818](#) B1 []

CUI - [A47J31/02](#)

PA - (B2)
WEBSTER JOSEPH P [US];
JACOBSEN JODY G [US]; NEWCO
ENTPR INC [US]

TI - (A1 B2)
Brew basket with integrated
separate cavity for water bypass
or additives

AB - (A1 B2)
A brew basket with an integrated
separate cavity providing for a
water bypass or additive conduit
all of which may be added to the
brewed beverage, as it exists its
brew basket discharge spout
during a brewing cycle. An
integrated separate cavity is
provided partially around the
perimeter of the brew basket, as
along its upper **flange**, for some
angular distance, and which
cavity tapers into a downward
conduit, which conduit extends
under the bottom of the brew
basket, and empties into the
same discharged port through
which the brewed beverage is
discharged from the brew basket
and into a lower decanter,
during performance of a brewing
cycle. Additives such as
flavoring, sweeteners, and even
cold water may pass through the
separate cavity, for intermixing
with the brewed beverage, in
order to add to its flavoring,
sweetening, or even cooling,
depending upon whether coffee,
hot tea, or ice tea, has been
selected for the brewing cycle.
The brew basket is capable of
pivoting, in its **support** under the

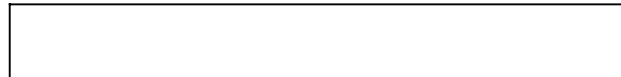
cantilevered top of the brewing apparatus, to allow for the beverage to be dispensed into one or more decanters, during a brewing cycle, or during performance of sequential brewing cycles.

13/19 © EPODOC / EPO

- PN - [CN201452866U](#) U 20100512
- PR - CN2009250997U 20090206
- AP - CN2009250997U 20090206
- DT - I
- PA - GUANGDONG ETRNAL ELECTRIC HOLDING CO LTD
- TI - Coffee machine
- AB - The utility model discloses a coffee machine, which comprises a machine body (1), an upper cover (2), a nozzle (3) and a funnel (4). The nozzle (3) and the upper cover (2) are arranged in sequence above the funnel (4), the upper opening of the funnel (4) is provided with a **flange** (41) which can **support** the funnel (4) on the machine body (1), and the nozzle (3) seals the upper opening of the funnel (4). With the structure, most of the steam is contacted with the nozzle (3), and only a small amount of steam is contacted with the upper cover (2). The utility model has the advantages that the temperature of the upper cover (2) is low, the upper cover (2) has little distortion, and the user can not be burnt when touching the upper cover (2).

14/19 © EPODOC / EPO

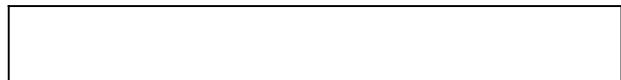
- PN - [US5775206](#) A 19980707
- PR - US19960712060
19960910; CA19962184298
19960827
- AP - US19960712060 19960910
- DT - *
- CT - [US3985069](#) A []; [US4174659](#) A [];
[US4446158](#) A []; [FR792805](#) A [];
[FR914538](#) A []
- CCI - [A47J31/02](#)
- TI - Coffeemaker with a permanent filter
- AB - The present invention relates to a new coffeemaker with a permanent filter that is composed of a tank, whose bottom is perforated small holes, this tank is attached to an infusion chamber provided with



a **support**, the set resting on a container or a mug. The rate of the boiling water flow is controlled by the small holes of the tank bottom. A chimney located within the tank allows the infusion gases to escape from the infusion chamber. The flow of the infused water is done through a permanent filter at the bottom of the infusion chamber. The **support** is a **flange** that has a plurality of holes allowing the vapor to escape from the mug and, also giving the possibility for the user to see the level of the infused water in the same mug.

15/19 © EPODOC / EPO

PN - [US5555791](#) A 19960917
 PR - US19950438175 19950509
 AP - US19950438175 19950509
 DT - *
 CT - [US3187663](#) A []; [US3861285](#) A [];
[US3975996](#) A []; [US4191100](#) A [];
[US4721034](#) A []; [US4749134](#) A [];
[US4759273](#) A []; [US4794853](#) A [];
[US4867048](#) A []; [US4893758](#) A [];
[US4913037](#) A []; [US5197374](#) A []
 CCI - [A47J31/446](#) ; [A47J31/4467](#)
 PA - GRINDMASTER CORP [US]
 TI - Beverage dispensing apparatus having articulating basket holding arms for baskets having varying dimensions
 AB - The present invention involves a grinder/brewer coffee beverage dispensing apparatus having a pair of basket **support** arms with front end portions adapted to grasp beverage baskets and a



configuration essentially complimentary to the circular shapes of beverage baskets. The arms are pivotally mounted for simultaneous horizontal and vertical movement with respect to the frame of the beverage dispensing apparatus, permitting the arms to grasp baskets having varying **flange** widths and diameters.

16/19 © EPODOC / EPO

PN - [US4280401](#) A 19810728

PR - US19790093385 19791113

AP - US19790093385 19791113

DT - *

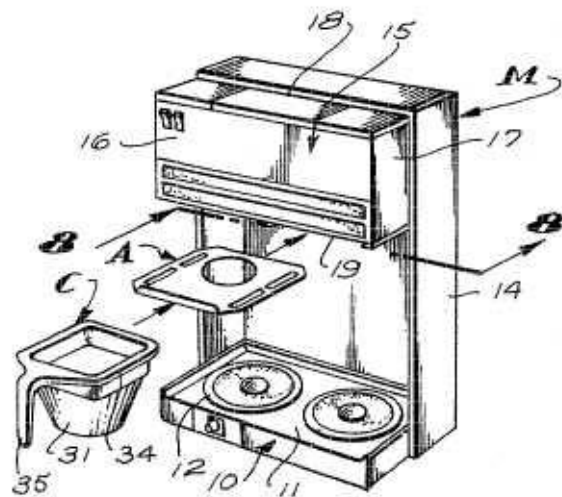
CT - [US2512502](#) A []; [US2633323](#) A [];
[US3793935](#) A []; [US3978778](#) A [];
[US4008656](#) A []

CCI - [A47J31/446](#) ; [A47J31/0621](#) ;
[A47J31/10](#) ; [A47J31/4467](#)

PA - CLELAND ROBERT K

TI - Brew rail adapter

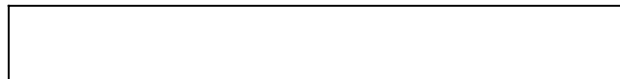
AB - An adapter to releasably engage a small brew cone for a small coffee brewing machine with the cone engaging rails of a large coffee brewing machine; said coffee brewing machine has a hot water dispensing head with a bottom surface, a water discharge opening at that surface and a pair of elongate parallel brew rails spaced below said surface at opposite sides of the discharge opening to engage and **support** the rim **flange** of a large brew cone; said small brew cone is an upwardly opening cup-like unit with an outwardly projecting rim **flange** less in diameter than the space between the brew rails; said adapter is a flat plate-like unit with flat



upper and lower surfaces, opposite side edge portions engaged above the brew rails, a center opening registering with the discharge opening and a pair of elongate parallel brew rails spaced below said lower surface and at opposite sides of the center opening and slidably engaged below and supporting the rim **flange** of the small brew cone; the side edge portions of the plate have retaining means yieldingly frictionally engaging the brew rails of the machine and urging the plate into engagement with said bottom surface; the plate has a plate orienting **flange** to engage the head of the machine and a cone orienting **flange** to engage the cone and to stop the plate and the cone in predetermined position relative to the machine and to each other.

17/19 © EPODOC / EPO

PN - [JPH04312415](#) A 19921104
 PR - DE19914104880 19910218
 AP - JP19920029316 19920217
 DT - I
 CT - || STSE (A)
 [JPS54122322](#) A 19790921 [
] (MATSUSHITA ELECTRIC IND CO
 LTD)
 CCI - [A47J31/0626](#) ; [A47G19/14](#)
 FI - A47J31/02; A47J31/44&A;
 A47J31/44&110; A47J31/44&120
 FT - 4B004/AA02; 4B004/BA21;
 4B004/BA42; 4B004/BA46;
 4B004/BA47; 4B004/CA02;
 4B004/CA16; 4B104/AA02;
 4B104/AA12; 4B104/AA29;
 4B104/BA38; 4B104/BA43;
 4B104/BA53; 4B104/BA57;
 4B104/BA66; 4B104/BA77;
 4B104/BA78; 4B104/EA08;



4B104/EA15; 4B104/EA20;
4B104/EA21; 4B104/EA28;
4B104/EA29; 4B104/EA35

PA - MELITTA HAUSHALTSPROD GMBH
& C

TI - MAKING APPARATUS FOR
EXTRACTION BEVERAGE SUCH AS
COFFEE

AB - PURPOSE: To enable to use a pot
with a mushroom type adaptor
not only as a coffee maker or a
tea maker but also as a filter
container to manually make an
extract beverage such as coffee
while keeping the flavor of the
material as much as possible.
CONSTITUTION: A filter container
9 is placed on the lid 3 of a pot
with a sealed rim part 13 and
a **support flange** 12 is provided
to close a chamber between the
lid 3 and the filter container 9
from the outside air.

