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(54) HOUSEHOLD APPLIANCE HAVING A WATER SUPPLY ASSEMBLY

HAUSHALTSVORRICHTUNG MIT EINER WASSERVERSORGUNGSANORDNUNG

APPAREIL ÉLECTROMÉNAGER À ENSEMBLE D'ALIMENTATION EN EAU

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(56) References cited:
EP-A1- 2 078 779 EP-A2- 0 340 403
WO-A2-2005/090670 GB-A- 2 172 977
GB-A- 2 228 308

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Description

[0001] The present invention relates to a household appliance, and in particular, to a household appliance having a water cavity, which includes a water supply assembly that supplies water to the water cavity.

[0002] In particular the present invention relates to a household appliance having a water cavity, wherein the water cavity has a first water injection nozzle and a second water injection nozzle, and a water supply assembly is connected to the first water injection nozzle and the second water injection nozzle of the water cavity to supply water into the water cavity.

[0003] Document WO 2005/090670 A2 discloses a household appliance of this generic type.

[0004] Household appliances, especially those using water, usually have a water cavity and a water supply assembly injecting water to the water cavity. Water supply assemblies of some household appliances have two or more water supply pipes, so as to supply water for different purposes. Further, such assembly has a facility to add washing agents like detergents and softeners to the water in the water cavity.

[0005] Taking a drying machine of the condensing type or washing and drying machine as examples, a laundry processing drum is usually disposed in the housing thereof; a condensation channel is connected to the clothes processing drum, so as to condense moisture taken from the clothes in the clothes processing drum by circulating drying air. A first water inlet pipe and a second water inlet pipe may be connected to the condensation channel, so as to supply the condensation channel with cooling water for cooling the drying air and cleaning water for washing away flock attached on an inner wall of the condensation channel. In the conventional solution, the first water inlet pipe and the second water inlet pipe are connected to respective water inlet valves. Meanwhile, to prevent water in the drying machine or washing and drying machine from being sucked back into a common water supply system and polluting the water supply system due to an unexpected negative pressure generated in the water supply system when the water level in the clothes processing drum exceeds the first water inlet pipe and/or the second water inlet pipe, an adapting device in communication with the ambient atmosphere is usually disposed on each of the first water inlet pipe and the second water inlet pipe. The water inlet pipe and the adapting device thereof in such design are relatively complex, and occupy much mounting space in the machine.

[0006] An objective of the present invention is to simplify a water supply assembly of a household appliance.

[0007] To meet this and other objectives the invention provides a solution as defined in the attached independent claim. Preferred embodiments of the invention are defined in dependent claims, where embodiments defined in different claims may be combined with each other absent any technical reason against such combination. Preferred embodiments are also defined in the subse-

quent description and the attached drawing.

[0008] Accordingly, the present invention employs the following technical solution: A household appliance includes a water cavity; the water cavity has a first water injection nozzle and a second water injection nozzle, and a water supply assembly is connected to the first water injection nozzle and the second water injection nozzle of the water cavity to supply water into the water cavity. The water supply assembly includes a water inlet pipe capable of bringing in water of different flow rates, a first water outlet pipe and a second water outlet pipe respectively connected to the first water injection nozzle and the second water injection nozzle, and a water flow allocation device connected among the water inlet pipe, the first water outlet pipe, and the second water outlet pipe to bring the water from the water inlet pipe into the first water outlet pipe or the second water outlet pipe according to the different flow rates of the water.

[0009] Further, a water valve device is disposed on the water inlet pipe so as to bring water of a first flow rate or second flow rate into the water inlet pipe. The first flow rate is greater than the second flow rate. Guided by the water flow allocation device, water of the first flow rate flows out from the first water outlet pipe, and water of the second flow rate flows out from the second water outlet pipe.

[0010] Preferably, the water flow allocation device includes a first water flow channel in communication with the first water outlet pipe and a second water flow channel in communication with the second water outlet pipe, where a water inlet end of the second water flow channel is directly connected to a water inlet pipe terminal, and a gap exists between projections of a water inlet end of the first water flow channel and the water inlet pipe terminal on a horizontal plane.

[0011] Preferably, a central axis of the water inlet pipe terminal approximately coincides with a central axis of the water inlet end of the first water flow channel.

[0012] Preferably, an air pipe in communication with atmosphere is disposed on the water flow allocation device, and the air pipe is in communication with the first water flow channel and the second water flow channel respectively.

