

DESCRIPTION

DUAL VOLUME FLUSH SYSTEM

5 Field of the Invention

This invention is related to the dual flush system designed for the toilet reservoir, capable of two different flush volumes as an adjustable small volume and a constant large volume.

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Background of the Invention

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The decreasing natural resources have resulted in the need to reduce the amount of water used in the closets. Among the methods of fulfilling this need in reservoirs; interruptible flush systems, closets that can function with less than 6 lt of water, and the systems called as dual flushing systems that can perform washing with two different volumes, are used. The opportunity to wash with two different volumes in dual flush systems has made water conservation possible by performing smaller volume washing without using the entire volume of water in the reservoir in case the closet is filled with urine or easily removable pieces such as dust or paper.

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A dual flush system is disclosed in the published American patent application US2004/0083542, in prior art. In this system, the upward motion of the overflow tube is provided by means of a cam mechanism pushing overflow tube upward by pulling a wire connected to a group of buttons. In this system, the overflow tube and the button group function together such that the overflow tube cannot perform its function without this special button group. Also, the system contains too many mechanical parts, and it is deduced that their production costs are high due to their structural complexities.

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In US2004/0083542, the pool floater used for small volume flush pulls the adjustment rod upward, and forces the movable member, which has protrusions to engage the hooks on the overflow pipe and which is connected to the adjustment rod, to rotate towards the overflow pipe, as long as the reservoir is full of water. In this mechanism, when the water is flushed from reservoir, by means of the weights of the

adjustment rod and pool floater, and the force exerted on the moveable member by the overflow tube, the moveable member is disengaged from the overflow tube and overflow tube with its gasket is seated in to the discharge hole.

5 Main difference of the system disclosed in this application with US2004/0083542, besides the used parts being geometrically in different forms, is that the small volume flush mechanism works in a different way than the one in US2004/0083542. In the system, which is the subject matter invention, the part that pulls down the small volume mechanism and causes the disengagement from the overflow tube is
10 the small volume pool floater that is permanently filled with water. The weight of the pool floater, filled with full of water, helps this system functioning as a more reliable manner.

15 Additionally, the mentioned system can be connected to the various lifting mechanisms.

Object of the Invention

20 The object of this invention is, to produce a dual flush system; that is easy to assemble, durable, allowing the user to flush the entire or a predetermined volume of water inside the reservoir; and that can be connected to various lifting mechanisms.

Detailed Description of the Invention

25 The mentioned system is indicated in the attached figures and the explanation is here below;

Figure 1. Perspective view of the assembled dual volume flush.

Figure 2. A different perspective view of the assembled dual volume flush.

30 Figure 3. Frontal section view of the dual volume flush.

Figure 4. Perspective view of the large volume floater.

Figure 5. Perspective view of the small volume floater.

Figure 6. Front view of the adjustment rod.

Figure 7. Perspective view of the small volume pool floater.

35 Figure 8. Perspective view of the flush body.

Figure 9. Perspective view of the overflow tube.

Figure 10. Perspective view of the flush valve base.

Figure 11. Perspective view of the flush lift arm.

Figure 12. Perspective view of the flush valve base support.

5 Figure 13. Perspective view of the flange.

Each of the parts numbered at the figures are indicated here below.

Dual flush system (A),
 10 flush valve base (1),
 flush valve base sealing gasket (2),
 flush body (3),
 overflow tube (4),
 flush lift arm (5),
 15 flush valve base support (8),
 large volume floater (9),
 small volume floater (10),
 small volume adjustment rod (11),
 small volume pool floater (12),
 20 retaining ring (14),
 flush gasket (15),
 flange (16),
 large volume floater pins (40),
 large volume floater middle section surface (41),
 25 large volume floater inner bore surface (42),
 large volume floater contact surface (43),
 large volume floater upper surface (44),
 large volume floater hooks (45),
 large volume floater inner space (46),
 30 small volume floater pins (50),
 small volume floater middle section surface (51),
 small volume floater inner bore surface (52),
 small volume floater contact surface (53),
 small volume floater upper surface (54),
 35 small volume floater hooks (55),

- small volume floater inner space (56),
 adjustment rod attachment surface of small volume floater (57),
 adjustment rod attachment hooks of small volume floater (58),
 upper conical hook (61),
 5 bearing protrusion to flush body (62),
 adjustment screw (63),
 attachment surface for small volume floater (64),
 attachment protrusions for small volume floater (65),
 small volume pool floater middle section surface (71),
 10 small volume pool floater inner bore surface (72),
 small volume pool floater lower surface (74),
 small volume pool floater inner space (76),
 small volume pool floater threaded surface (77),
 flush body hook (81),
 15 wall support (82),
 flush body upper hole (83),
 flush body upper hole channel (84),
 flush body lower protrusion (85),
 adjustment rod attachment hole (86),
 20 floater holes (87),
 hook attachment hole (91),
 overflow tube guiding rail (92),
 large volume hook (93),
 small volume hook (94),
 25 ring-gasket seating surface (95).

