Aug. 27, 1968 P. CAPRARO ET AL 3,398,408

HYGIENIC WASHSTAND

Filed June 9, 1966

FIG. 1

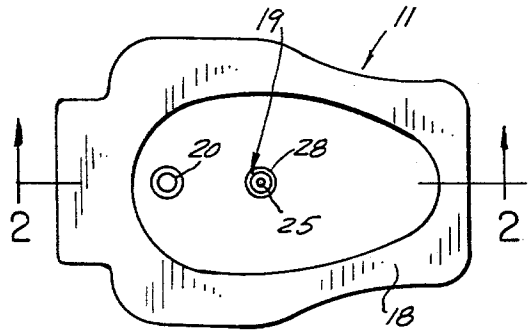
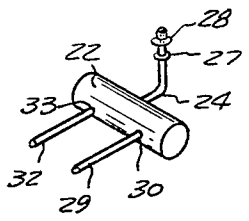


FIG. 4



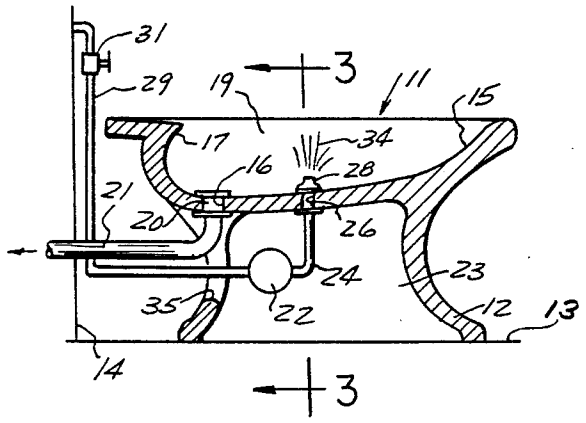


FIG. 2

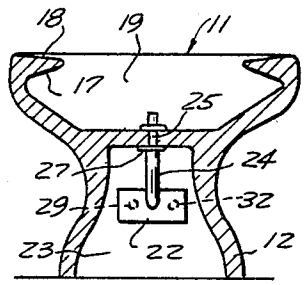


FIG. 3

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HYGIENIC WASHSTAND

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The present invention relates to a bidet construction and more particularly to the water control system therefore.

Heretofore, in constructions of this type, a plurality of water controls and valves have been required for regulating the flow and temperature of the mixed hot and cold water necessitating involved and complicated and expensive structures requiring separate manipulation and adjustments from time to time.

It is an object of the present invention to provide in a bidet construction a water control mechanism to provide certain safety features which eliminate most of the valves heretofore provided for controlling the flow of water employed.

It is another object to provide a water pressure control system by which with application of solely one of a pair of sources of hot or cold water, fountaining will be insufficient as a safety factor and wherein suitable fountaining will be obtained only when both valves have been opened and wherein due to the construction and relationship of the inlet pipe, the supply pipe, and the control chamber regardless of the valve openings, flow of water will never fountain appreciably above the marginal flange of the bowl forming a portion of the present bidet.

These and other objects will be seen from the following specification and claims in conjunction with the appended drawing in which:

FIG. 1 is a plan view of the present bidet.

FIG. 2 is an elevational section taken in the direction of arrows 2—2 of FIG. 1.

FIG. 3 is a section taken in the direction of arrows 3—3 of FIG. 2.

FIG. 4 is a perspective view illustrating the present pressure control body and associated supply and delivery pipes.

It will be understood that the above illustrations illustrate merely an illustrative embodiment of the invention, and that other embodiments are contemplated within the scope of the claims hereafter set forth.

Referring to the drawing, the present bidet, generally indicated at 11, includes a bowl of porcelain or other ceramic material, including a hollow base 12, adapted for mounting upon a floor surface 13 and with respect to a wall fragmentarily indicated at 14. The bowl includes bottom inclined wall 15 apertured at its deepest point 16, generally reversed curved sidewalls 17 and the horizontally disposed support flange 18, thus defining the internal chamber 19.

Drain fitting 20 extends up into and is sealed within aperture 16 in bottom wall 15 and terminates in the conventional drainpipe 21 fragmentarily shown.

The horizontally disposed elongated, but closed, cylindrical body 22 nested within the hollow chamber 23 within the base 12 and includes connnected thereto delivery pipe 24 terminating in the exteriorally threaded outlet 25.

Outlet 25 projects through aperture 26 in bottom wall 16 with suitable gasket or seal interposed and with the flange 27 on pipe 24 cooperatively engaging the undersurface of bowl bottom wall 15.

The single apertured fitting 28 threads over the projecting outlet end 25 of pipe 24 and operatively engages the bottom surface of the wall 15 providing a means for supporting and suspending the pressure regulating body 22 within base 12 in the illustrative assembly shown.

Hot water pipe 29 for delivering hot water from a conventional source under the control of hand valve 31, is connected as at 30, FIG. 4, to and communicates with the interior of body 22.

