UNITED STATES PATENT OFFICE

2,432,147

BATH AND LAVATORY SUPPLY CONSTRUCTION FOR BED STRUCTURES

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Application August 11, 1944, Serial No. 548,983

1. Claim: (Cl. 5—317)

This invention relates to a bathtub device for use with a hospital bed.

The chief object of this invention is to provide means whereby a bed patient may be bathed in a tub instead of given a so-called sponge bath as hitherto has been the case.

The bed illustrated herein is of articulated type and includes a toilet or pan structure and a sanitary attachment. The bed may be of the type illustrated in Patents No. 2,261,900, No. 2,279,307 and No. 2,308,993, dated November 11, 1941, April 14, 1942, and June 19, 1943, respectively, or of the type illustrated in copending applications Serial Nos. 587,220 and 548,981 filed May 25, 1944, and August 11, 1944, respectively. The sanitary fixture may be of the type illustrated in any of said applications. Herein the toilet structure illustrated is of the first mentioned application type and the sanitary fixture is of the second mentioned application type. The toilet device provides the drain for the tub and the sanitary device provides the hot and cold water supplies to the tub as hereinafter pointed out.

The chief feature of the present invention resides in a bed, conforming, bed sustained bath tub supplied with water from a sanitary fixture on and a part of the bed and wasting to a toilet or pan structure, also a part of said bed.

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 drawing and the following description and claim:

In the drawings

Fig. 1 is a perspective view of an articulated hospital bed equipped with a toilet or bed pan device and an overhead sanitary fixture and with the tub structure supported by and conforming to the bed, the latter having its portions horizontally aligned.

Fig. 2 is a longitudinal sectional view of the tub, the upper part of the tub supporting bed portions and a bed included toilet device disposed in a central aperture of the bed seat portion.

In Figs. 1 and 2 of the drawing there is illustrated an articulated bed of the character referred to and the frame 10 pivotally supports a back section 11 of said bed and also supports a seat section 12 to which is pivoted a leg section 13 provided with an adjustable footrest 14. These movable parts through mechanism not shown can be patient controlled at the control station 9.

Each bed section suitably supports by means not shown a mattress portion correspondingly designated by the superscript "a." The seat section 12, whether rigid with the frame 10 or tillable thereon, includes a central aperture 15, see Fig. 2. Positioned therein, when desired, is a toilet device 16, see Fig. 2.

Pivoted mounted at opposite sides of the bed are the extensible tubular arms that at their free ends tillably mount a sanitary fixture structure 17 which includes a central bowl portion which can be covered. Within the same is an outlet or faucet 18 connected at 19 to two hot and cold water supply lines 19 and 20, each line being valve controlled as at 19 and 20. The supplies are preferably introduced to the aforesaid through the tubular arms 22. The resulting U-shaped structure is locked in adjusted tilted position by suitable means not shown herein, the arm length is adjusted and fixed at 22 and the structure 17 on the ends of the arms is yieldingly locked in adjusted tilted position by means not shown herein. A hose 23, with shower or spray head outlet 24, is attachable to faucet 18 as shown and when desired.

The tub includes a bottom 25 of rubber, rubberized fabric or similar material to which is vulcanized or otherwise suitably secured a central outlet 26, the same being adapted to register with and waste to the toilet 16, see Fig. 2, when the stopper 27 having flat portion 28 is removed from outlet 26.

The tub has a tubular side wall 29, the inner side 31 being inclined upwardly and outwardly and the outer side 32 is inclined upwardly and inwardly. A conventional air valve structure 33 may be provided for wall inflation purposes. The wall 29 also being flexible as well as the bottom 25, the tub conforms to the bed surface and is supported thereby.

The patient can be rolled from one side to the other for mounting the collapsed tub upon the bed and then the wall can be inflated. The outlet or waste then can be closed and water supplied at the desired temperature to said tub from faucet 18, hose 23 and nozzle 24. The same also can be used for shower spraying of the patient, for washing off the soap and the like and following tub drainage for washing out the tub after bath completion. The patient then can be dried in the empty tub and then the latter dried and collapsed for removal from the bed.

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
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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 claim.

The invention claimed is:

In combination a bed having a central aperture therethrough, a toilet device in registration with the aperture, an inflatable tub having pneumatically sustained sidewalls and a bottom, the latter resting upon the bed for tub and tub contents support, said walls retaining the tub contents, the tub bottom having an aperture therein registerable with the bed aperture and toilet for tub drainage through the bed bottom to the toilet, and content retaining and seatable closure means for closing the tub aperture and removable therefrom from within the tub for tub drainage, U-shaped means straddling the bed, the arms of said U-shaped means being pivoted at the ends to the bed and tiltable thereon, said U-shaped means having a central portion between the arms and disposable above the bed, hot and cold water supplies to said central portion, supply controls for said supplies, a single discharge means for said supplies and controlled by the controls, flexible means connectible at one end to the said discharge means for tub filling purposes, and a spray head at the other end of said flexible means for the purpose described, the controls being bed occupant operable when the central portion is tiltably adjusted on the bed for disposition above the tub.

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