April 4, 1961 R. B. DYKES 2,977,603

RAMP BED-PAN

Filed May 22, 1959

FIG. 1

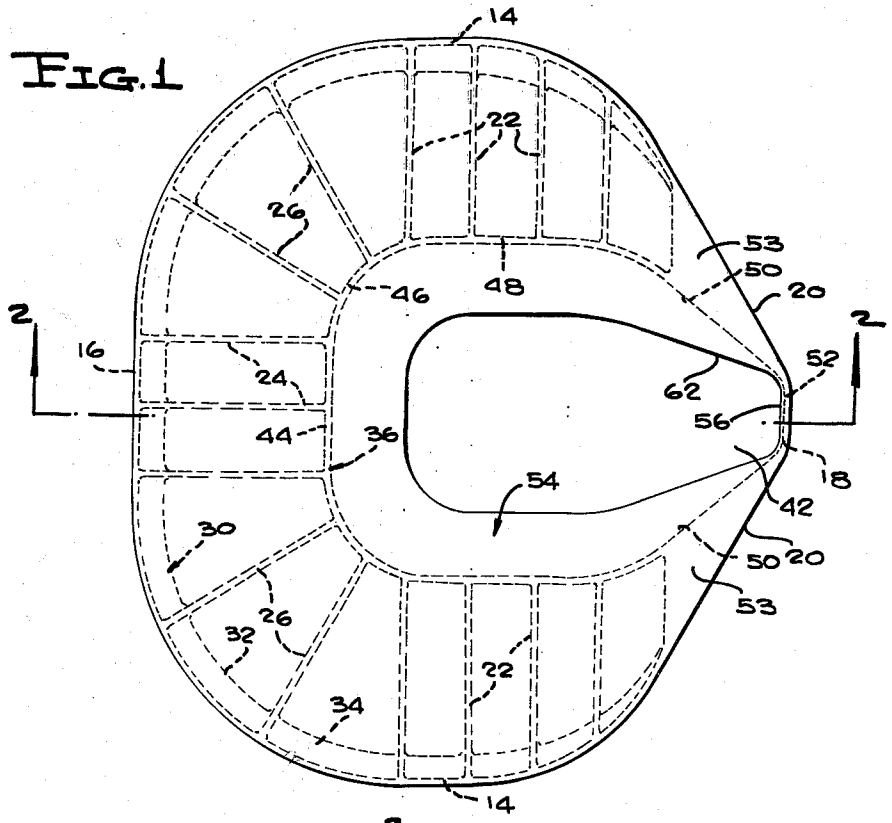


FIG. 2

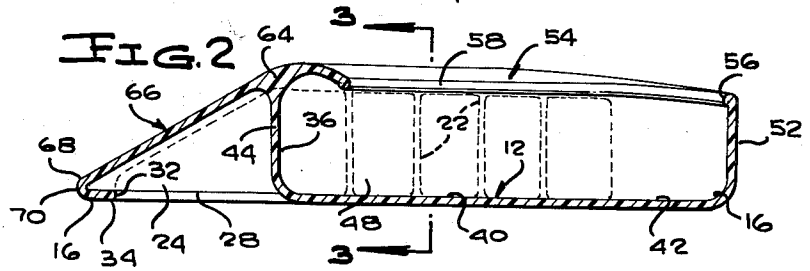
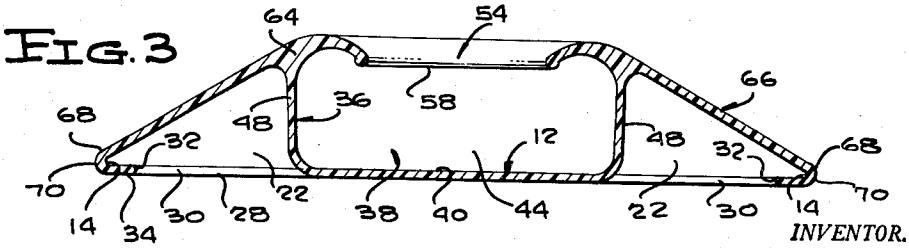


FIG. 3



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RAMP BED-PAN

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8 Claims. (Cl. 4—112)

This invention relates to an improved bed-pan of the type having ramp surfaces facilitating its being put under a bed patient.