Dual flush system (A), used for large or small volume flushing in toilet reservoirs, as shown in assembled form in figures 1-3, comprises the following mechanical parts;
 flush valve base (1), flush valve base sealing gasket (2), flush body (3), overflow
 30 tube (4), flush lift arm (5), flush valve base support (8), large volume floater (9),
 small volume floater (10), small volume adjustment rod (11), small volume pool
 floater (12), retaining ring (14), flush gasket (15), flange (16).

Large volume floater (9) as shown in figure 4, comprises the following mechanical
 35 elements; large volume floater pins (40), large volume floater middle section surface

(41), large volume floater inner bore surface (42), large volume floater contact surface (43), large volume floater upper surface (44), large volume floater hooks (45), and large volume floater inner space (46).

5 The large volume floater (9) shown in figure 4, has a thin sectioned hollow body; which is shaped as a half-cylinder and containing a hole, shaped as a semicircle in the middle where the center of the hole is coincident with the longitudinal axis of the cylinder; which is closed at the top and open at the bottom. On the large volume
10 floater middle section surface (41), near the bottom of the large volume floater (9), there are two large volume floater pins (40) with circular sections, placed on mutually opposite sides, with their axes parallel to this surface and perpendicular to the longitudinal axis of the large volume floater (9). The large volume floater inner bore surface (42) is in the shape of a semicircle, and the large volume floater contact surface (43) which makes an angle with the large volume floater inner bore surface
15 (42) is placed where the large volume floater inner bore surface (42) intersects the large volume floater upper surface (44). The large volume floater hooks (45) extend perpendicularly outward from the large volume floater middle section surface (41). The large volume floater inner space (46) is the interior part of the large volume floater (9).

20 Small volume floater (10) shown in figure 5, comprises the following mechanical details; small volume floater pins (50), small volume floater middle section surface (51), small volume floater inner bore surface (52), small volume floater contact surface (53), small volume floater upper surface (54), small volume floater hooks
25 (55), small volume floater inner space (56), adjustment rod attachment surface of small volume floater (57), and adjustment rod attachment hooks of small volume floater (58).

30 The small volume floater (10) shown in figure 5, also, has a thin sectioned hollow body; which is shaped as a half-cylinder and containing a hole, shaped as a semicircle in the middle where the center of the hole is coincident with longitudinal axis of the cylinder; which is closed at the top and open at the bottom. On the small volume floater middle section surface (51), near the bottom of the small volume
35 floater (10), there are two small volume floater pins (50) with circular sections, placed on mutually opposite sides, with their axes parallel to this surface and

perpendicular to the longitudinal axis of the small volume floater (10). The small volume floater inner bore surface (52) is in the shape of a semicircle, and the small volume floater contact surface (53) which makes an angle with the small volume floater inner bore surface (52) is placed where the small volume floater inner bore surface (52) intersects the small volume floater upper surface (54). The small volume floater hooks (55) also extend perpendicularly outward from the small volume floater middle section surface (51). The small volume floater inner space (56) is the interior part of the small volume floater (10). In addition, the small volume floater (10) contains the adjustment rod attachment surface of small volume floater (57), shaped as a semicircle or semi-ellipse, which extends downward starting from the small volume floater upper surface (54), and has an opening towards the outside of small volume floater (10). At the bottom of the adjustment rod attachment surface of small volume floater (57), there exist adjustment rod attachment hooks of small volume floater (58) which are in the form of protrusion mutually facing to each other.

Small volume adjustment rod (11) shown in figure 6, comprises the following mechanical elements; upper conical hook (61), bearing protrusion to flush body (62), adjustment screw (63), attachment surface for small volume floater (64), and attachment protrusions for small volume floater (65).