18/19 © EPODOC / EPO

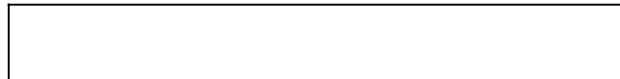
PN - [EP0910977](#) A1 19990428

PR - DE1997218786U 19971022

AP - EP19980116444 19980831

DT - **

CT - || STSE (A1)
[US4986172](#) A 19910122
[Y] (HUNNICUTT JR CLYDE J [US])
[Y] 1-6
* column 4, line 42 - column 8,
line 48; figures 1-15 *;
[BE464735](#) A 00000000
[Y] (LIXON)
[Y] 1-6
* page 2, paragraph L - page 3,
paragraph 1; figure III *;
[FR1038771](#) A 19531001
[A] (RICHT ET AL)
[A] 1,3,5
* page 1; figure 1 *;
[DE19607906](#) A1 19970904
[A] (WANKE WILHELM DIPL ING
FH [DE])

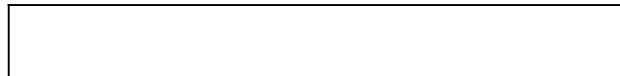


[A] 1
 * column 1, line 68 - column 4,
 line 32; figure - *;
[FR330087](#) A 19030811
 [A] (CHARLES VAPPEREAU [FR])
 [A] 1,6
 * page 1, line 26 - line 61;
 figure 1 *;
[US4666724](#) A 19870519
 [A] (DILORENZO RALPH N [US])

- CCI - [A47J31/06](#)
- PA - MELITTAHAUSHALTSPRODUKTE
 [DE]
- TI - Filter device for preparing
 brewed beverages from coffee or
 tea
- AB - The filter device (11) has an
 outer container (12) with a
 liquid-permeable base (14)
 comprising a permanent filter or
 a **support** for filter paper. The
 inner container (13), also with a
 liquid-permeable base (16), is
 placed inside the outer
 container, leaving a space (17)
 in-between for the coffee powder
 or tea. A **support** surface,
 preferably a conical **flange** (18)
 or at least two radial **support**
 arms, around the top edge of the
 outer container allows the filter
 to rest inside a standard tea- or
 coffee-making machine filter
 receptacle (10).

19/19 © EPODOC / EPO

- PN - [DE202005017654U](#) U1 20060105
- PR - DE20052017654U 20051109
- AP - DE20052017654U 20051109
- DT - *; Rep
- CCI - [A47J31/0626](#)
- PA - WUELLNER & KAISER
 KUNSTSTOFFVE [DE]
- TI - Coffee filter arrangement
 comprises a funnel shaped
 holder which can hold a paper



- filter, and a **support flange**
- AB - A coffee filter arrangement (1) comprises a funnel shaped filter holder (3) which can accommodate a paper filter, and a **support flange** (4). The filter arrangement has at least one anti-slip plastic material. The material is located over sections of the lower **support flange**, and consists of eg PVC.

[SS 7] ..v

[EPODOC: SS 7] shutter or breechblock

Results in EPODOC 128.423

[SS 8] 1 and 7

Results in EPODOC 36

[SS 9] ..li



1/36 © EPODOC / EPO

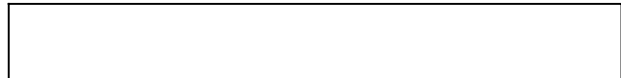
- PN - [CN206354893U](#) U 20170728
- PR - CN20162956400U 20160829
- AP - CN20162956400U 20160829
- DT - I
- PA - WANG LU
- TI - Instant drink all -in -one
- AB - The utility model discloses an instant drink all -in -one, including rectangular base, the rectangular base upper surface is equipped with the rectangle box, rectangle box upper surface one end is equipped with the rectangle recess, the lower surface is equipped with the rectangle opening in the rectangle recess, be equipped with electromagnetism **shutter** on the rectangle opening, the



embedded discharging pipe that is equipped with of rectangle opening, be equipped with micro water tank in the rectangle box, be equipped with micropump and heating resistor silk in the micro water tank, the micro water tank side surface is equipped with round opening, the embedded flowing water head that is equipped with of round opening, the overhead infrared distance meter that is equipped with of flowing water, rectangle box side surface is equipped with rectangle recess A, be equipped with battery and controller in the rectangle recess A, battery and controller electric connection, the controller respectively with electromagnetism **shutter**, infrared distance meter, micropump, heating resistor silk, solenoid electric valve and a set of pressure sensor electric connection. The beneficial effects of the utility model are that, simple structure, the practicality is strong.

2/36 © EPODOC / EPO

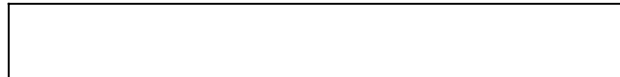
PN - [MX2015013780](#) A 20160216
PR - EP20130161978
20130402; WO2014IB60118
20140325
AP - MX20150013780 20140325
DT - I
CCI - [A47J31/42](#) ; [A47J31/4407](#) ;
[A47J42/50](#)
CUI - [A47J31/4403](#)
CCA - [A47J43/0777](#)
PA - KONINKL PHILIPS NV [NL]
TI - BEVERAGE-PRODUCING MACHINE
COMPRISING A REMOVABLE
INGREDIENT CONTAINER.
AB - A beverage-producing machine



(1) is described, comprising a housing (3), a beverage producing unit arranged in the housing and a container (21) for at least one beverage ingredient, for example coffee beans. The container (21) is lockable to the housing (3) and unlockable therefrom. The container (21) comprises a bottom aperture (27) for dispensing the ingredient contained therein and a **shutter** (29) for selectively closing and opening the aperture. Furthermore, an actuating member (37, 39, 41, 45) is provided in the housing. The actuating member acts upon the **shutter** for selectively opening and closing the bottom aperture (27) of the container while respectively locking the container to the housing and unlocking the container from the housing.

3/36 © EPODOC / EPO

PN - [US2016051082](#) A1 20160225
 PR - EP20130161978
 20130402; WO2014IB60118
 20140325
 AP - US201414780158 20140325
 DT - **
 CT - || R141 (A1)
[US2007063079](#) A1 20070322 [
] (FORD DAVID F [US]);
[US8690088](#) B1 20140408 [
] (LASSOTA ZBIGNIEW G [US]);
[US4438704](#) A 19840327 [
] (HUTCHEON ALFRED J [GB]);
[US5668793](#) A 19970916 [
] (OGAWA TAKASHI [JP], et al)
 CCI - [A47J31/42](#) ; [A47J31/4407](#) ;
[A47J42/50](#)
 CUI - [A47J31/4403](#)
 CCA - [A47J43/0777](#)
 PA - KONINKL PHILIPS NV [NL]



- TI - BEVERAGE-PRODUCING MACHINE
COMPRISING A REMOVABLE
INGREDIENT CONTAINER
- AB - A beverage-producing machine
(1) is described, comprising a
housing (3), a beverage
producing unit arranged in the
housing and a container (21) for
at least one beverage ingredient,
for example coffee beans. The
container (21) is lockable to the
housing (3) and unlockable
therefrom. The container (21)
comprises a bottom aperture
(27) for dispensing the
ingredient contained therein and
a **shutter** (29) for selectively
closing and opening the
aperture. Furthermore, an
actuating member (37, 39, 41,
45) is provided in the housing.
The actuating member acts upon
the **shutter** for selectively
opening and closing the bottom
aperture (27) of the container
while respectively locking the
container to the housing and
unlocking the container from the
housing.

4/36 © EPODOC / EPO

- PN - [AU2014246737](#) A1 20151119
- PR - EP20130161978
20130402; WO2014IB60118
20140325
- AP - AU20140246737 20140325
- DT - I
- CCI - [A47J31/42](#) ; [A47J31/4407](#) ;
[A47J42/50](#)
- CUI - [A47J31/4403](#)
- CCA - [A47J43/0777](#)
- PA - KONINKL PHILIPS NV
- TI - Beverage-producing machine
comprising a removable
ingredient container
- AB - A beverage-producing machine

Fig.1



(1) is described, comprising a housing (3), a beverage producing unit arranged in the housing and a container (21) for at least one beverage ingredient, for example coffee beans. The container (21) is lockable to the housing (3) and unlockable therefrom. The container (21) comprises a bottom aperture (27) for dispensing the ingredient contained therein and a **shutter** (29) for selectively closing and opening the aperture. Furthermore, an actuating member (37, 39, 41, 45) is provided in the housing. The actuating member acts upon the **shutter** for selectively opening and closing the bottom aperture (27) of the container while respectively locking the container to the housing and unlocking the container from the housing.

5/36 © EPODOC / EPO

PN - [CN105101852](#) A 20151125

PR - WO20141860118
20140325; EP20130161978
20130402

AP - CN2014819555 20140325

DT - I

CT - || STSE (A)
[FR2713906](#) A1 19950623
[Y] (MOULINEX SA [FR])
[Y] 15-16
* 说明书第3页第12行-第9页第19行
及附图1-5 *;
[US6057514](#) A 20000502
[A] (MAGUIRE STEPHEN B [US])
[A] 1-14
* 全文 *;
[US2004123747](#) A1 20040701
[A] (LASSOTA ZBIGNIEW G [US])
[A] 1-14
* 全文 *;
[WO2004098361](#) A1 20041118



[A] (BUNN O MATIC CORP [US], et al)

[A] 1-14

* 全文 *;

[FR2901114](#) A1 20071123 [Y] (SEB

SA [FR])

[Y] 15-16

* 说明书第9页第1行-第14页倒数第1行及附图1-4 *;

[DE202010001953U](#) U1 20100415

[A] (SEVERINELEKTROGERAETE

GMBH [DE])

[A] 15-16

* 全文 *;

[CN102283578](#) A 20111221

[A] (WIK FAR EAST LTD)

[A] 1-14

* 全文 *;

[CN102325485](#) A 20120118

[A] (BREVILLE R & D PTY LTD)

[A] 1-14

* 全文 *

- CCI - [A47J31/42](#) ; [A47J31/4407](#) ;
[A47J42/50](#)
- CUI - [A47J31/4403](#)
- CCA - [A47J43/0777](#)
- PA - KONINKL PHILIPS ELECTRONICS NV
- TI - Beverage-producing machine
comprising removable ingredient
container
- AB - A beverage-producing machine (1)
is described, comprising a housing
(3), a beverage producing unit
arranged in the housing and a
container (21) for at least one
beverage ingredient, for example
coffee beans. The container (21) is
lockable to the housing (3) and
unlockable therefrom. The
container (21) comprises a bottom
aperture (27) for dispensing the
ingredient contained therein and
a **shutter** (29) for selectively
closing and opening the aperture.
Furthermore, an actuating member
(37, 39, 41, 45) is provided in the
housing. The actuating member
acts upon the **shutter** for
selectively opening and closing the

bottom aperture (27) of the container while respectively locking the container to the housing and unlocking the container from the housing.

