# United States Patent [19]

**Ayala**

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[54] **BIDET ATTACHMENT**


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[52] **U.S. Cl.** ..... **4/7,** 4/236, 4/240

[51] **Int. Cl.** ..... **A47k 3/22,** A47k 11/08

[58] **Field of Search** ..... 4/6, 7, 236, 240



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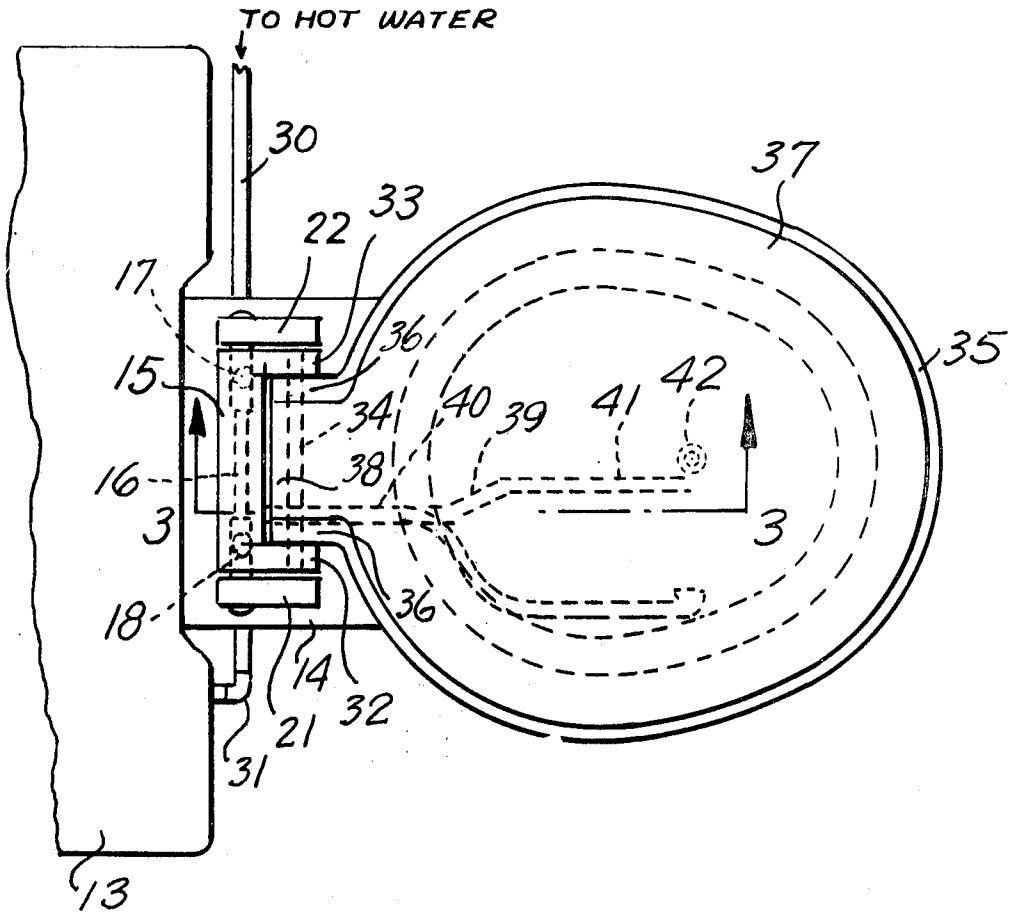
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*Attorney*—Hyman Berman et al.



[57] **ABSTRACT**

A seat and cover assembly for a toilet bowl having a built-in bidet. The bidet is carried on a fixture including a conduit having hot and cold water fittings attachable to the toilet bowl to secure the assembly thereto. The fittings have control valves with handles extending from the opposite ends of the fixture and contoured to be flush therewith in the closed position of the valves. The toilet seat and cover are pivoted on a shaft carried by a pair of forwardly extending lugs on the fixture.


