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 [21] Appl. No. **35,080**  
 [22] Filed **May 6, 1970**  
 [45] Patented **Sept. 7, 1971**  
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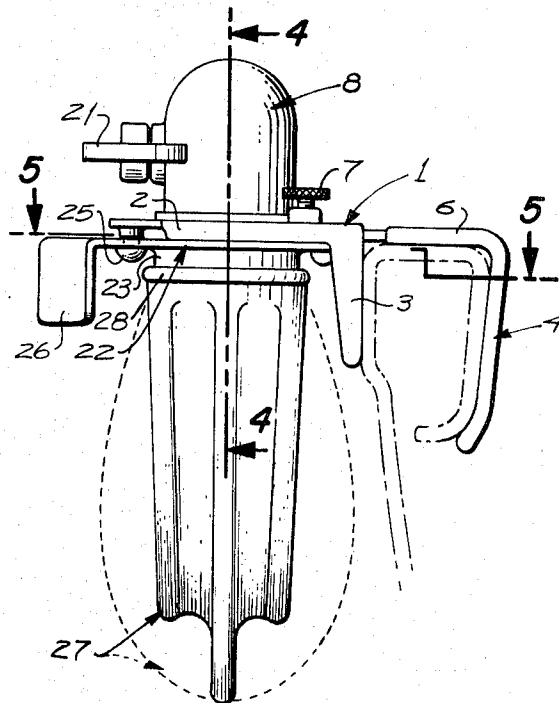
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Primary Examiner—Henry K. Artis  
 Attorney—Lyon & Lyon

[54] **BIDET ATTACHMENT**  
 6 Claims, 6 Drawing Figs.

[52] U.S. Cl. .... 4/7  
 [51] Int. Cl. .... A47k 3/22,  
 A47k 11/08  
 [50] Field of Search ..... 4/1, 6, 7;  
 128/229, 230

**ABSTRACT:** A bidet attachment for toilets which includes a hand-operated pump which is removably attached to the side of a toilet bowl and a bidet nozzle which is removably attached to the rear side of the toilet seat, the pump and nozzle being connected by a hose, and the pump being arranged to receive a removable, collapsible bag to provide a water supply. The hose is removable from the bidet nozzle for use with a douche tip.



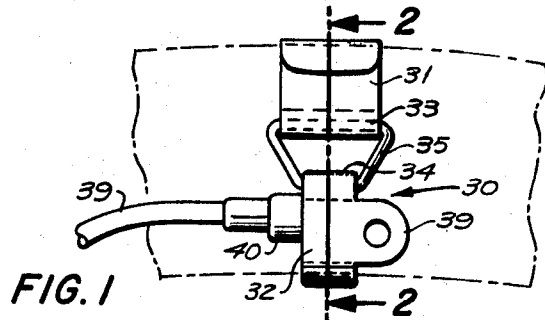
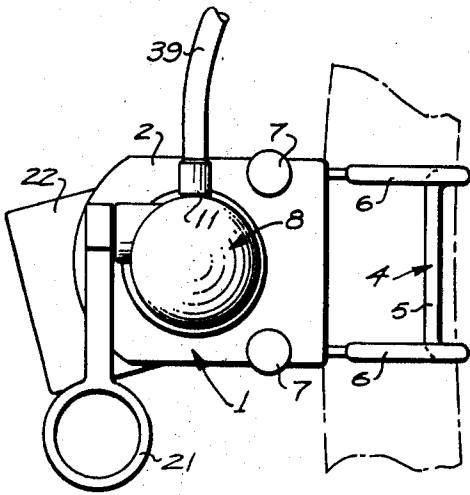