[0013] Preferably, the first water flow channel is partitioned by an air gap into an upper portion and a lower portion opposite each other in a vertical direction.

[0014] Preferably, an inner pipe diameter of the upper portion is less than an inner pipe diameter of the lower portion.

[0015] Preferably, a block sheet for preventing a water flow from entering the air gap and for leading the water flow into the second water flow channel is disposed in a direction of the vertical air gap facing the water inlet pipe.

[0016] Preferably, the household appliance includes a clothes drying drum, where the water cavity is a condensation channel connected to the clothes drying drum, the first water injection nozzle supplies clean water to the condensation channel, and the second water injection

nozzle supplies cooling water to the condensation channel.

[0017] Compared with the prior art, the household appliance employs a water flow allocation device to allocate water from the water inlet pipe to two water outlet pipes, so that only one water inlet pipe is used, and meanwhile, it is unnecessary to set a water flow adapting device on each water pipe as in the prior art. The water flow allocation device can provide a channel in communication with atmosphere to the first water outlet pipe and the second water outlet pipe at the same time. Hence, the present invention is simpler and more compact in structure, occupies less space, is easy to mount, and meanwhile saves cost.

[0018] The present invention is applicable to various household appliances, and is particularly applicable to a drying machine or a washing and drying machine. The application in the washing and drying machine is taken as a preferred embodiment, and as an example in the following to describe the specific implementation manner of the present invention in detail with reference to the accompanying drawing.

FIG. 1 is a schematic view of a washing and drying machine;

FIG. 2 is a schematic view of a first water outlet pipe and a second water outlet pipe of a water flow allocation device;

FIG. 3A is a cross sectional view of the first water outlet pipe and the second water outlet pipe of the water flow allocation device in FIG. 2, where a dashed line with an arrow in FIG. 3A is a path along which the water flow passes through the first water flow channel; and

FIG. 3B is a cross sectional view of the first water outlet pipe and the second water outlet pipe of the water flow allocation device in FIG. 2, where a dashed line with an arrow in FIG. 3B is a path along which the water flow passes through the second water flow channel.

[0019] As shown in FIG. 1, a washing and drying machine 1 has a clothes processing drum assembly 3 in a box 2, and includes an inner drum 5 capable of rotating when driven by a motor 4, and a water storage tub 6 sleeved outside the inner drum 5. The water storage tub 6 is connected to two ends of a drying air channel 7, so that drying air 8 can circulate in the clothes processing drum assembly 3 and the drying air channel 7. The drying air channel 7 includes a condensation channel 9 and a heating channel 10; meanwhile, a blower 11 is disposed in the drying air channel 7 so as to propel the drying air 8 circulating in the clothes processing drum assembly 3 and the drying air channel 7. In this embodiment the condensation channel 9 defines a water cavity 9 due to the

fact that water may be brought into it as detailed below.

[0020] The washing and drying machine 1 further has a control device 12, which controls different equipment in the machine to run according to program settings. Under the control of the control device 12, in a drying program, the heating channel 10 heats the drying air 8 flowing therein; after being heated, the high-temperature drying air 8 enters the clothes processing drum assembly 3 under the effect of the blower 11 and heats wet clothes in the inner drum 5, so that moisture in the clothes is evaporated; carrying the evaporated moisture, the drying air 8 enters the condensation channel 9. In the condensation channel 9, moisture in the drying air 8 is condensed into liquid again, so as to be separated from the drying air 8; hence, the drying air 8 returns to a low temperature and becomes dry again, and driven by the blower 11, enters the heating channel 10 again to start a new circulation. Such circulation is repeated until the clothes in the inner drum are finally dried.

[0021] In order to condense the drying air 8 in the water cavity 9 or condensation channel 9 and meanwhile to wash away flock or lint attached on an inner wall of the condensation channel 9, the condensation channel 9 is connected with the water supply assembly 13 that supplies water thereto. The water supply assembly 13 includes a water valve device 14 connected to a water source and a water flow allocation device 15 downstream of the water valve device 14; the water valve device 14 and the water flow allocation device 15 are connected by a water inlet pipe 16. The water flow allocation device 15 is connected with the first water outlet pipe 17 and the second water outlet pipe 18 downstream, where the first water outlet pipe 17 is connected to a first water injection nozzle 19 on the condensation channel 9, so as to supply cleaning water to the condensation channel 9, and the second water outlet pipe 18 is connected to a second water injection nozzle 20 on the condensation channel 9, so as to supply cooling water to the condensation channel 9. In a vertical direction, the position of the first water injection nozzle 19 is higher than that of the second water injection nozzle 20. Preferably, the first water injection nozzle 19 is close to a top portion of the condensation channel 9, so that the cleaning water washes the entire condensation channel 9 from top down. The second water injection nozzle 20 is close to a middle and lower portions of the condensation channel 9 and close to an air inlet end of the drying air 8, so that the cooling water fully cools the drying air 8.