The small volume adjustment rod (11) shown in figure 6, has a body, which is in the form of a long slender bar, comprising the upper conical hook (61) on its uppermost side, which is narrow at the top and enlarging downwards; the bearing protrusion to flush body (62) below the upper conical hook (61); the adjustment screw (63) starting from below the bearing protrusion to flush body (62) and extending downwards; the attachment surface for small volume floater (64) located where the adjustment screw (63) ends; two attachment protrusions for the small volume floater (65) which are on top of each other, at its lowermost side.

Small volume pool floater (12) shown in figure 7, comprises the following mechanical details; small volume pool floater middle section surface (71), small volume pool floater inner bore surface (72), small volume pool floater lower surface (74), small volume pool floater inner space (76), and small volume pool floater threaded surface (77).

The small volume pool floater (12) shown in figure 7, has a thin sectioned hollow body; which is shaped as a half-cylinder and containing a hole, shaped as a semicircle in the middle where the center of the hole is coincident with longitudinal axis of the cylinder; which is closed at the bottom and open at the top. Inside the small volume pool floater inner space (76) which belongs to small volume pool floater (12) that comprises such elements, as small volume pool floater middle section surface (71), small volume pool floater inner bore surface (72), small volume pool floater lower surface (74), and small volume pool floater inner space (76); there is the small volume pool floater threaded surface (77) which is a threaded cylindrical hole extending from top to bottom.

Flush body (3) shown in figure 8 comprises the following mechanical details; flush body hook (81), wall support (82), flush body upper hole (83), flush body upper hole channel (84), flush body lower protrusion (85), adjustment rod attachment hole (86), and floater holes (87).

The flush body (3) shown in figure 8, has a body; which is shaped as a hollow cylinder and open at the bottom; containing, the flush body upper hole (83) at the top; two wall supports (82) mutually extending outward as protrusion near the top; flush body lower protrusion (85) made by a diameter enlargement at the lower side; and two flush body hooks (81) mutually extending outward in opposite directions as protrusions from the flush body lower protrusion (85). On the inner surface of the flush body upper hole (83), the flush body upper hole channels (84), which are mutually facing each other, are placed. On the top surface of the flush body (3), there is the adjustment rod attachment hole (86) next to the flush body upper hole (83). In addition, there is a pair of floater holes (87), lying next to each other and on the same level, which are just above the flush body lower protrusion (85). Another pair of floater holes (87) on the flush body (3) lies on the same axes with the first pair of floater holes (87).

Overflow tube (4) shown in figure 9, comprises the following mechanical details; hook attachment holes (91), overflow tube guiding rail (92), large volume hook (93), large volume hook (94), and ring-gasket seating surface (95).

The overflow tube (4) shown in figure 9, has a shape of cylindrical hollow tube, which is open at the top and the bottom, containing two hook attachment holes (91) for hanging the flush lift arm (5) at the upper side, and also, containing the ring-gasket seating surface (95) made by a diameter reduction where the two retaining rings (14) and the flush gasket (15) in between the rings (14) which are mounted at the lower side. On the overflow tube, there are two overflow tube guiding rails (92) which are placed mutually and lying from top to bottom. Near the bottom side of the overflow tube guiding rail (92), the large volume hook (93) and the small volume hook (94) lie next to each other. The large volume hook (93) forms an inclined surface that extends out from the overflow tube guiding rail (92) at a point with an angle and a certain length. The small volume hook (94) also forms an inclined surface that extends out from the overflow tube guiding rail (92) at the mentioned point with an angle and a certain length. Compared to the large volume hook (93), the small volume hook (94) is shorter; the bottom part of the large volume hook (93) is placed lower than the bottom part of the small volume hook (94). The overflow tube guiding rails (92) on the overflow tube (4) are placed in the flush body upper hole channels (84) so that overflow tube (4) is movable only in vertical direction.

In the assembly of dual flush system (A), which is the subject matter invention, shown in figures 1-3, flush valve base (1) is placed to the discharge channel of the toilet reservoir, together with the flush valve base sealing gasket (2) on it. In order to fix the position of flush valve base (1), the flush valve base support (8), of which the upper part is leaned to a fixed point in the reservoir, is connected to the flush valve base (1). The flange (16) is placed just above the flush valve base (1), and it is also located in at the inner side of the flush body lower protrusion (85). The flush body (3), besides, is attached to the hook-attachment parts on the flush valve base (1) via its flush body hooks (81). The hooks on the flush lift arm (5) are attached to the hook attachment holes (91) on the overflow tube (4). Due to the fact that the overflow tube guiding rails (92) on the overflow tube (4) are guided in the flush body upper hole channels (84), the overflow tube (4) is guided in the flush body upper hole (83). On the ring-gasket seating surface (95) of the overflow tube (4), two retaining rings (14) and in between the flush gasket (15) are mounted on top of each other. In case of the overflow tube (4) being not pulled upward, the flush gasket (15) closes the hole in the middle of the flush valve base (1), and prevents the water flow from the reservoir to the toilet. It is seen that, the overflow tube (4) extends downwards