The primary object of the invention is to provide a novel bed-pan of this kind which has ramp means extending around a major part of the circumference thereof, which terminates in a relatively thin peripheral edge, whereby a minimum of lifting or other displacing of a bed patient is needed to put the bed-pan under the patient, from either side of a bed or from other directions, and only one hand is needed for manipulating the bed-pan into place.

Another object of the invention is to provide a lighter weight and more comfortable bed-pan, in which flesh-pulling or rubbing elements are reduced to a minimum, and whose construction admits of its being made of light-weight and somewhat flexible or yielding materials, especially plastics, such as polyethylene, which warm quickly on contact with the patient and prevent chilling.

A further object of the invention is to provide easily sterilized bed-pans of the character indicated above, which while having an adequate or normal capacity, is not substantially larger than the usual bed-pan, and has an easy-pouring formation which facilitates emptying of the bed-pan.

Other important objects and advantageous features of the invention will be apparent from the following description and the accompanying drawings, wherein, for purposes of illustration only, a specific form of the invention is set forth in detail.

In the drawings:

Figure 1 is a top plan view of a bed-pan of the invention, with internal structure indicated in phantom lines;

Figure 2 is a vertical longitudinal section taken on the line 2—2 of Figure 1; and

Figure 3 is a vertical transverse section taken on the line 3—3 of Figure 2.

Referring in detail to the drawings, wherein like numerals designate like parts through the several views, the illustrated bed-pan comprises a flat bottom wall 12, substantially oval in plan, which has similar convexly curved end edges 14, a substantially straight rear end edge 16 merging at its ends into the related ends of the side edges 14, and a V-shaped and outwardly extending front or forward edge 16 which merges at its ends into related ends of the side edge 14. The V-shaped front or forward edge 16 includes a relatively short and straight apex portion 18, and rearwardly flaring straight edge portions 20.

At each end of the bed-pan and formed on and upstanding from the bottom wall 12, are reclining acute triangular parallel spaced transverse ribs 22, in the form of vertical plates or walls, and which decrease gradually in length forwardly from the transverse centerline of the bottom wall, as seen in Figure 1. At the rear of the bed-pan, and formed on and upstanding from the bottom wall 12, are similar, parallel spaced longitudinal ribs 24, which are normal to the rear end edge 16 of the

bottom wall. Between and spaced from each set of transverse ribs 22 and at and spaced from opposite sides of the groups of longitudinal ribs 24, are outwardly divergent diagonal intermediate ribs 26. The hypotenuse edges of all of the ribs are uppermost, their base edges at their inward ends, and their altitude edges have portions 28 which are unattached to the bottom wall 12 by virtue of a continuous C-shaped opening 30 in the bottom wall 12, which reaches, crosswise of the bottom wall, from the inward or base edges of the ribs to the inward edge 32 of a relatively narrow flange portion 34 of the bottom wall. This arrangement not only reduces the overall weight of the bed-pan, but provides, around the underside of the bed-pan, a continuous hand-hold which can be grasped at any desired point, between adjacent ribs, for lifting and manipulating the bed-pan.

The inward or base edges of the ribs are joined, as seen in Figures 2 and 3, to the outward side of a substantially C-shaped perpendicular wall 36, which constitutes the major part of the side wall of a receptacle 38, and which subtends a central imperforate bottom wall area 40 which serves as the bottom of the receptacle 38. The area 40 has a triangular forwardly extending portion 42 which reaches to the narrow apex portion 18 of the bottom wall 12 as seen in Figures 1 and 2. The receptacle side wall 36 has a substantially straight rear portion 44, which is joined to the inward or base edges of the rear ribs, and has convexly curved corner portions 46 which are joined to the inward or base edges of the angled or intermediate ribs 26, and substantially straight end portions 48 which are joined to the inward or base edges of the end ribs 22. The forward ends of the end portions 48 of the side wall 36 are extended forwardly to the apex portion 18 as forwardly converging, substantially straight side wall portions 50, where the portions 50 are joined at their ends, as seen in Figure 2, by a perpendicular apex side wall portion 52. Between the ends of the bottom opening 30 and the ends of the apex will portion 52 are solid triangular portions 53, whose inward surfaces define the walls 50.