[0022] Generally, cooling water needs to be supplied during most time of the drying program. To save water, the flow rate of the cooling water should be as small as possible under the premise of satisfying the drying requirement. However, in order to completely wash away flock attached on the inner wall of the condensation channel 9, water of a great flow rate is required, so as to achieve a desirable washing effect. Cleaning water is usually supplied at the end of the drying program, and lasts a short period of time. According to such a principle,

the control device 12 controls the water valve device 14 to supply cleaning water of a first flow rate V1 to the water inlet pipe 16 at the end of the drying stage, and to supply cooling water of a second flow rate V2 to the water inlet pipe 16 during the drying stage. Definitely, the water valve device 14 may also supply cleaning water of the first flow rate V1 to the water inlet pipe 16 during other time segments of the drying program or even during a washing program, so as to wash the condensation channel 9. The first flow rate V1 is greater than the second flow rate V2.

[0023] As shown in FIG. 2 to FIG. 3B, a first water flow channel 21 in communication with the first water outlet pipe 17 and a second water flow channel 22 in communication with the second water outlet pipe 18 are formed in the water flow allocation device 15. A water inlet end 23 of the second water flow channel 22 is directly connected to a terminal 24 of the water inlet pipe 16; a gap 26 exists between projections of the water inlet end 25 of the first water flow channel 21 and the water inlet pipe terminal 24 on a horizontal plane. The gap 26 is designed as follows: whether or not a certain height difference exists between the water inlet end 25 of the first water flow channel 21 and the water inlet pipe terminal 24, the gap 26 exists between the projections thereof on the horizontal plane, and the cleaning water of the first flow rate V1 flowing out from the water inlet pipe 16 can flow across the gap 26 and enter the first water flow channel 21; the cooling water of the second flow rate V2 flowing out from the water inlet pipe 16 cannot flow across the gap 26 and thus cannot enter the first water flow channel 21 due to the low flow rate thereof, but can only fall into the second water flow channel 22 with an opening under the gap 26. The cleaning water of the greater first flow rate V1 enters the first water flow channel 21 via the water inlet pipe 16, and further enters the condensation channel 9 via the first water injection nozzle 19 to wash away flock attached in the condensation channel 9. The cooling water of the smaller second flow rate V2 enters the second water flow channel 22 via the water inlet pipe 16 during the drying process, and further enters the condensation channel 9 via the second water injection nozzle 20 to condense moisture carried in the drying air 8. Preferably, a central axis 24a of the water inlet pipe terminal 24 approximately coincides with a central axis 25a of the water inlet end 25 of the first water flow channel 21. In other implementation manners, the central axis 24a of the water inlet pipe terminal 24 may be slightly higher than the central axis 25a of the water inlet end 25 of the first water flow channel 21, so as to ensure that water of the first flow rate V1 can still fall into the water inlet end 25 of the first water flow channel 21 after flowing across the gap 26 under the effect of the gravity.

[0024] To prevent water in the washing and drying machine 1 from being sucked back into a common water supply system and polluting the water supply system due to an unexpected negative pressure generated in the water supply system when the water level in the water storage tub 6 exceeds the first water flow channel 21 and/or

second water flow channel 22, an air pipe 27 in communication with atmosphere is disposed on the water flow allocation device 15, and the air pipe 27 is in communication with the first water flow channel 21 and the second water flow channel 22 respectively, so as to balance the pressure and prevent back suction

[0025] As a preferred solution, the first water flow channel 21 is partitioned by an air gap 28 into an upper portion 21 a and a lower portion 21 b opposite each other in a vertical direction. An inner pipe diameter of the upper portion 21 a is less than an inner pipe diameter of the lower portion 21 b, so that water flowing out from the upper portion 21 a can completely fall into the lower portion 21 b. Meanwhile, to fully utilize the cooling water and prevent the cooling water from entering the air gap 28 of the first water flow channel 21, a block sheet 29 for preventing a water flow from entering the air gap 28 and for leading the water flow into the second water flow channel 22 is disposed in a direction of the air gap 28 facing the water inlet pipe 16.