6/36 © EPODOC / EPO

PN - [JP2014171738](#) A 20140922

PNFP - JP6131642B B2 20170524

PR - JP20130048086 20130311

AP - JP20130048086 20130311

DT - I

CT - || STSE (A)
[US5918539](#) A 19990706 [] (SO
GE CA SNC [IT]);
[JP559117454U](#) U 19840808 [];
[JPH08117689](#) A 19960514 []
(KURITA MACHINERY MANUF);
[JP3003763U](#) U 19941101 [];
[JP2012146255](#) A 20120802 []
(FUJI ELECTRIC RETAIL SYSTEMS)

FI - A47J31/00&G; A47J31/00&302;
A47J31/40&104; A47J31/44&Z;
A47J31/44&430; G07F13/00&Z;
G07F13/06&101

FT - 3E047/AA02; 3E047/DB01;
3E047/DB07; 3E047/DC01;
3E047/GA10; 4B104/AA11;
4B104/BA02; 4B104/BA81;
4B104/BA90; 4B104/CA18;
4B104/CA27; 4B104/EA37

PA - (A)
FUJI ELECTRIC CO LTD

TI - (A)
POWDER TOPPING DEVICE

AB - (A)
PROBLEM TO BE SOLVED: To
provide a powder topping device
that can draw a high definition
pattern on a liquid level of the
beverage in a cup by powder
with topping, while preventing
clogging of a stencil.SOLUTION: A
powder topping device includes:
a powder container 3 formed in
a cylindrical shape extending in



the vertical direction, and receiving powder; a stencil mounted on a bottom of the powder container 3; a drive unit; a powder dispensing blade slidably provided along an upper surface of the stencil, and dispensing the powder downward while pressing the powder against the stencil by being driven by the drive unit during the topping; and a **shutter** 4 movably structured between a closed position closing a bottom face of the powder container 3, and an open position opening the bottom face of the powder container 3, and positioned in the closed position during standby and driven from the closed position to the open position by the drive unit during the topping.

7/36 © EPODOC / EPO

PN - [WO2014162236](#) A2 20141009
 PNFP - WO2014162236 A3 20141218
 PR - EP20130161978 20130402
 AP - WO2014160118 20140325
 DT - *; Rep
 CT - |EP| ISR (A3)
[FR2901114](#) A1 20071123 [Y] (SEB SA [FR])
 [Y] 15,16
 * pages 9-14; figure - *;
[FR2713906](#) A1 19950623
 [Y] (MOULINEX SA [FR])
 [Y] 15,16
 * page 3, line 12 - page 9, line 19; figure - *;
[WO2004098361](#) A1 20041118
 [A] (BUNN O MATIC CORP [US], et al)
 [A] 1-14
 * paragraphs [0029] - [0073]; figure - *;
[US2004123747](#) A1 20040701
 [A] (LASSOTA ZBIGNIEW G [US])
 [A] 1-14



* paragraphs [0052] - [0097];
figure - *;
[US6057514](#) A 20000502
[A] (MAGUIRE STEPHEN B [US])
[A] 1-14
* column 3, line 42 - column 7,
line 59; figure - *;
[EP2380472](#) A1 20111026 [A] (WIK
FAR EAST LTD [CN])
[A] 1-14
* paragraphs [0012] - [0024];
figure - *;
[DE202010001953U](#) U1 20100415
[A] (SEVERINELEKTROGERAETE
GMBH [DE])
[A] 15,16
* paragraphs [0019] - [0023];
figure - *

- CCI - [A47J31/42](#) ; [A47J31/4407](#) ;
[A47J42/50](#)
- CUI - [A47J31/4403](#)
- CCA - [A47J43/0777](#)
- PA - (A2 A3)
KONINKL PHILIPS NV [NL]
- TI - (A2 A3)
BEVERAGE-PRODUCING MACHINE
COMPRISING A REMOVABLE
INGREDIENT CONTAINER
- AB - (A2 A3)
A beverage-producing machine (1)
is described, comprising a housing
(3), a beverage producing unit
arranged in the housing and a
container (21) for at least one
beverage ingredient, for example
coffee beans. The container (21) is
lockable to the housing (3) and
unlockable therefrom. The
container (21) comprises a bottom
aperture (27) for dispensing the
ingredient contained therein and
a **shutter** (29) for selectively
closing and opening the aperture.
Furthermore, an actuating member
(37, 39, 41, 45) is provided in the
housing. The actuating member
acts upon the **shutter** for
selectively opening and closing the

bottom aperture (27) of the container while respectively locking the container to the housing and unlocking the container from the housing.

8/36 © EPODOC / EPO

PN - [RU2012121686](#) A 20131210
 PNFP - RU2503393 C1 20140110
 PR - WO2009CH00347 20091102
 AP - RU20120121686 20091102
 DT - I
 CT - || STSE (C1)
 [WO2009109011](#) A1 20090911 [] (BREVILLE R & D PTY LTD [AU], et al);
 [US7464637](#) B1 20081216 [] (LIN SHIN-SHUOH [US]);
 [GB2401308](#) A 20041110 [] (ISLAND CONCEPTS LTD [GB]);
 [US2007028779](#) A1 20070208 [] (PIGLIACAMPO ANTHONY [US], et al);
 [RU2233607](#) C2 20040810 []
 CCI - [A47J31/20](#)
 CUI - [A47J31/0636](#) ; [A47J31/36](#)
 PA - (C1)
 PIAJ DIZAJN AG [CH]
 TI - (C1)
 TEAPOT WITH CLOSABLE POURING OPENING
 AB - (C1)
 FIELD: personal use articles.
 SUBSTANCE: invention relates to a device for preparing beverages, in particular beverages which require brewing. The device for preparing beverages comprises a tank which is open at the top, a filter insert and a lid. In the lower wall of the lower part of the lid an opening is made which configuration enables to put the filter insert into it. The lower part of the lid is held hermetically on the tank, and in



the lower wall of the lid the pouring opening is made for closing which the lid is provided with a **shutter** and a lever, mounted over the lower wall of the lid with the ability to rotate about the horizontal axis. The lever has the activating part, turning it from the first to the second position in which the **shutter** closes and releases respectively the pouring opening. EFFECT: prevention of spilling and the reduction of heat loss of the prepared beverage.15 cl, 5 dwg

9/36 © EPODOC / EPO

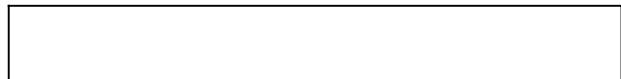
PN - [JP2013221809](#) A 20131028
 PNFP - JP5526394B B2 20140618
 PR - JP20120092572 20120416
 AP - JP20120092572 20120416
 DT - I
 FI - A47J31/40; A47J31/40&104; A47J31/44&Z; G01F11/18
 FT - 4B104/AA11; 4B104/BA02; 4B104/BA04; 4B104/BA06; 4B104/BA66; 4B104/EA28; 4B104/EA31
 PA - (A)
 PENNY JAPAN CO LTD
 TI - (A)
 FIXED QUANTITY SERVER FOR POWDERED FOOD
 AB - (A)
 PROBLEM TO BE SOLVED: To achieve a fixed quantity server capable of supplying powdered food in each predetermined quantity by a simple mechanism. SOLUTION: The fixed quantity server includes: a weighing member 22 forming a weighing chamber S for storing a predetermined quantity of powdered food, and having an upper side aperture for bringing



the powdered food into the weighing chamber S and a lower side aperture for discharging the powdered food in the weighing chamber S; and a **shutter** member 31 for closing the upper side aperture and the lower side aperture of the weighing member 22. The **shutter** member 31 can be moved in a predetermined direction and includes an upper side opening part for opening the upper side aperture of the weighing member 22 and a lower side opening part 33 for opening the lower side aperture of the weighing member 22. The upper side opening part 32 and the lower side opening part 33 to be displaced in accordance with movement of the **shutter** member 31 have an interval d larger than a width D of the weighing chamber S in the moving direction.

