

[54] **PORTABLE BEDPAN CARRIER**

[72] Inventor: **Wilbur O. Thompson**, 815 South Second St., DeKalb, Ill. 60115

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[58] Field of Search .... 214/620, 621; 5/81, 86, 317, 5/90, 92; 4/110, 10, 112, 113, 159

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*Primary Examiner*—Gerald M. Forlenza

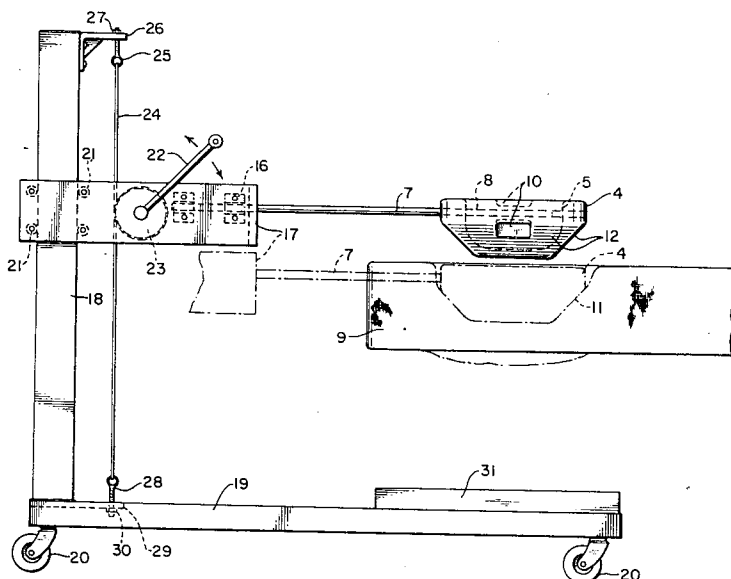
*Assistant Examiner*—Robert J. Spar

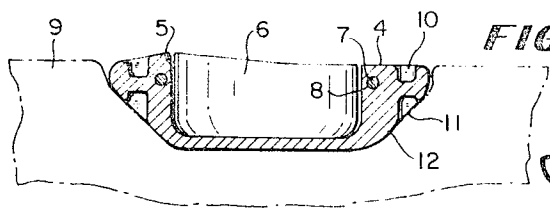
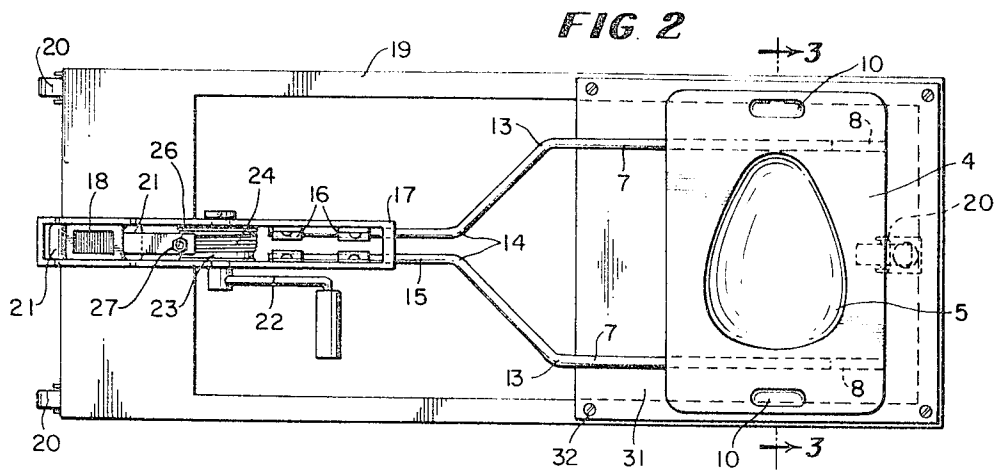
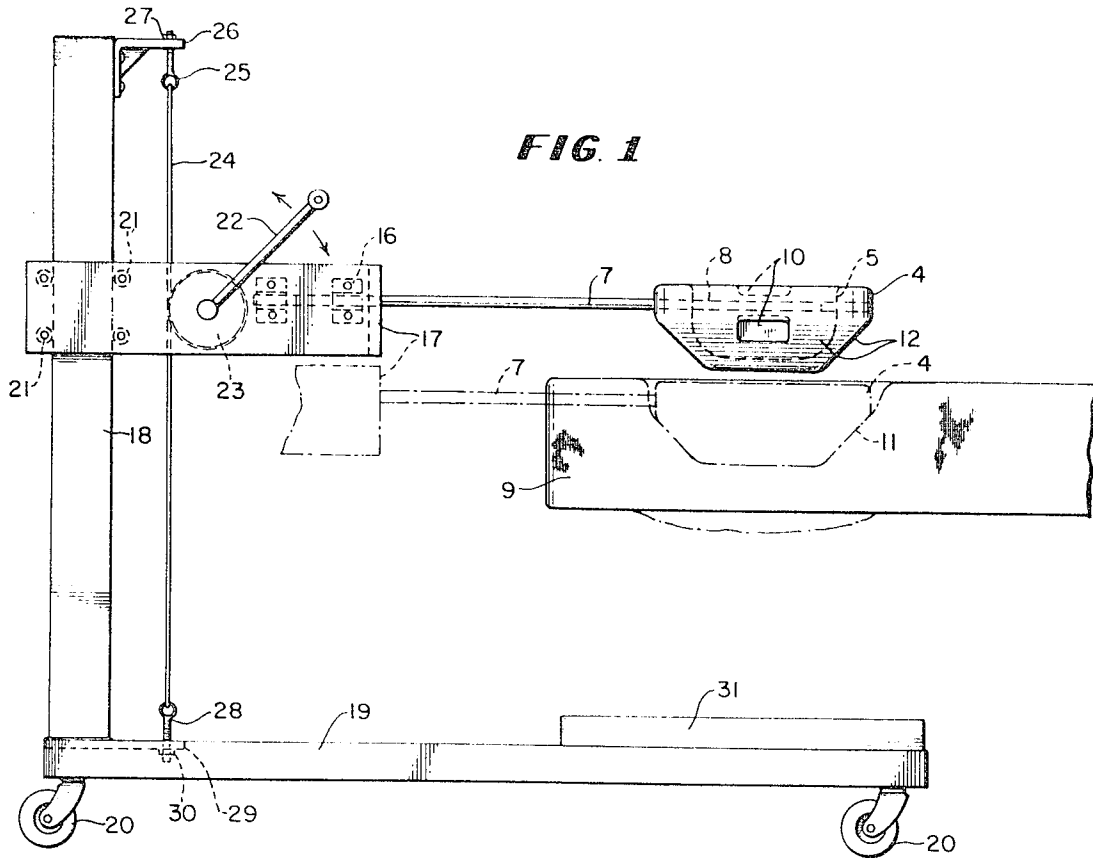
*Attorney*—Andrew F. Wintercorn

