

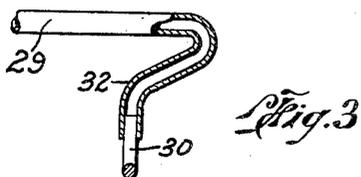
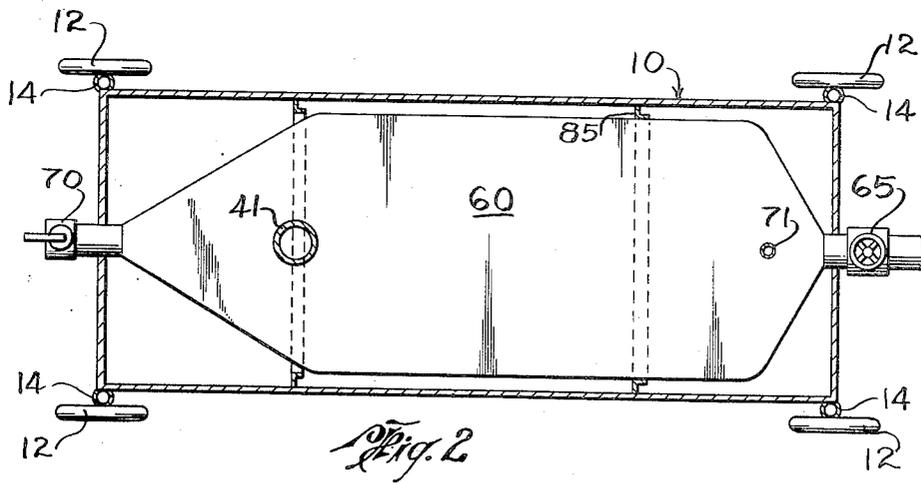
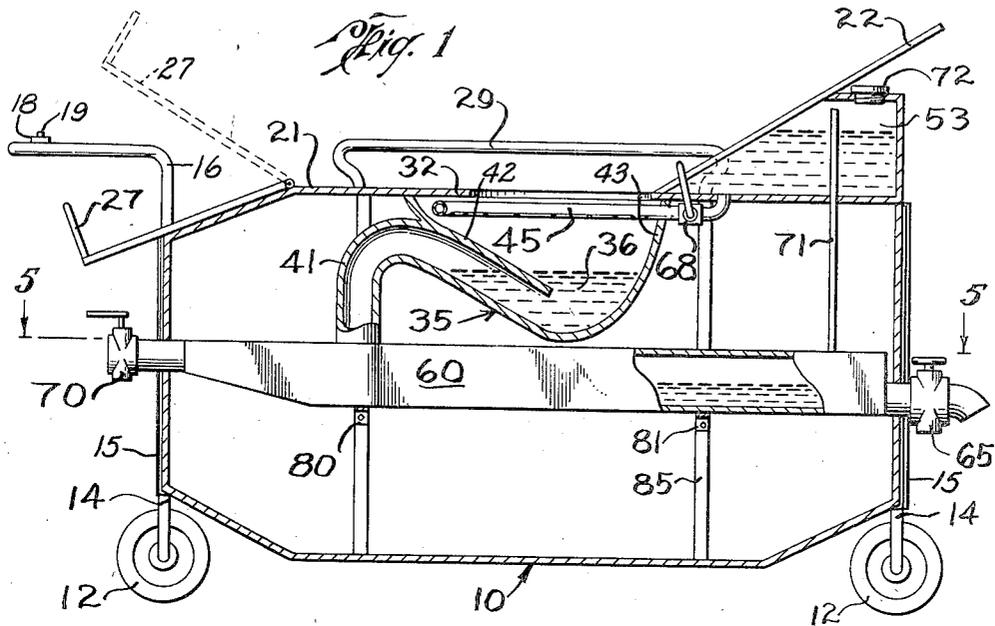
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PORTABLE SELF-CONTAINED COMMODE

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PORTABLE SELF-CONTAINED COMMODE

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2 Claims. (Cl. 4—10)

This invention relates to a portable self-contained commode which is particularly useful in hospitals.

For centuries, sick persons in hospitals and homes have been forced to use the well known bed pan. Patients have died in their efforts to use such bed pans. Many capable young women have undoubtedly refused to serve humanity by becoming nurses just because of the onerous task of carrying and emptying patients' bed pans. Yet, today, the bed pan is still in use and the need for a more satisfactory device than the bed pan is still present.