**10 Claims, 5 Drawing Figures**



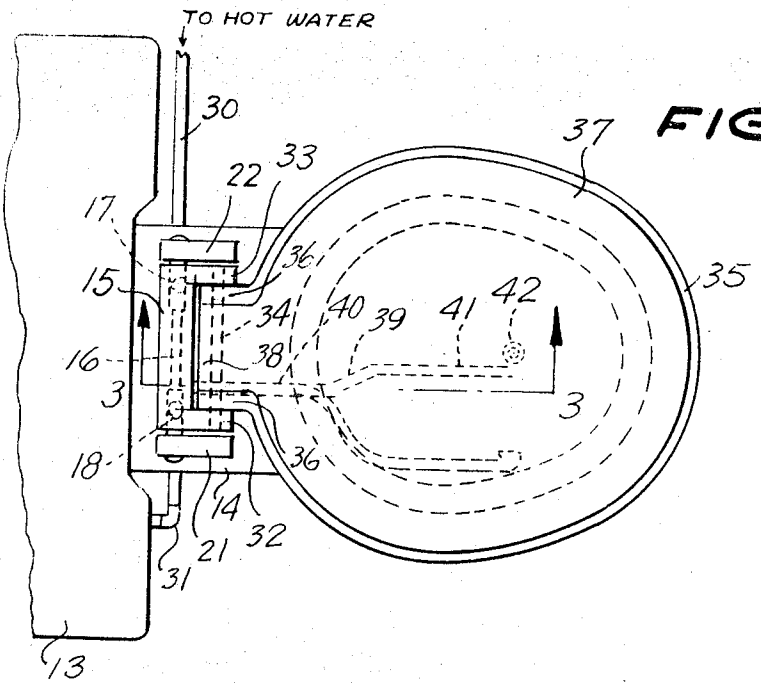

TO HOT WATER
30
33
22
37
17
36
35
15
34
40
39
41
42
16
38
3
3
18
36
14
32
21
31
13

FIG. 1.

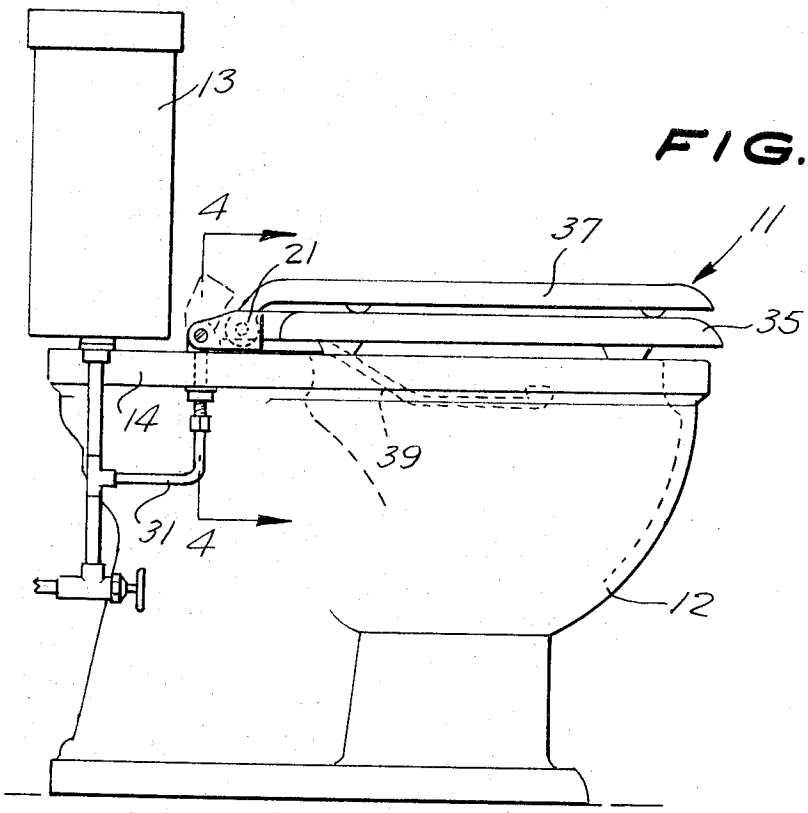

13
4
21
37
11
35
14
39
31
4
12

FIG. 2.

FIG. 3.