FIG. 1

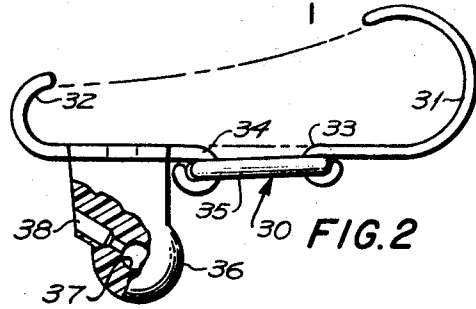


FIG. 2

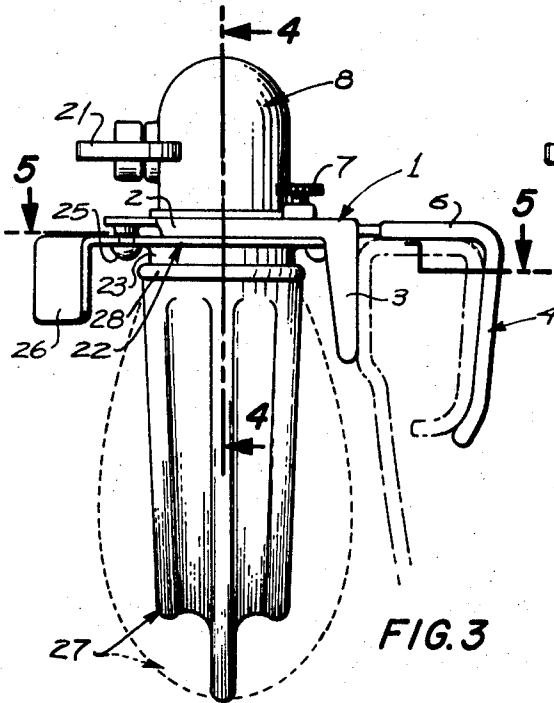


FIG. 3

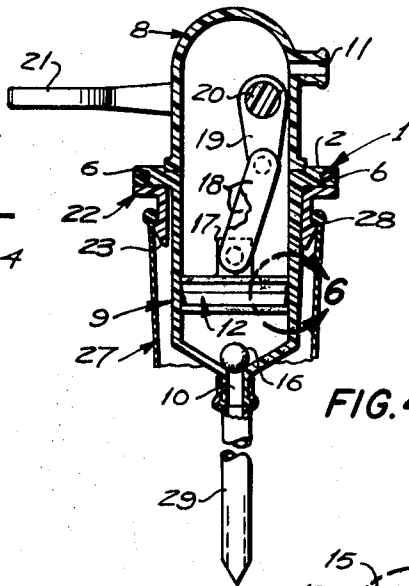


FIG. 4

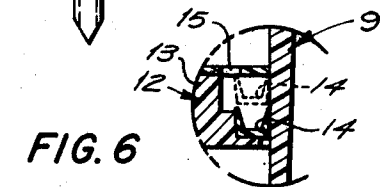


FIG. 6

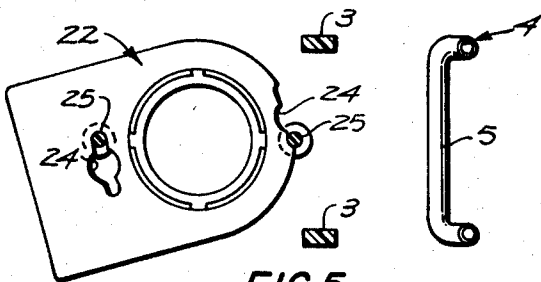


FIG. 5

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## BIDET ATTACHMENT

### BACKGROUND AND SUMMARY OF THE INVENTION

Previously, in order to provide a bidet, it has been necessary to install a complete plumbing fixture at considerable cost; or, to provide a complete toilet seat structure, as disclosed in U.S. Pat. No. 2,875,450 and U.S. Pat. No. 3,247,524.

The present invention is directed to an inexpensive and portable bidet, and is summarized in the following objects:

First, to provide a bidet in the form of an attachment which may be readily fitted to a conventional toilet or as readily removed therefrom and formed into a compact bundle that may be carried while traveling.

Second, to provide a bidet attachment wherein a hand-operated pump and a supply bag are removably secured to the side of the toilet bowl and a bidet nozzle is removably secured to the rear of the toilet seat, the pump and nozzle being connected by a flexible hose which may be disconnected from the nozzle and equipped with a douche tip so that the pump may be also used for douching.

Third, to provide a bidet attachment which incorporates a novel bidet nozzle and mounting means so that the nozzle may be readily located to direct the bidet stream for proper cleaning action with a minimal amount of water.

### DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of the bidet attachment, with portions of the toilet bowl and toilet seat shown by broken lines.

FIG. 2 is an enlarged sectional view, taken through 2—2 of FIG. 1, showing the bidet nozzle and clamping means.

FIG. 3 is a front view of the hand pump, shown mounted on a toilet bowl, the bowl being shown fragmentarily in broken lines.

FIG. 4 is a fragmentary longitudinal sectional view, taken through 4—4 of FIG. 3.

FIG. 5 is a transverse sectional view, taken through 5—5 of FIG. 3.

FIG. 6 is an enlarged fragmentary sectional view, taken with circle 6 of FIG. 4.

The bidet attachment includes a pump bracket 1, comprising a supporting plate 2 and depending clamp fingers 3 at one end of the plate. The clamp fingers 3 are intended to bear against the outer side of a toilet bowl by means of a clamp member 4, which includes a U-shaped vertical portion 5 and horizontal arms 6, which extend into small bores provided at opposite margins of the supporting plate 2. The clamp member may be formed of wire, and the portion thereof engaging the toilet bowl is covered with a suitable plastic. A pair of hand screws 7 are received in the supporting plate 2 and engage the arms 6 of the clamp member.

Extending upwardly from the supporting plate 2 is a pump dome 8, and extending downwardly therefrom is a pump body 9, which form a common pump chamber having an inlet 10 at its lower extremity and an outlet 11 extending laterally from the dome 8.

The pump chamber receives a plunger 12, which includes a plunger body 13, having a seal ring 14. The seal ring 14 is movable relative to the plunger body 13, from the solid line position to the dotted line position indicated in FIG. 6, and the upper side of the plunger body is provided with ports 15 so that the seal ring serves as a check valve so that the plunger pumps when moved in an upward direction and bypasses when it is moved in a downward direction. A check valve 16 controls the inlet 10.

