

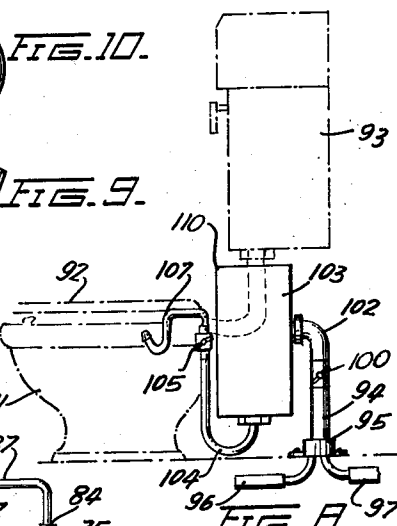
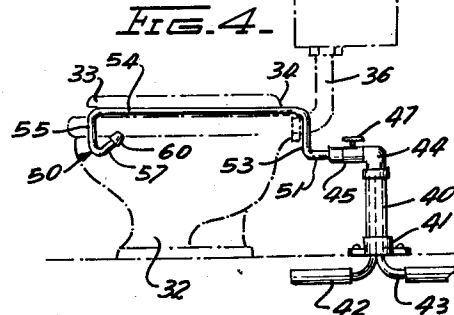
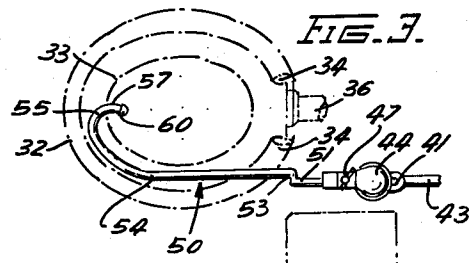
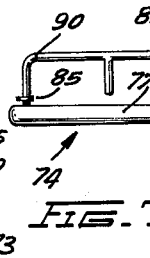
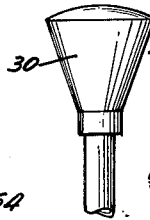
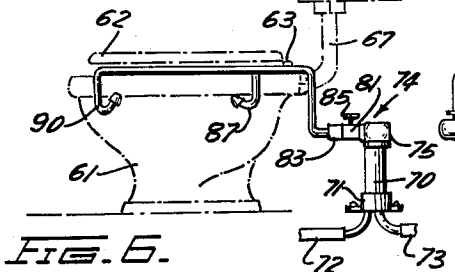
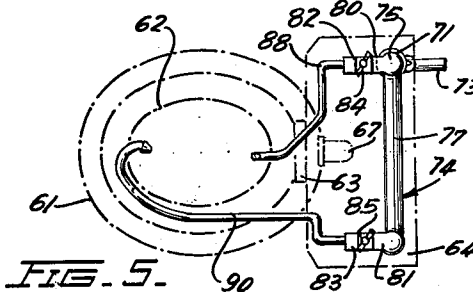
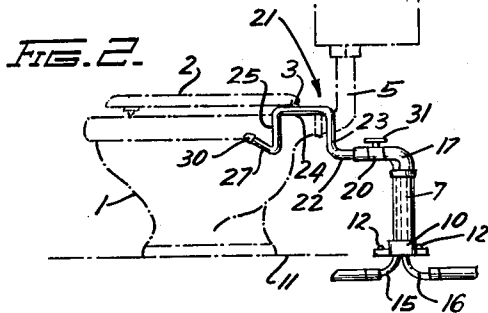
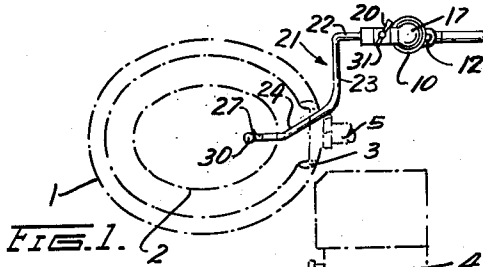
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FLUSH TOILET SANITARY DEVICES

Filed Feb. 10, 1960



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3,015,826

FLUSH TOILET SANITARY DEVICES

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2 Claims. (Cl. 4-7)

The present invention relates to improvements in water closets and, more specifically, to new and improved sanitary attachments for flush toilets which will make it possible for the toilet user to squirt a jet of tepid water to the parts desired to be cleansed, in such a manner that the toilet paper is relegated to the secondary role of wiping the user dry, instead of leaving it to pursue its unsatisfactory primary role.