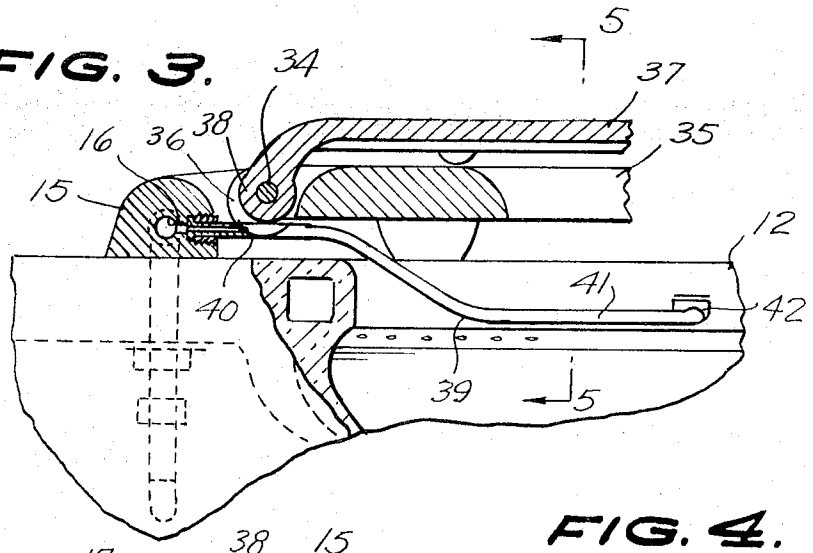



FIG. 4.

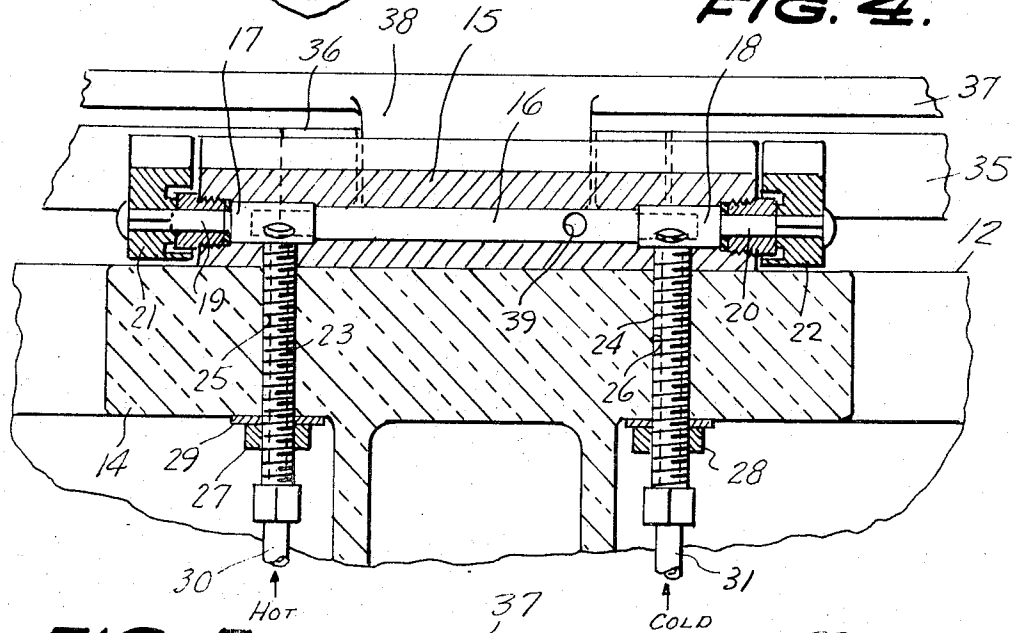
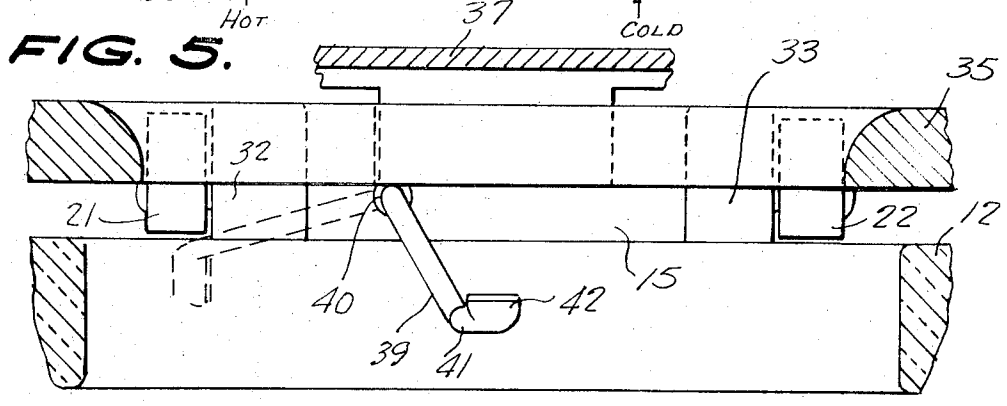



FIG. 5.



