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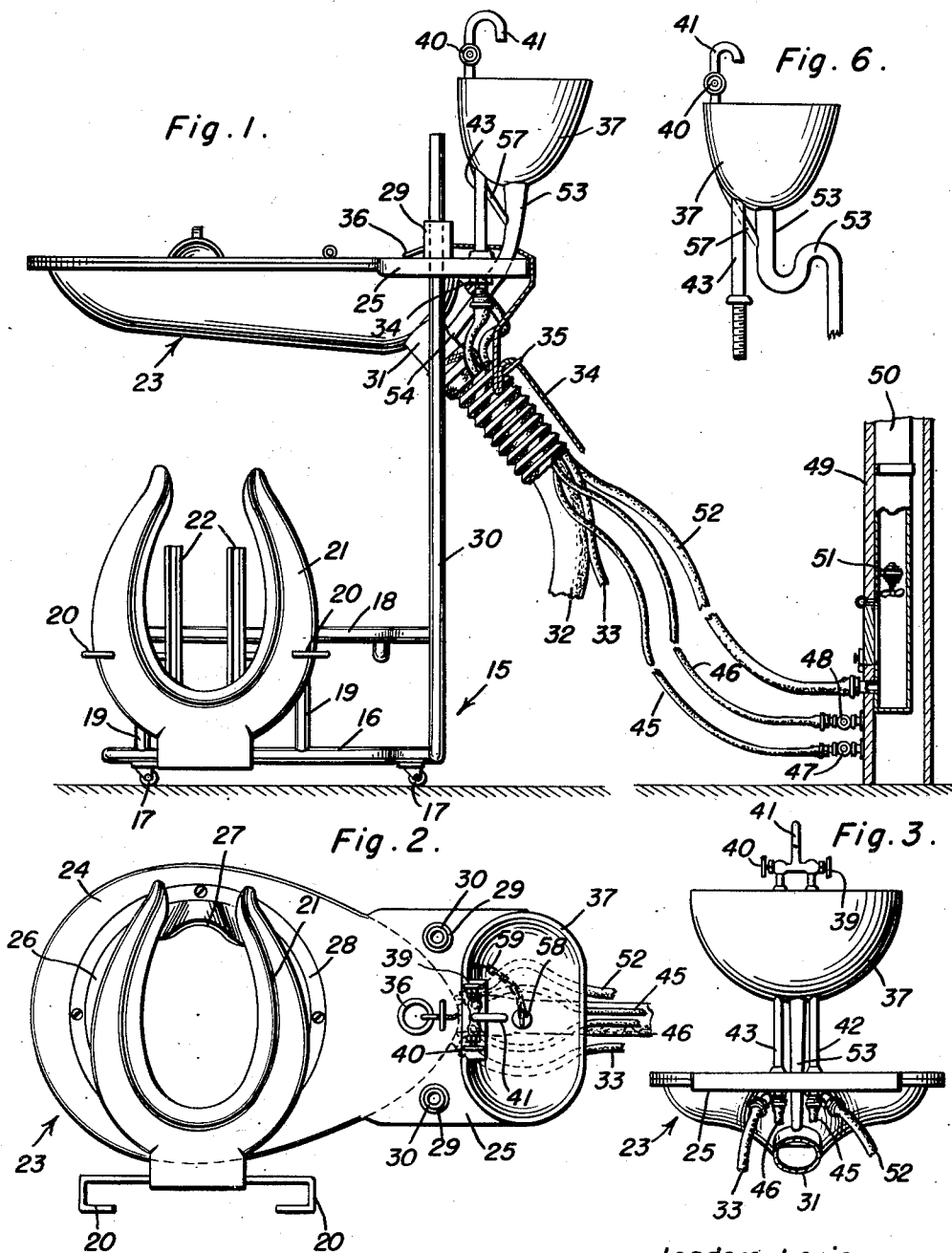
I. LEVIN

