Feb. 28, 1950 R. R. FREUND 2,498,736

LAVATORY AND LIKE FOR ARTICULATED BEDS

Filed Aug. 11, 1944

FIG. 1

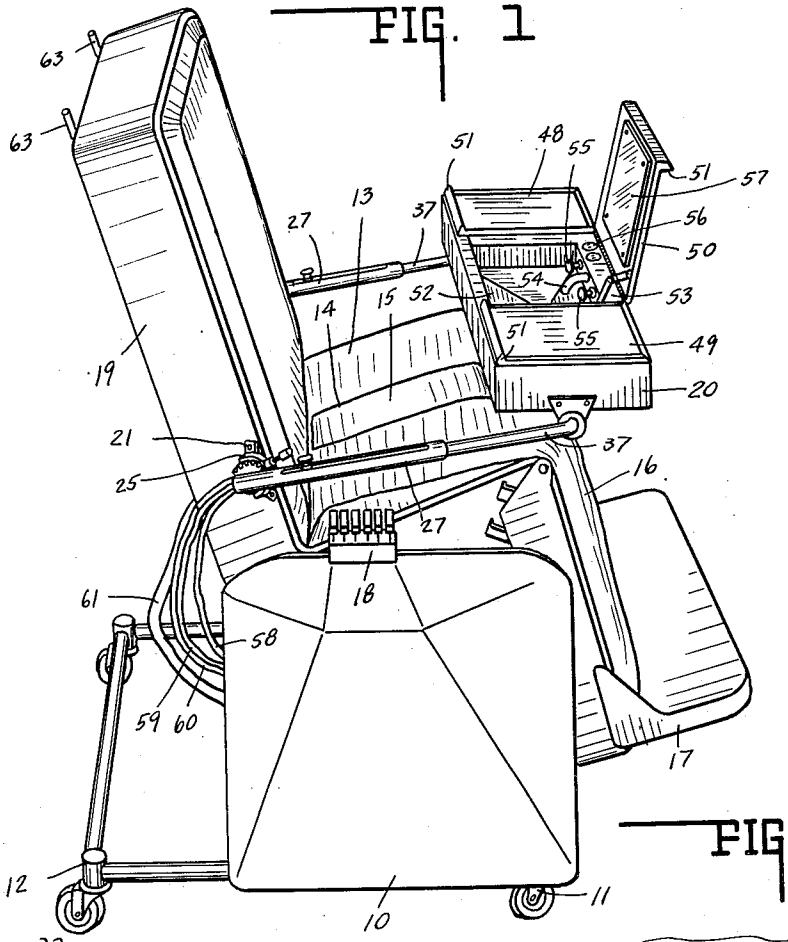


FIG. 2

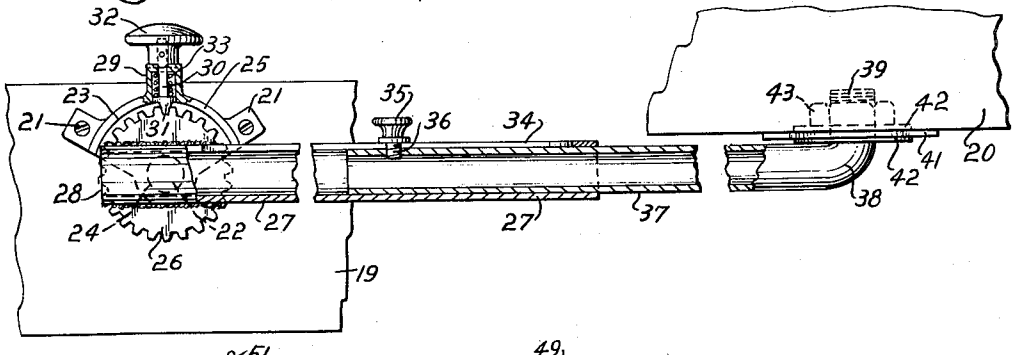
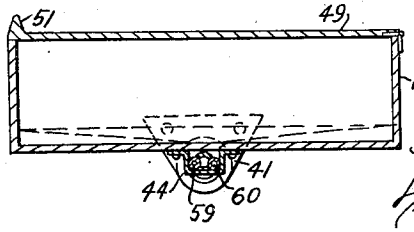


FIG. 3



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LAVATORY AND LIKE FOR ARTICULATED BEDS

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3 Claims. (Cl. 4—169)

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This invention relates to an articulated lavatory fixture adapted for adjustable mounting upon a bed structure suitable for invalid and hospital use.

