Claims:

1. A cap of spray mineral water bottle~~, characterized in:~~ including

A cap body (1), wherein the cap body (1) and bottleneck are connected by means of liquid-tight fit, and an outlet aperture (40) is disposed on the end face of the cap body (1);

A spray means (2), including an atomizing spool (21) and nozzle, and at least two water channels (24) are disposed on the outer wall of the atomizing spool (21), and atomizing channels (26) corresponding to the water channels (24) are disposed on the end face of atomizing spool (21) corresponding to water channels (24); a cavity is disposed in the nozzle to hold the atomizing spool (21), and a spray aperture is on the end face of the nozzle; interference fit is fulfilled between the atomizing spool (21) and nozzle cavity, and the atomizing aperture and nozzle are fit and fed through;

A water locking means, including a fixing part (40) and a movable part which rotates relative to the fixing part (40), and the fixing part (40) is fixed and connected to the cap body and an outlet is disposed; an inlet (30) is disposed on the movable part corresponding to the outlet of fixing part; the movable part rotates relative to the fixing part (40) back and forth to fulfill the butt joint or interleaving between the outlet (44) of fixing part and the inlet (30) of movable part, thus achieving the opening or closing of the spray means; a cavity (38) is disposed in the movable part, and interference fit is fulfilled between the spray means and the cavity (38).

2. The said cap of spray mineral water bottle pursuant to in the claim 1, characterized in that the fixing part (40) of water locking means is a tube located axially in the center of cap body (1), and this tube bottom is closed and an outlet (44) is disposed on the sidewall of the tube adjacent to the bottom; the said movable part bottom of water locking means is connected to the tube by means of liquid-tight sleeve joint and rotates relative to the tube, and an inlet (30) is disposed on the movable part bottom corresponding to the outlet (44) of fixing part; the movable part rotates relative to the fixing part (40) to fulfill the butt joint or interleaving between the outlet (44) and inlet (30), thus achieving the opening or closing of the spray means.

3. The said cap of spray mineral water bottle pursuant to the claim 2, characterized in that an annular groove (41) is disposed on the inner wall of the tube of the said fixing part of water locking means, and an annular protuberance (39) is disposed in the said movable part of

water locking means matching with the groove (41) on the inner wall of the tube of the fixing part.

4. The said cap of spray mineral water bottle pursuant to the claim 2 or claim 3, characterized in that a cylindric protuberance (42) is disposed in the interior of end face of the said fixing part (40) bottom of water locking means, and this cylindric protuberance (42) is matched with the inside diameter of movable part bottom of water locking means.

5. The said cap of spray mineral water bottle pursuant to the claim 2, characterized in that the said movable part of water locking means is straight line shape, matched with and disposed in the fixing part tube, and it rotates relative to the tube; the spray means is disposed in the cavity on the upper end of movable part by means of interference fit.

6. The said cap of spray mineral water bottle pursuant to the claim 2, characterized in that the said movable part of water locking means is right angle shape, including a tube (32) in vertical direction and a tube (31) in horizontal direction that interconnected with each other, and the tube (32) in vertical direction and tube (31) in horizontal direction are molded into one unit; the tube (32) in vertical direction is connected to the fixing part (40) of water locking means by means of liquid-tight fit, the movable part rotates relative to the fixing part (40) pursuant to the tube (32) in vertical direction as axis; a cavity (38) is disposed inside the tube (31) in horizontal direction, and the spray means is disposed in the cavity (38) and connected to the cavity (38) by means of interference and liquid-tight fit.

7. The said cap of spray mineral water bottle pursuant to the claim 5, characterized in that a rotating handle (45) is disposed in the upper end exterior of the said movable part of water locking means, on-off position means is disposed between the middle and the end face of cap body (1), and the position means, including position blocks (47, 48) respectively fixed on the 0° and 90° positions of end face of cap body and a limiting stopper (46) fixed on the corresponding position of movable part.

8. The said cap of spray mineral water bottle pursuant to the claim 6, characterized in that on-off position means of water locking means is disposed on the said end face of cap body (1), and this position means includes position blocks (33, 36) respectively fixed on 0° and 90° positions of end face of cap body, respectively positioning opening and closing of water

locking means, and cambered surfaces (34, 37) are disposed on the position blocks (33, 36) in the rotating direction of the tube in the vertical direction to match with the tube.

9. The said cap of spray mineral water bottle pursuant to the claim 8, characterized in that a limiting protuberance is disposed on the cambered surface (34) bottom of the closed position block (35) of the said position water locking means corresponding to the other side of the tube in horizontal direction, to prevent the tube (31) in horizontal direction from automatically opening without external force.

10. The said cap of spray mineral water bottle pursuant to the claim 1, characterized in that the said fixing part of water locking means is fixed on the end face of cap body, spherical working face is disposed on the fixing part, wherein an outlet (51) is disposed; the said movable part of water locking means includes a sphere (49) which is matched with the spherical working face on the fixing part by means of liquid-tight fit, and flexibly connected to the fixing part by means of the rotating axis; a strip inlet (50) is disposed in the outlet (51) rotating track of the sphere (49), and when the sphere (49) leaves the closing status of water locking means, the butt joint between the outlet (51) and inlet (50) is opened; the tube (31) is fixed on the sphere (49), the tube (31) cavity is connected to the strip inlet (50), and open-end of the tube (31) is connected to the spray means by means of interference and liquid-tight fit.

11. The said cap of spray mineral water bottle pursuant to the claim 10, characterized in that a position means (48) for opening and closing of the movable part is disposed in the said fixing part of water locking means, which allows the movable part to rotate within the specified radian of 90° degrees.

