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Declarations under Rule 4.17:

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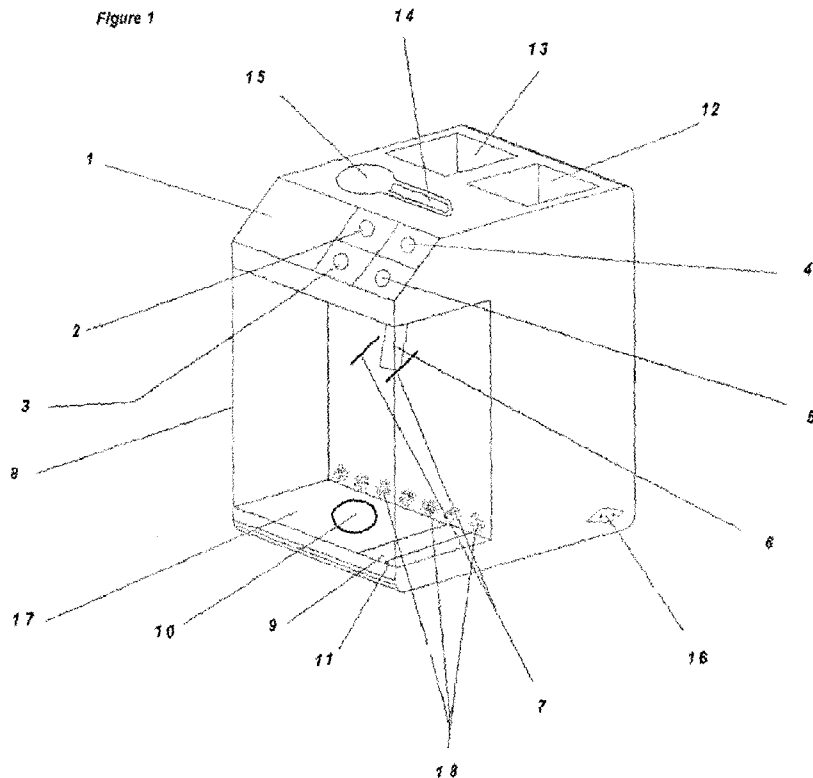
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(54) Title: INSTANT CAPSULATED MILK MACHINE AND RELATED CAPSULE



(57) Abstract: The present invention provides a machine for sterilizing baby bottles and for dispensing metered doses of water and infant formula into the sterilized baby bottles. The invention also provided instant capsulated milk (ICM) to be used in the machine, said capsule containing powder milk enough for feeding a baby for a full day.

WO 2014/067537 A1

— *with amended claims and statement (Art. 19(1))*

INSTANT CAPSULATED MILK MACHINE AND RELATED CAPSULE

Technical filed:

Automatic device for preparation of new born feeding formula and new form for filling of milk powder.

Background Art:

In the beginning mother's milk is the best to feed babies, but now Under the rapid development of all aspects of life in addition to many of the tasks carried out by rights, especially the mother with her children and some problems that appear after birth for the mother which prevent breast feeding , a lot of mothers go to industrial powder milk for infant feeding, which is prepared in many cases by maids who lack awareness of health adequate in preparation of bottle feeding milk from sterilization and cleanliness tools used in this operation and also to adjust the concentration of milk and mix it in an appropriate manner and adjust the temperature, which led to the emergence of a lot of problems in children, including For example, but not limited to: -

Diarrhea: which occurs as a result of contamination of the milk from the hands of the mother also as a result of not sterilization of tools used for this process, as nipples and feeding bottle?

Constipation: often occurs as a result of mixing milk by higher concentration than the recommended concentration for inaccuracies of mother in determining the appropriate amount.

Malnutrition: that occurs as a result of increasing the amount of water used in the process which leads to lower concentration and satisfy the baby with water which lake of necessary elements for the daily needs of the baby.

Milk contamination: occur as a result of capturing the mother of the Ad Hoc bushels inside the tin of milk powder.

A lot of problems that occur for the baby as a result of errors that occur during the process of preparation of artificial milk powder and here I came up with the idea of this invention.