Hitherto bidets have been used for this purpose, but the installation of a bidet is expensive and requires a considerable amount of additional space, so that a bidet can be used only in a bathroom which is much larger than the average bathroom in an apartment or in an ordinary private home.

Therefore, one object of the present invention is the provision of a device of the character described which allows a user of a flush toilet, remaining seated thereon, to squirt water into the parts to be cleaned, and to regulate the temperature and the intensity of the water jet in a very simple manner.

Another object of the present invention is the provision of a device of the character described which can be provided with very simple means for adding bath salts, mild antiseptics or other fragrant and cleansing substances to the water to be used in the device, so that the same will have special appeal to women who desire to cleanse the affected parts after using the toilet, as well as their private parts, insuring in the process thorough cleansing, disinfection and fragrant aroma of their persons.

A further object of the present invention is the provision of a device of the character described which can be installed easily and inexpensively in presently used toilet facilities as well as in newly manufactured toilet bowls and bathroom equipment, and which does not require any structural changes of ordinary toilet bowls or other fixtures.

Still another object of the present invention is the provision of a device of the character described which can be mounted on a bathroom floor, or on a wall, with only two screws and which, for its installation, does not require any clamps, brackets or the like on the toilet bowl or on any other fixtures or the like, so that holes in, or breakage of, tiles during the installation of the device will be reduced to a minimum, and that the general appearance of a bathroom or the accessibility of any parts or of pieces of equipment thereof, for cleaning purposes, will not be reduced.

Yet a still further object of the present invention is the provision of a device of the character described which can be made for rear flush or for front flush application or for rear and front flush application, and the parts of which are so constructed that the majority of said parts are interchangeable and can be used for either one of these various flush applications, so that the amount of parts required to be kept in store by installers and service establishments for this device will be relatively small.

An additional object of the present invention is the provision of a device of the character described which is simple and inexpensive to manufacture, but which is also durable, sturdy, and well adapted for withstanding the rough usage to which devices of this type are usually subjected in public toilets, hotels, rooming houses and the like.

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With the foregoing and other objects which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangements of parts of the embodiment disclosed without departing from the spirit of the invention as claimed.

In the accompanying drawing I have set forth an illustrative embodiment of my invention.

In said drawing:

FIGURE 1 is a top plan view of a rear flush toilet sanitary device;

FIG. 2 is a side elevational view of the same;

FIG. 3 is a top plan view of a front flush toilet sanitary device;

FIG. 4 is a side elevational view of the front flush toilet sanitary device of FIG. 3;

FIG. 5 is a top plan view of a combined front and rear flush toilet sanitary device;

FIG. 6 is a side elevational view of the combined device of FIG. 5;

FIG. 7 is a rear elevational view of the combined device of FIGS. 6 and 7;

FIG. 8 is a side elevational view of a treated water container which can be added to any one of the various flush toilet sanitary devices constructed according to the present invention;

FIG. 9 is a detailed side view of a miniature sprinkler; and,

FIG. 10 is a plan view of the miniature sprinkler.

Similar reference characters refer to similar parts throughout the several views.

Referring first to FIGS. 1 and 2, the numeral 1 denotes a toilet bowl having a toilet seat hinged at 3 to the bowl 1, and the numeral 4 denotes a flush tank connected to the bowl 1 by an L-pipe 5. The parts 1 to 5 inclusive, which are shown in dash-and-dotted lines, form no part of my present invention.

