

(19)



(11)

**EP 2 920 347 B1**

(12)

**EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention  
of the grant of the patent:  
**14.09.2016 Bulletin 2016/37**

(51) Int Cl.:  
**D06F 39/00** <sup>(2006.01)</sup> **D06F 39/12** <sup>(2006.01)</sup>  
**D06F 58/20** <sup>(2006.01)</sup>

(21) Application number: **13774412.4**

(86) International application number:  
**PCT/EP2013/070920**

(22) Date of filing: **08.10.2013**

(87) International publication number:  
**WO 2014/075848 (22.05.2014 Gazette 2014/21)**

(54) **A LAUNDRY WASHING AND/OR DRYING MACHINE WITH A STEAM GENERATOR**

WASCHMASCHINE ODER WÄSCHETROCKNER MIT DAMPFERZEUGER

LAVE-LINGE OU SÈCHE-LINGE AVEC UN GÉNÉRATEUR DE VAPEUR

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB  
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO  
PL PT RO RS SE SI SK SM TR**

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(30) Priority: **13.11.2012 TR 201213100**

(56) References cited:  
**EP-A1- 2 317 000 EP-A1- 2 388 368**  
**EP-A2- 1 637 060 EP-A2- 1 842 953**  
**WO-A1-2011/064149 DE-A1- 1 802 031**  
**DE-A1-102009 028 185 DE-B- 1 118 147**  
**US-A1- 2003 106 570**

(43) Date of publication of application:  
**23.09.2015 Bulletin 2015/39**

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## Description

**[0001]** The present invention relates to a laundry washing and/or drying machine that comprises a steam generator.

In laundry washing and/or drying machines, steam generators that generate steam to send onto the laundry are used. Liquid such as water, etc. required by the steam generator is filled into a funnel situated inside the machine body by the user. The liquid filled in by the user is transferred from the funnel to a receptacle by means of a hose. The liquid accumulated in the receptacle is transferred to the steam generator to be vaporized.

In the state of the art, embodiments are known related to the path to be followed by the liquid that is being transferred to the steam generator. However, the user cannot be provided with the convenience of easily filling liquid from the outside into the funnel situated inside the machine body. In the state of the art International Patent Application No. WO2011144453, it is disclosed that the liquid delivered to the steam generator is transferred to the funnel from the condensation tank.

**[0002]** International Patent Application WO 2011/064149 A1 discloses a washing machine with a steam generator that is connected via a hose to a funnel. The funnel is detachable for a manual filling with water. European Patent Application EP 2 388 368 A1 discloses a washing machine with a steam generator that is connected via a hose to a funnel.

European Patent Application EP 1 637060 A2 discloses a dishwasher with a door element that can be tilted forward and that comprises guide walls for guiding washing agents into a channel leading to a storage container.

German Patent Application DE 1802031 A1 discloses a washing machine with a web on the inside of a cover for guiding water that is automatically sprayed in via an inlet when the cover is closed.

**[0003]** German Patent DE 11 18 147 B discloses a washing machine with a pivotable cover for the inlet for washing agents, said cover comprising a chute on its inside. European Patent Application EP 2 317 000 A1 discloses a washing machine with a cover for closing an outlet, said cover comprising channel elements on its inside for guiding outflowing waste water.

European Patent Application EP 1 842953 A2 discloses a washing machine with a cover comprising a receptacle on its inside for taking up portions of washing agents. German Patent Application DE 102009028185 A1 describes a washing machine having a rotatable flap on its top side for taking up portions of washing agents. US Patent Application US 2003/106570 A1 discloses a device for dispensing washing agents that comprises a flap with a compartment on its inside for taking up agents when the flap is tilted forward. Dispensing of the added agent is achieved by turning the flap with the compartment upside down.

**[0004]** The aim of the present invention is the realization of a laundry washing and/or drying machine com-

prising a funnel wherein the liquid to be transferred to the steam generator is easily poured.

In the laundry washing and/or drying machine realized in order to attain the aim of the present invention, explicated in the first claim and the respective claims thereof, there is a funnel that is connected by means of a hose to a receptacle wherein the liquid to be vaporized by a steam generator in order to deliver to the washing tub is accumulated. The liquid is delivered to the funnel by means of a cover extending towards an opening that is arranged on the body. When the user brings the cover from the closed position to the open position, the cover extends from the funnel towards the opening. Thus, when the user pours liquid onto the cover, the liquid is delivered to the funnel by means of the cover.

In an embodiment of the present invention, when changed from the open position to the closed position, the cover completely covers the top of the funnel. Thus, foreign materials such as lint, hair, dust, etc. in the laundry washing and/or drying machine are prevented from entering the funnel.

**[0005]** In an embodiment of the present invention, the cover is rotatably mounted on the funnel. The user brings the cover to the open and/or closed position by rotating.

**[0006]** In an embodiment of the present invention, the cover is detachably mounted on the funnel. If desired, the user can remove the cover from over the funnel, clean and replace the cover.

**[0007]** In an embodiment of the present invention, the laundry washing and/or drying machine comprises two side walls situated oppositely on the cover and allowing the liquid to flow therebetween, two holes arranged oppositely on the inner surface of the funnel, and at least two pins situated on the side wall and allowing the cover to be mounted to the holes so as to rotate around the horizontal axis. After the cover is changed from the closed position to the open position by being rotated, when the user pours liquid onto the cover, the liquid is delivered to the funnel by passing between the side walls on the cover.