2,527,271

PORTABLE FLUSH-TYPE COMMODE AND BASIN COMBINED

Filed Jan. 13, 1948

2 Sheets-Sheet 1



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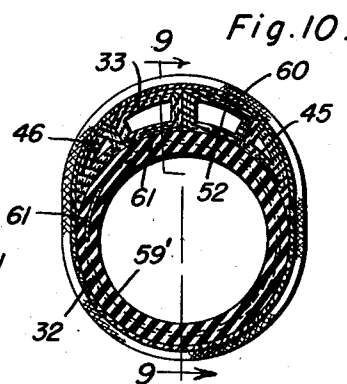
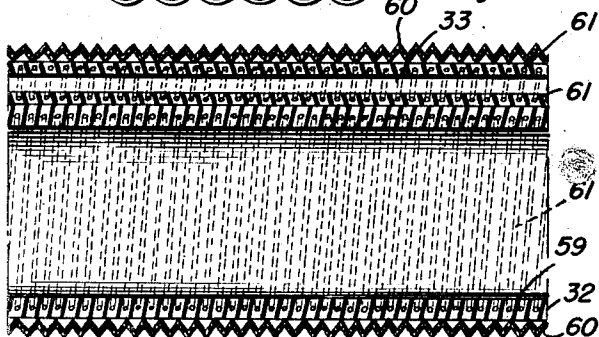
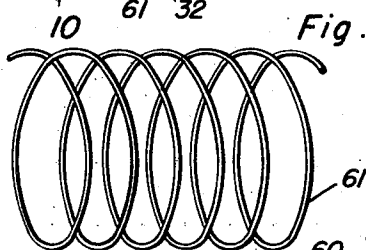
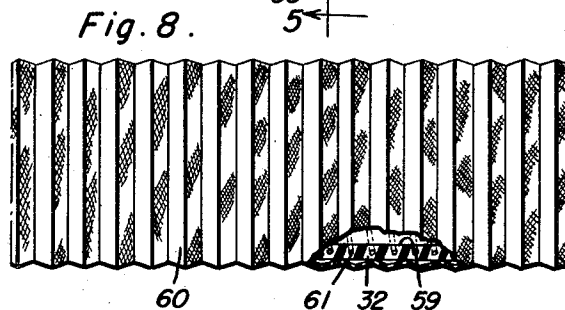
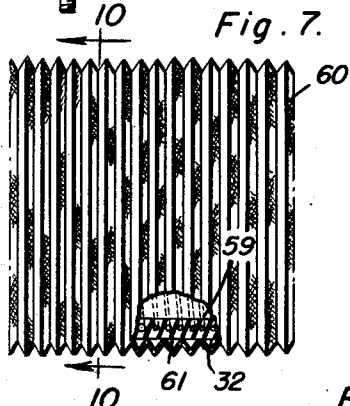
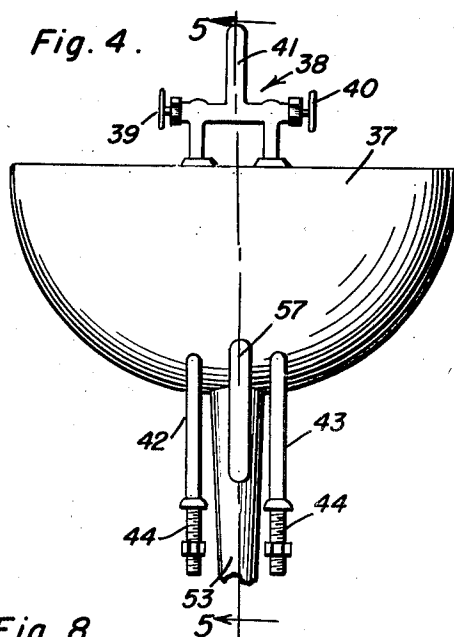
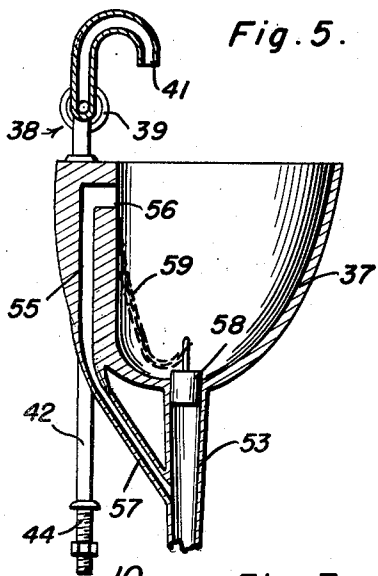
I. LEVIN