The chief object of this invention is to provide a sanitary or lavatory fixture capable of multiple use and capable of use in a plurality of positions with respect to such supporting bed dependent upon the desired use, or capable of being positioned entirely out of the way with respect to bed use whenever desired or required.

The chief feature of the present invention resides in pivotally and adjustably supporting a lavatory or like fixture.

Another chief feature resides in the multiple compartment character of such lavatory fixture and the inclusion therein of a toilet bowl, hot and cold water supply thereto, drain therefrom, storage compartments, electrical outlets and the like.

Other objects and features of the invention will be set forth more fully hereinafter.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims:

In the drawings—

Fig. 1 is a perspective view of an articulated bed structure with a portion of its supporting base extended, its seat and back sections elevated, its leg section lowered and equipped with an adjustable foot rest, the lavatory fixture being shown in forward lowered position and with one compartment open for use.

Fig. 2 is an enlarged longitudinal sectional view of one of the fixture supporting arms and associated parts.

Fig. 3 is a transverse sectional view through the fixture.

In Fig. 1 of the drawings 10 indicates a side panel structure of a frame provided with extensible supports 11 and 12. Pivotally supported by said frame is the seat section 13 having therethrough an opening 14 closed by a removable plug 15. The latter may be replaced by a pan structure as and when desired, all as well understood in the art.

Pivotally connected to the forward end of seat section 13 is leg section 16 and adjustable thereon is foot rest 17.

Carried by one side panel structure is a control unit 18 having independent controls, nurse as well as occupant operable for bed pan, plug, foot rest, seat section, leg section and back section positioning, the back section 19 being pivoted to the frame and tiltable from a substantially horizontal to a substantially vertical position and vice versa. The respective motive means for effecting such actions is not illustrated herein, same being omitted for brevity.

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Since the lavatory fixture 20 is capable of selective positioning relative to the back section 19, which in turn is capable of selective positioning as well as the other sections, the aforesaid brief description of the bed and its cooperative portions appears highly desirable before proceeding to a detailed description of the embodiment of the lavatory fixture and its support selected for illustration herein.

The fixture 20, see Fig. 1, can be positioned closer to the back 19 and when so positioned, and the left hand support 12 is positioned relative to frame 10 as the right-hand support is illustrated in Fig. 1, and leg section 16 with foot rest 17 is fully retracted, thus requiring no more head-room clearance than that necessary to pass the back section when erected, the bed then can readily pass through a door opening and the bed can be moved from room to room without dismantling.

Suitably secured to each side of section 19 as at 21, see Figs. 1 and 2, is a bracket 25 having an arcuate portion 23 that is coaxial with pivot 22. Pivot 22 is rotatably supported in bearing 24 rigid with the bracket 25. Pivot 22 projects through the bearing and is suitably secured therein against axial displacement. Rigid with pivot or shaft 22 is gear 26, which is interposed between the bracket and a tubular arm 27 to which it is laterally secured. The adjacent end 28 of said arm is open.

Arcuate portion 23 is concentric with gear 26 and the former includes a radially chambered boss 29 in which is slidable plunger or stem 30 having tooth or dog 31 for gear engagement. Knob 32 on the upper and exposed end of the dog stem is arranged to retract the dog from gear engagement in opposition to chamber enclosed spring 33, so that the tubular arm 27 may be pivotally adjusted and locked in such position.

