

Oct. 11, 1960

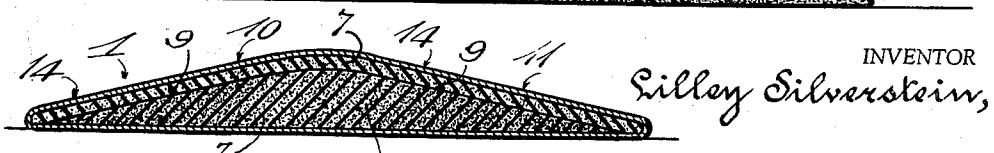
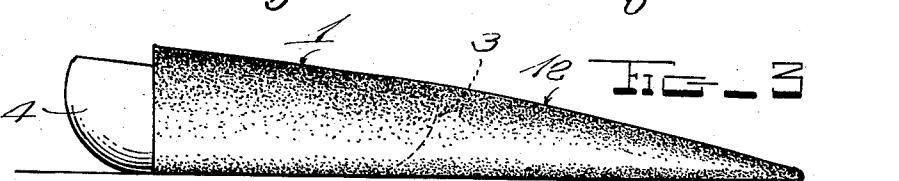
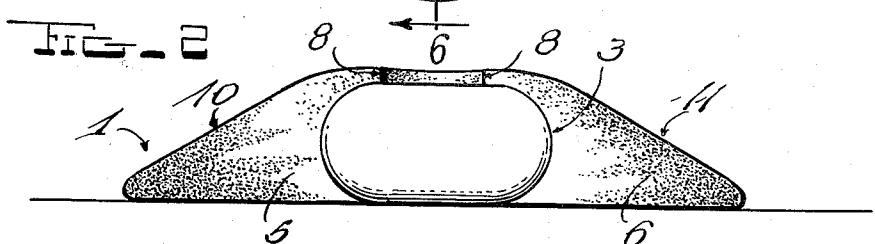
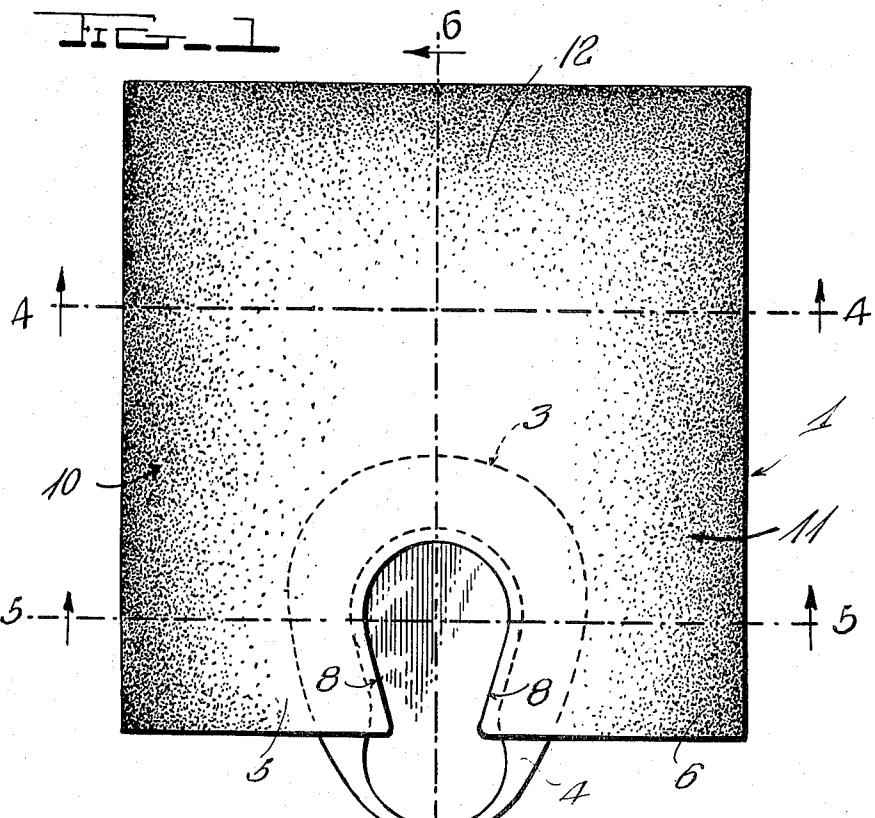
L. SILVERSTEIN

