

Jan. 20, 1970

B. SYPAL

3,490,080

BIDET

Filed Aug. 7, 1967

3 Sheets-Sheet 1

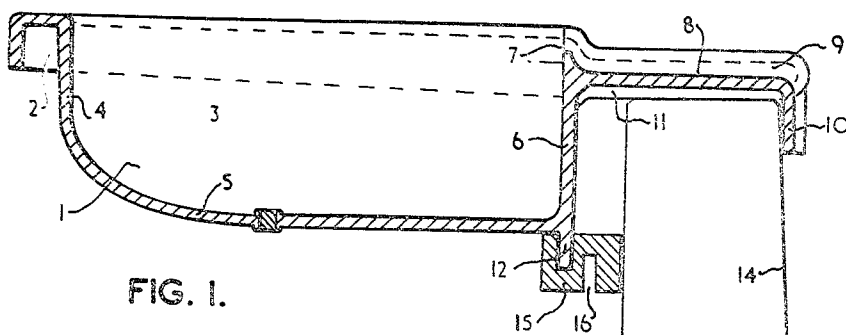


FIG. 1.

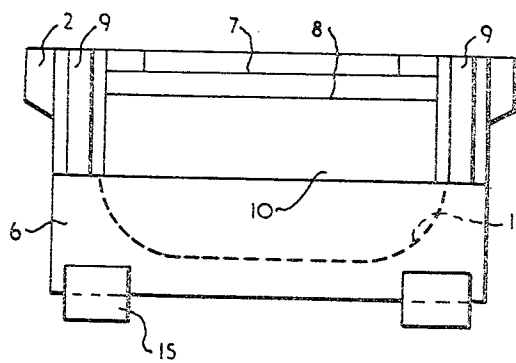


FIG. 2.

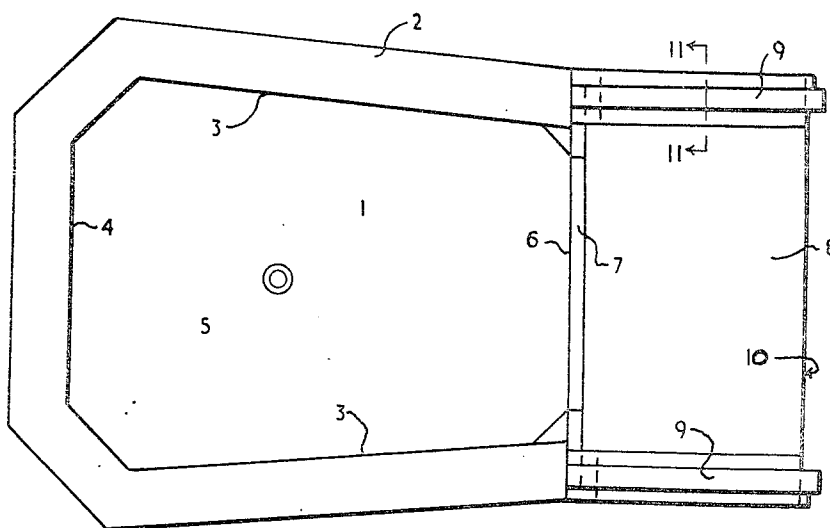


FIG. 3.

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3 Sheets-Sheet 3

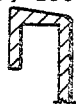


FIG. 7.

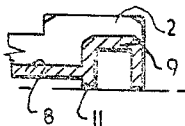


FIG. 11.

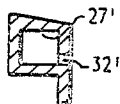


FIG. 8.

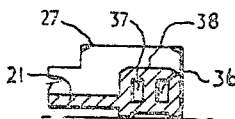


FIG. 12.

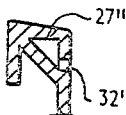


FIG. 9.

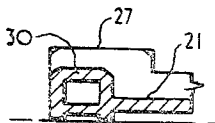


FIG. 13.

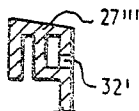


FIG. 10.

FIG. 14.

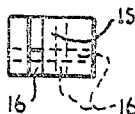


FIG. 16.

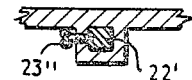
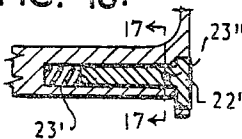


FIG. 17.