**[0008]** In an embodiment of the present invention, the laundry washing and/or drying machine comprises a filter casing detachably mounted into the funnel, the cover that is placed at the upper side of the inner surfaces of the filter casing facing each other and that is mounted so as to rotate around the horizontal axis, and furthermore a filter that is situated at the base of the filter casing. The filter casing comprises two holes arranged oppositely on the inner surface thereof. The pins on the cover are placed into the holes. Thus, the cover can rotate around the horizontal axis. By means of the filter situated at the bottom of the filter casing, the liquid delivered to the hose by passing through the filter casing is filtered. The filter, the cover and the filter casing can move together as a whole. The filter casing placed into the funnel can be removed from the funnel by the user and cleaned when desired.

**[0009]** In an embodiment of the present invention, the

cover comprises a guiding member that is situated on the side walls thereof so as to be between the opposite side walls. By means of the guiding member, the liquid flowing over the cover is guided towards the funnel. The guiding member extends into the funnel when the cover is in the open position.

**[0010]** In an embodiment of the present invention, the cover comprises a handle that allows the cover to be moved by the user. The handle is located on the cover. When the cover is in the closed position, the handle extends outside the funnel. Thus, the user can easily grasp the handle.

**[0011]** In an embodiment of the present invention, the opening is arranged at the front and top side of the laundry washing and/or drying machine. Thus, the user can easily access the cover.

**[0012]** By means of the present invention, the liquid can be easily delivered to the steam generator.

**[0013]** The laundry washing and/or drying machine realized in order to attain the aim of the present invention is illustrated in the attached figures, where:

Figure 1 - is the schematic view of a laundry washing and/or drying machine.

Figure 2 - is the schematic view of a laundry washing and/or drying machine comprising a steam generator, a receptacle, a funnel and a cover.

Figure 3 - is the perspective view of the funnel and the cover related to an embodiment of the present invention.

Figure 4 - is the cross-sectional view of the funnel and the cover when the cover is in the closed position (C) in an embodiment of the present invention.

Figure 5 - is the cross-sectional view of the funnel and the cover when the cover is in the open position (O) in an embodiment of the present invention.

Figure 6 - is the perspective view of the cover related to an embodiment of the present invention.

Figure 7 - is the perspective view of the filter casing related to an embodiment of the present invention.

Figure 8 - is the perspective view of the cover, the filter casing and the funnel related to an embodiment of the present invention.

Figure 9 - is the partial cross-sectional view of the laundry washing and/or drying machine when the cover is in the open position in an embodiment of the present invention.

Figure 10 - is the partial cross-sectional view of the laundry washing and/or drying machine when the cover is in the closed position in an embodiment of the present invention.

Figure 11 - is the view of the cover and the filter casing that are taken out of the funnel related to an embodiment of the present invention.

**[0014]** The elements illustrated in the figures are numbered as follows:

1. Laundry washing and/or drying machine
2. Body
3. Steam generator
4. Receptacle
5. Opening
6. Funnel
7. Hose
8. Cover
9. Pin
10. Side wall
11. Filter casing
12. Filter
13. Guiding member
14. Handle
15. 115. Hole

**[0015]** The laundry washing and/or drying machine (1) comprises a body (2), a steam generator (3) situated in the body (2) and generating steam to be delivered into the washing tub, a receptacle (4) situated inside or in vicinity of the steam generator (3) and wherein liquid is accumulated to be used in the steam generator (3), an opening (5) arranged on the body (2) and wherein the condensation tank, the detergent dispenser, etc. are placed, a funnel (6) situated in the body (2), accessed by means of the opening (5) and into which the liquid is delivered, and a hose (7) providing the liquid in the funnel (6) to be transferred to the receptacle (4) (Figure 1, Figure 2).

**[0016]** The laundry washing and/or drying machine (1) furthermore comprises a cover (8) that is placed onto the funnel (6), that has an open position (O) and a closed position (C), that extends from the funnel (6) toward the opening (5) in the open position (O) and that provides the liquid to be transferred to the funnel (6) from thereover. The user can access the cover (8) by taking out the detergent dispenser, the condensation tank, etc. through the opening (5). After changing the cover (8) to the open position (O), the user pours liquid onto the cover (8) by means of a pitcher, glass, etc. When the cover (8) is in the open position (O), the liquid poured onto the cover (8) by the user is transferred to the funnel (6) from over the cover (8). The cover (8) allows the user to easily transfer liquid into the funnel (6) situated in the body (2) from outside the body (2) (Figure 3, Figure 4).

**[0017]** In an embodiment of the present invention, the cover (8) has the closed position (C) where the top of the funnel (6) is completely covered. The cover (8) prevents foreign materials such as dust, etc. from entering the funnel (6) when in the closed position (C).

**[0018]** In an embodiment of the present invention, the cover (8) is rotatably mounted on the funnel (6). Thus, the user can easily bring the cover (8) to the open position (O) or the closed position (C).

**[0019]** In an embodiment of the present invention, the cover (8) is detachably mounted on the funnel (6). Thus, the user can dislodge and clean the cover (8) when desired.

**[0020]** In an embodiment of the present invention, the cover (8) comprises two side walls (10) situated oppositely on the cover (8) and allowing the liquid to flow therebetween, two holes (15) arranged oppositely on the inner surface of the funnel (6), and at least two pins (9) situated on the side wall (10) and allowing the cover (8) to be mounted to the holes (15) so as to rotate around the horizontal axis (A). After the cover (8) is changed from the closed position (C) to the open position (O) by being rotated, when the user pours liquid onto the cover (8), the liquid is delivered to the funnel (6) by passing between the side walls (10) on the cover (8) (Figure 6, Figure 7).