2,955,294

BEDPAN RAMP

Filed Dec. 13, 1957

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FIG - 5

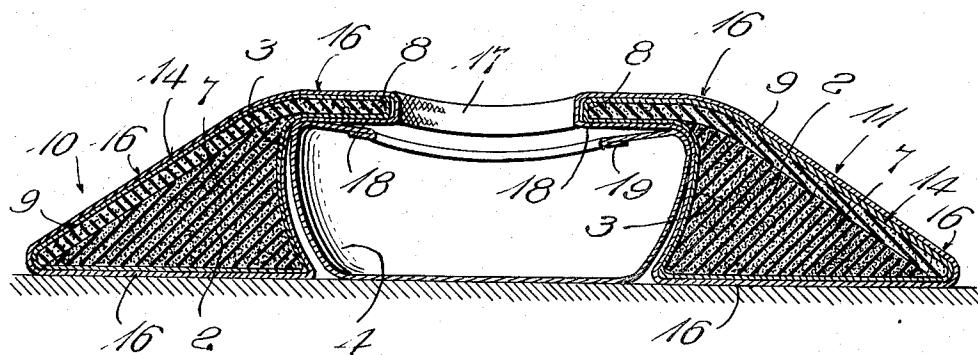


FIG - 6

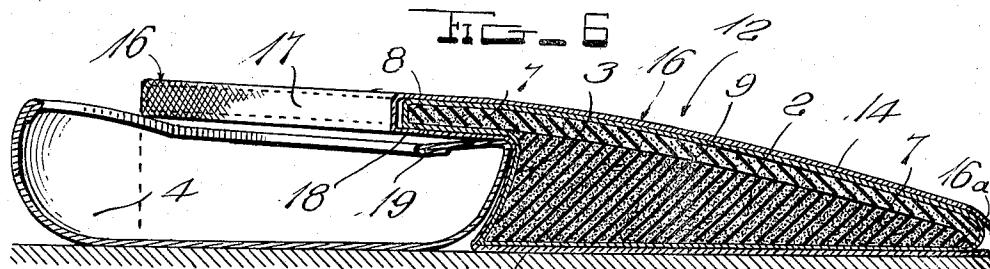


FIG - 7

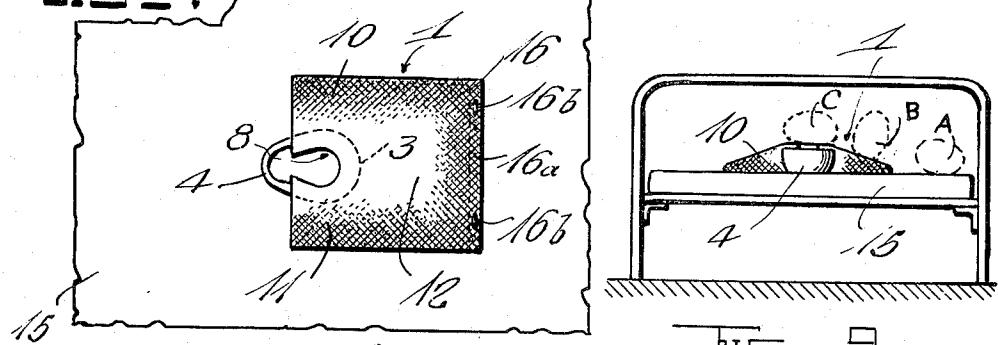
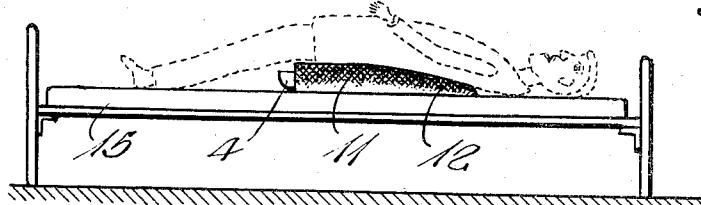


FIG - 8



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2,955,294

## BEDPAN RAMP

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1 Claim. (Cl. 4—113)

My invention relates broadly to sickroom and hospital equipment and more particularly to a bedpan ramp for facilitating the movement of a bedridden patient into position over a bedpan with a minimum of hardship or pain to the patient.

One of the objects of my invention is to provide means for increasing the comfort of bedridden patients in the use of a bedpan, whereby the patient may be rolled into position instead of requiring the exertion of lifting or raising of the patient by orderlies or nurses or by the patient personally.

A further object of my invention is to provide a construction of bedpan ramp which may be readily positioned on the conventional bed with a ramp on either side of the bedpan along which a bedridden patient may be rolled into position over the bedpan.

Another object of my invention is to provide a construction of ramp for a bedpan which possesses sufficient yieldability but at the same time substantial support for a bedridden patient who may be rolled up or down the ramp with respect to the location of the bedpan within the confines of the ramp.

A further object of my invention is to provide a construction of ramp for a bedpan formed from coated yieldable molded material impervious to moisture and which is so shaped as to fit around the conventional bedpan where the ramp is tapered from the bedpan in at least three directions.