The rear flush toilet sanitary device according to my invention consists of a sturdy tubular member 7 extended from a flange element 10 that is secured to the floor 11 of a bathroom or the like by means of a pair of screws 12. A hot water line 15 and a cold water line 16 are extended through the member 7 and through an elbow member 17 into a mixing valve 20. The member 17 is firmly secured to the upper end of the member 7, and the valve or reducer 20 is secured to the member 17. The parts 7, 10, 17 and 20 are of a strong and sturdy construction, so that they cannot be damaged or dislocated if hit by a broom or a brush or the like during the cleaning of the floor 12. This sturdiness of the parts 7, 10, 17 and 20 also makes them well adapted for completely supporting any pipe or tubing extended from the valve 20 into the toilet bowl 1. In FIGS. 1 and 2 is shown a pipe 21 of brass, plastic material, aluminum or the like, which extends from the valve 20 into the rear portion of the bowl 1. The pipe 21 has a first portion 22 which is horizontal and secured to the valve 20, a second portion 23 which obliquely extends upwardly from the portion 22, a third portion 24 which angularly extends between the rear portion of the seat 2 and the bowl 1 from the portion 23, a fourth portion 25 (FIG. 2) which extends downwardly into the bowl 1 from the portion 24, and a fifth portion 27 which extends obliquely upwardly from the portion 25. Any suitable nozzle, or a miniature sprinkler head 30, is attached to the portion 27 of the pipe 21. The sprinkler head 30 may be made of the same or a similar material as the pipe 21. By manipulation of a mixing valve handle 31 at the right side of the toilet seat 2, water is squirted into the affected parts. The force or intensity of the jet may be controlled by

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the manipulation of the handle 31. As soon as the toilet user is satisfied that he has cleansed himself thoroughly, he then wipes himself dry with any absorbent paper towel or toilet paper. The valve 20 is closed after use. After cleansing herself subsequent to using the toilet, the female may reverse position, i.e. face backwards, and by the manipulation of the same handle 31 cleanse her private parts if she so desires.

Referring now to FIGS. 3 and 4, the numerals 32, 33, 34, 35 and 36 denote a toilet bowl, a toilet seat, hinges, a flush tank and an L-pipe, which are the same parts as the parts 1 to 5 respectively of FIGS. 1 and 2. A sturdy tubular member 40, a flange 41, a hot water line 42, a cold water line 43, an elbow member 44 and a mixing valve 45 with a handle 47 also are the same parts as the parts 7, 10, 15, 16, 20 and 31 respectively of FIGS. 1 and 2. A pipe 50 extends from the valve 45 into the toilet bowl 32 and has a first portion 51 secured to the valve 45, a second portion 53 upwardly extending from the portion 51 to the top of the rim of the bowl 32, a third portion 54 extending from the second portion 53 beneath the toilet seat 33, a fourth portion 55 extending from the third portion 54 downwardly into the front portion of the toilet bowl 32, and a fifth portion 57 angularly upwardly extended from the fourth portion 55. A nozzle or a miniature sprayer 60 is secured to the portion 57 of the pipe 50. The pipe 50 as well as the pipe 21 in FIGS. 1 and 2, can be circular or elliptical or rectangular in cross-section, but it is so dimensioned that it fits into the space between the lower side of the toilet seat and the upper side of the rim of the toilet bowl; said space usually is one half of an inch or more, which is sufficient for inserting a small spray pipe as that required for the purpose of my device. For the front sanitary device I prefer to place the handle 47 as well as the parts 40 to 45 at the left hand side of the toilet bowl 32, as shown in FIG. 3. This device may be installed concurrent with the rear sanitary device, so that the female user may cleanse her private parts without the necessity of turning backwards or reversing her position, whenever she desires to cleanse her private parts. The handle 47 to the left of the toilet bowl is the one manipulated in this instance.