[57] **ABSTRACT**

A cart having a vertical post thereon is run into place adjacent a bed and a frame that is adjustable vertically on the post by operation of a hand-crank, supports a bedpan carrier is of tapered form at least marginally of the bottom to facilitate its impression into the mattress and that extends over the mattress on the bed and is adapted to be impressed into the mattress to the point where the bedpan in the carrier is disposed substantially flush with the top of the mattress with minimum open space left around the carrier. After use of the bedpan, the carrier with the bedpan in it, is removable from the support to facilitate emptying the bedpan and cleaning and sanitizing both the pan and carrier.

**11 Claims, 3 Drawing Figures**





INVENTOR:  
WILBUR O. THOMPSON

*Andrew H. Wintercorn*  
ATTORNEY

## PORTABLE BEDPAN CARRIER

This invention relates to a new and improved bedpan carrier and portable cart therefor with novel means on the cart for raising and lowering the carrier relative to a bed so that the bedpan in the carrier, by reason of impression of the carrier in the mattress, can be disposed with the top thereof substantially flush with the surrounding mattress, the carrier being of tapered form at least marginally of the bottom to facilitate its impression into the mattress to the necessary depth and insure the mattress hugging the carrier closely, leaving minimum space between it and the mattress at the upper margins.

Another object is to provide a device of the character described having a novel form of taut cable and windlass means easily operable by hand for raising and lowering the carrier support relative to a vertical guide post on the cart, thus offering the important advantages of quietness and smoothness of operation along with simplicity and economy of construction.

Another object is to provide the carrier with parallel horizontal holes on opposite sides of the cavity provided therein to receive the bedpan, these holes permitting slidable mounting of the carrier on parallel supporting rods whereby to enable not only the removal of the carrier readily from the supporting rods with the bedpan in place after use, so that both can be cleaned properly and sanitized after each use, but also to permit a certain amount of adjustability of the carrier and pan laterally with respect to the bed in the event the cart does not happen to be stationed quite correctly with respect to the bed and patient, efficiency in the handling of the bedpan both before and after its use being, of course, highly important, for which reason the supporting frame is also preferably slidably adjustable endwise relative to the support.

The invention is illustrated in the accompanying drawing, in which:

FIG. 1 is a side view of a bedpan carrier and its supporting cart made in accordance with my invention and illustrating by full line and dotted line positions of the carrier the novel mode of operation;

FIG. 2 is a plan view of FIG. 1, and

FIG. 3 is a cross-section on the line 3—3 of FIG. 2.