New idea of invention:

The instant capsulated milk machine skip and solving all the problems and errors that occur during the process of preparing artificial milk automatic without interference from the mother only in determining the amount of milk needed to baby where the sterilization of all the tools that are used in the preparation and withdraw the amount of water required and that are of the proper temperature and then withdrawn the amount of artificial milk powder from the instant capsulated milk to be a steady and appropriate concentration and then to mix it automatically to become ready to feed directly.

Disclosure of invention:

In Figure 1 invention contain of the display (1) where you view both the amount of milk required for feeding and identified by the mother and also indicator that the device is in standby mode beside control keys are shown in Figure 2 ,starting by key Start (2) and button Reset (3) The key Steam (4) and key amount of milk required +30 ML (5), in is the bottom of them the preparation and sterilization room (8), which consists of glass door inside it add and mixing unit (6), which consists of steam slots inside the bottle (22) The entrance of feeding water (19) and the entrance to milk powder (20) with a slot to installation of mixing arm (25) or cleaning brush (26) which is referred number (21), and preparation and sterilization room (8) contains also bottle carrier (7) where mother fixing feeding bottle in it with an installed base of feeding bottle (10), which found above drainage tank of sterilization water (17) and next to each the nipples storage room (9) and

installation clamp for feeding nipples (11) that used by the mother in the installation of sterile nipples to prevent contamination from the hands of the mother, and inside the preparation and sterilization room also you will find general sterilization steam slots (18) which sterilize everything inside the room from the feeding bottle, feeding nipples and installation clamp for feeding nipples (11), and in the top surface of the device you will find opening arm of instant capsulated milk room (14) where used by the mother to open the of instant capsulated milk room (15) when changing of instant capsulated milk (23) and opening of the new capsule from removable cover (24) after the end of installed capsule in the device, one capsule sufficient for a full day, behind instant capsulated milk room (15) you will find sterilization water tank (12) and feeding water tank (13).

Figure 2 Shows side view of the device where it appears the entrance voltage (16) and clarify more of the display screen (1) with the control panel, also more clarify figure to add and mixing Unit (6) which contains the entrance of feeding water (19) and the entrance of milk powder (20) and steam slots inside the bottle (22) with a slot to installation of mixing arm or cleaning brush (21).

Also Figure 3 Shows instant capsulated milk (23) with surrounding removable covers (24) which removed by the mother before installation of capsule in the machine.

In Figure 4 we see a clarification to procedure of the machine and which start by installation of instant capsulated milk (23) after opening from removable cover (24) and installed in instant capsulated milk room (15) which opens by using opening arm of instant capsulated milk room (14) to get ready Then fill each of the sterilization water tank (12) and feeding water tank (13) and electrically connect the device.

When the mother prepare milk for the baby the only thing to do is determine the amount of milk required from quantify key +30 ML (5) and pressing a Start key (2) for the start device to prepare the milk , starting by withdrawing water from sterilization water tank (12) to be pumped into the

form of vapor for sterilization of the preparation and sterilization room (8) and inside the bottle through the add and mixing unit (6) for sterilized all contents in preparation and sterilization room (8) including the feeding bottle and nipples and installation clamp for feeding nipples (11) to become ready for use , then the device withdraw the amount of water required from feeding water tank (13), which contains water temperature of 37 degrees Celsius, which could be 30 ml or 60 ml or 90 ml to 240 ml respectively (each 30 ml of water need one bushels which equal to 4.8 gm of milk powder to get accurate concentration) with the withdrawal of the right amount of milk powder from inside the instant capsulated milk (23) to the bottle by add and mixing unit (6), which start after the addition of water and powdered milk by mixing arm (25) and after the completion of mixing milk well the device lit indicator in the display (1) with a beep end the process of preparing the milk to become ready to gave to the baby after installing of feeding nipple using installation clamp for feeding nipples (11) . Thus, the device finishes its work where it becomes in the standby mode until the next time for milk preparation again by mother.