throughout hole in the middle of the flange (16). Since large volume floater pins (40) and small volume floater pins (50) are attached to the floater holes (87), which are on the flush body (3), the large volume floater (9) and the small volume floater (10) are positioned inside the flush body (3). Also, the overflow tube (4) is in between the large volume floater (9) and the small volume floater (10). The small volume adjustment rod (11) is also placed inside the flush body (3); via its bearing protrusion to flush body (62), it leans on the surface just below the adjustment rod attachment hole (86) when the reservoir is full; and at the same time via the small volume floater attachment protrusions (65) at its bottom part, it is attached to the adjustment rod attachment hooks of the small volume floater (58); via its small volume floater attachment surface (64), it is placed on the adjustment rod attachment surface of the small volume floater (57). Consequently, the small volume pool floater (12) is attached to the small volume adjustment rod (11) via its small volume pool floater threaded surface (77).

As long as there is water in the reservoir, the large volume floater contact surface (43) and the small volume floater contact surface (53) on the large volume floater (9) and the small volume floater (10), respectively, are positioned to lean on the overflow tube (4), and their positions are achieved by hinge points of large volume floater pins (40), and small volume floater pins (50) being pivoted on the floater holes (87) of the flush body (3), and by the air being captured inside the large volume floater inner space (46), and small volume floater inner space (56) by the water inside the reservoir during refill.

By means of another mechanism, not shown in the figures, which is not an object of this invention, discharges the water out of the reservoir as a result of consequent separation and elevation of the flush gasket (15) from flush base (1), when the flush lift arm (5) and the attached overflow tube (4) are lifted up.

When the overflow tube (4) is completely lifted upward, the large volume floater hooks (45) are engaged to the surface below the large volume hook (93) by contacting of the large volume floater hooks (45) with the large volume hook (93) on the overflow tube (4), the overflow tube (4) is hung on the large volume floater (9) in this position.

When the water level reaches the bottom level of the large volume floater (9), the lifting force of water causing the large volume floater (9) to rotate and lean to the overflow tube (4), begins to decrease, and by the weight of the overflow tube (4) the large volume floater (9) is pushed downward and disengaged from the overflow tube (4) by rotating outwards. This results in the detachment of the overflow tube (4) from the large volume floater hooks (45) and the flush gasket (15) seats into its place on the flush valve base (1). The volume of the flushed water is the large volume in between the highest water level in the reservoir and the bottom level of the large volume floater (9).

On the other hand, for small volume flushing, it is required that the overflow tube (4) is lifted upward a shorter distance. When the overflow tube (4) is pulled upward at a certain shorter distance, the small volume floater hooks (55) are engaged to the surface below small volume hook (94) by contacting the small volume floater hooks (55) with small volume hook (94) on the overflow tube (4), the overflow tube (4) is hung on the small volume floater (10) in this position, and at that instant flushing initiates.

When the water level reaches below to the bottom level of the small volume pool floater (12), the weight of the small volume pool floater (12) with full of water is transmitted to the adjustment rod (11), and to the small volume floater (10). As a result, the lifting force of water causing the small volume floater (10) to rotate and lean on the overflow tube (4), begins to decrease, and by the weight of the overflow tube (4) together with the weight of the small volume pool floater (12) with full of water, the small volume floater (10) is pushed downward and disengaged from the overflow tube (4) by rotating outwards. This results in the detachment of the overflow tube (4) from the small volume floater hooks (55) and the flush gasket (15) seats into its place on the flush valve base (1). The volume of the flushed water is the small volume in between the highest water level in the reservoir and the bottom level of the small volume pool floater (12) or slightly its lower level. In order to adjust the amount of small volume flush, the position of the small volume pool floater (12) can be changed upward or downward by means of the threaded surfaces on the small volume adjustment rod (11) and small volume pool floater (12).

As an alternative other than toilet reservoirs, the dual flush system (A) can also be used in various reservoirs with liquid contents.