The same reference numerals are applied to corresponding parts throughout the views.

The carrier 4, which for lightness and strength, may be cast of aluminum alloy or other light material to a generally rectangular form, as seen in FIG. 2, with a cavity therein lengthwise thereof, to accommodate a bedpan 6 of conventional form and dimensions, is slidably, adjustably mounted on parallel rods 7 freely received in parallel holes 8 provided in the carrier adjacent opposite ends of the cavity 5, whereby to permit a slight change in the position of the carrier 4 with respect to the mattress 9 on a bed in a hospital or nursing home, or wherever the present device may be used. If desired, handles may be defined on or in opposite ends of the carrier 4, as indicated at 10, so that after use of the bedpan 6, it need not be removed from the carrier 4, but can be carried to the point where the pan is emptied and both the carrier and bedpan can thereafter be cleaned and sanitized for use by another patient.

Inasmuch as the carrier 4, in accordance with my invention, is to be impressed into the mattress 9, as illustrated at 11 in FIGS. 1 and 3, at least the marginal portion (if not more) of the carrier is tapered as shown at 12 to facilitate this operation and at the same time cause the mattress to hug the bottom of the carrier more closely all around, leaving a minimum amount of space between it and the mattress at the upper margin when the carrier 4 is impressed to the extent shown in FIG. 1, with the top thereof substantially flush with the surrounding mattress.

The rods 7 supporting the carrier 4 are bent horizontally inwardly toward one another, as indicated at 13, and horizontally outwardly again, as at 14, to provide the closely spaced parallel end portions 15 which are slidably adjustable in guides 16 in a substantially horizontal supporting frame 17 which is guided for vertical movement with respect to a supporting

post 18 on a cart 19. The cart is three-wheeled, two caster wheels being provided, as at 20, at one end of the cart on opposite sides, and the third at the other end on the longitudinal center line thereof. Rollers 21 in the frame 17 bear against the flat opposite sides of the post 18 for anti-friction bearing support of the frame on the post, so that regardless of the amount of pressure exerted downwardly by the frame 17 on the carrier 4 through the supporting rods 7 when impressing the carrier into the mattress 9, there will be no tendency for a binding action at the post 18, and it will accordingly require less effort on the part of the operator to position the carrier properly with respect to the patient. A hand crank 22 turns a windlass pulley 23 mounted for rotation in the frame 17 in front of the post 18, and this windlass has the taut steel cable 24 wound around it a number of turns intermediate the ends of the cable, one end of the cable being secured to a bolt 25 adjustable vertically relative to a bracket 26 on the upper end of the post 18 by means of a nut 27, while the other end of the cable is fastened to a similar bolt 28 adjustably secured to the platform of the cart 19, as at 29, by means of another nut 30. For proper functioning of the device, the cable 24 must be kept under tension. A heavy metal plate 31 secured, as at 32, to the platform of the cart 19 adds enough weight thereto to offset the tendency for it to be raised off the floor when the carrier 4 is forced down into place in the mattress 9 by manual operation of the crank 22. In lieu of the weight 31, other means may, of course, be provided as, for example, means extensible upwardly from the cart to engage the underside of the bed frame to maintain a given spaced relationship therebetween while the carrier 4 is being impressed into the mattress 9.

In operation, the patient, for whom the bedpan 6 is intended, is first rolled to one side of the bed on the mattress 9 and the bedpan carrier 4 containing the bedpan 6 is superimposed over the mattress from the other side of the bed. Then the crank 22 is operated in a clockwise direction to press the carrier 4 down into the mattress, as shown in dot-and-dash lines in FIG. 1, until the upper surface of the bedpan 6 is in substantially the same plane with the surrounding mattress. The patient is then rolled back over the pan. This is easier on the patient if he is lying down because his buttocks will be no higher than his head or feet. It is also easier on the patient if he is sitting, because then he will not be top-heavy. The patient and the nurse or nurses find it beneficial also because there is no need for the patient having to be lifted onto the bedpan and later off again. After use of the bedpan, the crank 22 is, of course, turned in a counterclockwise direction to raise the carrier 4 and the cart is rolled to wherever the bedpan is to be emptied and cleaned. At that point the handles 10 permit removal of the carrier with the bedpan in it, making this handling of the bedpan that much more sanitary and efficient. The facility with which the carrier 4 can be pushed back and forth on the rods 7, or the rods 7 can be adjusted with respect to the support 17, all contribute toward increasing the efficiency of the entire operation as it is obvious that one may not get the cart 19 set precisely where it should be in relation to the bed at the outset and when a patient calls for a bedpan it usually becomes important to get the bedpan into proper position in the least amount of time necessary, so the minor adjustment that can be made with the carrier 4 or both the carrier and rods 7 to position the bedpan to best advantage in relation to the patient is very important.