2,527,271

PORTABLE FLUSH-TYPE COMMODE AND BASIN COMBINED

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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PORTABLE FLUSH-TYPE COMMODE AND
BASIN COMBINED

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8 Claims. (Cl. 4-10)

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This invention relates to certain new and useful improvements in wash basins and has particular reference to a mobile type, miniature in size, which is primarily adapted for hospitalized, home confinement and similar cases and which, while it best serves the needs of a patient, is likewise usable by attending doctors, nurses, and others.

More particularly, I contemplate the provision of a small basin supported for use on a stable, but readily shiftable and maneuverable stand or equivalent support, which may be rolled into place, from a normally out-of-the-way location, by a nurse or other attendant, situated over a bed for convenient use by a bedridden patient; or, located at any other point of vantage for use by convalescents in wheel-chairs, or used in any other convenient manner.

It is a matter of common knowledge that there exists a long felt need for a basin, with water supply and drainage facilities, which could be wheeled into place alongside of or over an occupied bed, and which might then be used for washing a patient's hands, face, and other body parts; for cleaning teeth, and otherwise tidying up. Therefore, it is an object of the instant invention to provide just such a basin, to adjustably mount same on a portable stand for use in high and low positions and to provide trailing flexible conduit means to supply hot and cold water, and to, in addition, return the used water to a standard-type waste pipe either directly, or by way of a complemental toilet.

Another object of the invention, somewhat more specifically evaluated, has to do with a portable multiple purpose sick room basin possessed of the structural adaptations so far described, said basin being constructed with or without a trap, as requirements call for, said basin having readily available mixing spigot means to regulate the temperature of the delivered water, there being an elongated flexible hose connected to the cold water intake, a second flexible hose connected to the hot water intake, these hose being connected at their opposite ends to a suitable source of supply by way of cut-off and regulating valves, a third elongated flexible hose being provided to discharge and properly empty the basin, all of said hose being extensible and contractible and of lengths sufficient to permit the basin to be located for use at any desired point in the room, whereby to thus provide an ever-handy basin for all who may need same for use.

A still further object of the invention is to associate and combine a basin of the stated type with a mobile bed-toilet, the combination structure being characterized by a bodily shiftable base, a perpendicularly raisable and lowerable

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head structure adjustably mounted on and movable toward and from the base, said head structure, broadly speaking, embodying a commode bowl and a separate basin, the latter being in relation to the bowl that it may be conveniently used while the bowl is occupied or independently used, which ever is desired, and there being multiple conduit means connected at one end of the head structure, said means being of elongated bendable and flexible form and of sufficient length to permit the base to be freely shifted about from place to place in the room and employed for use at selected points of vantage, and said means, more specifically, embodying a conduit connected with and for supplying water under pressure to the bowl, a second conduit connected with said bowl and adapted for connection with a soil or waste pipe, and additional conduits for supplying hot and cold water to the basin, the latter including a discharge or drain which empties either indirectly or directly into said second conduit, whereby to use the bowl with the latter and as a complement to the basin.

Further, and in reducing to practice a practical embodiment of the stated combination commode and basin assembly, novelty is thought to reside in a commode bowl which serves as a bedpan in one of its positions, and as a regular sit-type toilet in its second position, said bowl being adjustable on a mobile support to achieve said ends and having a shelf-like mount or extension on one longitudinal side situated at a point intermediate the opposite end portions of said bowl to accommodate certain parts of the complete structure and to serve as an adequate foundation for the miniature wash basin and its supplying and draining facilities, whereby the basin is at all times available for individual use, or use while the commode bowl is occupied in either up or down positions.