Brief Description of drawings:

Figure 1/4: - General view of the instant capsulated milk machine:-

- 1 - Display (Display).
- 2 - Start Button (Start).
- 3 - Reset button (Reset).
- 4 - Steam Button (Steam).
- 5- Milk amount button (+30)
- 6 - Add and mixing unit with sterilization slots inside the feeding bottle.

- 7 - Bottle holder.
- 8 - Preparation and sterilization room.
- 9 - Feeding nipples storage room.
- 10 – Feeding bottle fixation base.
- 11 - Sterile clip to install feeding nipples.
- 12 - Sterilization water tank.
- 13 – Feeding water tank.
- 14 – Opening arm of instant capsulated milk room
- 15 - Instant capsulated milk room
- 16 - Voltage entrance.
- 17 - Drainage tank of sterilization water.
- 18 - General sterilization steam slots.

Figure 2/4: - side view of the device with surrounding display with add and mixing unit with sterilization slots inside feeding bottle:-

- 1 - Display (Display).
- 2 - Start Button (Start).
- 3 - Reset button (Reset).
- 4 - Steam Button (Steam).
- 5- Milk amount button (+30)
- 16 - Voltage entrance.
- 19 - Entrance of feeding water.

20- Entrance of milk powder.

21 - A slot to installation of mixing arm or cleaning brush.

22 - Steam slots inside the bottle

Figure 3/4: - A general view of instant capsulated milk:-

23 – Instant capsulated milk.

24 - Removable cover for instant milk capsule.

Figure 4/4: - a duty cycle of instant capsulated milk machine:-

6 - Add and mixing unit with sterilization slots inside the feeding bottle.

8 - Preparation and sterilization room.

9 - Feeding nipples storage room.

10 – Feeding bottle fixation base.

11 - Sterile clip to install feeding nipples.

12 - Sterilization water tank.

13 – Feeding water tank.

17 - Drainage tank of sterilization water.

23 – Instant capsulated milk.

25 - Mixing arm.

26 - Cleaning brush.

Claims

- 1- First element: instant capsulated milk machine consists of: the display next to the controls under them preparation and sterilization room, which contains in the wall up on the add and mixing unit and feeding bottle holder either at the bottom you will find a storage room of feeding nipples with installation clip for feeding nipples in addition to the installed base of feeding bottle and which have the highest discharge sterilization water tank either in the back wall, you will find steam slots that you sterilize all the contents of the preparation and sterilization room. At the top of the device you will find the lever to open the capsule room with instant capsulated milk and behind them there is feeding water tank with sterilization water tank.

- 2- As in the first element you will find instant capsulated milk, a new form of industrial packaging for artificial baby milk powder in the form of capsules used with instant milk and capsulated milk machine that mother change it on a daily basis where that capsule enough for feeding baby for a full day.

AMENDED CLAIMS

received by the International Bureau on 13 August 2013 (13.08.13)

- 1- An instant capsulated milk machine comprising a sterilization water tank (12), a feeding water tank (13), an instant capsulated milk room (15), control buttons (2, 3, 4, and 5), an opening arm of instant capsulated milk room (14), a preparation and sterilization room (8), an add and mixing unit (6), a feeding bottle fixation base(10), a bottle holder(7), an installation slot for a mixing arm or a cleaning brush(21), and the said Instant capsulated milk machine is used to sterilize the bottle in use and prepare ,mix , deliver a dose of hygienic infant formula, wherein the said instant capsulated milk machine characterized in that:
 - As the bottle is manually inserted and placed on the bottle base, the spring installed into the base is automatically released pushing the feeding bottle up to the adding and mixing unit(6), and the spring creates a seal and makes the bottle tightly attached to the adding and mixing unit(6).
 - The sterilization water tank (12), wherein the said tank heats the water to a boiling degree in order to produce steams used for sterilization purpose, and the feeding water tank (13), wherein the said tank (13) is refilled with water that heated to a boiling degree in order to get it sterilized and that water is then cooled to 37 degrees Celsius, cooled enough and appropriate for feeding baby.
 - The adding and mixing unit (6) comprising steam slots (22) for sterilizing the internal wall of the feeding bottle.
 - The preparation and sterilization room (8) has general sterilization steam slots (18) for sterilizing the external wall of the feeding bottle, feeding nipples, and clip used to install feeding nipples.
 - The installation slot (21) for mixing arm (25) for mixing the feeding formula with sterile water or cleaning brush (26) for selective cleaning of the internal wall.
- 2- The add and mixing unit (6) according to claim no 1, wherein the said unit has an entrance for feeding water(19), an entrance of milk powder(20), steam slots (22) for sterilizing the internal wall of the feeding bottle, an installation slot for mixing arm(25), cleaning brush (26) ; the said unit(6) used to sterilize, add and mix 37 degrees Celsius water with specific amount of infant formula to deliver a prepared infant formula ready for feeding.
- 3- A multiple dosing cartridge for a single soluble powder used for feeding formula, which is surrounded by removable covers (more than one), one is removed by the mother before installation of capsule in the machine, and another one is pierced by the device.