It is, therefore, an object of this invention to provide a commode which avoids the inconvenience and onerous aspects of the conventional bed pan.

It is another object of this invention to provide a commode which is a self-contained unit.

Another object of this invention is to provide a commode which has a table surface at bed level and which is portable.

An additional object of this invention is to provide a commode which has a flushing water supply, waste tank and toilet bowl in self-contained unit.

A further object of this invention is to provide a self-contained portable commode which flushes by gravity feed of the flushing water in a continuous flow from the flushing water tank to the toilet bowl and then to the waste tank included therewith.

Another object of this invention is to provide a three-compartment commode which includes an enclosed waste tank so that the necessity of emptying the commode after each use thereof is unnecessary.

Other and additional objects will be readily apparent when the following description is considered in connection with the accompanying drawings, wherein:

Fig. 1 is a side sectional view of the gravity-feed commode of this invention.

Fig. 2 is a sectional view on line 2—2 of Fig. 1 and illustrates in particular the waste tank in the gravity-feed commode.

Fig. 3 is a partial sectional view of the hand rail connection.

Following is a detailed description of this invention wherein like reference numerals are used on like parts in all figures of the drawings.

Referring now to the details of the commode of this invention, it can be seen that a support or housing 10 may be used to form the confines of this self-contained unitary commode. Wheels 12 may be connected with the housing 10 in order to render the commode of this invention portable. These wheels 12 are preferably pivotable and an arrangement is used such as the pivotable bars 14 which fit within the guides 15 for each wheel. Each of the bars 14 is bent at right angles so as to form an axis for each of the wheels. Each of the bars 14 used on the front wheels 12 is bent at right angles at the top portion or handle 16 and both handles are interconnected by a steering rod 18 so that both handles 16 can be moved simultaneously for steering the commode when it is moved. It will be readily appreciated that pins 19 may be utilized to position the steering rod 18 relative to the handles 16. Upon pivoting the handles 16 and the connected wheels 12, the rod 18 will be movable therewith due to the loose fit of the rod 18 on the pins 19. Thus, the wheels may be canted toward the bed to prevent forward movement of the commode.

The upper portion of the support or housing 10 constitutes a table 21 which is at the same height as the bed

surface, so that when the commode is pushed contiguous to a bed, the bed surface upon which a patient lies and the table 21 will form a continuous surface. This arrangement enables a patient to roll or otherwise slide himself from the bed to the table 21 without raising or lowering his body in any way such as is necessary in the use of the conventional bed pan. If the patient is too weak to move himself to the table 21 by himself, he can be rolled thereon by nurses or other assistants and at no time will his body be uncomfortably raised above the height of the bed. In fact, for added comfort, a back rest 22 may be pivotally hinged to the table surface.

At the opposite end of the housing 10 from the back rest 22 it may be desirable to have foot rests or supports 27. These foot rests 27 may be made adjustable in a manner similar to that of the back rests 22, if convenient. It is believed readily apparent from observing the position of the foot rests 27 in Fig. 1 that their angle may be determined by the slope of the housing 10 at that portion therebelow. It will be appreciated that instead of having two separate foot rests 27, there may be employed a single foot rest which extends across the entire width of the housing 10. Further, the length of these foot rests 27 may be made adjustable to accommodate different people.

To safeguard patients when they are moving onto the commode of this invention and while thereon, it is desirable to utilize a safety rail 29. The details of a means for connecting the rail 29 to the housing 10 are shown in Fig. 3 and it includes a right-angle bracket 30 to receive the open end 32 of the rail 29. These safety rails 29 thus may be used on both sides of the commode if desired and may be removed when a patient is getting on or off the table surface 21. In fact, these hand rails 21 may have extensions thereon to support a curtain for the privacy of the patient when using the commode.

On a horizontal portion of the table 21, the toilet seat 32 is located. The relationship of the toilet seat 32, the back rest 22 and the foot rests 27 must be such that a person disposed thereon may be comfortably positioned. Cushions or a padded surface may be added to the table 21, back rest 22 and foot rests 27 for added comfort. A washable material, such as a synthetic plastic like "Vinylite" or "Koroseal," or a rubber material may be used for cleanliness purposes.