Numerous other objects and advantages of the invention will become more readily apparent from the following description, in the claims and, the accompanying drawings.

In the drawings, wherein like numerals are employed to designate like parts throughout the views:

Figure 1 is a side elevational view of a bedside toilet having complemental facilities and constructed in accordance with the principles of the present invention;

Figure 2 is a top plan view of same showing the toilet seat removed from its rack and in position for use;

Figure 3 is an end elevation of the structure seen in Figures 1 and 2 observing same in a direction from right to left;

Figure 4 is an enlarged end view, based on Figure 3, showing the wash basin by itself;

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Figure 5 is a central vertical sectional view on the line 5—5 of Figure 4, looking in the direction of the arrows;

Figure 6 is an elevational view of a modification wherein the basin has a trap attached thereto;

Figure 7 is a fragmentary side elevational view of the multiple conduit hose means constructed in accordance with the principles of the invention;

Figure 8 is a view of the hose means based on Figure 7 and showing the section of the hose means stretched to assume an elongated form;

Figure 9 is a central longitudinal sectional view through said hose means based on the showing in Figure 7 and taken on the line 9—9 of Figure 10;

Figure 10 is a section on the line 10—10 of Figure 7;

Figure 11 is a fragmentary elevational view showing the reinforcing spring which is adapted to be embedded in and to form a part of the hose means of Figures 7, 8, 9 and 10.

Before taking up the detailed description, I deem it advisable to direct the attention of the reader to U. S. Patent 2,428,462 covering a portable flush-type commode granted to me under date of October 7, 1947. Reference being had to said patent, it will be seen that it has to do with a dual purpose water closet or toilet construction which may be simply described as a bed-toilet. The patented construction, briefly visualized, is characterized by a bodily shiftable base, a perpendicularly raisable and lowerable commode bowl on the base, a flush valve equipped conduit for supplying water under pressure to the bowl, said conduit being of elongated flexible and bendable form and adapted to be connected at its intake end to a conventional source of supply, there being a second conduit also connected to said bowl and adapted for connection at its discharge end with a soil or waste pipe, said second conduit also being flexible, both of said conduits being of substantial length to permit the bowl to be freely shifted about from place to place in the room and employed for use at selected points of vantage for dual purpose utility, means being interposed between and connected with the base and bowl for moving the latter toward and from the base, whereby to permit said bowl to be elevated and lowered to assume predetermined horizontal low and high positions for selective use as a regular or conventional type toilet on the one hand and as a bedpan, on the other hand.

Since developing the stated dual purpose bed-toilet, covered in said patent, I have simplified the commode bowl construction by removing the flush valve therefrom and also the water seal or trap. Therefore, in my latest version of the apparatus I install the trap on the floor at a point remote from the bowl, and install the flush valve at an elevated point on a stand pipe adjacent to the floor attached trap. Attention is therefore directed to the structure covered in my copending application Serial No. 769,242, entitled Combination Flush-Type Toilet and Bedpan, filed under date of August 18, 1947.

In carrying out the principles of the instant invention I have found it expedient and practicable to utilize the mobile support and bowl assembly and to mount the special utility wash basin or lavatory on the shelf-like extension of the commode bowl. In addition, I have augmented the hose means and instead of the dual

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hose arrangement disclosed in Serial No. 769,242, I now employ a multiple hose assembly wherein I utilize five conduits, one for supplying fresh water to the bowl, one for discharging the bowl into a waste pipe, one to supply cold water to the basin, another to supply hot water to the basin, and a fifth one to provide, if desired, fan controlled ventilating facilities for the bowl and basin combined.