Tubular arm 27 is longitudinally slotted as at 34, see Fig. 2, and riding in said slot is thumb screw 35, threaded as at 36 into an inner tubular arm 37. When screws 35 are loosened, arms 37 may be adjusted longitudinally of arms 27. When the screws 35 are screwed home, arms 37 and 27 are clamped together in the longitudinally adjusted position. Of course, whenever pivotal adjustment of the arms is desired the dog 31 is retracted from the gear 26, the arm is suitably

tilted and then the dog is released to gear engagement for arm locking.

Reference will now be had more particularly to Figs. 2 and 3. Therein tubular arm 37 at its outer end includes an angle or elbow portion 38 externally threaded at 39. Note that the right end of Fig. 2 shows these parts displaced 90° for clearness and from their actual position corresponding to the left hand portion of said figure.

Herein there is suitably secured, as by spot welding 40 or the like, to the fixture end wall the triangular, perforated plate 41, same including boss 42. Beneath the fixture 20 and on the threaded end 39 is mounted washer 42 and nut 43 for anchoring end 38 to the fixture.

It is to be understood that there is suitably secured to the bottom of the fixture 20 the channel 44 which has a readily removable portion so that the several conduits and wires can be readily exposed for inspection, installation and repair purposes.

As illustrated in Fig. 1, the fixture 20 includes three compartments, each of which is closed by a hinged lid 48, 49 and 50. One edge of same is provided with a rail edge 51 so that the fixture may serve as a book or magazine support, etc. One compartment may contain a radio device exposed when the cover 48 is opened for radio control and station adjustment purposes.

The central compartment 52 has a false bottom that drains to a central outlet not shown, but which can be suitably stoppered. This compartment includes a forward panel 53 provided with a faucet 54, hot and cold water valves 55 and electric outlets 56. The compartment closed by cover 49 is adapted to contain toilet articles, make-up items, wash cloths, towels, electric razor, electric curling iron, etc.

The radio, iron and razor may be connected to outlets 56. The back of cover 50 is provided with mirror 57. Thus the patient can wash, shave or make up, or the like with parts positioned as shown in Fig. 1.

Electric supply lines 58 enter the open end 28 of one tubular arm 27 and pass into channels 44 and 45 to outlets 56. Hot water supply line 59 and cold water supply line 60 similarly pass through the aforesaid channels and connect to the valve fixtures 55 in turn connected to faucet 54. A drain or waste line 61 enters the opening 28 of the other arm 27, passes through the other tube 37 and into channel 46 and connects to the outlet in the bowl 52.

Note that longitudinal adjustment of arms 37 relative to arms 27 merely draws the conduits and wires into the arms, or ejects a certain portion thereof as arms 37 are projected or retracted. A separation unit for the drain for cleaning purposes, etc., may also be provided.

To prevent excessive rearward tilting of said fixture relative to back section or downward dropping the head end of the back section is provided with stops 63, which are angular and the normally exposed end is covered. The other end is rotatably supported. Hence, when desired, the stops can be turned from the position shown in Fig. 1 to a position where the projected portion lies parallel to the head end surface of the back section, and is concealed thereby.

While the invention has been illustrated and described in great detail in the drawings and foregoing description, the same is to be considered as illustrative and not restrictive in character.

The several modifications described herein as well as others which will readily suggest themselves to persons skilled in this art, all are considered to be within the broad scope of the invention, reference being had to the appended claims.

The invention claimed is:

1. In a sanitary fixture the combination of a pair of appreciably spaced outwardly directed relatively stationary pivots, a pair of parallel arm structures disposed outwardly thereof and at corresponding ends being pivotally supported by said pivots, a toothed arcuate member carried by one arm structure at the pivoted end and coaxial with the pivot axis, a locking tooth movable radially with respect to the pivot axis for selective engagement with the toothed member for arm locking purposes, a fixture of a length approximately that of the distance between pivots, and a pair of aligned pivots interposed between the ends of said fixture and the other ends of said arm structures.

2. A fixture as defined by claim 1 wherein each arm structure is tubular, the first mentioned end thereof being open for conduit purposes, the other end terminating in the second mentioned pivot and being tubular and open at that end.

3. A fixture as defined by claim 2 wherein each arm structure comprises a plurality of telescopically associated tubes for linear adjustment of the arm structure.

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