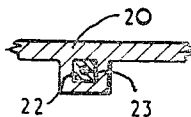


FIG. 15.

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Filed Aug. 7, 1967, Ser. No. 658,834  
Int. Cl. A47k 3/22

U.S. Cl. 4—6

11 Claims

## ABSTRACT OF THE DISCLOSURE

A portable bidet useable in association with a permanent plumbing fixture, being designed to hook on the adjacent wall of the fixture and to extend outwardly therefrom over the normally unoccupied floor area; the wash vessel of the bidet being disposed exteriorly of the permanent plumbing fixture and having an overflow and/or drainage apron integral with the vessel extending over the fixture wall and discharging into the fixture. Flexible tubing removably connectible with convenient water faucets may be used to service the bidet in a variety of ways, viz for filling the wash vessel, providing a rim flush or supplying a centrally located spray nozzle.

This invention relates to improvements in a bidet and especially to one useable with existing plumbing fixtures.

It is usual to install a bidet as a permanent plumbing fixture. Such items are expensive and require more floor space than is available in most modern bathrooms. Many attempts have been made to design sitz baths for positioning in a bath tub or toilet bowl but these have failed to gain general acceptance for they proved to be inconvenient to supply and empty, uncomfortable to use, and in the minds of many distasteful when associated with the toilet bowl—and furthermore, difficulty was encountered in developing a single form or style adaptable to all installed fixtures because of the wide variety of existing shapes and sizes.

My present device is an economic, portable, universal, space saving, hygienic bidet that may be removably associated with an existing fixture and so is suitable for the modern small bathroom; readily stored when not in use, easily set up, and instantly available when wanted.

An object of the invention is to provide a bidet removably attachable to an existing permanent plumbing fixture, preferably a bath tub, comprising a vessel discharging into the supporting plumbing fixture.

A further object is to provide a bidet extending outwardly from the fixture with which it is associated, i.e., projecting into the normally unoccupied floor area of the room.

A further object is to provide a bidet that is supported at a convenient height for straddling by the user, that can be supplied as through removable tubing with hot and/or cold water from easily accessible faucets and that normally overflows into the associated fixture without danger of spillage.

A still further object is to provide a removable bidet of the nature described, that is capable of assuming many modified forms and incorporating added features such as a centre spray, a two-way pressure/suction pump a 3- or 4-way valve, a flushing rim and the like; that is of light weight, durable and capable of production at reasonable cost.

To the accomplishment of these and related objects as shall become apparent as the description proceeds, the invention resides in the construction, combination and arrangement of parts as shall be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the claims hereunto appended.

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The invention will be best understood and can be more clearly described when reference is had to the drawings forming a part of this disclosure wherein like characters indicate like parts throughout the several views.

In the drawings:

FIGURE 1 is a vertical, longitudinal section through a basic form of the invention showing the same associated with a bath tub;

FIGURE 2 is an end elevation thereof;

FIGURE 3 is a plan view thereof;

FIGURE 3A is a vertical, longitudinal sectional detail of a modified design with the discharge apron substantially level with the bottom of the wash vessel;

FIGURE 4 is a vertical, longitudinal section of a modified form of bidet, also hooked on the wall of a bath tub;

FIGURE 5 is an end elevation of such modified form;

FIGURE 6 is a plan view of the same modified type as shown in FIGURES 4 and 5 but illustrating also the manner of incorporating added features such as a centre spray, hand pump, etc.;

FIGURES 7, 8, 9 and 10 are transverse sectional details of a variety of rim designs;

FIGURE 11 is a transverse section of the rim as taken on line 11—11 of FIGURE 3;

FIGURES 12 and 13 are similar transverse sections as taken on lines 12—12 and 13—13 respectively of FIGURE 6;

FIGURE 14 is a plan view of the spacing block seen in FIGURE 1;

FIGURE 15 is a transverse section of the hand screw clamp, as taken on line 15—15 of FIGURE 4;

FIGURE 16 is a vertical, longitudinal section of a modified form of clamp; and

FIGURE 17 is a transverse section therethrough, as taken on line 17—17 of FIGURE 16.