Below the toilet seat 32 is positioned the toilet bowl 35. The toilet bowl 35 itself is made up of a sump section 36 wherein a small residue of fresh water will always remain. It will be seen that this sump section 36 is below the level of the bowl outlet tube 38 so that liquid and waste therein will not pass through the bowl outlet tube 38 until the liquid level exceeds that of the level of the bowl outlet tube or passage 41 which is formed by the lower part of the toilet bowl 35 and a flange 42 thereabove which extends down into the sump section 36. To wash down the sides 43 of the bowl 35, a spray 45 is provided which may take many forms or modifications but is preferably of the perforated ring type as shown in the drawings.

A flushing water tank 53 of the gravity commode is located above the level of the toilet bowl 35 and a flushing valve 68 is located between the flushing water tank 53 and the spray 45, so that when it is desired to flush the toilet bowl 35, the patient merely opens the valve 68 to permit the flushing water to pass through the spray 45. The waste from the toilet bowl 35 passes through the outlet passage or channel 41 and into the waste tank 60. The odors are prevented from escaping from the waste tank 60 because of the odor trap created by the residue of water in the channel 41, as explained above.

When the waste tank outlet valve 65 is opened, the waste will run out by gravity. When it is desired to flush this gravity commode, a hose is connected on the hose connection and a valve 70 and with the waste tank outlet valve 65 open, the waste in the tank 60 is thoroughly cleaned out. It can be seen from Fig. 2 that the waste tank 60 for the gravity commode has rounded corners to prevent any accumulation of waste within the tank 60. The tank 60 is supported by supports 80 and 81 on the uprights 85 or on the housing 10.

A pressure equalizer tubing 71 is interconnected between the tank 60 and the supply tank 53. A filling cap 72 is provided in the top of the supply tank 53. It can be seen from Fig. 1 that the tank 53 is suitably inclined to serve as a support for the back rest 22.

The gravity-feed commode of this invention thus has a three-compartment combination of the toilet bowl 35, the flushing water supply tank 53 and the waste tank 60. The three compartments are arranged so that gravity may be utilized for feeding the flushing water, and therefore the commode is especially suitable for use in places which do not have electricity or adequate electrical outlets, although its simplicity makes it desirable in other circumstances.

It is believed readily apparent that a self-contained commode which is portable, is easily cleaned, and which eliminates the disagreeable aspects of the conventional bed pan, has been invented. Furthermore, the commode of this invention is entirely self-contained.

Broadly, this invention contemplates a commode which is self-contained in that the pumping means and the waste tank are combined in a housing unit with the toilet bowl.

What is claimed is:

1. A gravity-feed self-contained portable bedside commode adapted to receive a person thereon in a supported seated position, comprising a supporting frame having a plurality of vertically extending legs, a wheel on each of said legs for permitting rolling movement of said frame on a floor in a building, a horizontal toilet seat mounted on said frame at substantially bed-height and upon which a person may sit, a toilet bowl supported by said frame below said toilet seat, a flushing liquid tank connected to said frame, means for conducting flushing liquid from said tank to said bowl for flushing waste therefrom, a waste tank secured to said frame below said toilet bowl and extending longitudinally therebelow and being substantially as long and as wide as the length and width of said frame, said waste tank being elongate, with the vertical depth thereof being very small as compared to the width and length thereof, whereby said waste tank is capable of holding a large volume of waste and flushing

liquid while requiring only a small vertical space, said waste tank also being substantially confined within the vertically extending legs of said frame so that changes in the weight of the liquid and waste in said waste tank will not affect the balanced distribution of such weight to said legs and to said wheels, whereby tipping of said frame by such changes in weight is avoided, an odor trap confined between and connected to said outlet bowl and said waste tank to prevent odors from said waste tank from escaping therefrom, whereby the waste and liquid can be retained in said waste tank between uses of the commode without being offensive or unhealthy, said waste tank having its bottom positioned at substantially the height of the usual fixed commode in a building, and an outlet valve on said waste tank also positioned at substantially the height of the usual fixed commode for emptying the waste tank into such fixed commode without removing the waste tank from its secured position on said frame.

2. The structure set forth in claim 1, wherein said outlet valve is located at one end of said waste tank, and an inlet valve on the other end of said waste tank for admitting washing fluid into said waste tank when said outlet valve is open for thoroughly washing the interior of said waste tank without removing same from its secured position on said frame.

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