AMENDED SHEET (ARTICLE 19)

All amendments are based on the provided description and drawings as originally filed at your end, no essential amendments introduced.

STATEMENT UNDER ARTICLE 19 (1)

1/4

Figure 1/4 :

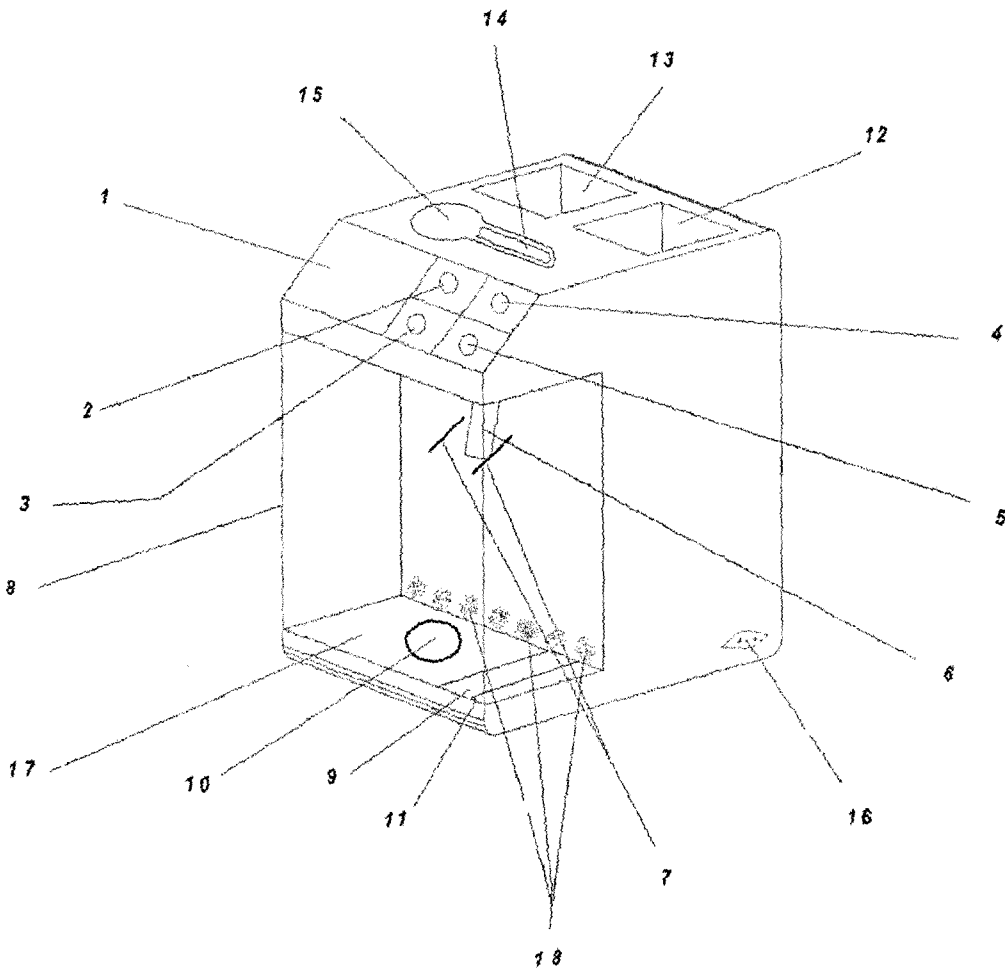


Figure 2/4 :