Formed on the upper edges of the side wall 36 and extending inwardly therefrom is a convex-concave lip 54 which extends continuously around the receptacle 38 and merges at its forward ends in a bead 56 on the upper edge of the apex wall portion 52. A continuous rounded bead 58 extends around the inward edge of the lip 54, and defines a rounded-cornered, generally rectangular opening 60, for the receptacle 38, which opening has a forwardly tapered forward portion 62 leading to the apex wall portion bead 56, whereby there is defined at the front end of the bed-pan a narrowed pouring chute, of the width only of the apex wall portion 52, which enables easy and controlled pouring out of the contents of the receptacle 38.

Also formed on the upper edge of the receptacle side wall 38 and its described portions, and preferably integral with the lip 54, and joined thereto by a thickened portion 64, is a continuous, flat ramp wall 66 which slants outwardly and downwarly, at an acute angle, to and is joined to the peripheral edge of the bottom wall 12, and rests supportably upon and is joined to the hypotenuse edges of all of the ribs above described. The outer edge of the ramp wall 66 is joined to the peripheral edge of the bottom wall 12 by a convexly rounded, relatively narrow V-shaped junction 68, seen in Figures 2 and 3, which provides a relatively small cross section and comfortably rounded external entering edge 70 which facilitates easy insertion of the bed-pan between the surface of a bed and the body of a patient, and progress of the ramp wall 66 under the patient, which serves to gradually elevate and move the patient's body to and upon the lip 54.

Although there has been shown and described herein a preferred form of the invention, it is to be understood that the invention is not necessarily confined thereto, and that any change or changes in the structure of and in the relative arrangements of components thereof are contemplated as being within the scope of the invention as defined by the claims appended hereto.

What is claimed is:

1. A ramp bed-pan comprising a flat bottom wall having a peripheral edge having a rear portion, end portions, and a forwardly tapered forward portion, an upstanding receptacle side wall on and rising from the bottom wall, said receptacle side wall having a rear portion, end portions, and forwardly converging forward portions which are severally spaced laterally inwardly from related portions of said peripheral edge, the forward ends of the converging portions having an apex side wall portion extending therebetween and joined thereto, said side wall having an upper edge, ribs extending from the peripheral edge of the bottom wall to the receptacle side wall, said ribs having hypotenuse edges joined to the bottom wall, base edges joined to the receptacle side wall, and altitude edges, said ribs being spaced from each other around the receptacle, a flat ramp wall joined to the hypotenuse edges of the ribs and extending inwardly and upwardly from the peripheral edge of the bottom wall to and joined to the upper edges of the receptacle side wall, and to the upper edge of the apex side wall portion, and a convex-concave lip joined to and extending inwardly around the upper edge of the receptacle side wall, said lip having an inward edge defining a receptacle opening, the area of the bottom wall subtended by the receptacle wall and the apex portion being a receptacle bottom wall, said lip having an inward edge defining a receptacle opening smaller in area than the receptacle bottom wall.

2. A ramp bed-pan comprising a flat bottom wall having a peripheral edge having a rear portion, end portions, and a forwardly tapered forward portion, an upstanding receptacle side wall on and rising from the bottom wall, said receptacle side wall having a rear portion, end portions, and forwardly converging forward portions which are severally spaced laterally inwardly from related portions of said peripheral edge, the forward ends of the converging portions having an apex side wall portion extending therebetween and joined thereto, said side wall having an upper edge, ribs extending from the peripheral edge of the bottom wall to the receptacle side wall, said ribs having altitude edges joined to the bottom wall, base edges joined to the receptacle side wall, and hypotenuse edges, said ribs being spaced from each other around the receptacle, a flat ramp wall joined to the hypotenuse edges of the ribs and extending inwardly and upwardly from the peripheral edge of the bottom wall to and joined to the upper edges of the receptacle side wall, and to the upper edge of the apex side wall portion, and a convex-concave lip joined to and extending inwardly around the upper edge of the receptacle side wall, said lip having an inward edge defining a receptacle opening, the area of the bottom wall subtended by the receptacle wall and the apex portion being a receptacle bottom wall, said lip having an inward edge defining a receptacle opening smaller in area than the receptacle bottom wall, said ribs comprising longitudinal ribs extending between the rear portion of the receptacle side wall and the rear edge portion of the bottom wall, transverse end ribs extending between the end portions of the receptacle side wall and said end portions of the peripheral edge of the bottom wall.