In the simple form of the device shown in FIGURES 1, 2 and 3, a receptacle or wash vessel 1 has an outwardly rolled rim 2 extending around both sides 3 and the outer end 4. It will be noted that the bottom 5 slopes and the opposite sides 3 taper toward the forward end 6. An interiorly threaded aperture, shown as plugged, is provided for use as desired. Across its width, the forward end 6 is substantially depressed to provide an overflow mouth 7 for the vessel.

An overflow apron 8 extends forwardly from the front end 6 as a continuance of but preferably below the depressed mouth 7. It is formed integral with the vessel 1, is disposed below the level of the top of rim 2, and has walls 9 along opposite sides as forward continuations of the rim 2 along the vessel's sides to prevent water spillage. The free forward end of the walled apron 8 terminates in a depending flange 10 parallel with but spaced from the flat front end 6 of the vessel and parallel reinforcing ribs 11 run longitudinally between the front end of the vessel and the flange on the underside of the apron 8.

The fixture-engaging forward wall 6 depends below the bottom 5 of vessel 1 in a flange 12, and this flanged forward end coacts with the flange 10 on the front of the apron 8 to provide an attaching hook to extend over and hook on the wall of a bath 14 or other permanent plumbing fixture.

Because the thickness of the walls of bath tubs and other fixtures vary, an adjustable spacing device such as the slotted blocks 15 may be secured on opposite sides of the front end flange 12, such spacers, see also FIGURE 14, (sheet 3), having a plurality of slots 16 to afford a choice of spacing measurement between the vessel's front 6 and the outside of the bath tub wall and to assure that the bidet is mounted in a level position.

In FIGURE 3A (sheet 2), a modified design is shown

in which the apron 8' is lower than that in FIGURE 1, indeed, it is substantially level with the bottom 5' and a drain passageway 17 runs from the vessel 1', near the bottom to the apron. An ordinary rubber stopper may be used to plug this drain opening when desired.

A more complicated structure is illustrated in FIGURES 4, 5 and 6. Firstly, it will be seen that the vessel 20 and walled and flanged overflow apron 21 are similar in design to that shown in FIGURES 1, 2 and 3. However, instead of the spacer blocks, a wide clamping jaw 22 is slidably housed in the underside of the vessel 20 and projects from the front thereof to engage a bath tub wall, being advanced or retracted by a hand screw 23 threaded therein, a cross-section of which is seen in FIGURE 15 (sheet 3). In FIGURES 16 and 17 (sheet 3), the clamp jaw 22' is projected by a compressed coil spring 23' and secured in desired position by a setscrew 23''.

This modified design does not rely solely on the apron flange hook to support the vessel on the bath tub but employs a prop or leg 24 with a flanged base 25 removably positioned in the center at the outer end of the vessel 20. In horizontal cross-section it is a U-shaped channel with inturned arms and is snugly fitted in an accommodating seat 26 in the underside of the vessel's rim 27. When this bidet is not set up, the removable prop can be compactly stored alongside the receptacle by sliding it in a correspondingly shaped aperture 28 in the front end and onto a T-shaped hanger 29 on the outside of the vessel.

While the vessel 1 of the simple forms of bidet shown in FIGURES 1, 2, 3 and 3A may be supplied with water by a flexible tube from a convenient faucet or otherwise as desired, in this modified form the rim 27 is hollow, defining a passageway that continues through the apron wall 30 to a tube-receiving inlet coupling 31 on the end. This hollow rim passageway terminates in an end wall 33 short of the apron on the opposite side and has a plurality of outlet ports 32 feeding into the vessel along its length. Cross-sectional details in FIGURES 8, 9 and 10 (sheet 3) show modified forms that the hollow rim 27', 27'', and 27''', may take and each such form will be seen to include rim flush ports 32'.

Some additional features are shown in the further modified form in FIGURE 6. Beyond the rim wall 33 a 3- or 4-way valve 34 is located and a port 35 connects the hollow rim with the valve. Beyond the valve, the hollow rim is vertically divided into two parallel passageways 36-37 and these passageways continue to the inner end of the apron side wall 38 where the former has an inlet tube coupling 39 on its inner end and the latter has an open outlet port 40.