10/36 © EPODOC / EPO

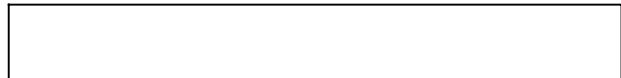
PN - [JP2013214200](#) A 20131017
 PNFP - JP5974593B B2 20160823
 PR - JP20120083984 20120402
 AP - JP20120083984 20120402
 DT - I
 FI - A47J31/00&G; A47J31/40&104;
 A47J31/44&Z; A47J31/44&150;
 G07F13/02&103
 FT - 3E047/DA02; 3E047/DB08;
 4B104/AA23; 4B104/BA11;
 4B104/CA27
 PA - (A)
 FUJI ELECTRIC CO LTD
 TI - (A)
 RAW MATERIAL SUPPLY DEVICE
 OF CUP TYPE AUTOMATIC
 VENDING MACHINE
 AB - (A)
 PROBLEM TO BE SOLVED: To
 provide a raw material supply



device of a cup type automatic vending machine capable of improving a quality of beverage by eliminating malfunction of a raw material chute and leaving no powder raw materials on the raw material chute. SOLUTION: A raw material supply device comprises: a **shutter** 27 that includes a **shutter** body 27a provided rotationally about a rotational shaft 27b at a raw material path 26 for sending powder raw material downward and opening/closing the raw material path 26, and a **shutter** opening lever 27c extending outward from an end of the rotational shaft 27b, and that retains the raw materials in the raw material path 26, with the raw material path 26 closed by the **shutter** body 27a; and a **shutter** opening/closing mechanism 30 that opens/closes the **shutter** 27 via the **shutter** opening lever 27c. The **shutter** opening/closing mechanism 30 rotationally turns the **shutter** 27 so as to vibrate the **shutter** 27 opening the raw material path 26.

11/36 © EPODOC / EPO

PN - [JP2013196282](#) A 20130930
 PNFP - JP5891878B B2 20160323
 PR - JP20120061781 20120319
 AP - JP20120061781 20120319
 DT - I
 CT - || STSE (A)
 [GB1270305](#) A 19720412 [
] (COLLINS RONALD JUDAH [GB])
 FI - A47J31/40; A47J31/40&104;
 A47J31/44; A47J31/44&Z;
 A47J31/44&150; A47J31/60;
 G07F13/10&D
 FT - 3E047/AA02; 3E047/BA01;



3E047/CA02; 3E047/CC03;
3E047/DA01; 3E047/DB01;
3E047/DB08; 4B104/AA23;
4B104/BA02; 4B104/BA04;
4B104/BA09; 4B104/BA11;
4B104/BA16; 4B104/BA36;
4B104/BA74; 4B104/CA13;
4B104/CA18; 4B104/CA27;
4B104/DA05; 4B104/DA42;
4B104/EA13; 4B104/EA28

- PA - (A)
FUJI ELECTRIC CO LTD
- TI - (A)
RAW MATERIAL SUPPLY DEVICE
FOR CUP TYPE AUTOMATIC
VENDING MACHINE
- AB - (A)
PROBLEM TO BE SOLVED: To
provide the raw material supply
device of a cup type automatic
vending machine for improving
beverage quality and for
adopting a compact and
inexpensive conveyance motor.
SOLUTION: The cup type
automatic vending machine
includes: a **shutter**
opening/closing lever 32 for
opening/closing a **shutter** 27 of
a raw material shoot 24; a
selection lever 33 for selecting
the **shutter** opening/closing
lever 32 to be operated; a cam
gear 34 having a cam part 34a
which can be engaged with
the **shutter** opening/closing
lever 32; and drive gear 35
engaged with a gear part 34b of
the cam gear 34. When powder
raw materials are supplied,
the **shutter** 27 is rotated from a
closing position to an opening
position, a **shutter** main body
27a is rotated to open a raw
material passage 26, and the
powder raw materials held on
the **shutter** main body 27a are
dropped and supplied to a cup C

conveyed to the power raw
material supply position and
stopped.

12/36 © EPODOC / EPO

PN - [JP2013184001](#) A 20130919

PNFP - JP5845984B B2 20160120

PR - JP20120053510 20120309

AP - JP20120053510 20120309

DT - I

FI - A47J31/40; A47J31/40&104;
A47J31/44&Z; A47J31/44&100

FT - 4B104/BA02; 4B104/BA04;
4B104/BA10; 4B104/BA11;
4B104/BA23; 4B104/CA18;
4B104/CA27; 4B104/EA06;
4B104/EA12; 4B104/EA15;
4B104/EA27

PA - (A)
FUJI ELECTRIC CO LTD

TI - (A)
RAW MATERIAL RELEASING DEVICE

AB - (A)
PROBLEM TO BE SOLVED: To
surely release dry raw material
after suppressing an increase in
the running cost.SOLUTION: A
raw material releasing device
releases retained dry raw
material inside a chute 20 from
a release port 20a by placing
a **shutter** 21 in an opening
position and opening the release
port 20a. In this case, the raw
material releasing device
includes a first heater 50A and a
second heater 50B each forming
a plane with heat generation
reference plane P, with the
individual heat generation
reference planes P arranged
facing the outer surface plane of
the chute 20. The first heater 50A
has the heat generation
reference plane P arranged
facing diagonally upward in a
position below a raw material



container 10. The second heater 50B has the heat generation reference plane P arranged diagonally upward in a position which is below the first heater 50A. The first heater 50A and the second heater 50B each include portions of an upper side from the shutters 21 placed in closed positions.

13/36 © EPODOC / EPO

- PN - [EP2695555](#) A1 20140212
- PR - DE201210214102 20120808
- AP - EP20130178355 20130729
- DT - *; Rep
- CT - || STSE (A1)
[EP1878370](#) A1 20080116
 [XYI] (WMF WUERTTEMBERG
 METALLWAREN [DE])
 [X] 1-3
 * abstract *
 * paragraph [0005] *
 * paragraph [0007] *
 * paragraph [0009] -
 paragraph [0011] *
 * paragraph [0020] *
 * paragraph [0027] *
 * paragraph [0025] *
 [Y] 4,5
 [I] 6-10;
[US3132656](#) A 19640512
 [Y] (LILLIAN RANKIN)
 [Y] 4,5
 * figures 1,2 *
 * column 2, line 12 - line 31 *
 * column 3, line 10 - line 17 *;
[EP2353472](#) A1 20110810
 [XA] (EUGSTER FRISMAG AG [CH])
 [X] 1
 * abstract *
 * paragraph [0014] *
 [A] 2-10
- CCI - [A47J31/4485](#)
- PA - BSH BOSCH SIEMENS
 HAUSGERAETE [DE]
- TI - Device for cleaning the milk

Fig. 7

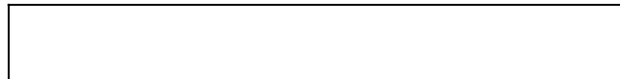


system of fully automatic coffee machines

- AB
- The device has a milk line that is fluidly connected to a milk froth (3) for drawing a liquid from a reservoir outside of a coffee machine (1). A cleaning tank (8) is fluidly connected to the milk line and whose inside diameter is only slightly larger than the outer diameter of the milk line. The cleaning tank fluidly connected to the milk line is closed by a reversible **shutter** (5). The reversible **shutter** is comprised of a pair of plug that are arranged corresponding to each other on the cleaning tank and the milk line, respectively.

14/36 © EPODOC / EPO

- PN - [CN202234834U](#) U 20120530
- PR - CN20112348488U 20110917
- AP - CN20112348488U 20110917
- DT - I
- PA - JINSU LI
- TI - Hot water automatic **shutter** for water dispenser
- AB
- The utility model relates to the technical field of household articles. In the conventional water dispenser, a user can directly get the boiling water when needing to drink the boiling water, so a child is easy to scald due to careless and the effect is not ideal. The utility model provides a hot water automatic **shutter** for a water dispenser, which consists of an electromagnet, a boiling water outlet and an iron pipe plug. The hot water automatic **shutter** for the water dispenser is characterized in that: the electromagnet is arranged above the boiling water outlet of the



water dispenser; and the iron pipe plug capable of blocking the boiling water outlet is arranged below the electromagnet. When the water dispenser is electrified and heated, the electromagnet can attract the iron pipe plug to move upwards and block the boiling water outlet; and when an adult needs to drink the boiling water, and the adult can shut down the power supply, the pipe plug loses the attractive force of the electromagnet and falls off under the action of gravity, and the boiling water outlet is unblocked, so that the boiling water is convenient to take.

15/36 © EPODOC / EPO

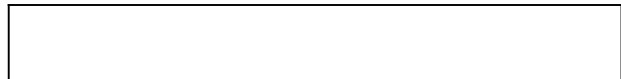
PN - [JP2011167396](#) A 20110901
 PR - JP20100034920 20100219
 AP - JP20100034920 20100219
 DT - I
 FI - A47J31/36&110; A47J31/42;
 A47J31/44&Z; A47J31/44&120
 FT - 4B104/AA11; 4B104/AA19;
 4B104/AA23; 4B104/AA25;
 4B104/AA27; 4B104/BA02;
 4B104/BA04; 4B104/BA11;
 4B104/BA12; 4B104/BA16;
 4B104/BA17; 4B104/BA21;
 4B104/BA23; 4B104/BA29;
 4B104/BA35; 4B104/BA43;
 4B104/BA53; 4B104/BA55;
 4B104/BA60; 4B104/BA63;
 4B104/BA66; 4B104/BA68;
 4B104/BA70; 4B104/BA73;
 4B104/BA75; 4B104/BA81;
 4B104/CA07; 4B104/CA08;
 4B104/CA18; 4B104/CA24;
 4B104/CA25; 4B104/CA26;
 4B104/CA27; 4B104/EA18;
 4B104/EA29
 PA - SANYO ELECTRIC CO
 TI - BEVERAGE MAKING APPARATUS