**[0021]** In an embodiment of the present invention, the laundry washing and/or drying machine (1) comprises a filter casing (11) detachably mounted into the funnel (6), the cover (8) that is placed at the upper side of the inner surfaces of the filter casing (11) facing each other and that is mounted so as to rotate around the horizontal axis (A), and furthermore a filter (12) that is situated at the base of the filter casing (11). The filter casing (11) comprises two holes (115) arranged oppositely on the inner surface thereof. The pins (9) on the cover (8) are placed into the holes (115). Thus, the cover (8) can rotate around the horizontal axis (A). By means of the filter (12) situated at the bottom of the filter casing (11), the liquid delivered to the hose (7) by passing through the filter casing (11) is filtered. The filter (12), the cover (8) and the filter casing (11) can move together in an integrated manner. The filter casing (11) placed into the funnel (6) can be dislodged from the funnel (6) by the user and cleaned when desired (Figure 8, Figure 9, Figure 10, Figure 11).

**[0022]** In an embodiment of the present invention, the cover (8) comprises a guiding member (13) that extends between the side walls (10) and that provides the liquid passing over the cover (8) to be guided towards the funnel (6) when the cover (8) is in the open position (O). Thus, the liquid that hits the guiding member (13) while flowing over the cover (8) is guided into the funnel (6).

**[0023]** In an embodiment of the present invention, the cover (8) comprises a handle (14) that allows the cover (8) to be changed to the open (O) or closed (C) position by the user and that extends outside the funnel (6) when the cover (8) is in the closed position (C). The user can rotate the cover (8) by holding the handle (14). With the handle (14) being outside the funnel (6) when the cover (8) is in the closed position (C), the user is enabled to easily grasp the handle (14).

**[0024]** In an embodiment of the present invention, the opening (5) is arranged at the front and top side of the laundry washing and/or drying machine (1). Thus, the user can access the cover (8) more easily.

**[0025]** In the laundry washing and/or drying machine (1), by means of a cover (8) extending from the funnel (6) into the opening (5), the liquid can be easily transferred into the funnel (6).

## Claims

1. A laundry washing and/or drying machine (1) comprising a body (2), a steam generator (3) situated in the body (2) and generating steam to be delivered into the washing tub, a receptacle (4) situated inside or in vicinity of the steam generator (3) and wherein liquid is accumulated to be used in the steam generator (3), an opening (5) arranged on the body (2) and wherein a condensation tank and a detergent dispenser are placed, a funnel (6) situated in the body (2), accessed by means of the opening (5) and into which the liquid is delivered, and a hose (7) providing the liquid in the funnel (6) to be transferred to the receptacle (4),  
**characterized by**
  - a cover (8) that is placed onto the funnel (6), that has an open position (O) and a closed position (C), that extends from the funnel (6) toward the opening (5) in the open position (O) and that provides the liquid to be transferred to the funnel (6) from thereover,
  - a filter casing (11) detachably mounted into the funnel (6),
  - the cover (8) that is placed at the upper side of the inner surfaces of the filter casing (11) facing each other and that is mounted so as to rotate around the horizontal axis (A),
  - a filter (12) that is situated at the base of the filter casing (11).
2. A laundry washing and/or drying machine (1) as in Claim 1, **characterized by** the cover (8) that has the closed position (C) where the top of the funnel (6) is completely covered.
3. A laundry washing and/or drying machine (1) as in Claim 1 or 2, **characterized by** the cover (8) that is rotatably mounted to the funnel (6).
4. A laundry washing and/or drying machine (1) as in any one of the claims 1 to 3, **characterized by** the cover (8) that is detachably mounted to the funnel (6).
5. A laundry washing and/or drying machine (1) as in any one of the above claims, **characterized by** two side walls (10) situated oppositely on the cover (8) and allowing the liquid to flow therebetween, two holes (15) arranged oppositely on the inner surface of the funnel (6), and at least two pins (9) situated on the side wall (10) and allowing the cover (8) to be mounted to the holes (15) so as to rotate around the horizontal axis (A).
6. A laundry washing and/or drying machine (1) as in any one of the above claims, **characterized by** a guiding member (13) that extends between the side

walls (10) and that provides the liquid passing over the cover (8) to be guided towards the funnel (6) when the cover (8) is in the open position (O).

7. A laundry washing and/or drying machine (1) as in any one of the above claims, **characterized by** a handle (14) that is situated on the cover (8), that allows the cover (8) to be changed to the open (O) or closed (C) position by the user and that extends outside the funnel (6) when the cover (8) is in the closed position (C).
8. A laundry washing and drying machine (1) as in any one of the above claims, **characterized by** the opening (5) that is situated at the front and top side of the laundry washing and/or drying machine (1).

#### Patentansprüche

1. Waschmaschine und/oder Trockenmaschine (1), umfassend einen Gehäusekörper (2), einen Dampfgenerator (3), der im Gehäusekörper (2) angeordnet ist und Dampf zum Leiten in den Waschbehälter erzeugt, eine Aufnahme (4), die im Inneren oder in der Nähe des Dampfgenerators (3) angeordnet ist und in der sich Flüssigkeit zum Verwenden im Dampfgenerator (3) erzeugt, eine Öffnung (5), die an dem Gehäusekörper (2) angeordnet ist und in die ein Kondensationstank und ein Waschmittelspender eingesetzt sind, einen Trichter (6), der in dem Gehäusekörper (2) angeordnet ist, auf den über die Öffnung (5) zugegriffen wird und in den die Flüssigkeit geleitet wird, und einen Schlauch (7), der es ermöglicht, dass die Flüssigkeit im Trichter (6) an die Aufnahme (4) übertragen wird,  
**gekennzeichnet durch**
  - eine Abdeckung (8), die auf den Trichter (6), gesetzt ist und eine offene Stellung (O) und eine geschlossene Stellung (C) aufweist und sich in der offenen Stellung (O) von dem Trichter (6) zur Öffnung (5) erstreckt und es ermöglicht, dass die Flüssigkeit über sie an den Trichter (6) übertragen wird,
  - einen Filterkasten (11), der lösbar im Trichter (6) angebracht ist,
  - die Abdeckung (8), die an der Oberseite der einander zugewandten Innenflächen des Filterkastens (11) angeordnet ist und derart angebracht ist, dass sie sich um die horizontale Achse (A) dreht,
  - einen Filter (12), der an der Basis des Filterkastens (11) angeordnet ist.
2. Waschmaschine und/oder Trockenmaschine (1) nach Anspruch 1, **dadurch gekennzeichnet, dass** die Abdeckung (8) die geschlossene Stellung (C)