In the bottom of the vessel, a spray nozzle 41 passes through an accommodating aperture 42 and connects by a conduit 43 with the valve 34. By adjusting the valve 34 water can be directed into the hollow rim and spilled out the rim flush ports 32 or fed to the spray nozzle 41 or flow of water may be reversed through the passageway 37 back to bathtub via open outlet port 40. An additional feature associated with the bidet is a manually operable pressure-suction pump 44 for providing water under controlled pressure to the spray nozzle by drawing off water from vessel 20 through port opening 45.

Any suitable type of available spray nozzle 3- or 4-way valve and pressure/suction pump may be employed with this bidet and so these attachments are not here described in detail.

For a light weight portable, compact, easily stored item, I construct my bidet of a mouldable synthetic plastic material such as polyethylene, polyurethane, etc. or the like, having substantial strength and unimpaired stability under temperatures of up to at least approximately 210° F.

In use, unlike other known portable sitz baths, bidets or the like that are set in a commode chair, toilet bowl or bathtub, my bidet has only its overflow and/or

drainage portion passing over the wall of the plumbing fixture and the remaining entire wash receptacle is exterior of such fixture, extending out over the normally unoccupied floor area of the bathroom. Furthermore, the present device is designed to so engage the fixture with which it is associated, whether only partly or entirely supported thereby, in such a way that the rim of the wash vessel that the user straddles is at the normal and convenient level. Sitting on the wash vessel's rim in the accepted straddling position, the user's feet rest on the bathroom floor and he faces or has his back to the permanent fixture and is free to manipulate the water-supplying faucets and such attachments as the spray nozzle, valve, pump or drain plug with ease. The wide rolled or flat topped rim of the vessel and its narrowing toward the front end contribute to the structural stability and comfort of using the bidet.

Because it is constructed of a plastic material or suitable equivalent, and the spacing blocks and clamping jaw may be of like material, no damage is done to the bathtub wall, or other fixture by its repeated use.

From the foregoing description taken in connection with the accompanying drawings, it will be manifest that a bidet is provided that will fulfil all the necessary requirements of such a device, but as many changes could be made in the above description and many apparently widely different embodiments of the invention may be constructed within the scope of the appended claims, without departing from the spirit or scope thereof, it is intended that all matters contained in the said accompanying specification and drawings shall be interpreted as illustrative and not in a limitative or restrictive sense.

What is claimed as new is:

1. A bidet for removable application to a permanent plumbing fixture comprising a vessel for association with said fixture to be disposed exteriorly thereof extending outwardly therefrom; said vessel having an integral overflow apron at one end designed to reach over the adjacent wall of the fixture; said apron being disposed below the level of the top rim of said vessel and walled on opposite sides so as to deliver overflow and/or drainage from said vessel to said fixture.

2. A bidet according to claim 1, wherein the discharge end of said apron has a depending flange to hook on the inside of the fixture wall.

3. A bidet according to claim 2, wherein said vessel has an adjustable spacing device at its fixture-engaging end for cooperation with the depending flange of said apron to aid in supporting the device securely.

4. A bidet according to claim 1, wherein said apron is substantially level with the bottom of said vessel, and said vessel has a drain to said apron.

5. A bidet according to claim 1, having floor engaging means for supporting said vessel independent of said fixture engaging apron.

6. A bidet according to claim 1, wherein the vessel has filling means connectible with the water supply of the fixture.

7. A bidet according to claim 1, wherein the vessel has a hollow rim with outlet ports feeding into the vessel and means for conveying fixture-supplied water to said rim.

8. A bidet according to claim 1, wherein the vessel has an aperture in the bottom, a spray nozzle therein, and means for supplying water under pressure thereto.

9. A bidet according to claim 1, wherein the vessel has a hollow rim divided to provide two separate passageways, one being connectable with the water supply of the fixture and the other having an outlet at the discharge end of the apron, and means for selectively connecting said passageways with the vessel.

10. A bidet according to claim 9, having a manually operable pressure suction pump for discharging water from the vessel to the spray nozzle.

11. A bidet according to claim 1, being of a mouldable

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synthetic plastic that is stable under temperature of up  
to at least approximately 210° F.

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