- AB
- PROBLEM TO BE SOLVED: To provide a beverage making apparatus readily closing the lower side opening of a coffee bean canister, and facilitating maintenance work involving removal of the canister.
 - SOLUTION: The beverage making apparatus includes a mill 71 positioned below the coffee bean canister 70 storing coffee beans and removably mounted to a body, and milling the coffee beans dispensed from the dispensing port 80 of the canister. The mill 71 has a rotating shaft 76 inserted into the canister 70 from the center of the dispensing port 80. A lid member 84 for openably closing the dispensing port 80 keeps a first **shutter** 85 passing through the center of the lid member and a second **shutter** 86 for closing the dispensing port in such a manner as to pass through the dispensing port 80 on both sides of the **shutter** 85 while evading the rotating shaft 76, provided independently movably.
 - COPYRIGHT: (C)2011,JPO&INPIT

16/36 © EPODOC / EPO

- PN - [EP2537775](#) A1 20121226
- PNFP - EP2537775 A4 20130717
- EP2537775 B1 20150527
- PR - ES20100001545
- 20101130; ES20100000195
- 20100216; WO2011ES00039
- 20110215
- AP - EP20110744301 20110215
- DT - *; Rep
- CT - || STSE (A4)
- [US5213230](#) A 19930525
- [A] (KRAL DEAN [CA])
- [A] 1
- * column 3, line 41 - line 51;



figures 3,4 *;
[US2726012](#) A 19551206
 [A] (JENSEN HANSE T)
 [A] 1
 * column 3, line 37 - line 48;
 figure 5 *;
[NL1001137C](#) C2 19970306
 [A] (INTERDEX V O F [NL])
 [A] 1
 * page 5, line 8 - line 10; figure
 1 *;
[GB2372732](#) A 20020904
 [A] (LOVEDAY BARRIE HENRY [GB])
 [A] 1
 * abstract *

- CCI - [A47G19/12](#) ; [B65D21/08](#) ;
[B65D25/56](#) ; [B65D39/025](#) ;
[B65D81/2038](#) ; [B65D81/245](#) ;
[B65D51/1683](#)
- PA - (A1 A4 B1)
 VON DER BEECK I ROMAGOSA
 ERNEST [ES]
- TI - (A1 A4 B1)
 RECIPIENT WITH SLIDING LID AND
 VACUUM TOP
- AB - (A1)
 Recipient with sliding cover and
 vacuum plug characterised in
 that the recipient is provided
 with a spout that incorporates a
 graduated scale, in that the
 cover has a through-opening and
 in that the venting plug has a tab
 with ring and **shutter**. It is
 characterised in that the product
 can be poured using the spout by
 simply moving the cover to the
 upper part of the recipient and it
 is also characterised in that the
 invention applies to recipients
 with transparent, translucent or
 opaque walls, isothermal
 recipients or any other type of
 recipient and also to any type of
 section.

PN	- JP2010273973 A 20101209
PR	- JP20090131119 20090529
AP	- JP20090131119 20090529
DT	- I
FI	- A23G9/12; A47J31/40; A47J31/40&101; A47J31/44&Z; G07F13/06&101
FT	- 3E047/AA02; 3E047/AA04; 3E047/BA01; 3E047/BA02; 3E047/BA03; 3E047/DA02; 3E047/DB08; 3E047/EA02; 3E047/EA04; 3E047/EA07; 3E047/FA07; 3E047/GA06; 4B014/GB23; 4B014/GT02; 4B014/GT20; 4B104/AA23; 4B104/DA05; 4B104/DA44; 4B104/EA12
PA	- SANYO ELECTRIC CO
TI	- BEVERAGE MAKING APPARATUS
AB	- PROBLEM TO BE SOLVED: To provide a beverage making apparatus that can supply a proper amount of powder starting material into a stirring container and that can hygienically make sherbet-like frozen beverages of a prescribed hardness. - SOLUTION: The beverage making apparatus 1 includes: a raw material chute 14 that guides powder starting materials dispensed from a canister 13 containing the powder starting materials to a stirring container 6; a shutter 61 that opens/closes a raw material dispensing port 14A; and a shutter driving part 62. When the prescribed powder starting materials are supplied to the stirring container, the shutter 61 is driven by the shutter driving part 62 to open the raw material dispensing port. At least during the driving of the stirring part 5 provided in the stirring

container 6, the **shutter** 61 is driven by the **shutter** driving part 62, closing the raw material dispensing port.

- COPYRIGHT: (C)2011,JPO&INPIT

18/36 © EPODOC / EPO

PN - [US2010229731](#) A1 20100916
 PNFP - US8091470 B2 20120110
 PR - IT2006UD00014
 20060123; WO2007EP50403
 20070116
 AP - US20070223097 20070116
 DT - **
 CT - || R141 (A1)
[US2005000964](#) A1 20050106 [
] (MORSZECK DIETER [DE], et al);
[US2006016346](#) A1 20060126 [
] (MULLE THEODORE B [US], et al);
[USD513572S](#) S 20060117 [
] (SCHAFFELD JOHN [US], et al);
[USD513681S](#) S 20060124 [
] (PICOZZA AUGUSTO [US], et al);
[US4805523](#) A 19890221 [
] (STUCKEY CARL E [US], et al);
[USD437961S](#) S1 00000000 [];
[USD453656S](#) S 20020219 [
] (BYLER SHANE ADAM [US], et al);
[USD514865S](#) S 20060214 [
] (STEINER MARK C [US]);
[USD561515S](#) S 20080212 [] (DE
 PRA DARIO [IT]);
[USD561516S](#) S 20080212 [] (DE
 PRA DARIO [IT]);
[USD561517S](#) S 20080212 [
] (BORIN GIACOMO [IT], et al);
[USD561518S](#) S 20080212 [
] (BORIN GIACOMO [IT], et al);
[USD562052S](#) S 20080219 [] (DE
 PRA DARIO [IT]);
[USD288885S](#) S 00000000 [];
[US5292023](#) A 19940308 [] (YEN
 FONG-CHEN [TW]);
[USD421360S](#) S 00000000 [];
[US6357342](#) B1 20020319 [
] (LEUNG CHI-WAH [HK]);
[US6532862](#) B2 20030318 [



] (MORK STEVE O [US], et al);
[USD502628S](#) S 20050308 [
] (LEDINGHAM JOHN B [US], et al);
[US7013795](#) B2 20060321 [
] (MULLE THEODORE B [US], et al);
[USD316004S](#) S 00000000 [];
[US5301600](#) A 19940412 [
] (MEDEMA PIETER W [NL]);
[USD345883S](#) S 00000000 [];
[USD473745S](#) S 20030429 [
] (MULLE THEODORE B [US], et al);
[US242254](#) A 18810531 [];
[USD457376S](#) S 20020521 [] (LIN
 YU-YUAN [TW]);
[USD359195S](#) S 00000000 [];
[USD359413S](#) S 00000000 [];
[USD543770S](#) S 20070605 [] (YE
 GUOYAO [US]);
[USD543771S](#) S 20070605 [
] (JULEMONT PIERRE L M [BE]);
[USD545110S](#) S 20070626 [
] (JULEMONT PIERRE L M [BE]);
[USD317996S](#) S 00000000 [];
[USD328217S](#) S 00000000 [];
[USD524588S](#) S 20060711 [
] (COPLAND DUNCAN P [US]);
[US5239914](#) A 19930831 [
] (SALOMON THOMAS [DE], et al);
[US6272974](#) B1 20010814 [
] (PASCOTTI JAMES [US], et al);
[USD446990S](#) S 20010828 [
] (PRAT GAEL JEAN LOUIS
 JACQUES [NL]);
[USD310613S](#) S 00000000 [];
[USD350667S](#) S 00000000 [];
[USD479087S](#) S 20030902 [
] (YAO YUNG-TIEN [TW]);
[USD479089S](#) S 20030902 [
] (YAO YUNG-TIEN [TW]);
[US2008216667](#) A1 20080911 [
] (GARMAN MICHAEL [US], et al);
[USD449196S](#) S 20011016 [
] (BOUHUYS LOUIS JOHAN [NL], et
 al);
[USD449197S](#) S 20011016 [
] (BYLER SHANE ADAM [US]);
[US5687637](#) A 19971118 [
] (BROOKSHIRE PHILLIP L [US], et
 al);

[USD481902S](#) S 20031111 [] (O'CONNOR CHRISTIAN E [US], et al);
[US5586485](#) A 19961224 [] (BAUMANN HEINRICH [DE]);
[USD418000S](#) S 00000000 [];
[US7146904](#) B2 20061212 [] (SCRIBNER PAUL [US])
- || STSE (B2)
[US242254](#) A 18810531 [];
[US5292023](#) A 19940308 [] (YEN FONG-CHEN [TW]);
[US6357342](#) B1 20020319 [] (LEUNG CHI-WAH [HK]);
[US7146904](#) B2 20061212 [] (SCRIBNER PAUL [US]);
[US2005000964](#) A1 20050106 [] (MORSZECK DIETER [DE], et al);
[US2006016346](#) A1 20060126 [] (MULLE THEODORE B [US], et al);
[US2008216667](#) A1 20080911 [] (GARMAN MICHAEL [US], et al)
CCI - [A47J31/4407](#) ; [A47J31/0573](#)
PA - (A1)
DE LONGHI SPA [IT]
- (B2)
DE LONGHI GIUSEPPE [IT]; DE LONGHI SPA [IT]
TI - (A1)
Machine for Filtered Coffee With **Shutter** Opening
- (B2)
Machine for filtered coffee with **shutter** opening
AB - (A1 B2)
A machine for filtered coffee, having an upper body, inside which a filter-carrier for the coffee and a tank for the water are housed, both accessible through a window. The machine comprises a **shutter** able to be moved slidingly with respect to said upper body between an open condition and a closed condition of said window and vice versa, so as to selectively allow complete frontal access to

said filter-carrier and to said tank, through said window, leaving free frontal access to the filter-carrier and to the water tank. The machine further comprises a pivoting opening which opens frontally with respect to a user and allows access to said tank, when said **shutter** is in the open condition, for conveying water to the tank without moving said tank from the machine.