[0026] The above embodiments are merely preferred embodiments of the present invention. The present invention may have many other embodiments. Any equivalent replacement made by persons of ordinary skill in the art under the teaching of the present invention shall fall within the scope of the claims of the present invention.

Claims

1. A household appliance (1) having a water supply assembly (13), comprising a water cavity (9), wherein the water cavity (9) has a first water injection nozzle (19) and a second water injection nozzle (20), and the water supply assembly (13) is connected to the first water injection nozzle (19) and the second water injection nozzle (20) of the water cavity (9) to supply water into the water cavity (9), **characterized in that:** the water supply assembly (13) comprises: a water inlet pipe (16) capable of bringing in water of different flow rates, a first water outlet pipe (17) and a second water outlet pipe (18) respectively connected to the first water injection nozzle (19) and the second water injection nozzle (20), and a water flow allocation device (15) connected among the water inlet pipe (16), the first water outlet pipe (17), and the second water outlet pipe (18) to bring the water from the water inlet pipe (16) into the first water outlet pipe (17) or the second water outlet pipe (18) according to the different flow rates of the water.
2. The household appliance (1) according to claim 1, **characterized in that:** the water flow allocation device (15) comprises a first water flow channel (21) in communication with the first water outlet pipe (17) and a second water flow channel (22) in communication with the second water outlet pipe (18), wherein a water inlet end (23) of the second water flow chan-

nel (22) is directly connected to a water inlet pipe terminal (24), and a gap (26) exists between projections of a water inlet end (25) of the first water flow channel (21) and the water inlet pipe terminal (24) on a horizontal plane.

3. The household appliance (1) according to claim 2, **characterized in that:** a central axis (24a) of the water inlet pipe terminal (24) approximately coincides with a central axis (25a) of the water inlet end (25) of the first water flow channel (21).
4. The household appliance (1) according to claim 2, **characterized in that:** an air pipe (27) in communication with atmosphere is disposed on the water flow allocation device (15), and the air pipe (27) is in communication with the first water flow channel (21) and the second water flow channel (22), respectively.
5. The household appliance (1) according to claim 4, **characterized in that:** the first water flow channel (21) is partitioned by an air gap (28) into an upper portion (21 a) and a lower portion (21 b) opposite each other in a vertical direction.
6. The household appliance (1) according to claim 5, **characterized in that:** an inner pipe diameter of the upper portion (21 a) is less than an inner pipe diameter of the lower portion (21 b).
7. The household appliance (1) according to claim 5, **characterized in that:** a block sheet (29) for preventing a water flow from entering the air gap (28) and for leading the water flow into the second water flow channel (22) is disposed in a direction of the air gap (28) facing the water inlet pipe (16).
8. The household appliance (1) according to any one of claims 1 to 7, **characterized by** further comprising: a clothes drying drum (3, 5, 6), wherein the water cavity (9) is a condensation channel (9) connected to the clothes drying drum (3, 5, 6), the first water injection nozzle (19) supplies clean water to the condensation channel (9), and the second water injection nozzle (20) supplies cooling water to the condensation channel (9).

Patentansprüche

1. Haushaltsgesetz (1) mit einer Wasserversorgungsbaugruppe (13), die eine Wasserkammer (9) umfasst, wobei die Wasserkammer (9) eine erste Wassereinspritzdüse (19) und eine zweite Wassereinspritzdüse (20) aufweist und die Wasserversorgungsbaugruppe (13) zum Einleiten von Wasser in die Wasserkammer (9) mit der ersten Wassereinspritzdüse (19) und der zweiten Wassereinspritzdü-

se (20) der Wasserkammer (9) verbunden ist, **dadurch gekennzeichnet, dass:** die Wasserversorgungsbaugruppe (13) Folgendes umfasst: ein Wasserzulaufrohr (16), das in der Lage ist, Wasser mit verschiedenen Durchflussmengen einzulassen, ein erstes Wasserauslaufrohr (17) und ein zweites Wasserauslaufrohr (18), das mit der ersten Wassereinspritzdüse (19) beziehungsweise der zweiten Wassereinspritzdüse (20) verbunden ist, und eine Wasserzuteilungsvorrichtung (15), die zwischen das Wasserzulaufrohr (16), das erste Wasserauslaufrohr (17) und das zweite Wasserauslaufrohr (18) geschaltet ist und den verschiedenen Durchflussmengen des Wassers entsprechend Wasser aus dem Wassereinspritzrohr (16) in das erste Wasserauslaufrohr (17) oder das zweite Wasserauslaufrohr (18) einlässt.