A still further object of my invention is to provide a construction of molded resilient ramp for a bedpan in which the ramp is inclined on the two opposite sides thereof and at one end thereof the side ramps providing inclined surfaces along which a bedridden patient may be rolled without raising or lifting and the end surface providing means for supporting the body of the patient.

Other and further objects of my invention are to provide constructional features for a resilient pad-like ramp for a bedpan as set forth more fully in the specification hereinafter following by reference to the accompanying drawings, in which:

Fig. 1 is a top plan view of the bedpan ramp of my invention;

Fig. 2 is an end elevational view;

Fig. 3 is a side elevational view;

Fig. 4 is a transverse sectional view on line 4—4 of Fig. 1;

Fig. 5 is a transverse sectional view on line 5—5 of Fig. 1;

Fig. 6 is a central longitudinal sectional view on line 6—6 of Fig. 1;

Fig. 7 is a top plan view showing the manner in which the bedpan ramp is located on a bed;

Fig. 8 is a side elevational view showing the manner of use of the bedpan ramp and the support afforded the body of the patient when the device is in use; and

Fig. 9 is an end view illustrating the manner in which the inclined sides of the bedpan ramp enable a bedridden patient to be rolled up and down the ramp into position

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for use of the device without raising or lifting the patient.

My invention is directed to a construction of bedpan ramp devised to provide maximum comfort to bedridden patients who may be in severe pain or pathetically bruised or suffering from heart conditions under which circumstances the lifting or raising of such patient is agonizing and painful.

I have devised the bedpan ramp of my invention in an effort to render a humanitarian service in administration to such bedridden patients. I provide a construction of relatively inexpensive molded bedpan ramp which may be readily located on a bed and which has two inclined sides as will enable the bedridden patient to be rolled up or down the ramp without the necessity of orderlies or nurses bodily lifting the patient. I construct the ramp of my invention from dense molded material which has substantial pliability and resilience and yet which is sufficiently dense as will support the heavy weight of the body of a patient. Over the dense molded structure, which is shaped to size to receive in proper contour the conventional bedpan, I extend a relatively thick layer of resilient material of the class of foam rubber. The entire assembly, that is, the molded structure with the covering layer thereon, is then subjected to a plastic spray for providing a film of plastic thereover, rendering the structure impervious to moisture so that the structure can be readily washed from time to time for sanitary purposes. The ramp is dimensioned to provide a longitudinally extending portion which is greater in length than the width of the structure. This longitudinally extending portion is also tapered from substantially the central portion of the structure to the terminating edge thereof and provides a substantial support for the body of the patient. The structure is so shaped that a sanitary cloth or disposable paper cover may be fitted thereover and maintained in position when the structure is in use. I have found the structure of my invention most helpful to bedridden patients; such as polio victims, heart patients, post-operative, spinal patients and paraplegics, and while I have set forth my invention in its preferred form I desire that it be considered in the illustrative sense and not in the limiting sense.

Referring to the drawings in more detail, reference character 1 designates the bedpan ramp assembly consisting of the molded core structure 2 of relatively dense resilient plastic material which is shaped to size and centrally recessed at one end of the recess at 3 for receiving the conventional bedpan represented at 4. The fact that the material of the assembly is pliable and resilient enables the two end portions of the core structure 2, indicated at 5 and 6, to be spread apart sufficiently to enable the contoured bedpan 4 to be slipped therein and then the parts resiliently retracted into position around the contoured structure of the bedpan 4. The core structure 2 is provided with a relatively thick layer of resilient plastic indicated at 7, which is cut to shape, as represented at 8, to provide an access opening to the bedpan 4. The layer of plastic 7 is cemented by means of an adhesive layer 9 to the top of the core structure 2 and overlays the core structure 2, as shown, for providing the inclined plane sides 10 and 11 at opposite sides of the device and a tapered longitudinally extending portion 12 at the end of the device providing a support for the body of the patient.

The entire assembly is coated by a plastic spray indicated in a layer at 14 which fully encloses the structure and forms a coating thereover, impervious to moisture. Thus the shaped pliable or resilient assembly is formed which is not attacked by moisture and which is completely sanitary.

When the device is placed in use a sanitary cover of

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cloth or the like, shown at 16, is slipped over the assembly like a glove and the assembly placed over the sheets of a bed, designated at 15. The sanitary cover 16 is shaped to provide a central portion 17 which fits within the cut-out portion or recess 8 in the plastic layer 7 and extends therebeneath as represented at 18, and between the lower surface of the plastic layer 7 and the top rim 19 of the bedpan 4, whereby the sanitary cover 16 encloses the assembly. The sanitary cover is readily launderable and replaceable. The sanitary cover 16 is shown in Figs. 5-8, but has been omitted from the other figures for purposes of simplification of the drawing.