aufweist, in der die Oberseite des Trichters (6) vollständig abgedeckt ist.

3. Waschmaschine und/oder Trockenmaschine (1) nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** die Abdeckung (8) drehbar am Trichter (6) angebracht ist.
4. Waschmaschine und/oder Trockenmaschine (1) nach einem der Ansprüche 1 bis 3, **dadurch gekennzeichnet, dass** die Abdeckung (8) lösbar am Trichter (6) angebracht ist.
5. Waschmaschine und/oder Trockenmaschine (1) nach einem der vorangehenden Ansprüche, **gekennzeichnet durch** zwei Seitenwände (10), die gegenüber an der Abdeckung (8) angeordnet sind und ein Strömen von Flüssigkeit dazwischen zulassen, zwei Bohrungen (15), die gegenüber an der Innenfläche des Trichters (6) angeordnet sind, und wenigstens zwei Stifte (9), die an der Seitenwand (10) angeordnet sind und es ermöglichen, dass die Abdeckung (8) derart an den Bohrungen (15) angebracht ist, dass sie sich um die horizontale Achse (A) dreht.
6. Waschmaschine und/oder Trockenmaschine (1) nach einem der vorangehenden Ansprüche, **gekennzeichnet durch** ein Führungselement (13), das sich zwischen den Seitenwänden (10) erstreckt und es ermöglicht, dass die Flüssigkeit, die über die Abdeckung (8) strömt, zum Trichter (6) geleitet wird, wenn die Abdeckung (8) in der offenen Stellung (O) ist.
7. Waschmaschine und/oder Trockenmaschine (1) nach einem der vorangehenden Ansprüche, **gekennzeichnet durch** einen Griff (14), der an der Abdeckung (8) angeordnet ist und es der Abdeckung (8) ermöglicht, vom Benutzer in die offene (O) oder geschlossene (C) Stellung gebracht zu werden, und der sich aus dem Trichter (6) heraus erstreckt, wenn die Abdeckung (8) in der geschlossenen Stellung (C) ist.
8. Waschmaschine und/oder Trockenmaschine (1) nach einem der vorangehenden Ansprüche, **dadurch gekennzeichnet, dass** die Öffnung (5) auf der Vorder- und Oberseite der Waschmaschine und/oder Trockenmaschine (1) angeordnet ist.

#### Revendications

1. Un lave-linge et/ou sèche-linge (1) comprenant un corps (2), un générateur de vapeur (3) qui est situé dans le corps (2) et qui génère de la vapeur pour être délivrée dans la cuve de lavage, un récipient (4)

qui est situé dans ou à proximité du générateur de vapeur (3) et dans lequel le liquide est accumulé à être utilisé dans le générateur de vapeur (3), une ouverture (5) qui est arrangée sur le corps (2) et dans laquelle un réservoir de condensation et un distributeur de détergent sont placés, un entonnoir (6) qui est situé dans le corps (2), qui est accessible par l'intermédiaire de l'ouverture (5) et dans lequel le liquide est délivré, et un tuyau (7) qui permet au liquide dans l'entonnoir (6) d'être transféré au récipient (4),

**caractérisé par**

- un couvercle (8) qui est placé sur l'entonnoir (6), qui présente une position ouverte (O) et une position fermée (C), qui s'étend à partir de l'entonnoir (6) vers l'ouverture (5) dans la position ouverte (O) et qui permet au liquide d'être transféré à l'entonnoir (6) à travers celle-ci,
  - un boîtier de filtre (11) qui est monté de manière détachable dans l'entonnoir (6),
  - le couvercle (8) qui est placé au côté supérieur des surfaces intérieures du boîtier de filtre (11) faisant face l'une à l'autre et qui est monté de manière à tourner autour de l'axe horizontal (A),
  - un filtre (12) qui est situé à la base du boîtier de filtre (11).
2. Un lave-linge et/ou sèche-linge (1) selon la Revendication 1, **caractérisé par** le couvercle (8) qui présente la position fermée (C) où la partie supérieure de l'entonnoir (6) est complètement recouverte.
  3. Un lave-linge et/ou sèche-linge (1) selon la Revendication 1 ou 2, **caractérisé par** le couvercle (8) qui est monté de manière rotative sur l'entonnoir (6).
  4. Un lave-linge et/ou sèche-linge (1) selon l'une quelconque des revendications de 1 à 3, **caractérisé par** le couvercle (8) qui est monté de manière détachable sur l'entonnoir (6).
  5. Un lave-linge et/ou sèche-linge (1) selon l'une quelconque des revendications précédentes, **caractérisé par** deux parois latérales (10) qui sont situées de manière opposée sur le couvercle (8) et qui permettent l'écoulement du liquide entre elles, deux trous (15) qui sont arrangés de manière opposée sur la surface intérieure de l'entonnoir (6), et au moins deux goupilles (9) qui sont situées sur la paroi latérale (10) et qui permettent au couvercle (8) d'être monté aux trous (15) de manière à tourner autour de l'axe horizontal (A).
  6. Un lave-linge et/ou sèche-linge (1) selon l'une quelconque des revendications précédentes, **caractérisé par** un élément de guidage (13) qui s'étend entre les parois latérales (10) et qui permet au liquide pas-

sant sur le couvercle (8) d'être guidé vers l'entonnoir (6) lorsque le couvercle (8) est dans la position ouverte (O).