The additional separate and similar cold water pipe 32 from a suitable cold water source and incorporating a hand valve similar to hand valve 31 of FIG. 2, and is connected at its free end as at 33 to the body 22 for communication thereinto.

In operation with the valves 31 opened as desired, a suitable column or fountain of water 34 is provided as best shown in FIG. 2.

The present invention contemplates an important relationship between the internal diameters of the water supplied pipes 29 and 32 and the mixed water delivery pipe 24 with respect to the enlarged body 22 as will provide for a fountain or column of water 34, which at no time will exceed the flow of more than an inch or two above the support flange 18, regardless of whether the valves 31 are turned fully on or not.

It is contemplated as a part of the present invention that the internal diameter of the delivery pipe and its outlet 25 will be appreciably greater than the internal diameter of pipes 29 and 32 and in the range of approximately 2 to 5 times such internal diameter of the said water supply pipes. For illustration, employing quarter inch internal diameter pipes 29 and 32, the internal diameter of the delivery pipe 24 should be in the range of ¾ of an inch to one inch, but it is noted particularly that the internal diameter of the pipe 24 is considerably greater than the internal diameter of the water delivery pipes 29 and 32 in order to function in cooperation with the large pressure chamber 22 to provide the type of flow contemplated, not only as a safety feature, but to prevent undue and unnecessary fountaining of the water far above the said flange 18 through accident or otherwise.

In the illustrative embodiment for a cylindrical body approximately 9 inches long, the diameter thereof is 2 inches, for illustration. In other words, the diameter of the body is approximately 6 to 10 times the internal diameter of the water supply pipes 29 and 32.

At the same time the length of the body is approximately 10 times the internal diameter of the fluid delivery pipe 24 and it is the combination of these proportions which provide applicants' present control mechanism for the bidet.

The present invention incorporates a safety factor which would prevent scalding of a person if, for example, only the hot water control valve 31 were turned fully on, and the cold water valve were not turned on. In this case it has been found as a part of the present invention that with a single source of water provided to the body 22 and the delivery pipe 24 and the outlet 25 the delivery stream rises only an inch or two above the outlet fitting 28 and will immediately drain through outlet 20. It is only when both valves 31 have been turned on that a water fountain or cascade will be seen which will approximate the heighth shown in FIG. 2 or two or three inches above, at the most, but no more.

As shown in FIG. 2, the rear wall of the base 12 is apertured as at 35 to permit introduction of body 22 and the connected pipes 29 and 32 within the chamber 23 defined by said base.

In the illustrative embodiment, the water pipes 29 and 32 extend along the wall 14 and terminate, by suitable connections not shown, with the respective supply of hot and cold water and with appropirate hand control valves 31 conveniently arranged therein. It is contemplated as a part of the present invention that the hot and cold water delivery pipes 29 and 32 could extend through the flange 18 of the bowl and that the valves

31 could be arranged conveniently upon the rear portion of the bowl, if desired.

Having described my invention reference should now be had to the following claims.

We claim:

1. A bidet comprising a bowl having an inclined bottom wall with an aperture at its deepest point;
sidewalls and a top support flange;
a drain extending and sealed into said aperture and including a drainpipe;
a closed cylindrical body defining a pressure chamber located exteriorally of said bowl;
a delivery pipe connected to said body and having an upwardly extending outlet projected through and sealed within an aperture in said bottom wall and projecting thereabove;
a flange on said delivery pipe and spaced from said outlet, in registry with the bottom wall at its undersurface;
an apertured fitting threaded over said outlet in operative, supporting registry with said bottom wall;
separate hot and cold water supply pipes, each including a hand control valve, and connected to said body respectively;
each of said supply pipes being of an internal diameter appreciably less than the internal diameter of said outlet;
said outlet pipe in cooperation with said pressure controlling body automatically regulating outlet flow of mixed and hot and cold water to a heighth approximating said top support flange regardless of the extent of opening of both hand valves;
full opening of one said hand valves only, being insufficient to provide appreciable fountaining of water at said outlet.

2. In the bidet of claim 1, said bowl including a hollow support base adapted for registry with a floor, and defining a chamber, said base including an apertured rear wall;
said pressure regulating body being nested and enclosed within said chamber and suspended from the bottom wall of said bowl;
said water supply pipes extending into said chamber through the rear wall of said base.

3. In the bidet of claim 1, the outlet pipe having an internal diameter in the range of 2 to 5 times the internal diameter of said supply pipes.

4. In the bidet of claim 1, the outlet pipe having an internal diameter in the range of 2 to 5 times the internal diameter of said supply pipes;
said body having a diameter approximately 6 to 10 times the internal diameter of said water supply pipes.

5. In the bidet of claim 1, the outlet pipe having an internal diameter in the range of 2 to 5 times the internal diameter of said supply pipes;
said body having a diameter approximately 6 to 10 times the internal diameter of said water supply pipes;
said body having a length approximately 10 times the internal diameter of said delivery pipe.

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