# BIDET ATTACHMENT

This invention relates to plumbing fixtures, and more particularly to an improved toilet bowl assembly provided with a built-in bidet.

A main object of the invention is to provide a novel and improved seat and cover assembly for a toilet bowl, the assembly being provided with a built-in bidet, the assembly being ssimple in construction, being easy to install on a standard toilet bowl, and being arranged so that it does not in any way interfere with the normal use of the toilet bowl and being readily adjustable for use as a bidet when desired.

A further object of the invention is to provide an improved bidet attachment for a toilet bowl, the attachment being inexpensive to manufacture, being neat in appearance, being easy to keep clean, being compact in size, and being convenient to use.

Further objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawings wherein:

FIG. 1 is a top plan view of a water closet and toilet bowl assembly provided with an improved bidet attachment according to the present invention.

FIG. 2 is a side elevational view of the assembly of FIG. 1.

FIG. 3 is an enlarged fragmentary vertical cross-sectional view taken substantially on the line 3—3 of FIG. 1.

FIG. 4 is an enlarged fragmentary transverse vertical cross-sectional view taken substantially on the line 4—4 of FIG. 2.

FIG. 5 is an enlarged fragmentary vertical cross-sectional view taken substantially on line 5—5 of FIG. 3.

Referring to the drawings, 11 generally designates an improved toilet seat and bidet assembly constructed in accordance with the present invention. The assembly 11 is adapted to be mounted on a conventional toilet bowl and water tank assembly, including the toilet bowl element 12 and water tank 13 which are of conventional construction, the toilet bowl element 12 being provided with the horizontal rear top flange 14.

The toilet seat and bidet assembly 11 comprises an elongated rigid fixture member 15 containing a horizontal conduit 16 provided at its opposite ends with respective hot and cold water valves 17 and 18 having valve stems 19 and 20 to which are secured the respective valve operating handles 21 and 22 located outwardly adjacent the respective opposite ends of the fixture member 15, as is clearly shown in FIG. 4. The handles 21 and 22 are contoured so as to be substantially flush with the fixture member 15 when they are in valve-closing positions. The valves may be opened by elevating the handles, for example, to the dotted positions thereof illustrated in FIG. 2, the handles being rotatable on a common axis, namely, the axis of the horizontal conduit 16.

Rigidly connected to the valves 17 and 18, and depending therefrom perpendicularly thereto and in parallelism with each other are the respective hot and cold water tubes 23 and 24, said tubes being spaced so that they are engageable through the standard toilet seat securement openings 25 and 26 of the toilet bowl flange 14. The water tubes 23 and 24 are externally threaded and respective clamping nuts 27 and 28 are provided thereon for clampingly securing the fixture member 15



on the top flange 14 of the toilet bowl in the manner illustrated in FIG. 4, suitable washers 29 being provided between the nuts and the bottom surface of flange 14, as illustrated in FIG. 4. Respective hot and cold water supply pipes 30 and 31 are connected to the tubes 23 and 24, the hot water supply pipe being connected to a suitable source of hot water and the cold water supply pipe 31 being likewise connected to a suitable source of cold water, for example, to the flush tank 13, as shown in FIGS. 1 and 2.

The fixture member 15 is provided at its opposite ends with respective forwardly extending lugs 32 and 33 and secured between said lugs is a horizontal pivot shaft 34 which is arranged parallel to and spaced forwardly from the fixture member 14. A toilet seat 35 is provided with a pair of pivot lugs 36,36 receiving the pivot shaft 34, the pivot lugs 36, 36 being located adjacent the respective fixture lugs 32 and 33. A toilet seat cover member 37 has a rear pivot lug 38 which receives the pivot shaft 34, the pivot lug 38 being located between the toilet seat pivot lugs 36, 36, as shown in FIG. 1. Thus, the toilet seat 35 and the toilet seat cover 37 are pivoted to the fixture member 15 at the pivot shaft 34, being arranged to normally overlie the toilet bowl 12 in the conventional manner and being rotatable to upright positions, as required. As shown in FIG. 3, the pivot lug 38 of the cover member 37 is inclined downwardly and rearwardly so as to receive the pivot shaft 34 between the pivot lugs 36 of toilet seat 35.