12. A multifunctional spray mineral water bottle, including resilient bottle body and cap of spray mineral water bottle, ~~characterized in that~~ the cap ~~includes~~ <u>including</u>:

A cap body (1), wherein the cap body (1) and bottleneck are connected by means of liquid-tight fit, and an outlet aperture is disposed on the end face of the cap body (1);

A spray means (2), including an atomizing spool (21) and nozzle (22), and two water channels (24) are disposed on the outer wall of the atomizing spool (21), and atomizing channels (26) corresponding to the water channels (24) are disposed on the end face of atomizing spool (21) corresponding to water channels (24); a cavity disposed in the nozzle (22) to hold the atomizing spool (21), and a spray aperture (23) is on the end face of the

nozzle (22); interference fit is fulfilled between the atomizing spool (21) and nozzle (22) cavity, and the atomizing channel (26) and nozzle are fit and fed through;

A water locking means, including a fixing part (40) and a movable part which rotates relative to the fixing part (40), and the fixing part (40) is fixed and connected to the cap body and an outlet (44) is disposed; an inlet (30) is disposed in the movable part corresponding to the outlet (44) of fixing part; the movable part rotates relative to the fixing part back and forth to fulfill the butt joint or interleaving between the outlet (44) of fixing part (40) and the inlet (30) of movable part, thus achieving the opening or closing of the spray means; a cavity (38) is disposed in the movable part, and interference fit is fulfilled between the spray means (2) and this cavity (38).

13. The said multifunctional spray mineral water bottle pursuant to the claim 12, characterized in that the fixing part (40) of water locking means is a tube located axially in the center of cap body, and this tube bottom is closed and an outlet (44) is disposed on the sidewall of the tube adjacent to the bottom; the said movable part bottom of water locking means is connected to the tube by means of liquid-tight sleeve joint and rotates relative to the tube, and an inlet (30) is disposed in the movable part bottom corresponding to the outlet (44) of fixing part; the movable part rotates relative to the fixing part (40) to fulfill the butt joint or interleaving between the outlet (44) and inlet (30), thus achieving the opening or closing of the spray means (2).

14. The said multifunctional spray mineral water bottle pursuant to the claim 13, characterized in that an annular groove (41) is disposed on the inner wall of the tube of the said fixing part of water locking means, and an annular protuberance (39) is disposed in the said movable part of water locking means matching with the groove (41) on the inner wall of the tube of fixing part.

15. The said multifunctional spray mineral water bottle pursuant to the claim 13 or claim 14, characterized in that a cylindric protuberance (42) is disposed in the interior of end face of the said fixing part (40) bottom of water locking means, and this cylindric protuberance (42) is matched with the inside diameter of movable part bottom of water locking means.

16. The said multifunctional spray mineral water bottle pursuant to the claim 13, characterized in that the said movable part of water locking means is straight line shape,

matched with and disposed in the tube of the fixing part and it rotates relative to the tube; the spray means is disposed in the cavity on the upper end of movable part by means of interference fit.

17. The said multifunctional spray mineral water bottle pursuant to the claim 13, characterized in that the said movable part of water locking means is right angle shape, including a tube (32) in vertical direction and a tube (31) in horizontal direction that interconnected with each, and the tube (32) in vertical direction and tube (31) in horizontal direction are molded into one unit; the tube (32) in vertical direction is connected to the fixing part (40) of water locking means by means of liquid-tight fit, the movable part rotates relative to the fixing part (40) pursuant to the tube (32) in vertical direction as axis; a cavity (38) is disposed inside the tube (31) in horizontal direction, and the spray means (2) is disposed in the cavity (38) and connected to the cavity (38) by means of interference and liquid-tight fit.

18. The said multifunctional spray mineral water bottle pursuant to the claim 17, characterized in that a rotating handle (45) is disposed on the upper end exterior of the said movable part of water locking means, on-off position means is disposed between the middle and the end face of cap body, and the position means includes position blocks (47, 48) respectively fixed on the 0° and 90° positions of end face of cap body and a limiting stopper (46) fixed on the corresponding position of movable part.

19. The said multifunctional spray mineral water bottle pursuant to claim 18, characterized in that on-off position means of water locking means is disposed on the said end face of cap body (1), and this position means includes position blocks (33, 36) respectively fixed on 0° and 90° positions of end face of cap body, respectively positioning opening and closing of water locking means, and cambered surfaces (34, 37) are disposed on the position blocks in the rotating direction of the tube in the vertical direction to match with the tube.

20. The said multifunctional spray mineral water bottle pursuant to the claim 19, characterized in that a limiting protuberance is disposed on the cambered surface (34) bottom of the closed position block (35) of the said position water locking means corresponding to the other side of the tube in horizontal direction, to prevent the tube from automatically opening without external force.

21. The said multifunctional spray mineral water bottle pursuant to the claim 12, characterized in that the said fixing part of water locking means is fixed on the end face of cap body, spherical working face is disposed on the fixing part, wherein an outlet (51) is disposed; the said movable part of water locking means includes a sphere (49) which is matched with the spherical working face on the fixing part by means of liquid-tight fit, and flexibly connected to the fixing part by means of the rotating axis; a strip inlet (50) is disposed in the outlet (51) rotating track of the sphere (49), and when the sphere (49) leaves the closing status of water locking means, the butt joint between the outlet (51) and inlet (50) is opened; the tube is fixed on the sphere (49), the tube (31) cavity is connected to the strip inlet, and open-end of the tube (31) is connected to the spray means (2) by means of interference and liquid-tight fit.

22. The said multifunctional spray mineral water bottle pursuant to the claim 21, characterized in that a position means (48) for opening and closing of the movable part is disposed in the said fixing part of water locking means, which allows the movable part to rotate within the specified radian of 90° degrees.