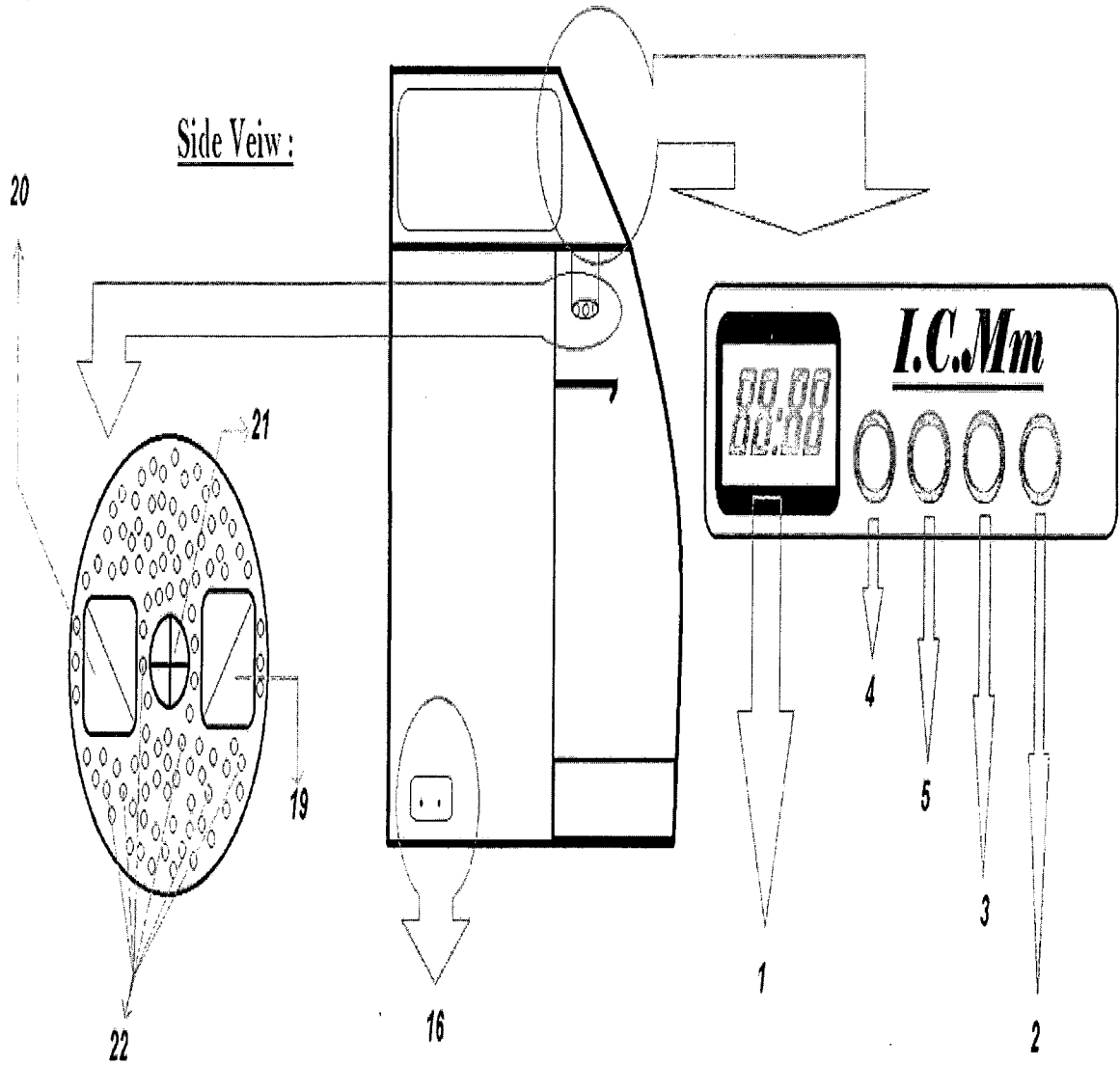


Figure 3/4 :

