Nov. 17, 1964 C. W. DAVIS, JR 3,156,929

BIDET AND DOUCHE ATTACHMENTS FOR TOILET BOWLS

Filed March 28, 1963

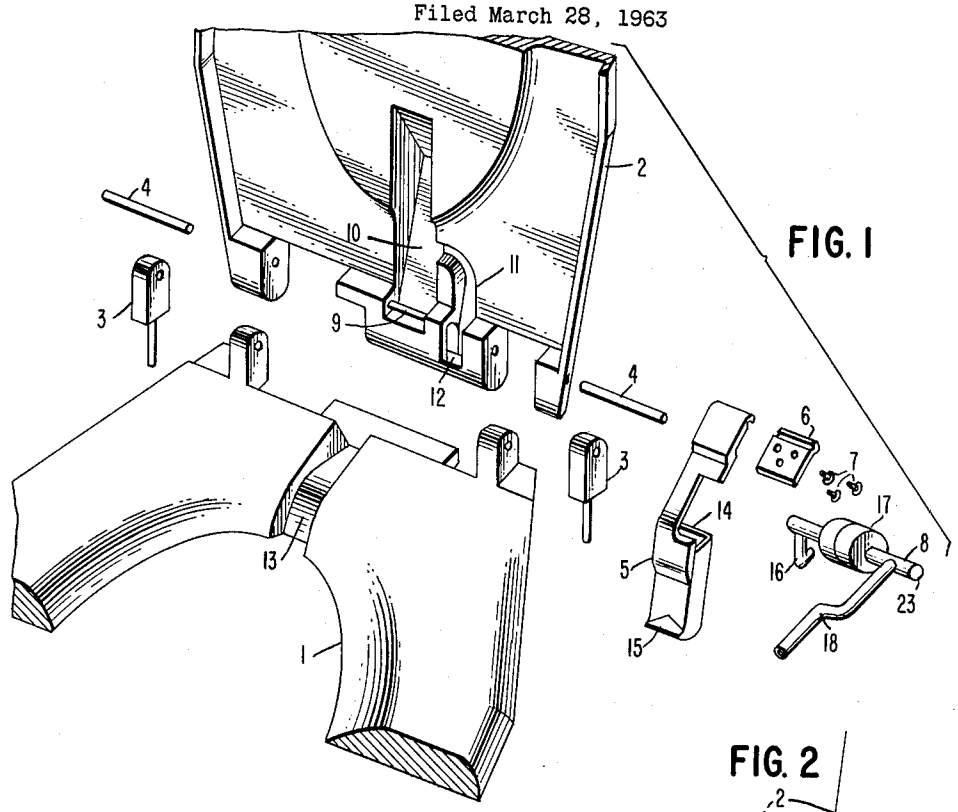


FIG. 1

FIG. 2

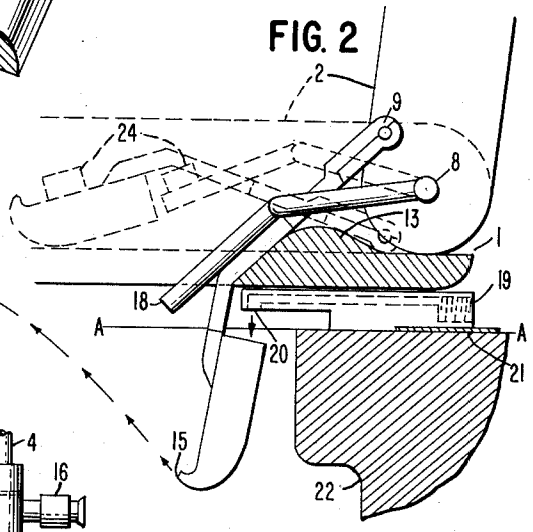


FIG. 3

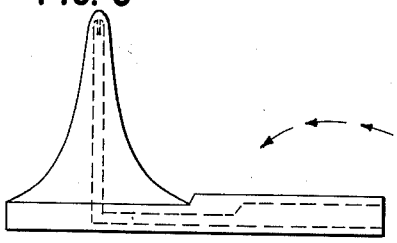
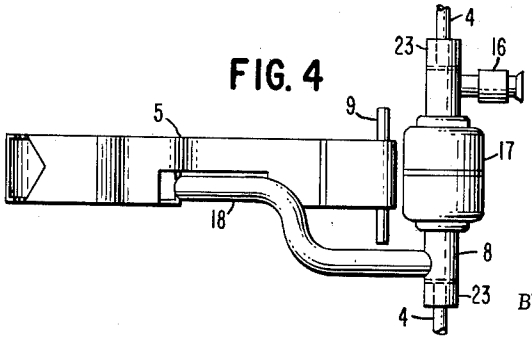