The invention is not limited to the preferred exemplary embodiment described above.

5 Rather, a multiplicity of modifications and variants are possible, which make use of the underlying inventive concept of the invention and, therefore, likewise fall within the extent of protection.

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CLAIMS

1. A dual flush system (A) used for large or small volume flush in toilet reservoirs and being able to be connected to various lifting mechanisms; comprising the flush valve
5 base (1) which is placed to the discharge channel of the toilet reservoir, together with the flush valve base sealing gasket (2) on it, the flush valve base support (8) of which upper part is leaned to a fixed point in the reservoir and which is fixing the position of flush valve base (1), the flange (16) being at top of the flush valve base (1) and inside the flush body (3), the flush body (3) which is connected to the hook
10 attachment parts on the flush valve base (1) via the hooks on it, the overflow tube (4) which has two retaining rings (14) and the flush gasket (15) between them mounted top of each other at its lower part and on which the flush lift arm (5) being attached to its upper part, the large volume floater (9), being inside the flush body (3), of which the large volume floater pins (40) being attached to the floater holes (87) on
15 the flush body (3), the small volume floater (10), the small volume adjustment rod (11), and the small volume pool floater (12); is characterized in that

- the small volume floater (10) positioned inside the flush body (3) being connected to the floater holes (87) on the flush body (3) via its small volume floater pins (50),
- 20 - the small volume pool floater (12) with full of water, which is placed inside the flush body (3) being connected to the small volume adjustment rod (11) via its small volume pool floater threaded surface (77).

2. Small volume floater (10) according to claim 1 is characterized in that, having a
25 thin sectioned hollow body, which is shaped as a half-cylinder and containing a hole shaped as a semicircle in the middle where the center of the hole is coincident with longitudinal axis of the cylinder, which is closed at the top and open at the bottom; comprising two small volume floater pins (50) with circular sections, placed on mutually opposite sides, with their axes parallel to this surface and perpendicular to
30 the longitudinal axis of the small volume floater (10), on the small volume floater middle section surface (51) and near the bottom of the small volume floater (10); the small volume floater inner bore surface (52) being in the shape of a semicircle, and the small volume floater contact surface (53), which makes an angle with the small volume floater inner bore surface (52), being placed where the small volume floater
35 inner bore surface (52) intersects the small volume floater upper surface (54); the

small volume floater hooks (55) extending perpendicularly outward from the small volume floater middle section surface (51); the small volume floater inner space (56) which is the interior part of the small volume floater (10); the adjustment rod attachment surface of small volume floater (57), shaped as a semicircle or semi-ellipse, which extends downward starting from the small volume floater upper surface (54), and having an opening towards the outside of small volume floater (10); adjustment rod attachment hooks of small volume floater (58) which are in the form of protrusion mutually facing to each other, at the bottom of the adjustment rod attachment surface of small volume floater (57).

3. The small volume adjustment rod (11) according to claim 1; having a body, which is in the form of a long slender bar, comprising the bearing protrusion to flush body (62) below the upper conical hook (61); the adjustment screw (63) starting from below the bearing protrusion to flush body (62) and extending downwards; two attachment protrusions for the small volume floater (65) which are on top of each other, at its lowermost side; is characterized in that on its uppermost side there is the upper conical hook (61), which is narrow at the top and enlarging downwards; and the attachment surface for small volume floater (64) which is located where the adjustment screw (63) ends

4. Small volume pool floater (12) according to claim 1 is characterized in that, it has a thin sectioned hollow body, which is shaped as a half-cylinder and containing a hole shaped as a semicircle in the middle where the center of the hole is coincident with longitudinal axis of the cylinder, which is closed at the bottom and open at the top; having the small volume pool floater threaded surface (77) which is a threaded cylindrical hole extending from top to bottom inside the small volume pool floater inner space (76); which comprises small volume pool floater middle section surface (71), small volume pool floater inner bore surface (72), small volume pool floater lower surface (74), and small volume pool floater inner space (76).

5. The large volume floater (9) according to claim 1, having a thin sectioned hollow body, which is shaped as a half-cylinder containing a hole shaped as a semicircle in the middle, where the center of the hole coincident with longitudinal axis of the

cylindrical; comprising two large volume floater pins (40) with circular sections, placed on mutually opposite sides, with their axes parallel to the large volume floater middle section surface (41) and perpendicular to the longitudinal axis of the large volume floater (9), on the large volume floater middle section surface (41) and near the bottom of the large volume floater (9); the large volume floater inner bore surface (42) in the shape of a semicircle; is characterized in that it has a body; closed at the top and open at the bottom, having the large volume floater contact surface (43) which makes an angle with the large volume floater inner bore surface (42) which is placed where the large volume floater inner bore surface (42) intersects the large volume floater upper surface (44); and having large volume floater hooks (45) extending perpendicularly outward from the large volume floater middle section surface (41).