Rotatably connected to the conduit member 16 adjacent the fixture lug 32 and projecting forwardly from fixture member 15 is a bidet conduit 39 having the horizontal rear portion 40 and the offset forward portion 41. The rear portion 40 projects perpendicularly to the conduit 16 and the bidet conduit 39 is rotatable around the axis of said rear portion 40. Connected to the end of the forward portion 41 is a spray nozzle head 42 arranged with its axis at right angles to the forward portion 41 of the bidet conduit and arranged so that it is directed upwardly when the bidet conduit 39 is in the forwardly extending operating position thereof shown in FIG. 3. The bidet conduit 39 may be rotated to an inoperative position, such as that shown in dotted view in FIG. 5, namely, through an angle of approximately 90° in a clockwise direction from the position thereof shown in full line view in FIG. 5, whereby the bidet conduit may be placed in a non-obstructing position with respect to the top of the toilet bowl 12. The rotating connection between the conduit portion 40 and conduit 16 has sufficient friction so that the bidet conduit 39 will be retained either in dotted view position thereof shown in FIG. 5 or in operating position thereof shown in full line view in FIG. 5 unless it is manually moved from such position.

As shown in FIGS. 1, 2, 3 and 5, when the bidet conduit 39 is placed in its full line position, the spray nozzle 42 is directly upwardly and is properly located to provide bidet spray action.

When the device is in operation, the desired water temperature may be obtained by suitably operating the valve handles 21 and 22 to admit the desired proportions of hot and cold water. When the bidet device is not in use, the conduit 39 is swung to the dotted view position thereof of FIG. 5 and the valve handles 21 and 22 are in their normal lowered positions engaging the top flange 14, wherein they are substantially flush with the fixture member 15 and are thus relatively incon-

spicuous and can be easily cleaned along with the remainder of the assembly.

As will be readily apparent, when the bidet conduit 39 is swung to its dotted view position shown in FIG. 5, the toilet bowl is unobstructed and may be employed in the normal manner.

While a specific embodiment of an improved toilet seat and bidet assembly for a toilet bowl has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claims.

What is claimed is:

1. A seat and bidet assembly for a toilet bowl comprising an elongated fixture member including a conduit member provided with respective hot and cold water valves at its opposite ends, said valves having operating handles located outwardly adjacent the respective opposite ends of the fixture member, respective hot and cold water supply tubes connected to said valves and depending perpendicularly from said fixture member in parallelism, said supply tubes being provided with means for clampingly securing the fixture member on a toilet bowl, a bidet conduit connected to said conduit member and extending forwardly from said fixture member so as to overlie the toilet bowl, and a toilet seat pivotally connected to said fixture member so as to overlie the bidet conduit and rest on the top rim of the toilet bowl.

2. The seat and bidet assembly of claim 1, and wherein said bidet conduit has an offset forward portion and wherein the rear portion of the bidet conduit is rotatably mounted relative to the conduit member and fixture member so that said forward portion can be at times rotated to a substantially non-obstructing position with respect to said toilet bowl.

3. The seat and bidet assembly of claim 2, and wherein said supply tubes a8e externally threaded and said clamping means comprises clamping nuts engaged on the supply tubes.

4. The seat and bidet assembly of claim 2, and wherein said fixture member is integrally formed with a pair of forwardly extending end lugs and said toilet seat is pivoted between said end lugs.

5. The seat and bidet assembly of claim 4, and a seat cover pivoted between said end lugs on the same axis as said toilet seat.

6. The seat and bidet assembly of claim 4, and wherein said valve handles are contoured so as to be substantially flush with said end lugs when the handles are in valve-closing positions.

7. The seat and bidet assembly of claim 4, and wherein the rear portion of the bidet conduit is located adjacent one of said end lugs.

8. The seat and bidet assembly of claim 2, and wherein the forward end portion of the bidet conduit is provided with a spray nozzle head directed at right angles to said forward end portion.

9. The seat and bidet assembly of claim 5, and a pivot shaft mounted between said end lugs, said toilet seat and cover being pivotally connected to said pivot shaft.

10. The seat and bidet assembly of claim 8, and wherein said toilet seat has pivot lugs engaged with said pivot shaft adjacent said forwardly extending end lugs and said seat cover has a pivot lug engaged with said pivot shaft between the pivot lugs of the toilet seat.

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