In Figs. 7, 8 and 9 I have shown the manner in which the inclined sides 10 and 11 of the ramp assist the orderlies or nurses in rolling the patient from the surface of the bed, indicated at 15, where the initial position of the patient is represented at A, and where the patient is rolled to the position B, up the ramp surface 11 to the final position C. Thereafter the patient may be rolled down the ramp surface 10 or returned down the ramp surface 11. The tapered longitudinally extending surface 12 provides a support for the body of the patient, as represented in Fig. 8. The pliable character of the assembly is such that the patient is cushioned against discomfort throughout the rolling operation and is not subjected to raising and lowering which, under certain conditions of patients generally, may be very painful. The extent of the inclined surface from the periphery of the recess 3 which receives the bedpan 4 is such that the patient may be rolled up or down either side of the ramp with a minimum of discomfort. The ramp extends on each side of the edge of recess 3 for a distance which exceeds the distance between the center line of the recess and the side of the recess. The ramp extends from the end of the periphery of the recess 3 for a distance greater than the length of the recess. By reason of these proportions adequate traction area is available for moving the patient into and out of position with respect to bedpan 4 within recess 3.

In the production of the structure of my invention the core 2 is molded inexpensively on a mass production scale and the plastic layer 7 cemented thereto. Thereafter the assembly is subjected to the plastic spray coating, completing the device ready for use.

For most effective results I have found that the average plane of the pliable surfaces 10 and 11 of the pad should be 45° to the horizontal at the section line indicated at 5—5 while the angle of inclination of the plane surface 12 is 30° to the horizontal. The angular disposition of the sides 10 and 11 changes as the surface 12 tapers to the extreme end. The effective incline, up and down, which the patient must be rolled, varies from the above basic angular dispositions as the weight of the patient is applied to the pliable surfaces.

The height of the ramp is approximately 3½" at the highest elevation and tapers off in three directions to zero at the sides. The linear dimensions of the ramp for adult use is approximately 22" wide and 26" long. A child's size of the ramp is commensurately smaller.

Under certain manufacturing conditions the individual components making up the ramp are individually presprayed to render them moisture-proof instead of subjecting the assembly to a spraying operation. That is to say, the material is initially sprayed to provide a

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protective moisture-resistant film thereover and then the components are cemented or vulcanized to form the assembled ramp for the top and bottom sections.

The stretchable characteristics of the material from which the ramp is formed is such that the end portions 5 and 6 may be readily stretched and spread to allow the insertion or removal of the bedpan from the recessed portion of the pad.

The sanitary cover 16 wholly envelops the ramp and the recess 8 therein and extends beyond the terminating extremity thereof as shown more clearly in Fig. 7 at 16a where it is fastened by safety pins 16b as shown. As heretofore noted the sanitary cover fits between that part of the undersurface of the plastic layer 7 which extends over the recess 3 and the top rim 19 of bedpan 4 over the cut-out portion or recess 3 thereby insuring the complete enclosure of the pad within the launderable cover 16.

The core structure 2 is denser than the structure of the layer 7 and by the coaction of these two structures of differing density the patient is insured of the maximum comfort in moving up and down the ramp surfaces 10 and 11.

While I have described my invention in certain of its preferred embodiments, I realize that modifications may be made, and I desire that it be understood that no limitations upon my invention are intended other than may be imposed by the scope of the appended claim.

What I claim as new and desire to secure by Letters Patent of the United States is as follows:

A bedpan ramp comprising a pliable core structure having a central recess in one end thereof for receiving a bedpan and having a tapered surface extending longitudinally from the end of the recess toward the other end of the core structure and tapered surfaces extending laterally from opposite sides of the recess to the side edges of the core structure in planes substantially 45° to the horizontal, the lengths of the lateral tapered surfaces on each side of the recess each exceeding the distance between the center line of the recess and the side of the recess within the core structure, a layer of pliable material having its lower surface connected with the upper tapered surfaces of said core structure and conforming with the contour thereof and recessed on one end thereof in a position aligned with the central recess in said core structure, said layer of pliable material extending inwardly beyond the periphery of the recess in the core structure and forming ramp surfaces extending over the longitudinal and lateral tapered surfaces of said core structure, said longitudinal and lateral surfaces merging into each other and a plastic coating extending over and around said core structure and said layer of pliable material and enveloping and sealing the peripheral edges thereof for preventing seepage of moisture between the upper surface of said core structure and the lower surface of said layer of pliable material.

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