19/36 © EPODOC / EPO

PN - [EP2218377](#) A1 20100818

PNFP - EP2218377 B1 20110907

PR - IT2009MI00193 20090213

AP - EP20100152990 20100209

DT - *; Rep

CT - || STSE (A1)
[DE202007009537U](#) U1
 20070927 [X] (TSANN KUEN CHINA ENTPR CO LTD [CN])
 [X] 1,4,17
 * paragraphs [0017] , [0 19] , [0 22]; figure 3 *;
[DE19719784](#) C1 19980716
 [A] (IANCHELLO BATTISTA [DE])
 [A] 2,3,6
 * column 6, line 22 - column 7, line 49; figure 14 *

CCI - [A47J31/4485](#)

PA - (A1 B1)
 DE LONGHI APPLIANCES SRL [IT]

TI - (A1 B1)
 Device and process for the entrainment of a liquid in an emulsifying device of a coffee machine

AB - (A1)
 The device (1) for the entrainment of a liquid comprises a suction tube (2) designed to be connected to a collector (3) fed by steam coming from the hydraulic circuit (4) of



a coffee-making machine, valve means being provided inside the tube (2) that comprise a **shutter** (10) movable between a position suitable for enabling the entrainment, wherein a sufficiently wide passage is opened, and a subsequent position once the entrainment has been enabled, wherein the entrainment passage is narrower than in the initial position required to enable said entrainment.

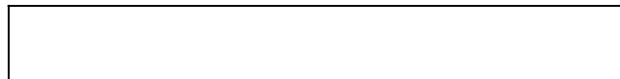
20/36 © EPODOC / EPO

PN - [CN101528097](#) A 20090909
PR - WO2006IT00562 20060724
AP - CN2006855857 20060724
DT - I
CCI - [A47J31/303](#)
CCA - [A47J31/4489](#)
PA - BIYARATI INDUSTRY SPA
TI - Valve for cappuccino maker
AB - The present invention concerns a valve (5) for a home cappuccino maker (1) of the type comprising a boiler (3) and a collector (2) having a column (22). The valve (5) comprises a valve body (50), coupling means (522) suitable for fixing the valve (5) to coupling means (225) of the column (22), and a **shutter** (52) mobile between a closed position and an open position of a duct (4). The valve also comprises a basket (55) suitable for cooperating with the coupling means (225) of the column (22) and with the **shutter** (52).

2

21/36 © EPODOC / EPO

PN - [JP2009125252](#) A 20090611
PR - JP20070302546 20071122



AP	- JP20070302546 20071122
DT	- I
FI	- A47J31/057; A47J31/42; A47J31/44&Z; A47J31/44&100
FT	- 4B004/AA13; 4B004/BA02; 4B004/BA22; 4B004/BA31; 4B004/BA40; 4B004/BA42; 4B004/CA11; 4B004/CA24; 4B104/AA13; 4B104/AA24; 4B104/AA25; 4B104/BA02; 4B104/BA04; 4B104/BA12; 4B104/BA13; 4B104/BA15; 4B104/BA18; 4B104/BA19; 4B104/BA23; 4B104/BA43; 4B104/BA53; 4B104/BA66; 4B104/BA69; 4B104/BA80; 4B104/BA81; 4B104/BA82; 4B104/CA01; 4B104/CA02; 4B104/CA18; 4B104/CA19; 4B104/CA30; 4B104/DA03; 4B104/DA18; 4B104/DA36; 4B104/DA54; 4B104/DA55; 4B104/EA19; 4B104/EA31; 4B104/EA35; 4B104/EA40
PA	- DAINICHI CO LTD
TI	- COFFEE MAKER
AB	- PROBLEM TO BE SOLVED: To provide a user-friendly coffee maker preventing the storage of coffee beans more than a specific amount in a storage part and, when a user requests to extract liquid coffee, surely extracting the liquid coffee. - SOLUTION: When coffee bean detection means provided in the storage part detects the specific amount of or more coffee beans, this coffee maker executing the steps from the roast of coffee raw beans to the extraction of the liquid coffee closes a discharge shutter , without roasting operation in a roaster and allows display means provided in an operation part to notify that the specific amount of

or more coffee beans are fed.
- COPYRIGHT: (C)2009,JPO&INPIT

22/36 © EPODOC / EPO

PN - [CA2661945](#) A1 20080131
PR - WO2006IT00562 20060724
AP - CA20062661945 20060724
DT - I
CCI - [A47J31/303](#)
CCA - [A47J31/4489](#)
PA - BIALETTI IND SPA [IT]
TI - VALVE FOR CAPPUCCINO MAKER
AB - The present invention concerns a valve (5) for a home cappuccino maker (1) of the type comprising a boiler (3) and a collector (2) having a column (2 2). The valve (5) comprises a valve body (50), coupling means (522) suitable for fixing the valve (5) to coupling means (225) of the column (22), and a **shutter** (52) mobile between a closed position and an open position of a duct (4). The valve also comprises a basket (55) suitable for cooperating with t he coupling means (225) of the column (22) and with the **shutter** (52).</SDOAB >

23/36 © EPODOC / EPO

PN - [CN101389247](#) A 20090318
PNFP - CN101389247B B 20110511
PR - IT2006UD00014
20060123; WO2007EP50403
20070116
AP - CN2007806524 20070116
DT - I
CCI - [A47J31/4407](#) ; [A47J31/0573](#)
PA - (A)
DE LONGHI SPA [IT]
- (B)
DE LONGHI SPA
TI - (A B)

Machine for filtered coffee
with **shutter** opening

AB - (A B)

A machine for filtered coffee, has an upper body (11), inside which a filter-carrier (14) for the coffee and a tank (20) for the water are housed, both accessible through a window (42). The machine comprises a **shutter** (17) able to be moved slidably with respect to said upper body (11) between an open condition and a closed condition of said window (42) and vice versa, so as to selectively allow complete frontal access to said filter-carrier (14) and to said tank (20), through said window (42), leaving free frontal access to the filter-carrier and to the water tank. The machine further comprises a pivoting opening (19) which opens frontally with respect to a user and allows access to said tank (20), when said **shutter** (17) is in the open condition, for conveying water to the tank (20) without moving said tank (20) from the machine.

24/36 © EPODOC / EPO

PN - [US4779519](#) A 19881025

PR - IT19860021589U 19860418

AP - US19870039622 19870416

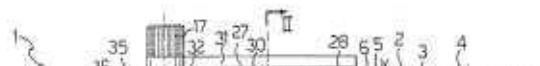
DT - **

CT - || STSE (A)
[US3188055](#) A 19650608 [] (R D LUTJENS & CO);
[US3854700](#) A 19741217 [] (MACMANUS J);
[US4715274](#) A 19871229 [] (SPIDEM SRL [IT])

CCI - [A47J31/24](#) ; [A47J31/4485](#)

CCA - [Y10T137/87627](#) ;
[Y10T137/87595](#)

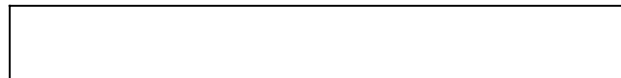
PA - NUOVA FAEMA SPA [IT]



- TI - Emulsifier assembly for emulsifying air, steam, and milk in preparing cappuccino and the like beverages, particularly for use with bar-size makers
- AB - An emulsifier assembly for emulsifying air, steam, and milk in preparing cappuccino and like beverages, particularly for use with bar-size espresso coffee makers, being also adapted for heating up milk in preparing café au lait, comprises a body, a steam delivery channel opening into a suction chamber of the body, an air intake line and a milk intake line. Both lines are in communication with the suction chamber, and a flow rate adjuster is connected in the air intake line. A before **shutter** member is operative in the air intake line, and a restrictor member is operative in an end section of the milk intake line. Both of these members are hand-actuable.

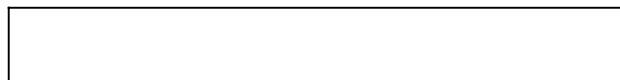
25/36 © EPODOC / EPO

- PN - [JP2004073518](#) A 20040311
- PR - JP20020238736 20020820
- AP - JP20020238736 20020820
- DT - I
- CCI - [A47J31/42](#)
- FI - A47J31/057; A47J31/42; A47J31/44&Z; A47J31/52
- FT - 4B004/AA13; 4B004/BA31; 4B004/CA21; 4B104/AA12; 4B104/AA24; 4B104/AA25; 4B104/BA03; 4B104/BA04; 4B104/BA13; 4B104/BA15; 4B104/BA17; 4B104/BA43; 4B104/BA53; 4B104/BA66; 4B104/BA68; 4B104/BA69; 4B104/BA81; 4B104/BA82; 4B104/CA02; 4B104/CA18; 4B104/CA19; 4B104/DA02;



4B104/DA22; 4B104/DA29;
4B104/DA50; 4B104/EA07;
4B104/EA10; 4B104/EA12;
4B104/EA17; 4B104/EA19;
4B104/EA26; 4B104/EA27;
4B104/EA29; 4B104/EA30;
4B104/EA35