Inasmuch as many of the parts disclosed in the accompanying drawings constitute the subject matter of my copending application Serial No. 769,242 said parts will be described with expected brevity. To this end, the mobile support or stand is denoted, as a unitary structure, by the numeral 15, the same embodying a horizontal bottom frame 16 with supporting casters 17. The numeral 18 denotes an elevated bowl rest which, as shown in Figure 1, includes struts 19, these being interposed between the frames 16 and 18, and having adapter hooks 20 for retaining a conventional type toilet seat in a vertical out-of-the-way position. The toilet seat is operatively connected with a pair of parallel tracks 22, the specific details of which will be found in my stated copending application. The commode bowl is denoted by the numeral 23, is provided with a standard type integral patient seating and bowl flushing rim 24 and is provided with a shelf or block-like mount 25 situated on one longitudinal side of the bowl and located at a point intermediate the opposite transverse end portions of said bowl. The top of the bowl has an adjuster ring 26 with an anti-splash shield 27, said ring being swivelly attached to the bowl by a suitably fixed annulus 28. Thus, as seen in Figure 2, the toilet seat 21 may be raised up out of a rack and brought into position for use, as here illustrated.

As brought out in Figure 1, the shelf-like extension 25 is provided with attaching and adjusting sleeves 29 and these are slidably mounted on vertical parallel uprights 30 attached to and rising from the base structure. The bowl 23 is shallow at the left and deepened at the right, as seen in Figure 1, where it is provided with a discharge nipple 31 to which a relatively large waste-conducting hose or conduit 32 is operatively connected. A smaller complemental hose is denoted at 33 and this is the one which supplies water under pressure to the bowl, the same being connected at its upper end, as at 34, to the bowl, or rather to the flush rim of said bowl. The other end of hose 32 is connected with a trap (not shown) and the corresponding end of hose 33 is connected with a suitable flush valve (not shown). The numeral 35 denotes a pull cord operable through a guide 35a and situated on the shelf and provided with a finger ring 36 which is conveniently located to permit the user of the bowl to trip the flush valve (not shown), in an obvious manner.

It is within the purview of this invention to utilize the small lavatory or wash basin with or without the portable flush type commode structure just briefly described. This will be evidenced by considering again the introductory portion of my description and will be further evidenced from the accompanying claims. However, for practical purposes I have found it highly desirable to install the basin on the shelf or extension 25 so that the same may be used either individually or in conjunction with the bowl. Incidentally, miniature type wash basins are not new in hospitals and, therefore, the general shape and style

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of the basin, denoted by the numeral 37 is similar to those found in hospitals permanently installed on corridor walls and elsewhere. Reference being had to Figure 5 it will be observed that the basin has faucet or spigot means 38 with hot and cold water controls 39 and 40 (see Figure 4). A single goose neck type mixing nozzle or spigot is provided as at 41. Also, as shown in Figure 4, the numeral 42 denotes a pipe which supplies the cold water valve and the numeral 43 a similar pipe which supplies the hot water valve. These are provided with appropriate fittings 44 which are attached to the stated shelf, whereby to accommodate respectively an elongated flexible cold water delivery hose 45 and a correspondingly constructed and arranged hot water supply hose 46. Hose 45 is connected at its lower or intake end with a cut-off and regulating valve 47 which is in turn connected with a suitable source of supply. Hose 46 is connected at its intake end with a correspondingly arranged cut-off and regulating valve 48. Incidentally, in Figure 1 the numeral 49 designates a room wall or the like which, in keeping with my ideas, will be provided with a vent pipe 50 to accommodate an appropriately constructed ventilating fan 51. The fan equipped duct is connected with a fifth hose which is denoted by the numeral 52 and which is, obviously, for ventilating the commode bowl and incidentally the basin which is mounted on said commode bowl. Referring again to the basin, it will be seen that the depending drain tube or duct 53 connects at its lower end, as at 54, to the bowl discharge neck 31. It follows, therefore, that the fecal matter and liquid effluent conduit or hose 32 provides the ways and means whereby said basin is drained and evacuated. It is important to consider at this point that by utilizing the miniature wash basin as a part of the commode bowl, both basin and bowl have mechanically connected common discharge means. Reference being had again to Figure 5, the bowl is provided with an overflow duct 55 and an overflow inlet 56, said duct having a gravitation extension 57 which empties into the drain 53. The numeral 58 denotes a stopper for the basin suitably anchored on a fastening chain or the like 59.