7. Un lave-linge et/ou sèche-linge (1) selon l'une quelconque des revendications précédentes, **caractérisé par** une poignée (14) qui est située sur le couvercle (8), qui permet au couvercle (8) d'être passé à la position ouverture (O) ou fermée (C) par l'utilisateur et qui s'étend hors de l'entonnoir (6) lorsque le couvercle (8) est dans la position fermée (C).
8. Un lave-linge et sèche-linge (1) selon l'une quelconque des revendications précédentes, **caractérisé par** l'ouverture (5) qui est située à l'avant et au côté supérieur du lave-linge et/ou sèche-linge (1).

Figure 1

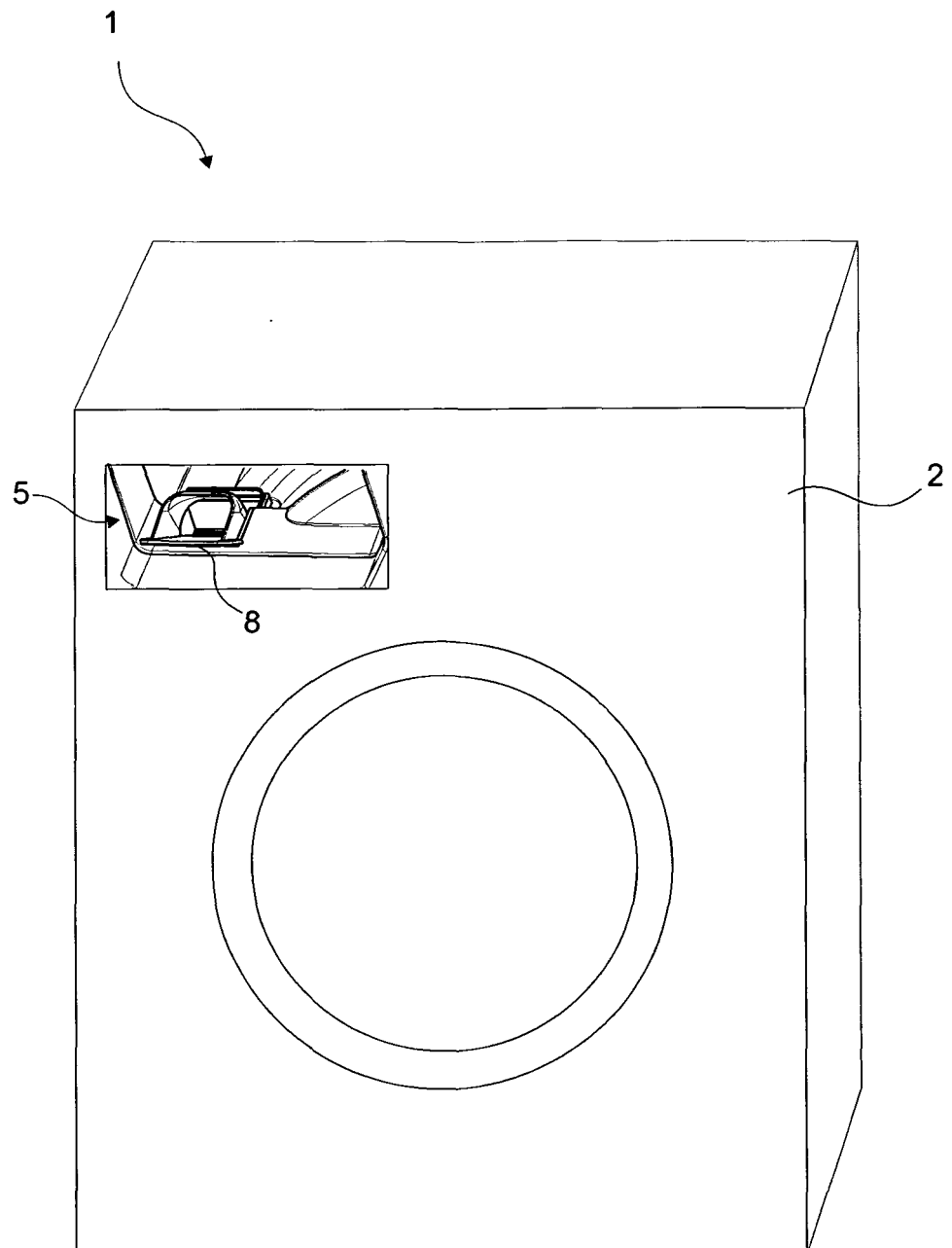