- PA - DAINICHI CO LTD
- TI - COFFEE MAKER
- AB - PROBLEM TO BE SOLVED: To provide a coffee maker which efficiently discharges smoke and heated air which are generated during roasting and cooling to the outside of an apparatus and which is durable by preventing a crushing portion from being stopped abnormally due to raw coffee beans.
- SOLUTION: After completing roasting, a discharging **shutter** is closed during cooling of the coffee beans. Thus, most of the smoke generated from the coffee beans during cooling flows into a roaster from a cooling portion and passes through a deodorization catalyst, thereby the smoke is decomposed by oxidization and discharged to the outside of the apparatus, so that reduced smoke enters the inside of the apparatus. Moreover, the discharging **shutter** is closed after the lapse of a fixed period after stopping an agitator in the roaster. Thus, the coffee beans are no longer caught between the discharging **shutter** and the roaster.
- COPYRIGHT: (C)2004,JPO



AP	- JP20020072362 20020315
DT	- I
FI	- A47J31/00&307; A47J31/42; A47J31/44&Z; A47J31/58; A47J42/44
FT	- 4B004/AA15; 4B004/BA50; 4B004/CA11; 4B004/CA30; 4B104/AA12; 4B104/AA25; 4B104/BA02; 4B104/BA04; 4B104/BA10; 4B104/BA11; 4B104/BA16; 4B104/BA19; 4B104/BA39; 4B104/BA41; 4B104/BA45; 4B104/BA54; 4B104/BA57; 4B104/BA58; 4B104/BA68; 4B104/BA81; 4B104/CA08; 4B104/CA14; 4B104/CA18; 4B104/DA02; 4B104/DA04; 4B104/DA07; 4B104/DA11; 4B104/DA41; 4B104/EA11; 4B104/EA13; 4B104/EA14; 4B104/EA29
PA	- (A) HOSHIZAKI ELECTRIC CO LTD
TI	- (A) COFFEE MILL APPARATUS
AB	- (A) PROBLEM TO BE SOLVED: To prevent a mill from being erroneously operated. - (A) SOLUTION: A hopper 13 for collecting coffee beans is installed on a top plate 40 of a body 10 of a coffee extraction machine, and an outlet cylinder 43 of the hopper is fitted to an inlet cylinder 48 of the mill equipped with a feed screw 49. The hopper 13 is provided with a shutter 50 to be slid along a guide groove 55 for opening/closing the outlet cylinder 43 with an opening/ closing part 54. When the shutter 50 is pulled out to a regular closing position, a head 65a of a lock pin 65 erected on

the top plate 40 is engaged with a release hole 63 of the **shutter** 50 to attach and detach the hopper 13 to and from the top plate 40. When the **shutter** 50 is pushed into a regular opening position after the hopper 13 is installed, a lead switch 68 is turned on sensitively to a magnet 67 provided on the **shutter** 50. Until the lead switch 68 is turned on, driving of the mill or the screw 49 is regulated even when an extraction switch is turned on.

- (A)

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27/36 © EPODOC / EPO

PN - [JP2001275843](#) A 20011009
 PNFP - JP4154708B B2 20080924
 PR - JP20000098678 20000331
 AP - JP20000098678 20000331
 DT - I
 FI - A47J31/00&B; A47J31/00&101;
 A47J31/44&Z; A47J31/44&100
 FT - 4B004/AA12; 4B004/AA18;
 4B004/BA26; 4B004/BA29;
 4B004/BA40; 4B004/CA08;
 4B004/CA30; 4B104/AA25;
 4B104/AA29; 4B104/BA02;
 4B104/BA03; 4B104/BA04;
 4B104/BA06; 4B104/BA12;
 4B104/BA16; 4B104/BA21;
 4B104/BA23; 4B104/BA66;
 4B104/BA68; 4B104/BA81;
 4B104/BA82; 4B104/CA06;
 4B104/CA13; 4B104/CA18;
 4B104/CA19; 4B104/CA27;
 4B104/EA06; 4B104/EA13;
 4B104/EA15; 4B104/EA19
 PA - (A)
 NIPPON KOUATSU ELECTRIC CO
 TI - (A)
 POWDER TEA FEEDER FOR TEA
 DISPENSER



AB

- (A)

PROBLEM TO BE SOLVED: To solve the problems of a connectional feeder, which stores powder material such as powder tea in a storage part or raw material container and quantitatively delivers the powder material located on a cylinder or feed coil in the storage part or raw material container, wherein the powder material located except on the cylinder or feed coil or located on the walls of the storage part or raw material container remains undelivered to form a bridge-shape and remain in the storage part and can not be used effectively, and steam from a mixing case and the like damps the powder material near an outlet into a sticky state to cause it to remain in the outlet and storage part.

SOLUTION: This powder tea feeder for a tea dispenser, which is for storing powder tea and quantitatively feeding it to a container, comprises a storage part for storing the powder tea, a measuring part for measuring out a fixed quantity of the powder tea in the storage part and discharging it to the container via sliding motion, an agitating member fixed to the measuring part to agitate the powder tea in the storage part when the measuring part makes the sliding motion, and a **shutter** for preventing an intrusion of steam into the measuring part.

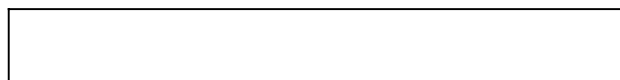
28/36 © EPODOC / EPO

PN - [JP2000014556](#) A 20000118

PNFP - JP3608946B B2 20050112

PR - JP19980189176 19980703

AP - JP19980189176 19980703

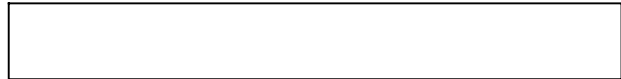


DT	- I
FI	- A47J31/00&B; A47J31/02; A47J31/06&160; A47J31/44&Z
FT	- 4B004/AA18; 4B004/BA40; 4B004/BA41; 4B004/CA14; 4B004/CA30; 4B104/AA11; 4B104/AA12; 4B104/AA29; 4B104/BA02; 4B104/BA04; 4B104/BA05; 4B104/BA15; 4B104/BA16; 4B104/BA17; 4B104/BA21; 4B104/BA23; 4B104/BA29; 4B104/BA66; 4B104/BA68; 4B104/BA73; 4B104/BA87; 4B104/CA18; 4B104/CA27; 4B104/CA30; 4B104/EA17; 4B104/EA28
PA	- (A) HOSHIZAKI ELECTRIC CO LTD
TI	- (A) COMING-OUT PREVENTING STRUCTURE OF SHUTTER SHAFT IN CANISTER
AB	- (A) PROBLEM TO BE SOLVED: To provide the coming-out preventing structure of a shutter shaft capable of reducing the number of parts and the number of assembling processes. SOLUTION: The shutter shaft 35 is put through to the shaft holes 32, 37 of a canister 11 and the axial hole 33 of a shutter 15 from behind. The front tip 35A of the shaft 35 and the hole 33 on this side of the shutter 15 are non- circular cross sections. The stutter 15 is integrally supported with the shaft 35 in the state of being capable of swinging a tea leaf feeding port 14 and energized in a closing direction by an energizing spring. On the rear end side of the shaft 35, a follower part 36 bent at a right angle is formed to be engaged with the peripheral surface of a first cam 55 to be rotated and

driven and the **shutter** 15 is opened against energizing force by the rotation of the first cam 55. On the rear face side of the first cam 55, a flange 56 to be a stopper is integrally formed to regulate the coming out of the shaft 35 backward by butting the part 36.

29/36 © EPODOC / EPO

- PN - [JP2000316726](#) A 20001121
- PR - JP19990168735 19990511
- AP - JP19990168735 19990511
- DT - I
- FI - A47J31/00&302; A47J31/02;
A47J31/06&110; A47J31/46;
A47J31/54&200
- FT - 4B004/AA03; 4B004/BA16;
4B004/BA21; 4B004/BA22;
4B004/BA29; 4B004/BA35;
4B004/BA50; 4B004/CA02;
4B004/CA17; 4B104/AA03;
4B104/AA20; 4B104/AA30;
4B104/BA25; 4B104/BA45;
4B104/BA46; 4B104/BA57;
4B104/EA28; 4B104/EA31;
4B104/EA33
- PA - IKOMA TATSUO
- TI - EXPANDING BAG AND BEVERAGE
EXTRACTOR USING THE SAME
- AB - PROBLEM TO BE SOLVED: To
allow anybody to make a
delicious extracted beverage
without regard to their skills.
SOLUTION: Water 8 and a
extracting beverage material 9
are put into a first space 3 at the
upper part of a beverage body 1
and placed on a cup 12 to be
heated in a microwave oven.
Extraction from the material 9
with the water 8 warmed in a
heating period until boiling of
the water 8 is started. A
prescribed time after boiling of
the water 8, a liquid in an



expanding bag 10 is evaporated to expand a volume to push up the operating part 5c of a **shutter** valve 5, and an opening and closing part 5b opens a flow-out port 6. Thus, extracted liquid 8a extracted from the material 9 in the first space 3 and filtered by a filter 2 flows down from the port 6 to be extracted.

30/36 © EPODOC / EPO

- PN - [WO2008012840](#) A1 20080131
- PR - WO2006IT00562 20060724
- AP - WO2006IT00562 20060724
- DT - *; Rep
- CT - |EP| ISR (A1)
[WO2006008763](#) A1 [X];
[US4557187](#) A [A];
[US3077156](#) A [A]
- CCI - [A47J31/303](#)
- CCA - [A47J31/4489](#)
- PA - BIALETTI IND SPA [IT]; RANZONI FRANCESCO [IT]
- TI - VALVE FOR CAPPUCCINO MAKER
- AB - The present invention concerns a valve (5) for a home cappuccino maker (1) of the type comprising a boiler (3) and a collector (2) having a column (22). The valve (5) comprises a valve body (50), coupling means (522) suitable for fixing the valve (5) to coupling means (225) of the column (22), and a **shutter** (52) mobile between a closed position and an open position of a duct (4). The valve also comprises a basket (55) suitable for cooperating with the coupling means (225) of the column (22) and with the **shutter** (52).