2. Haushaltsgesetz (1) nach Anspruch 1, **dadurch gekennzeichnet, dass:** die Wasserzuteilungsvorrichtung (15) einen mit dem ersten Wasserauslaufrohr (17) verbundenen ersten Wasserkanal (21) und einen mit dem zweiten Wasserauslaufrohr (18) verbundenen zweiten Wasserkanal (22) umfasst, wobei ein Wasserzulaufende (23) des zweiten Wasserkanals (22) direkt mit einem Wasserzulaufrohranschluss (24) verbunden ist und zwischen Vorsprüngen eines Wasserzulaufendes (25) des ersten Wasserkanals (21) und des Wasserzulaufrohranschlusses (24) in einer horizontalen Ebene ein Spalt (26) besteht.
3. Haushaltsgesetz (1) nach Anspruch 2, **dadurch gekennzeichnet, dass:** eine Mittelachse (24a) des Wasserzulaufrohranschlusses (24) in etwa mit einer Mittelachse (25a) des Wasserzulaufendes (25) des ersten Wasserkanals (21) übereinstimmt.
4. Haushaltsgesetz (1) nach Anspruch 2, **dadurch gekennzeichnet, dass:** ein mit der Atmosphäre verbundenes Luftrohr (27) an der Wasserzuteilungsvorrichtung (15) angeordnet und mit dem ersten Wasserkanal (21) beziehungsweise dem zweiten Wasserkanal (22) verbunden ist.
5. Haushaltsgesetz (1) nach Anspruch 4, **dadurch gekennzeichnet, dass:** der erste Wasserkanal (21) durch einen Luftspalt (28) in einen oberen Abschnitt (21a) und einen unteren Abschnitt (21b) unterteilt ist, die sich in vertikaler Richtung gegenüberliegen.
6. Haushaltsgesetz (1) nach Anspruch 5, **dadurch gekennzeichnet, dass:** ein Rohrrinnendurchmesser des oberen Abschnitts (21a) geringer ist als ein Rohrrinnendurchmesser des unteren Abschnitts (21b).
7. Haushaltsgesetz (1) nach Anspruch 5, **dadurch ge-**

kennzeichnet, dass: eine Sperrplatte (29) zum Verhindern, dass ein Wasserstrom in den Luftspalt (28) eintritt, und zum Leiten des Wasserstroms in den zweiten Wasserkanal (22) in einer Richtung des Luftspalts (28) dem Wasserzulaufrohr (16) zugewandt angeordnet ist.

8. Haushaltsgerät (1) nach einem der Ansprüche 1 bis 7, das **dadurch gekennzeichnet ist, dass** es ferner Folgendes umfasst: eine Wäschetrockentrommel (3, 5, 6), wobei es sich bei der Wasserkammer (9) um einen Kondensationskanal (9) handelt, der mit der Wäschetrockentrommel (3, 5, 6) verbunden ist, die erste Wassereinspritzdüse (19) sauberes Wasser und die zweite Wassereinspritzdüse (20) Kühlwasser zum Kondensationskanal (9) leitet.

Revendications

1. Appareil électroménager (1) ayant un ensemble d'alimentation en eau (13), comprenant un réservoir d'eau (9), dans lequel le réservoir d'eau (9) a une première buse d'injection d'eau (19) et une seconde buse d'injection d'eau (20), et l'ensemble d'alimentation en eau (13) est connecté à la première buse d'injection d'eau (19) et à la seconde buse d'injection d'eau (20) du réservoir d'eau (9) pour alimenter en eau le réservoir d'eau (9), **caractérisé en ce que** l'ensemble d'alimentation en eau (13) comprend une conduite d'admission d'eau (16) capable d'apporter de l'eau à différents débits, une première conduite d'évacuation d'eau (17) et une seconde conduite d'évacuation d'eau (18) connectées respectivement à la première buse d'injection d'eau (19) et à la seconde buse d'injection d'eau (20), et un dispositif de distribution de flux d'eau (15) connecté à la conduite d'admission d'eau (16), à la première conduite d'évacuation d'eau (17) et à la seconde conduite d'évacuation d'eau (18) pour transporter l'eau de la conduite d'admission d'eau (16) à la première conduite d'évacuation d'eau (17) ou à la seconde conduite d'évacuation d'eau (18) selon les différents débits de l'eau.
2. Appareil électroménager (1) selon la revendication 1, **caractérisé en ce que** le dispositif de distribution de flux d'eau (15) comprend une première canalisation d'écoulement d'eau (21) en communication avec la première conduite d'évacuation d'eau (17) et une seconde canalisation d'écoulement d'eau (22) en communication avec la seconde conduite d'évacuation d'eau (18), dans lequel une extrémité d'admission d'eau (23) de la seconde canalisation d'écoulement d'eau (22) est connectée directement à un raccord de conduite d'admission d'eau (24), et il existe un interstice (26) entre des saillies d'une extrémité d'admission d'eau (25) de la première ca-