6. The flush body (3) according to claim 1, having a body which is shaped as a hollow cylinder and open at the bottom; comprising, the flush body upper hole (83) at the top; two wall supports (82) mutually extending outward as protrusion near the top; flush body lower protrusion (85) made by a diameter enlargement at the lower side; and two flush body hooks (81) mutually extending outward in opposite directions as protrusions from the flush body lower protrusion (85); the flush body upper hole channels (84) which are mutually facing each other on the inner surface of the flush body upper hole (83); adjustment rod attachment hole (86) next to the flush body upper hole (83) on the top surface of the flush body (3); is characterized in that there is a pair of floater holes (87), lying next to each other and on the same level, which are just above the flush body lower protrusion (85) and another pair of floater holes (87) on the flush body (3) lying on the same axes with the first pair of floater holes (87).

7. The overflow tube (4) according to claim 1, having a shape of cylindrical hollow tube, which is open at the top and the bottom; comprising two hook attachment holes (91) for hanging the flush lift arm (5) at the upper side; the ring-gasket seating surface (95) made by a diameter reduction at the lower side; two overflow tube guiding rails (92) which are mutually placed and lying from top to bottom and placed in the flush body upper hole channels (84) so that overflow tube (4) is movable only in vertical direction; the large volume hook (93) and the small volume hook (94) lying next to each other near the bottom side of the overflow tube guiding rail (92); the

large volume hook (93) forming an inclined surface that extends out from the overflow tube guiding rail (92) at a point with an angle and a certain length and the bottom part of the large volume hook (93) being placed lower than the bottom part of the small volume hook (94); is characterized in that

- the small volume hook (94) forms an inclined surface that extends out from the overflow tube guiding rail (92) at the mentioned point with an angle and a certain length,
- the small volume hook (94) is shorter than large volume hook (93).

8. The small volume floater (10), according to claim 2, is characterized in that the position of the small volume floater contact surface (53) on the small volume floater (10) which is leaned to the overflow tube (4), as long as there is water in the reservoir, are achieved by the hinge points of small volume floater pins (50) being pivoted on the floater holes (87) of the flush body (3) and by the air being captured inside the small volume floater inner space (56) by the water inside the reservoir during refill.

9. The small volume adjustment rod (11), inside the flush body (3), according to claim 3, is characterized in that it is leaned to the surface just below the adjustment rod attachment hole (86) via its bearing protrusion to flush body (62) when the reservoir is full of water; meanwhile, it is attached to the adjustment rod attachment hooks of the small volume floater (58) via the small volume floater attachment protrusions (65) at its bottom part, and positioned on the adjustment rod attachment surface of small volume floater (57) on the small volume floater (10) by means of its small volume floater attachment surface (64).

10. Small volume flushing process in dual flush system (A) according to claims 1-9, which is performed sequentially by means of; the overflow tube (4) being lifted upward a shorter distance, compared to large volume flushing; the small volume floater hooks (55) being engaged to the surface below small volume hook (94) by contacting the small volume floater hooks (55) with small volume hook (94) on the overflow tube (4); the overflow tube (4) which is hung on the small volume floater (10) in this position initiating the flushing; is characterized in that the said process comprises the steps which are,

- transmission of the weight, of the small volume pool floater (12) with full of water, to the adjustment rod (11) and to the small volume floater (10), when the water level reaches below to the bottom level of the small volume pool floater (12),
- 5 - by means of decreasing of the lifting force of water causing the small volume floater (10) to rotate and lean on the overflow tube (4), movement of the small volume floater (10) downward and disengagement of said floater (10) from the overflow tube (4) by rotating outwards by the weight of the overflow tube (4) together with the weight of the small volume pool floater (12) with full of water,
- 10 - detachment of the overflow tube (4) from the small volume floater hooks (55) and the seating of flush gasket (15) into its place on the flush valve base (1).

11. Dual flush system (A), as in any one of the foregoing claims, is characterized in that, it can also be used in various reservoirs with liquid contents, as an alternative
15 to the toilet reservoirs.