The upper side of the plunger body 13 is provided with a boss 17 to which is connected a pair of links 18, which in turn are connected to an operating lever 19 mounted on a horizontal shaft 20, which extends laterally in a direction away from the toilet bowl through the pump dome 8, and is provided with a forwardly directed handle lever 21.

Slidable over the pump body 9 is a bag attachment plate 22, having a short depending sleeve 23 which fits around the

pump body. The attachment plate is provided with a pair of diametrically disposed arcuate slots 24, and the supporting plate 2 is provided with corresponding depending headed pins 25 so that the plate 22 may be pressed upwardly toward the plate 2 and turned causing the pins to engage in the slots and secure the two plates together. To facilitate this connection, the attachment plate is provided with a depending handle portion 26.

A collapsible bag 27, formed of rubber or other elastomer, fits over the pump body 9 and hangs downwardly therefrom. The upper margin of the bag 27 is provided with a bead 28 which fits over the sleeve 23, and the sleeve is provided with a retaining rib so that the bag is supported therefrom. A rubber tube 29 is fastened to the lower end of the pump body 9 and extends to the bottom of the bag 27.

The bidet attachment includes a bidet nozzle assembly 30. This assembly includes an outer clamp strip 31 having a hooked end which fits over the outer portion of a toilet seat, as indicated in FIGS. 1 and 2, and an inner clamp hook 32 which fits over the inner side of the toilet seat. The clamp strip and clamp hook are provided with looped ends 33 and 34 which receive an elastic band 35, joining the clamp strip and clamp hook.

Depending from the inner clamp hook 32 is a nozzle member 36, having a side inlet 37 and an upwardly sloping nozzle orifice 38.

The pump outlet 11 is connected to the side inlet 37 by a hose 39. The hose is preferably provided with an end fitting 40 which screw threads onto the side inlet 37 so as to be removable therefrom. When disconnected from the bidet nozzle assembly 30, the end of the hose 39 may be joined to various douche tips.

The bidet attachment is operated as follows:

The bidet nozzle assembly 30 is secured to the underside of a toilet seat, at the rear thereof, so that the water discharged from the nozzle member 36 is directed upwardly and forwardly into the toilet bowl. The pump bracket 1 and the pump, normally with the bag 27 omitted, is clamped to the side of the toilet bowl by means of the clamp member 4. The bag 27 while attached to the plate 22 is filled with water or an aqueous cleansing solution or medicinal solution.

To operate the bidet attachment, a person seated on the toilet pumps the hand lever 21 upward and downward causing the contents of the bag 27 to be discharged upwardly and forwardly from the nozzle orifice 38.

Should it be desirable to provide a more permanent mounting for the nozzle orifice 38, the member 32 may be provided with a side tab 39, perforated to receive a screw for attachment to the underside of the seat. Alternatively, the member 32 may be attached by cement.

While particular embodiments of this invention have been shown and described, it is not intended to limit the same to the details of the constructions set forth, but instead, the invention embraces such changes, modifications and equivalents of the various parts and their relationships as come within the purview of the appended claims.

We claim:

1. A portable bidet attachment for toilets, comprising:

- a. a bidet nozzle;
  - b. means for supporting the nozzle at the back side of a toilet bowl with the orifice thereof directed upwardly and forwardly;
  - c. a manually operated pump and a portable source of water therefor disposed at one lateral side of the toilet bowl and connected to the nozzle whereby, on manipulation of the pump, water is discharged from the bidet nozzle.
2. A bidet attachment, as defined in claim 1, wherein:
- a. the bidet nozzle supporting means includes a removable clamp adapted for connection to the toilet seat on the underside thereof.
  3. A bidet attachment, as defined in claim 1, wherein:
    - a. the manually operated pump includes a vertically disposed cylinder, closed at its ends and having an inlet at

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its lower end and an outlet at its upper end, a portion reciprocal in the cylinder, and a pivotable shaft for operating the piston and extending horizontally through the cylinder and a lever arm adapted to be pivoted in a vertical plane by one seated on the toilet;

b. and the water source is a refillable bag removably attached to the cylinder.

4. A portable bidet attachment for toilets, comprising:

a. a bidet nozzle;

b. means for removably mounting the nozzle at the underside of the back side of a toilet seat;

c. a hand-operated pump;

d. means for removably mounting the pump at one lateral side of a toilet bowl;

e. a refillable bag removably attachable to the underside of the pump;

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f. and a flexible hose connecting the pump to the nozzle.

5. A bidet attachment, as defined in claim 4, wherein:

a. the nozzle-mounting means includes a pair of opposing hook members and a connecting elastomeric loop to cause the hook members to engage opposite edges of the toilet seat;

b. and said nozzle depends from one of the hook members and includes an outlet orifice adapted to be directed upwardly and forwardly into the toilet bowl.

6. A bidet attachment, as defined in claim 4, wherein:

the pump-mounting means includes a bracket supporting the pump in an essentially vertical position, and having depending fixed clamp means, and a second clamp means movable to and from the fixed clamp means to grip the rim of a toilet bowl therebetween.

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