In order to simplify the construction and the installation of the device if it is intended for front and rear application, I prefer to construct the same in the manner shown in FIGS. 5, 6 and 7. Here a toilet bowl 61, a seat 62, seat hinges 63, a flush tank 64, an L-pipe 67, a sturdy tubular member 70, a flange member 71, a hot water line 72 and a cold water line 73 are the same as the corresponding parts in the embodiment of the invention shown in FIGS. 1 to 4. However, on the upper end of the tubular member 70 there is mounted, not an elbow member, but a traverse pipe element 74, which has a vertical portion 75 secured to the upper end of the tubular member 70, a longitudinal horizontal portion 77 extending laterally from the vertical portion 75 and a pair of short horizontal portions 80 and 81 (FIGS. 5 and 6), to which are secured mixing valves 82 and 83 respectively. The valves 82 and 83 are provided with handles 84 and 85 respectively. A pipe 87 is extended from the valve 82 and a pipe 90 is extended from the valve 83. The pipe 87 is the same as the pipe 21 of FIGS. 1 and 2, and the pipe 90 is the same as the pipe 50 in FIGS. 3 and 4. In this case a person using the device can manipulate the handle 84 for rear application and the handle 85 for front application.

In order to facilitate the treating of the water used for my flush toilet sanitary device, a mixing tank can be added, as shown in FIG. 8. Here again a toilet bowl 91, a seat 92, a toilet flush tank 93, a sturdy tubular member 94, a flange 95, a hot water line 96 and a cold water line 97 are the same as the corresponding parts in FIGS. 1 to 7, but a mixing valve 100 is mounted on the upper end of the member 94, an L-member 102 connected to a tank 103 is mounted on the valve 100 and a pipe 104

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mounted on the lower side of the tank 103 is connected to a valve 105 from which is extended a pipe 107 into the toilet bowl 91. The pipe 107 is the same as the pipe 21 of FIGS. 1 and 2 or the same as the pipe 50 of FIGS. 3 and 4. From the pipe 104 there can be extended also a pipe element like the element 74 of FIGS. 5, 6 and 7, so that a combined front and rear device also can be provided with a water mixing tank 103. The tank 103 has a hatch 110 for making it easily accessible for the purpose of inserting therein bath salts, mild antiseptics, or the like.

While the tubular member (7, 40, 70 and 94) has been shown as mounted on the floor, it will be obvious that the same also may be mounted on a wall with slight alterations.

My new and improved flush toilet sanitary device insures cleanliness, facilitates dainty feminine hygiene, reduces the expense for toilet paper, and is more convenient in use than a bidet because the user does not have to transfer from the toilet seat to a bidet seat.

Since certain changes may be made in the above article and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which as a matter of language might be said to fall therebetween.

Having thus fully described my said invention, what I claim as new and desire to secure by Letters Patent is:

1. A flush toilet sanitary device comprising a tubular member being shorter than a standard toilet bowl is high and being upwardly extended from a floor near a toilet bowl, a hollow traverse member horizontally extending from one side of said toilet bowl to its other side and being attached to said tubular member, a first valve mounted on one end of said traverse member, a second valve mounted on the other end of said traverse member, a first pipe having a first vertical portion extending from said first valve as well as a horizontal portion extending from said first vertical portion over the upper rear portion of the aforementioned toilet bowl and a second vertical portion extending from said horizontal portion into the rear portion of the toilet bowl as well as an upwardly inclined portion extending from said second vertical portion, and a second pipe extending from said second valve having a first portion extending upwardly from said second valve and a second portion extending horizontally from said first portion over the upper front portion of said bowl and a third portion extending vertically from said second portion into the front portion of the bowl as well as an upwardly inclined portion extending from said third portion, and a pair of water conduits each of which is extended through said tubular member and said traverse member to one of said valves.

2. In a flush toilet having a toilet bowl and a seat attached to the bowl, a sanitary device comprising a short upright, tubular member firmly installed on the floor next to said toilet bowl, a first valve mounted on said tubular member, a tank having a bottom portion and an open top portion being connected to said first valve, a conduit connected to said bottom portion of said tank, a second valve mounted on said conduit, and a pipe extended from said second valve into said toilet bowl and having an upwardly inclined end portion.

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