3. A ramp bed-pan comprising a flat bottom wall having a peripheral edge having a rear portion, end portions, and a forwardly tapered forward portion, an upstanding receptacle side wall on and rising from the bottom wall, said receptacle side wall having a rear portion, end portions, and forwardly converging forward portions which are severally spaced laterally inwardly from related portions of said peripheral edge, the forward ends of the converging portions having an apex side wall portion extending therebetween and joined thereto, said side wall having an upper edge, ribs extending from the peripheral edge of the bottom wall to the receptacle side wall, said ribs having altitude edges joined to the bottom wall, base edges joined to the receptacle side wall, and hypotenuse edges, said ribs being spaced from each other around the receptacle, a flat ramp wall joined to the hypotenuse edges of the ribs and extending inwardly and upwardly from the peripheral edge of the bottom wall to and joined to the upper edges of the receptacle side wall, and to the upper edge of the apex side wall portion, and a convex-concave lip joined to and extending inwardly around the upper edge of the receptacle side wall, said lip having an inward edge defining a receptacle opening, the area of the bottom wall subtended by the receptacle wall and the apex portion being a receptacle bottom wall, said lip having an inward edge defining a receptacle opening smaller in area than the receptacle bottom wall, said ribs comprising longitudinal ribs extending between the rear portion of the receptacle side wall and the rear edge portion of the bottom wall, transverse end ribs extending between the end portions of the receptacle side wall and said end portions of the peripheral edge of the bottom wall, and diagonal intermediate ribs located spacedly between the longitudinal ribs and the end ribs and extending between related portions of the receptacle side wall and related portions of the peripheral edge of the bottom wall.

4. A ramp bed-pan comprising a flat bottom wall having a peripheral edge having a rear portion, end portions, and a forwardly tapered forward portion, an upstanding receptacle side wall on and rising from the bottom wall, said receptacle side wall having a rear portion, end portions, and forwardly converging forward portions which are severally spaced laterally inwardly from related portions of said peripheral edge, the forward ends of the converging portions having an apex side wall portion extending therebetween and joined thereto, said side wall having an upper edge, ribs extending from the peripheral edge of the bottom wall to the receptacle side wall, said ribs having altitude edges joined to the bottom wall, base edges joined to the receptacle side wall, and hypotenuse edges, said ribs being spaced from each other around the receptacle, a flat ramp wall joined to the hypotenuse edges of the ribs and extending inwardly and upwardly from the peripheral edge of the bottom wall to and joined to the upper edges of the receptacle side wall, and to the upper edge of the apex side wall portion, and a convex-concave lip joined to and extending inwardly around the upper edge of the receptacle side wall, said lip having an inward edge defining a receptacle opening, the area of the bottom wall subtended by the receptacle wall and the apex portion being a receptacle bottom wall, said lip having an inward edge defining a receptacle opening smaller in area than the receptacle bottom wall, a convex concave V-shaped junction joining the peripheral edge of the bottom wall with the outer edge of the ramp wall and defining a rounded and relatively small cross section entering edge.

5. A ramp bed-pan comprising a flat bottom wall having a peripheral edge having a rear portion, end portions, and a forwardly tapered forward portion, an upstanding receptacle side wall on and rising from the bottom wall, said receptacle side wall having a rear portion, end portions, and forwardly converging forward portions which are severally spaced laterally inwardly from related portions of said peripheral edge, the forward ends of the converging portions having an apex side wall portion extending therebetween and joined thereto, said side wall having an upper edge, ribs extending from the peripheral edge of the bottom wall to the receptacle side