It is an important phase of the invention to take into consideration the fact that all five of the hose lines are combined into what may be described as a unitary conduit assembly. Reference being had to Figure 10, it will be seen that each hose is of rubber or equivalent material and is longitudinally extensible and contractible and that the inner lining of each is smooth-surfaced, for instance as at 59', to prevent clogging. An inelastic accordion-like wrapper 60 encases all five conduits and its accordion construction permits the same to extend and contract. In Figure 7 we see the normal contracted position of the casing distended and in Figure 8 we observe said conduit means extended and reduced in diameter. It is also a feature of the invention to incorporate in each hose line a coiled helical reinforcing spring 61. In so doing each hose line is allowed to lengthen and shorten as conditions require. However, at the same time, each line is kept open and is prevented from collapsing and unnecessarily restricting passage of water, fecal matter, and air, as the case may be.

It is evident that a practical hose in a hose assembly of the type herein shown and described must be of sufficient flexibility to compensate for shortening and lengthening requirements and in addition the hose must be smooth lined on the

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interior to prevent adherence of accumulations, particularly the soil hose, and each hose must be sufficiently strong that it will not collapse and cut off the passage of liquid therethrough.

Reference being had to Figure 6, the basin corresponds to that shown in the other figures with the exception that the drain 53 includes, as an optional feature, a goose-neck trap or water seal 53a.

This mobile-supported commode-basin will aptly fulfill the general requirements of a room appliance of this type. It can be readily wheeled about and carted from place to place, shoved beneath the bed or into a closet to be out of the way, can be maneuvered and employed between beds, utilized alongside the bed, and what is most important, can be wheeled into position near the bed, after which the patient can swing and bring it into use and thereafter push it out of the way, as conditions require. In other words, due to the mobility of the carriage and the flexible accommodation possibilities of the hose connections, it lends itself admirably well to serve the patient and relieve nurses and attendants of what would otherwise be endless and disconcerting chores.

I desire to stress that phase of the invention which I consider to be an innovation, that is, the ready availability of the device in that it can be moved toward and from the bed at the proper elevation, swung over the bed and used, then swung out of the way and shifted to a place where it will be positioned when not needed for use.

A careful consideration of the foregoing description in conjunction with the invention as illustrated in the drawings will enable the reader to obtain a clear understanding and impression of the alleged features of merit and novelty sufficient to clarify the construction of the invention as hereinafter claimed.

Minor changes in shape, size, materials and rearrangement of parts may be resorted to in actual practice so long as no departure is made from the invention as claimed.

Having described the invention, what is claimed as new is:

1. In a structure of the class described, a flexible hose embodying a plurality of conduits, one to supply pressured flush water to a commode bowl, one to drain fecal matter and liquid from the bowl, a third conduit to supply hot water to a small basin used in connection with the bowl, a fourth conduit to supply cold water to said basin, and spring means embodied in the individual and respective conduits to permit same to be longitudinally extended and contracted, in the manner and for the purposes described.

2. A mobile flushable bedpan and wash-basin unit comprising a mobile supporting member, a flushable bedpan carried on said supporting member, a wash-basin carried on said supporting member, said bedpan and wash-basin being vertically adjustable as a unit on said supporting member to position the bedpan or wash-basin at a selected suitable height for convenient use, said bedpan and wash-basin each being movably connected to conduit means.

3. A movable flushable bedpan and wash-basin unit comprising a mobile supporting member, a flushable non-splashing bedpan carried on one side of said supporting member, a wash-basin carried on the opposite side of said supporting member and in a horizontal plane above the horizontal plane of said bedpan, said bedpan and wash-basin being vertically adjustable as a unit

on said supporting member to position the bedpan or wash-basin at a selected suitable height for convenient use, said bedpan and wash-basin each being movably connected to a common extensible and retractable effluent conduit means, and also connected to extensible and retractable conduit means for delivering water thereto.