2

31/36 © EPODOC / EPO

PN - [WO2007082888](#) A1 20070726

PR - IT2006UD00014 20060123

AP - WO2007EP50403 20070116

DT - *; Rep

CT - |EP| ISR (A1)
[US6357342](#) B1 20020319
 [A] (LEUNG CHI-WAH [HK])
 [A] 1
 * column 2, line 16 - line 43 *
 * figures 1-4 *;
[EP0079235](#) A2 19830518
 [A] (BENTZ & SOHN MELITTA [DE])
 [A] 1
 * page 10, line 21 - page 11,
 line 9 *
 * figure 1 *

CCI - [A47J31/4407](#) ; [A47J31/0573](#)

PA - DE LONGHI SPA [IT]; DE LONGHI
 GIUSEPPE [IT]

TI - MACHINE FOR FILTERED COFFEE
 WITH **SHUTTER** OPENING

AB - A machine for filtered coffee,
 having an upper body (11),
 inside which a filter-carrier (14)
 for the coffee and a tank (20) for
 the water are housed, both
 accessible through a window
 (42). The machine comprises
 a **shutter** (17) able to be moved
 slidingly with respect to said
 upper body (11) between an open
 condition and a closed condition
 of said window (42) and vice
 versa, so as to selectively allow
 complete frontal access to said
 filter-carrier (14) and to said
 tank (20), through said window
 (42), leaving free frontal access
 to the filter-carrier and to the
 water tank. The machine further
 comprises a pivoting opening
 (19) which opens frontally with
 respect to a user and allows
 access to said tank (20), when
 said **shutter** (17) is in the open
 condition, for conveying water to
 the tank (20) without moving



said tank (20) from the machine.

32/36 © EPODOC / EPO

PN - [EP0406125](#) A1 19910102

PNFP - EP0406125 B1 19930825

PR - FR19890008764 19890630

AP - EP19900401904 19900629

DT - *; Rep

CT - || STSE (A1)
[DE2540211](#) A1 19770324
[A] (KRUPS FA ROBERT);
[US3935805](#) A 19760203
[A] (IHLENFELD RUSSELLE);
[DE8810770U](#) U1 19881013 [A];
[JPS61119141](#) A 19860606
[A] (TOSHIBA ELECTRIC
APPLIANCE)

CCI - [A47J31/4407](#) ; [A47J31/50](#)

PA - (A1)
MOULINEX SA [FR]

TI - (A1)
Lid for an infusion receiving
container.
- (B1)
LID FOR AN INFUSION RECEIVING
CONTAINER

AB - (A1)
The invention relates to a lid for
an infusion-receiving container
(1) having an opening (5) for the
passage of the infusion flowing
from a filter (3) of a coffee-
making machine and comprising
means (6, 7) for closing the said
opening. According to the
invention, the closure means (6)
consist, in particular, of a
sealing device (**shutter**) (8)
having holes (9) of such a size as
to create a liquid seal through
the effect of surface tension at
the end of the passage of the
infusion through the said holes.
The invention applies to infusion-
receiving containers of the
isothermal type. <IMAGE>



33/36 © EPODOC / EPO

- PN - [EP0243326](#) A2 19871028
- PNFP - EP0243326 A3 19890125
- EP0243326 B1 19920129
- PR - IT19860021589U 19860418
- AP - EP19870830148 19870416
- DT - *; Rep
- CT - || STSE (A3)
[EP0195750](#) A2 19860924 [
] (SPIDEM SRL [IT]);
[EP0157069](#) A1 19851009 [
] (CHIARO MARIO [IT], et al);
[US4479908](#) A 19841030 [
] (ARBEILLE YVES [FR], et al);
[US4105721](#) A 19780808 [
] (SCHLIEBE RAE D);
[US4505431](#) A 19850319 [
] (HUFFMAN DAVID C [US]);
[EP0173651](#) A1 19860305 [
] (NUOVA FAEMA SPA [IT]);
[US4160002](#) A 19790703 [
] (JANOVITCHIK VIACHESLAV J)
- CCI - [A47J31/24](#) ; [A47J31/4485](#)
- CCA - [Y10T137/87627](#) ;
[Y10T137/87595](#)
- PA - (A2)
NUOVA FAEMA SPA [IT]
- TI - (A2)
An emulsifier assembly for
emulsifying air, steam, and milk
in preparing cappuccino and the
like beverages, particularly for
use with bar-size coffee makers.
- (A3 B1)
AN EMULSIFIER ASSEMBLY FOR
EMULSIFYING AIR, STEAM, AND
MILK IN PREPARING CAPPUCCINO
AND THE LIKE BEVERAGES,
PARTICULARLY FOR USE WITH BAR-
SIZE COFFEE MAKERS
- AB - (A2)
An emulsifier assembly (1) for
emulsifying air, steam, and milk
in preparing cappuccino and the
like beverages, particularly for



use with bar-size espresso coffee makers, being also adapted for heating up milk in preparing café au lait, comprises a body (2), a steam delivery channel (3) open into a suction chamber (6), an air intake line (9) and a milk intake line (8), both said lines (8, 9) being in communication with the suction chamber (6), a flow rate adjuster (16) connected in the air intake line (9), a **shutter** member (18) operative in the air intake line (9), and a restrictor member (23) operative in an end section (11) of the milk intake line (8), both said members (18, 23) being hand-actuatable.

34/36 © EPODOC / EPO

- PN - [DE2855378](#) A1 19800626
- PR - DE19782855378 19781221
- AP - DE19782855378 19781221
- DT - *; Rep
- CCI - [A47J31/44](#)
- PA - BOSCHSIEMENSHAUSGERAETE
- TI - Drink dispensing machine with illuminated drinking cup compartment, - has electric light set into top rear side of compartment with shielding **shutter**
- AB - The drink dispensing machine is electrically operated from the mains, and consists of a dispensing compartment which takes a drinking cup. An electric light is positioned at the top of the compartment and is shielded by the roof of the compartment. The light is situated on the edge of the roof adjoining the back wall of the dispensing compartment, and is set into the roof and shielded at the front by a screen.



35/36 © EPODOC / EPO

PN - [CA1268345](#) A 19900501
PR - IT19860021589U 19860418
AP - CA19870535121 19870421
DT - I
CCI - [A47J31/24](#) ; [A47J31/4485](#)
CCA - [Y10T137/87627](#) ;
[Y10T137/87595](#)
PA - NUOVA FAEMASPA
TI - EMULSIFIER ASSEMBLY FOR
EMULSIFYING AIR, STEAM, AND
MILK IN PREPARING CAPPUCCINO
AND THE LIKE BEVERAGES,
PARTICULARLY FOR USE WITH BAR-
SIZE MAKERS
AB - AN EMULSIFIER ASSEMBLY FOR
EMULSIFYING AIR, STEAM AND
MILK IN PREPARING CAPPUCCINO
AND THE LIKE BEVERAGES,
PARTICULARLY FOR USE WITH BAR-
SIZE MAKERS An emulsifier
assembly for emulsifying air,
steam, and milk in preparing
cappuccino and the like
beverages, particularly for use
with bar-size espresso coffee
makers, being also adapted for
heating up milk in preparing café
au lait, comprises a body, a
steam delivery channel open into
a suction chamber, an air intake
line and a milk intake line/ both
said lines being in
communication with the suction
chamber, a flow rate adjuster
connected in the air intake line,
a **shutter** member operative in
the air intake line, and a
restrictor member operative in
an end section of the milk intake
line, both said members being
hand-actuatable.

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36/36 © EPODOC / EPO

PN - [EP0717948](#) A1 19960626
PNFP - EP0717948 B1 19970730

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PR - DE19940020340U 19941220

AP - EP19950117811 19951110

DT - **

CT - || STSE (A1)
[US4052318](#) A 19771004
 [X] (KREBS BONNIE E)
 [X] 1,2,8,9
 * column 1, line 66 - column 3,
 line 23; figure - *;
[FR1013020](#) A 19520722
 [A] (DESCHAMPS)
 [A] 1
 * the whole document *;
[US5028328](#) A 19910702
 [A] (LONG JOSEPH F [US])
 [A] 1
 * column 2, line 21 - line 67;
 figures 3-5 *;
[EP0020093](#) A1 19801210
 [A] (MEYER DAIRY PROD [US]);
[CH349388](#) A 19601015
 [A] (HUGENTOBLE MAX [CH]);
[DE4129814](#) A1 19930311
 [A] (SAEZ DANIEL SOLER [ES]);
[BE563477](#) A 00000000
 [A] (KAPENGA)

CCI - [A47J31/0663](#) ; [A47J31/446](#) ;
[A47J31/4496](#)

PA - (A1 B1)
 MAXS AG [CH]

TI - (A1 B1)
 Reusable filter insert for
 espresso coffee

AB - (A1)
 The permanent filter insert for an
 espresso machine uses a filter
 disc (1) with holes (9) in the flow
 direction. Beneath this is a
 second disc (2), or **shutter**, with
 holes (10) so that the flow of the
 coffee is made strongly turbulent
 or is reversed in direction. The
 holes of both discs are displaced
 relative to each other. The holes
 of at least the **shutter** expand
 like a diffusor. The distance
 between the discs is preferably

between 0.05mm and 4mm.
The **shutter** has ribs on its upper side to support the filter disc at this distance. The holes in at least one disc are polygonal in cross-section. The **shutter** is made from plastic and both are held in a plastic frame.

[SS 9] ..v

[EPODOC: SS 9]