nalisation d'écoulement d'eau (21) et le raccord de conduite d'admission d'eau (24) sur un plan horizontal.

3. Appareil électroménager (1) selon la revendication 2, **caractérisé en ce qu'un** axe central (24a) du raccord de conduite d'admission d'eau (24) coïncide approximativement avec un axe central (25a) de l'extrémité d'admission d'eau (25) de la première canalisation d'écoulement d'eau (21).
4. Appareil électroménager (1) selon la revendication 2, **caractérisé en ce qu'une** conduite d'air (27) en communication avec l'atmosphère est disposée sur le dispositif de distribution de flux d'eau (15), et que la conduite d'air (27) est en communication respectivement avec la première canalisation d'écoulement d'eau (21) et la seconde canalisation d'écoulement d'eau (22).
5. Appareil électroménager (1) selon la revendication 4, **caractérisé en ce que** la première canalisation d'écoulement d'eau (21) est divisée par un espace (28) en une partie supérieure (21 a) et une partie inférieure (21 b) opposées l'une à l'autre dans une direction verticale.
6. Appareil électroménager (1) selon la revendication 5, **caractérisé en ce qu'un** diamètre intérieur de conduite de la partie supérieure (21 a) est inférieur d'un diamètre intérieur de conduite de la partie inférieure (21 b).
7. Appareil électroménager (1) selon la revendication 5, **caractérisé en ce qu'une** plaque (29) servant à empêcher un flux d'eau d'entrer dans l'espace (28) et à conduire le flux d'eau dans la seconde canalisation d'écoulement d'eau (22) est disposée dans une direction de l'espace (28) faisant face à la conduite d'admission d'eau (16).
8. Appareil électroménager (1) selon l'une quelconque des revendications 1 à 7, **caractérisé en ce qu'il** comprend en outre un tambour sèche-linge (3, 5, 6), dans lequel le réservoir d'eau (9) est une canalisation de condensation (9) connectée au tambour sèche-linge (3, 5, 6), la première buse d'injection d'eau (19) envoie de l'eau propre à la canalisation de condensation (9) et la seconde buse d'injection d'eau (20) envoie de l'eau de refroidissement à la canalisation de condensation (9).