wall, said ribs having altitude edges joined to the bottom wall, base edges joined to the receptacle side wall, and hypotenuse edges, said ribs being spaced from each other around the receptacle, a flat ramp wall joined to the hypotenuse edges of the ribs and extending inwardly and upwardly from the peripheral edge of the bottom wall to and joined to the upper edges of the receptacle side wall, and to the upper edge of the apex side wall portion, and a convex-concave lip joined to and extending inwardly around the upper edge of the receptacle side wall, said lip having an inward edge defining a receptacle opening, the area of the bottom wall subtended by the receptacle wall and the apex portion being a receptacle bottom wall, said lip having an inward edge defining a receptacle opening smaller in area than the receptacle bottom wall, said ribs comprising longitudinal ribs extending between the rear portion of the receptacle side wall and the rear edge portion of the bottom wall, transverse end ribs extending between the end portions of the receptacle side wall and said end portions of the peripheral edge of the bottom wall, and diagonal intermediate ribs located spacedly between the longitudinal ribs and the end ribs and extending between related portions of the receptacle side wall and related portions of the peripheral edge of the bottom wall, said bottom wall having an opening extending around the bed-pan and defining a relatively narrow flange extending inwardly from and around the rear edge and end edge portions of the bottom wall, said flange having a free edge spaced from the receptacle wall.

6. A ramp bed-pan comprising a flat bottom wall having a peripheral edge having a rear portion, end portions, and a forwardly tapered forward portion, an upstanding receptacle side wall on and rising from the bottom wall, said receptacle side wall having a rear portion, end portions, and forwardly converging forward portions which are severally spaced laterally inwardly from related portions of said peripheral edge, the forward ends of the converging portions having an apex side wall portion extending therebetween and joined thereto, said side wall having an upper edge, ribs extending from the peripheral edge of the bottom wall to the receptacle side wall, said ribs having altitude edges joined to the bottom wall, base edges joined to the receptacle side wall, and hypotenuse edges, said ribs being spaced from each other around the receptacle, a flat ramp wall joined to the hypotenuse edges of the ribs and extending inwardly and upwardly from the peripheral edge of the bottom wall to and joined to the upper edges of the receptacle side wall, and to the upper edge of the apex side wall portion, and a convex-concave lip joined to and extending inwardly around the upper edge of the receptacle side wall, said lip having an inward edge defining a receptacle opening, the area of the bottom wall subtended by the receptacle wall and the apex portion being a receptacle bottom wall, said lip having an inward edge defining a receptacle opening smaller in area than the receptacle bottom wall, said receptacle opening having a forwardly tapering forward portion reaching to said apex side wall portion and defining therewith a relatively narrow pouring chute.

7. A ramp bed-pan comprising a resilient hollow open-bottom body, said body having a flat bottom wall having a peripheral edge, a receptacle side wall on and upstanding from said bottom wall, said side wall being spaced laterally inwardly from said peripheral edge for a major portion of the circumference of the bottom wall, a flat laterally outwardly declining top wall extending from the upper edge of said side wall to said major portion of the peripheral edge of the bottom wall, said top wall extending around the side wall to the extent of said major portion, the part of the bottom wall within said side wall constituting a receptacle bottom, and circumferentially spaced ribs spaced around said side wall between the side wall and said major portion of the peripheral edge and connected to and spacedly supporting the top wall relative to the bottom wall, the minor portion of said peripheral edge between ends of said major portion being laterally outwardly tapered to an apex, said receptacle side wall having portions converging to said apex.

8. A ramp bed-pan comprising a resilient hollow open-bottom body, said body having a flat bottom wall having a peripheral edge, a receptacle side wall on and upstanding from said bottom wall, said side wall being spaced laterally inwardly from said peripheral edge for a major portion of the circumference of the bottom wall, a flat laterally outwardly declining top wall extending from the upper edge of said side wall to said major portion of the peripheral edge of the bottom wall, said top wall extending around the side wall to the extent of said major portion, the part of the bottom wall within said side wall constituting a receptacle bottom, and circumferentially spaced ribs spaced around said side wall between the side wall and said major portion of the peripheral edge and connected to and spacedly supporting the top wall relative to the bottom wall, the minor portion of said peripheral edge between ends of said major portion being laterally outwardly tapered to an apex, said receptacle side wall having portions converging to said apex, and a lip on and extending laterally inwardly from the upper edge of the side wall and of the converging portions of the side wall and reaching said apex.

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