It is believed the foregoing description conveys a good understanding of the objects and advantages of my invention. While a preferred embodiment of the invention has been illustrated and described, this is only for the purpose of illustration, and it is to be understood that various modifications in structure will occur to a person skilled in this art.

I claim:

1. A device of the character described comprising a portable frame having a lower portion adapted to rest on the floor adjacent a bed, an upright rigid post extending upwardly therefrom alongside the bed, a substantially horizontal bedpan unit extending over the mattress on the bed and having sup-

porting means guided for up and down movement on said post, said unit comprising a carrier having a cavity in the top thereof deep enough to accommodate a bedpan therein with the top substantially flush with the top of said carrier, said carrier being of tapered form at least marginally of the bottom to facilitate its impression into the mattress and cause close contact of the mattress all around the carrier with minimum space left between the margins of the carrier and the mattress, said supporting means including horizontally spaced supports on which the carrier is slidably adjustable substantially horizontally relative to said supporting means whereby to enable horizontal adjustment of the carrier and bedpan therein relative to said portable frame and post and accordingly relative to the mattress independently of said portable frame and post, said spaced supports for the carrier being located near the top thereof so as to cause minimum depression of the mattress upon depression of the bedpan unit into the mattress, and means for positively moving said bedpan unit up or down relative to said post.

2. A device as set forth in claim 1 including means for maintaining a predetermined spaced relationship between the lower portion of said portable frame and the bottom of the frame of the bed during the compression of the mattress by said bedpan unit.

3. A device as set forth in claim 1 including weight on the portable frame to keep it down on the floor during the compression of the mattress by said bedpan unit.

4. A device as set forth in claim 1 wherein said bedpan unit is of generally rectangular form and tapered marginally of the bottom to facilitate its impression into the mattress providing a substantially flat central area of about half the area of the top and marginal portions that are inclined upwardly to cause close contact of the mattress all around the bedpan unit with minimum open space left between the margins of the bedpan unit and the mattress.

5. A device as set forth in claim 1 including handles on opposite ends of said carrier, said carrier being detachable from its supporting means to enable carrying the bedpan with it.

6. A device as set forth in claim 1 wherein said carrier is detachable from its supporting means to enable carrying the bedpan with it.

7. A device of the character described comprising a portable frame having a lower portion adapted to rest on the floor adjacent a bed, an upright rigid post extending upwardly therefrom alongside the bed, a substantially horizontal bedpan unit extending over the mattress on the bed and having supporting means guided for up and down movement on said post, said bedpan unit being adapted to compress the mattress locally in its downward movement to an extent where the top

seat surface of said bedpan unit is substantially level with the top of the surrounding mattress, and means for positively moving said bedpan unit up or down relative to said post, said carrier having a cavity in the top thereof adapted to receive a bedpan, the top of which lies substantially flush with the top of said carrier, the last mentioned means comprising a flexible cable stretched substantially vertically parallel to said post between the upper end of said post and said portable frame, a pulley around which an intermediate portion of said cable is wound, said pulley being rotatably mounted on said bedpan unit supporting means, and a manually operable crank for turning said pulley.

8. A device as set forth in claim 7 including anti-friction bearing means on said carrier supporting means having bearing engagement on said post.

9. A device as set forth in claim 1 wherein said carrier has a pair of spaced parallel substantially horizontal holes provided therein extending transversely relative thereto, the supporting means for said carrier comprising a pair of substantially horizontal correspondingly spaced rods slidably engaged in said holes and carried on a frame guided on said post for up and down movement, said carrier being slidably adjustable on said rods independently of said portable frame and post.

10. A device as set forth in claim 9 wherein said rods are also slidably adjustably mounted in the frame guided on said post.

11. A device of the character described comprising a portable frame having a lower portion to rest on the floor adjacent a bed, an upright rigid post extending upwardly therefrom alongside the bed, a substantially horizontal bedpan unit extending over the mattress on the bed and having supporting means guided for up and down movement on said post, said unit being tapered at least marginally of its bottom to facilitate its impression into the mattress in its downward movement to an extent where the top seat surface of said unit is substantially level with the top of the surrounding mattress with minimum open space left marginally of said unit, and means for positively moving said bedpan unit up or down relative to said post, said supporting means including a pair of horizontally spaced supports on which said unit is removably mounted and also slidably adjustable substantially horizontally relative to said supporting means whereby to enable horizontal adjustment of said unit relative to said portable frame and post and accordingly relative to the mattress independently of said portable frame and post, said spaced supports for the bedpan unit being located near the top thereof so as to cause minimum depression of the mattress upon depression of the bedpan unit into the mattress.

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