FIG. 4



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United States Patent Office 3,156,929 Patented Nov. 17, 1964

3,156,929

BIDET AND DOUCHE ATTACHMENTS FOR TOILET BOWLS

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Filed Mar. 28, 1963, Ser. No. 268,684
4 Claims. (Cl. 4—7)

This invention relates to a bidet and douche attachment for toilet bowls and in particular to improvements to attachments for conventional toilet bowls with the express purpose of providing facilities which are sanitary and utilitarian while maintaining a relatively inconspicuous appearance when not in use.

The primary objective of the invention is two fold; first to provide a bidet attachment for a toilet bowl which when in use will provide a controlled stream of water from a point well below and behind the lower parts of the body while in a sitting position on the toilet seat, but at the same time maintaining the supply outlet for this stream above the overflow rim of the toilet bowl; and secondly, to provide a douche attachment for a toilet bowl which is attached to the seat lid but which is so formed and articulated that its positioning to the body contour is relatively easy.

Another objective of the invention is to provide a bidet attachment for a toilet bowl which is hinged from the seat lid in such a manner that when the lid is lowered the bidet attachment will automatically swing up into the lid above the overflow rim of the bowl, thereby maintaining the attachment in a relatively sanitary position when not in use.

Still another objective of the invention is to provide a douche attachment for a toilet bowl which is hinged from the seat lid and formed in such a manner relative to the bidet attachment that it also automatically swings to a sanitary position above the overflow rim of the bowl when the seat lid is lowered.

A further objective of the invention is an improvement in bidet and douche attachments for toilet bowls which will provide a means for the said attachments to be folded up into the seat lid where they are relatively inconspicuous and do not interfere with the normal use of the toilet.

Various features are incorporated in the invention which overcome objectional qualities of some previous attachments of this nature. Health and sanitary regulations usually look with displeasure on sanitary fixtures that allow water systems to be connected to outlets terminating below the normal overflow line of said fixtures. Some previous attachments in the art have also overcome this objection, but in so doing the water stream or jet is not directed on the body from a point well below the body, which is usually required by the user. This invention overcomes these objections by directing a water jet from above the bowl's overflow line down into a curved deflector which directs a water stream up and out into the region required by the user.

With the above and other objects in view, this invention consists of novel features arranged, combined, and so constructed which are more fully described below and illustrated in the accompanying drawing in which:

FIGURE 1 is an exploded view of the seat and seat lid showing their construction and the relative positions of the attachments.

FIGURE 2 is a section through the seat and seat lid showing both the bidet and douche attachment and how they articulate and fold into the seat lid.

FIGURE 3 is the douche bulb used with the douche attachment.

FIGURE 4 is a view looking down upon the bidet and douche attachment showing the relative position of each in the closed position.

Referring to the drawing the invention is used and constructed as follows: In the various figures the seat 1 and seat lid 2 are attached to the conventional toilet bowl by means of hinge posts 3 and pins 4. The bidet attachment 5 is attached to the lid 2 at pin 9 by means of a split section 6 in the bidet attachment and held by screws 7. The attachment is free to rotate on pin 9 so that it can be recessed in the lid in channel 10. In order to allow the bidet attachment to swing below the seat, a channel 13 is made in the seat. This channel is formed so that it will serve as a fulcrum to swing the attachment into the seat lid channel 10 whenever the seat and seat lid are brought together. FIGURE 2 shows this action more clearly. When the bidet attachment is lowered with the seat lid raised, its hinge 9 is high above the seat channel 13, but as the lid is lowered or as the seat is raised, the hinge approaches the channel and because of its shape, the attachment is forced into the seat lid channel 10 and brought to bear against a permanent magnet 24. The magnet holds the attachment and keeps it from falling from the seat lid when the seat and seat lid are apart.