Figure 2

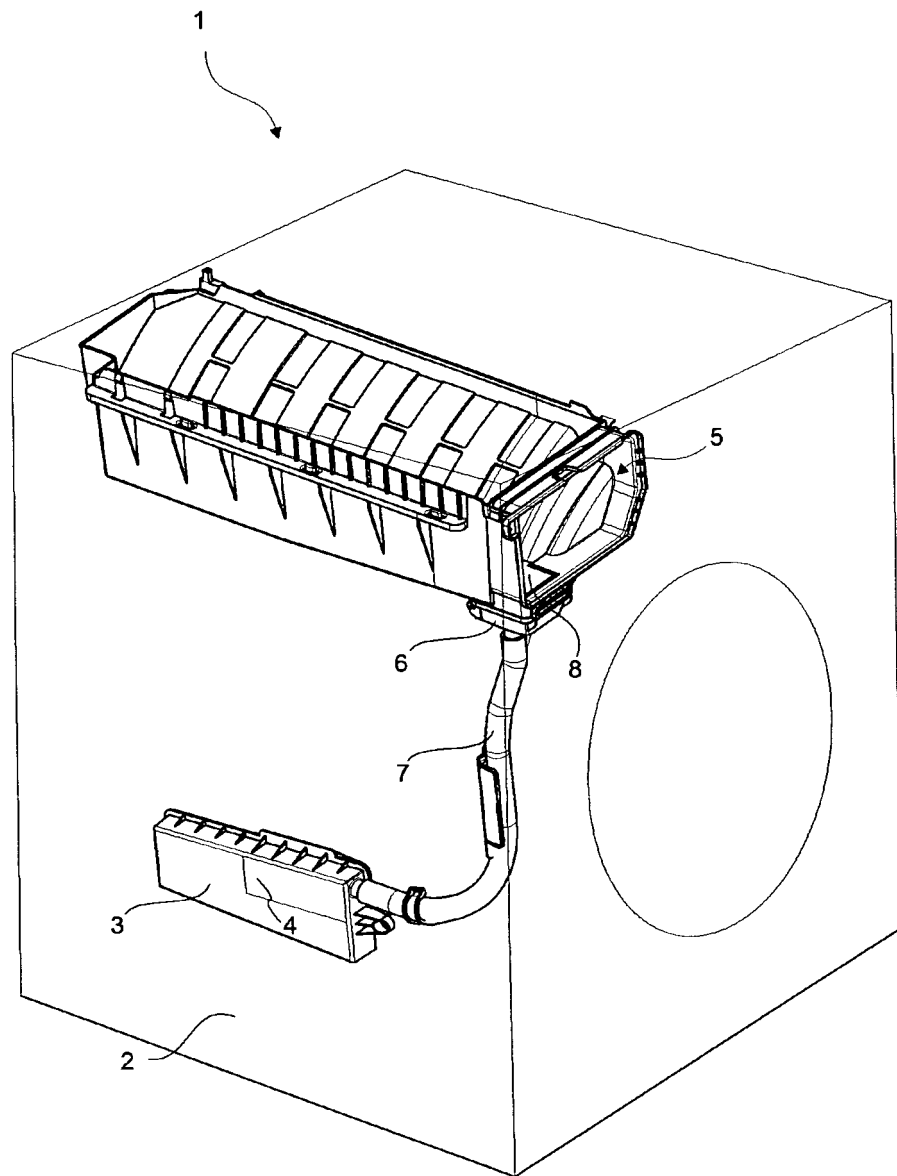




Figure 3

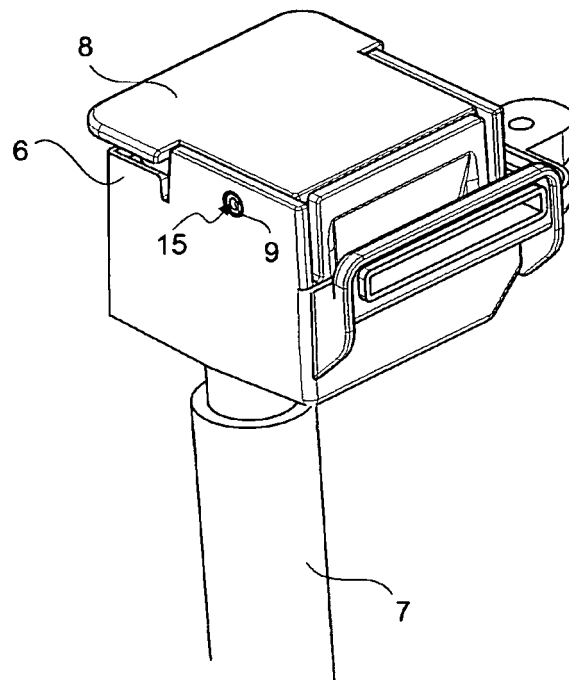


Figure 4

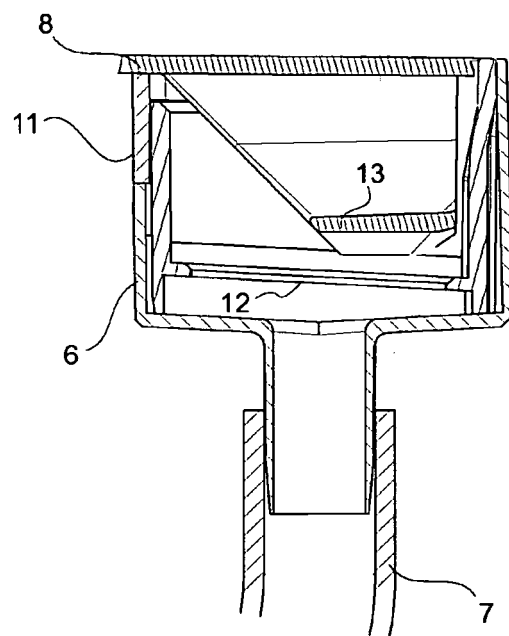


Figure 5

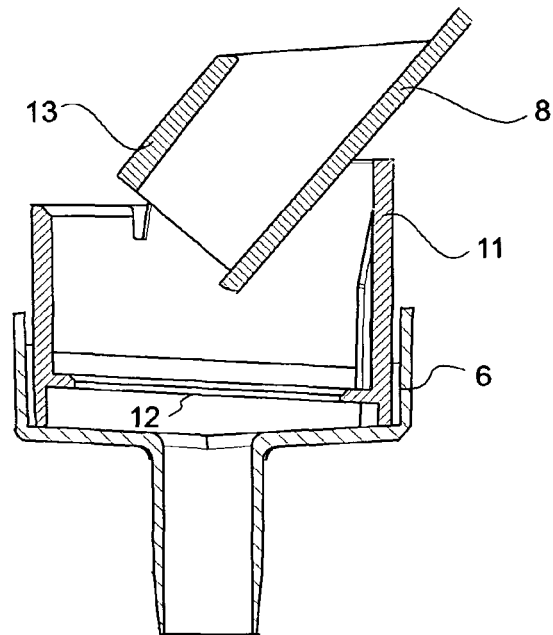


Figure 6

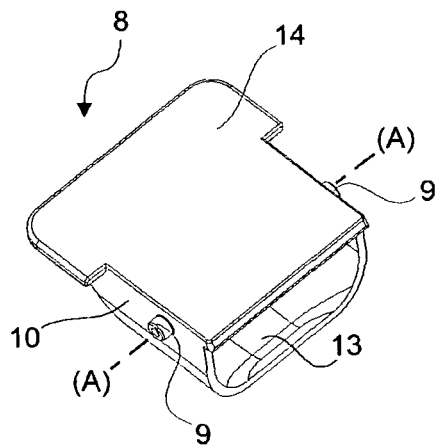


Figure 7

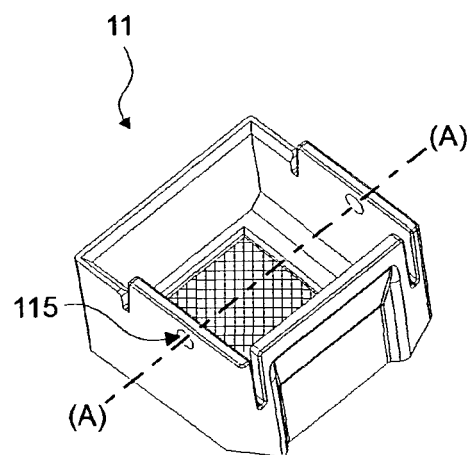