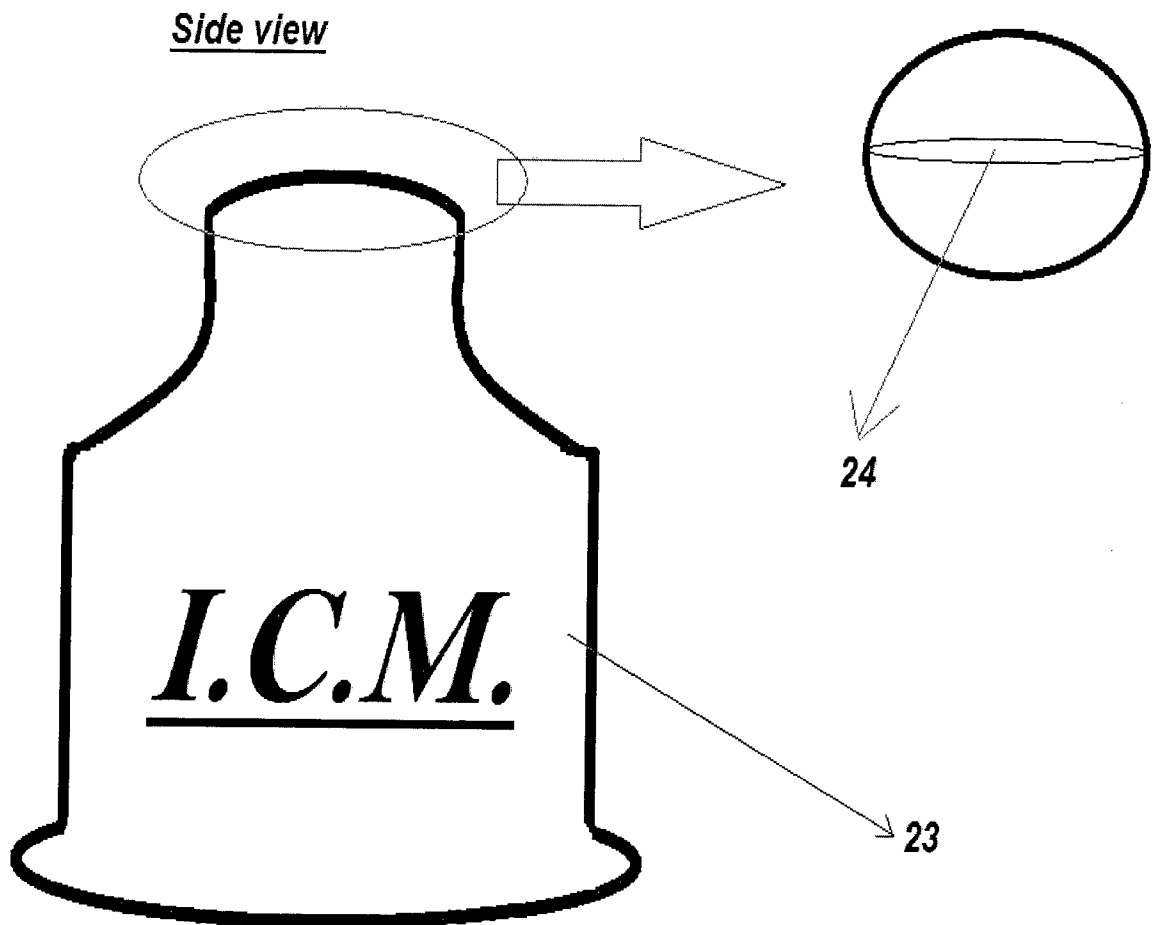
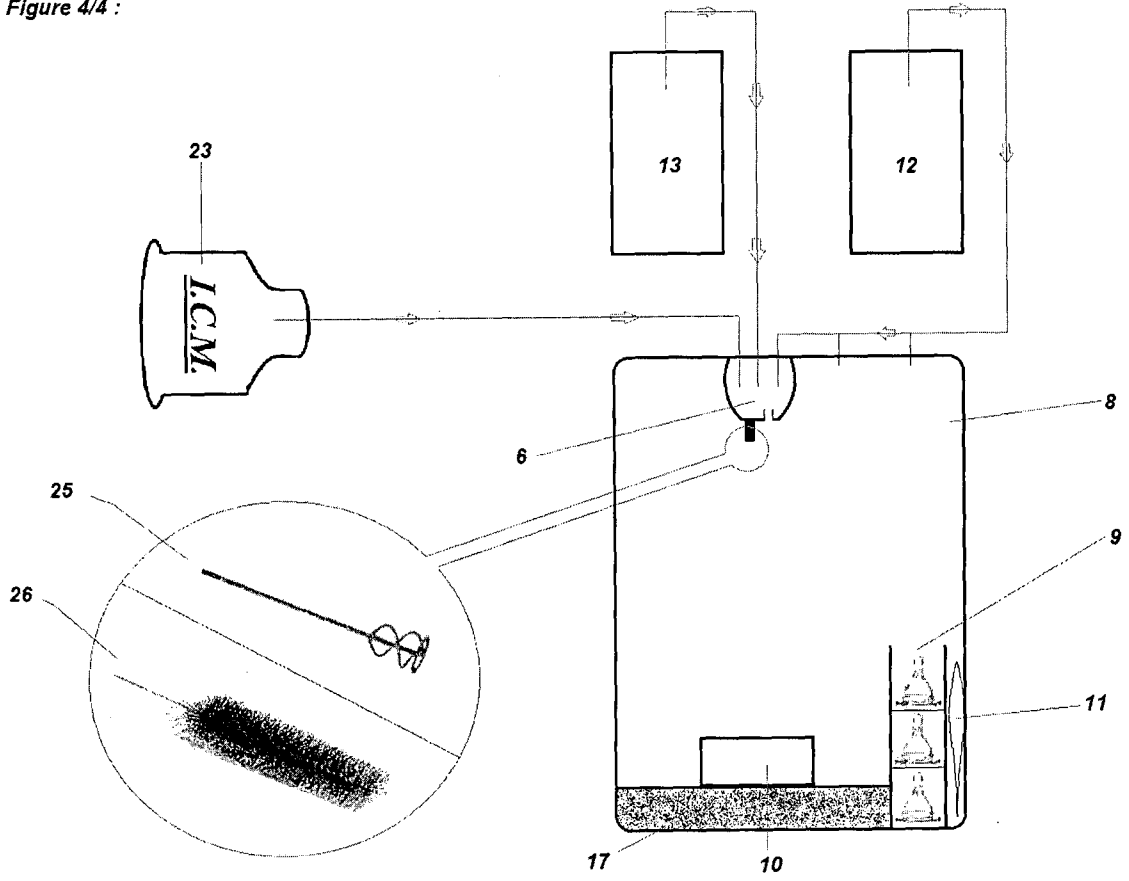


Figure 4/4 :



INTERNATIONAL SEARCH REPORT

International application No
PCT/EG2012/000031

A. CLASSIFICATION OF SUBJECT MATTER
INV. A47J31/40
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
A47J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2008/120197 A1 (LANIADO AMIR [IL]) 9 October 2008 (2008-10-09) paragraphs [0058], [0059], [0075], [0084] - [0086]; figures 1-3 -----	1
A	WO 2005/120313 A1 (OCH MATHIAS [CH]; RAOUF DAVID [CH]; VEENHUYS DAVID [CH]) 22 December 2005 (2005-12-22) page 5, line 34 - page 8, line 35; figures -----	1
Y	EP 2 123 201 A1 (GRUPPO CIMBALI SPA [IT]) 25 November 2009 (2009-11-25)	1
A	paragraphs [0008] - [0014]; figures 1, 2 -----	2

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

7 May 2013

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EG2012/000031

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