In operation, a water supply is connected to the nozzle 19 which is attached to a flat plate 21 which in turn is held to the toilet bowl 22 when the hinges 3 are fastened to the bowl. The nozzle is formed so that it has an outlet 20 terminating above the toilet bowl overflow line A—A. The space between line A—A and the underside of the seat is maintained by conventional toilet seat bumpers fastened to the underside of the seat. When the jet of water leaves the nozzle outlet 20 it is directed to the bidet outlet 15 by the curved deflector 14. The trajectory thus formed is shown by the arrows of FIGURE 2.

The douche attachment 8 consists of an inlet pipe 16, a conventional swivel joint 17, and outlet pipe 18. The rear end of the seat lid 2 is channeled 12 sufficiently to allow the douche attachment to be mounted up into this channel so that the swivel joint 17 and end recesses 23 are centered on line with the main hinge pins 4. When the hinge pins 4 are inserted into the seat 1 and seat lid 2, they extend into the douche attachment recesses 23 thereby holding the attachment in place while allowing it to rotate. The recesses 23 are blanked off at the bottom so that the water passing through the attachment does not enter the recesses. The inlet pipe 16 extends out of the channel 12 and is connected to a water supply. This connection is rigid, therefore the conventional swivel joint 17 allows the outlet pipe 18 to rotate. The pivot point 23 of the douche attachment 8 is behind the pivot point 9 of the bidet attachment 5, therefore the outlet pipe 18 is offset so that it will pass the pivot pin 9 when it is raised or lowered. FIGURE 4 shows this arrangement in greater detail. By having the outlet pipe 18 rest above the bidet attachment 5 it is then possible for the bidet attachment to carry the douche attachment with it when the bidet attachment is forced into the seat lid channel 10 by lowering the seat lid or raising the seat which was described above in detail. This feature assures that both attachments are recessed up into the seat lid whenever the seat lid is lowered or the seat raised. In order to accommodate the offset in the seat lid, channel 11 is provided. Also, in order to minimize the depth of channel 10 to hold both attachments an open section is provided in the side of the bidet attachment so that the outlet pipe 18 can lie in a lower position when recessed into channel 10. The dotted outline of the attachments in FIGURE 2 shows the feature. A permanent magnet 24 also holds the douche attachment into channel 10 whenever the bidet

attachment is lowered and the douche attachment is not used.

In operation the douche attachment is lowered and the douche bulb FIGURE 3 is slipped over the outlet pipe **18**, thereby forming a complete douching facility. The user sits on the toilet seat facing the rear and it will be readily appreciated by those skilled in the art that the attachment's shape and articulation are well suited for positioning to the body's contour.

Both hot and cold water connections can be made through a conventional mixing valve for temperature control. Also a three way two port valve of conventional design can be used to direct flow to either the bidet attachment or to the douche attachment. If desired, a small tank can be used in series with the douche attachment into which douching solutions can be mixed for medicinal or sanitary purposes. Minor deviations of this nature within the scope and spirit of the invention will readily occur to those skilled in the art, therefore the specific embodiments illustrated are not to be thought of as limiting its overall application.

What is claimed is:

1. A bidet for use with a toilet bowl having a lid comprising, a nozzle rigidly fixed to said toilet bowl, means for connecting said nozzle to a source of fluid, said nozzle having an opening to direct a jet of fluid downwardly into said bowl, and an open fluid deflector mounted to said toilet bowl lid for swinging movement away therefrom when said lid is in raised position whereby to place said deflector under said jet, said deflector having

curved means to deflect said jet up and out into the region of the toilet bowl opening.

2. A bidet as in claim 1 in which the deflector is hinged to and recessed in said lid.

3. A bidet as in claim 2, in which magnetic means are provided for maintaining the deflector recessed in said lid.

4. In combination with a toilet bowl having a lid, the improvement comprising a nozzle rigidly fixed to said toilet bowl, means for connecting said nozzle to a source of fluid, said nozzle having an opening to direct a jet of fluid downwardly into said bowl, and an open fluid deflector mounted to said toilet bowl lid for swinging movement away therefrom when said lid is in raised position whereby to place said deflector under said jet, said deflector having curved means to deflect said jet up and out into the region of the toilet bowl opening, a pipe hingedly mounted to said lid, means for introducing fluid into said pipe at one end thereof, the other end of said pipe being adapted to receive a douche bulb.

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