Figure 8

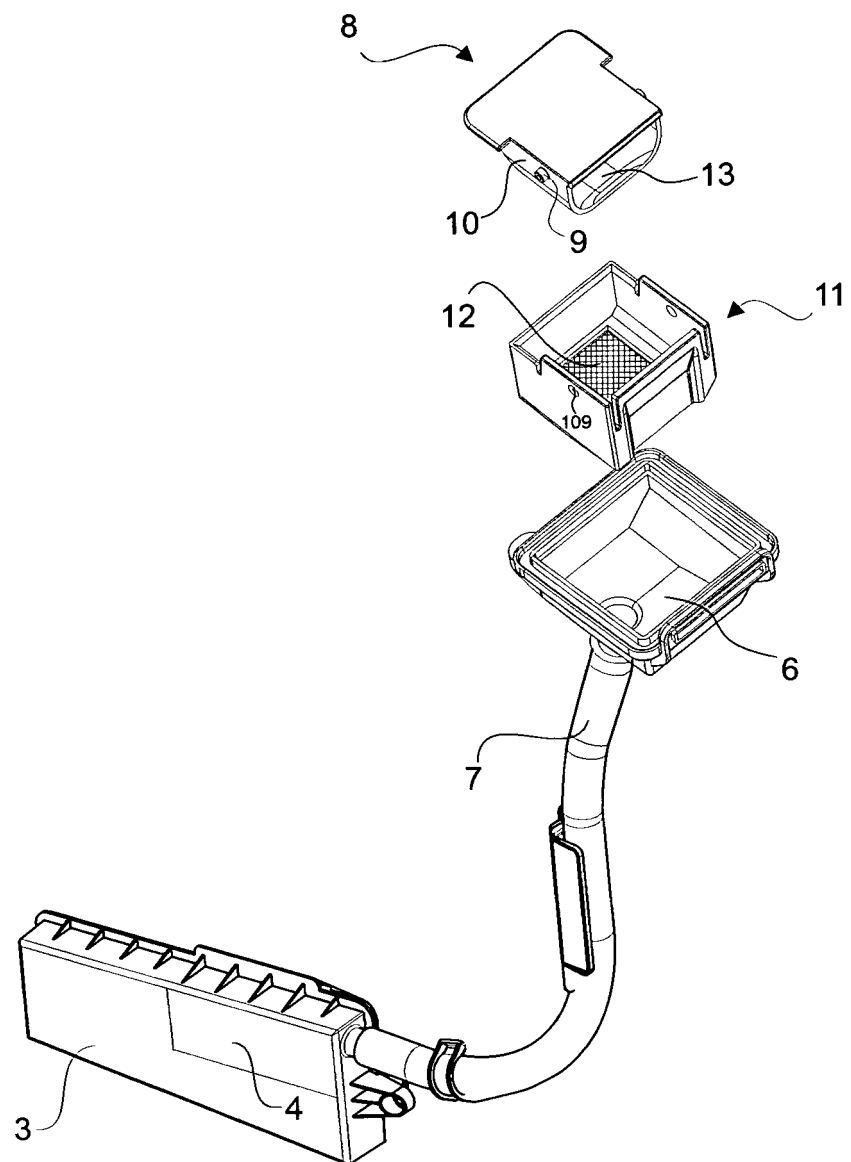


Figure 9

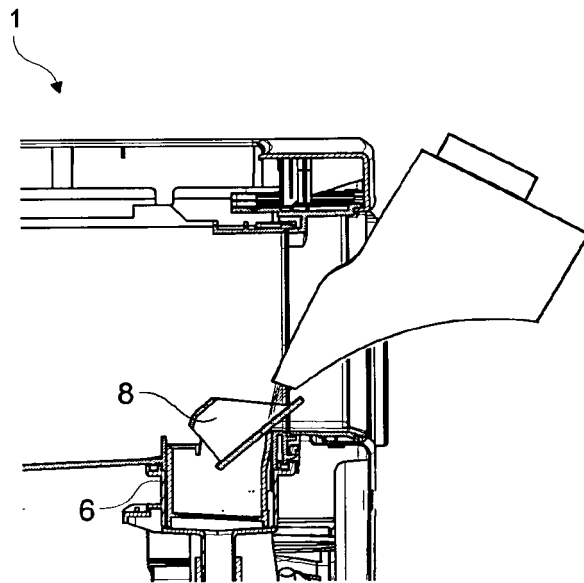


Figure 10

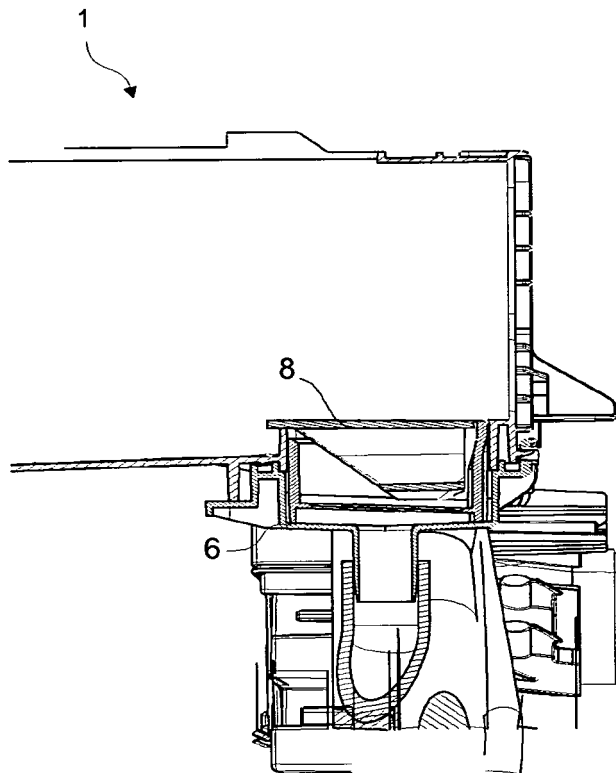
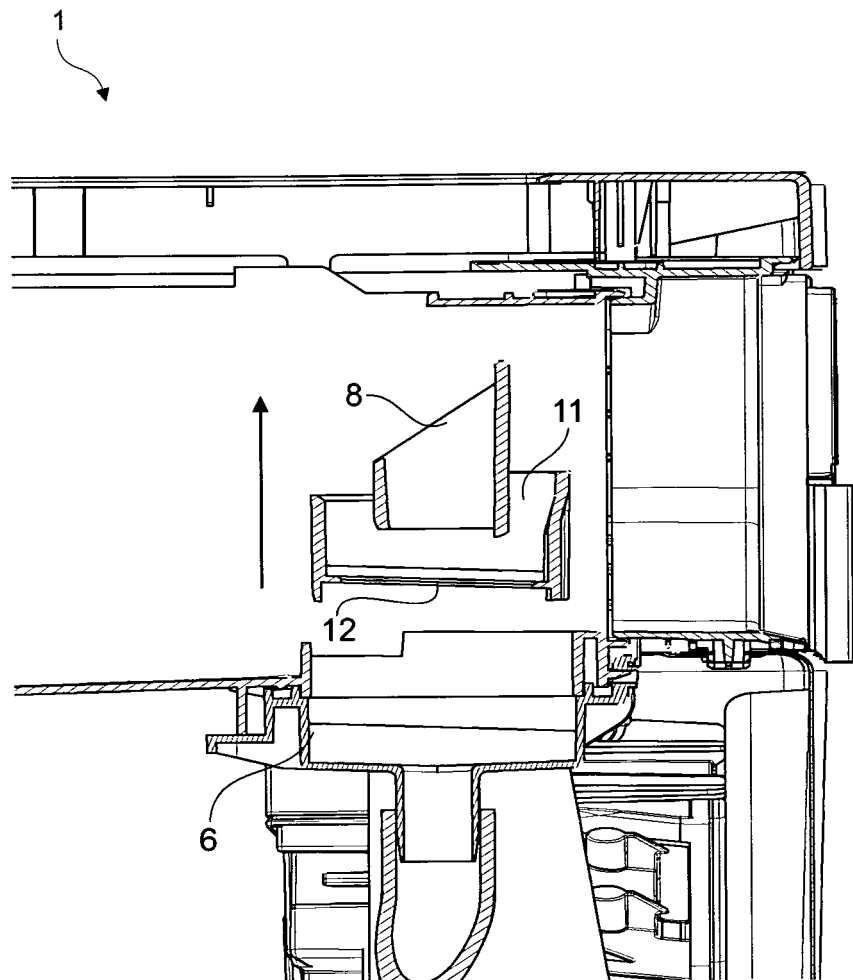


Figure 11



**REFERENCES CITED IN THE DESCRIPTION**

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