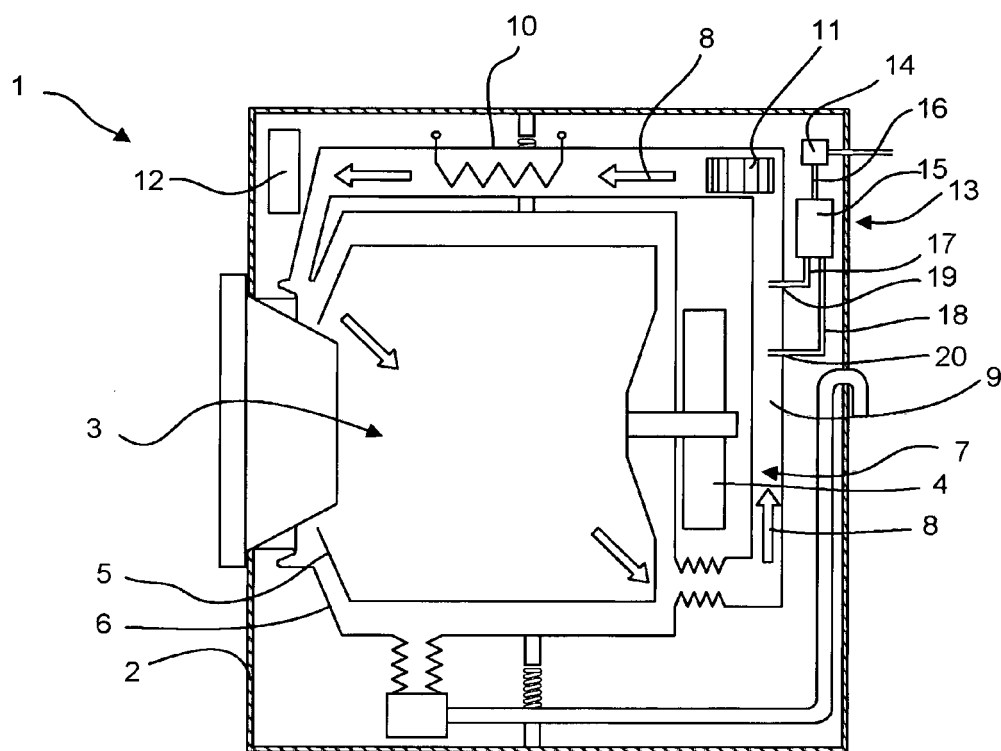


FIG. 1

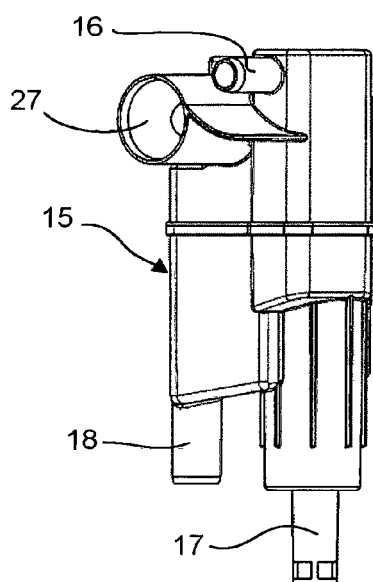


FIG. 2

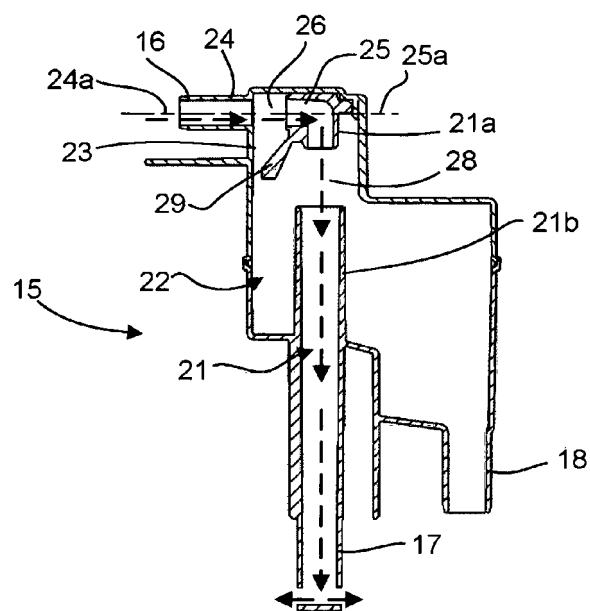


FIG. 3A

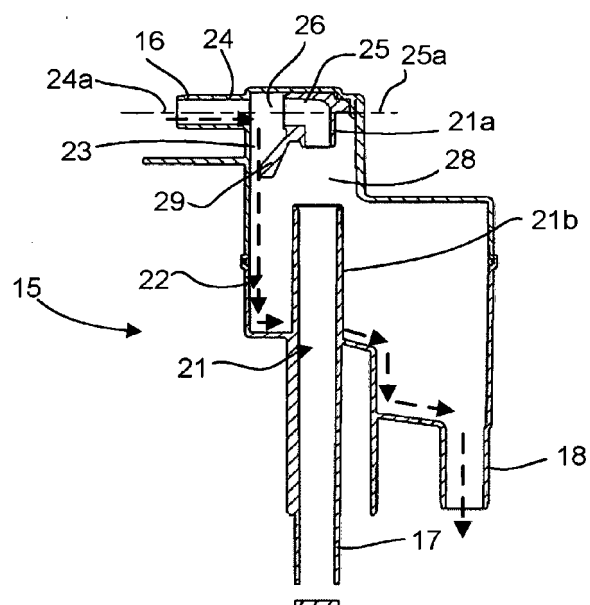


FIG. 3B

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- WO 2005090670 A2 [0003]