4. A mobile bed-toilet and wash-basin combination comprising a bodily shiftable and maneuverable base, a perpendicularly raisable and lowerable head structure mounted on said base, a commode bowl and a separate basin carried on said head structure, said basin being in fixed elevated relation to the bowl on one side thereof; multiple conduit means connected at one end to said head structure, said means being of elongated flexible form and of sufficient length to permit the base to be freely shifted about from place to place and employed for use at selected points of vantage, said means embodying a conduit connected with and for supplying water under pressure to said bowl, a second conduit connected with said bowl and adapted for connection with a soil pipe, and additional conduits for supplying hot and cold water to said basin, the latter including a discharge emptying into said second conduit, means interposed between and connected with the base and bowl for moving the latter toward and from the base in order to permit said bowl to be elevated and lowered to assume predetermined horizontal low and high positions for selective use as a regular toilet on the one hand and as a bedpan on the other hand.

5. A mobile flushable bowl and wash-basin unit comprising a bodily shiftable support provided with a base, a perpendicularly raisable and lowerable flush rim equipped bowl, means on said base interposed between the base and the bowl and adapted to support the bowl when the latter is in a low position for use, a flush valve equipped conduit for supplying water under pressure to said bowl by way of said flush rim, fecal matter and flush water discharge means provided in said bowl, a second flexible conduit connected to the said discharge means and adapted for connection with a soil pipe, a wash-basin mounted on said support vertically adjustable as a unit with said bowl and located on one longitudinal side of said support for convenient use, conduit means for supplying the basin with water, discharge means provided in said basin communicating with said soil pipe, all of said conduits being flexible and of substantial length to permit said base, bowl, and basin to be freely shifted from place to place for use at selected points of vantage, and means interposed between the base and bowl and permitting the latter to be elevated to bed level for use alongside of or over a bed or to be lowered to assume a predetermined horizontal low position for sitting use out of and alongside the bed.

6. A mobile flushable commode and wash-basin unit comprising a portable support, a commode bowl positioned on one side of said support, means cooperable with the bowl and support whereby the bowl may be positioned for use as a bedpan in an elevated position and as a standard-type toilet in a lowered position, a wash-basin positioned on said support on the side opposite said commode bowl and having discharge means, said bowl and wash-basin being vertically adjustable as a unit, an elongated flush water supply hose connected

with the bowl at one end, a drainage hose connected with the bowl at the other end thereof, and hose means to supply water to said basin, said wash-basin being connected to said drainage hose.

7. A mobile flushable bedpan and wash-basin unit comprising a freely rollable base having bed-high upright means, a flushable non-splashing bedpan carried by said upright means on one side thereof, a wash-basin carried on the opposite side of said upright means, spigot means mounted on said wash-basin, said bedpan being adjustably connected to a source of flush water, said bedpan and wash-basin being vertically adjustable as a unit on said upright means and movable to a selected level, said bedpan and basin communicating with a common drain conduit, an elongated cold water supply hose connected with said spigot means and adapted for connection at its opposite end with a source of water supply, a second hot water delivery hose also connected at one end to said spigot means and connectable at its opposite end to a source of hot water supply.

8. A mobile flushable bedpan and wash-basin unit comprising a wheel supported base frame, a pair of uprights connected to and rising from one end of said frame, a flushable non-splashing bedpan carried by said upright means on one side thereof, said bedpan adjustably connected to a source of flush water, a shelf extending from one end of said bedpan disposed in horizontal parallelism above said base frame and adjustable as a unit with said bedpan up and down on said uprights to a selected level, a wash-basin rigidly mounted on and above said shelf having a drain, a flexible drainage conduit communicating at one end to the drain of said basin and said commode and connectable at its opposite end to a waste pipe, spigot means having a goose-neck nozzle overhanging and attached to said basin, and cold and hot water delivery hose having corresponding ends attached to said spigot means and having their opposite ends connectable to a suitable source of water supply.

ISADORE LEVIN.

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