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(54) **Multi-service bed**

(57) The multi-service (1) bed is designed to facilitate and improve the hygiene and cleanliness of patients who cannot fend for themselves and to enable one person to handle the patient without putting forth a great effort, or supporting mechanisms, and without having to move the patient, i.e. the patient may remain in the multi-service bed.

To this end, the proposed system comprises a re-

movable mattress (2) that rests on a rustproof base structure (3) with an open receptacle shape whereon the patient can be washed, which also incorporates legs (4) and means of evacuation (5) to enable the patient to have a bowel movement, and a form of disposing of the wastewater.

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Description

OBJECT OF THE INVENTION

[0001] The present invention belongs to the sector of medical/hospital equipment, especially that of beds for the chronically ill or the convalescents.

[0002] The main object of the present invention is a multi-service bed designed to facilitate and improve the hygiene and cleanliness of patients who cannot fend for themselves and to enable one person to handle the patient without putting forth a great effort, or supporting mechanisms, and without having to move the patient, i.e. the patient may remain in the multi-service bed.

[0003] To this end, the proposed system comprises a removable mattress that rests on a rustproof base structure, with an open receptacle shape whereon the patient can be washed, which also incorporates means of evacuation to enable the patient to have a bowel movement and a form of disposing of the wastewater.

BACKGROUND OF THE INVENTION

[0004] Currently, there are several hygienic processes for disabled and sick patients who are unable to move, so that in all these processes, the disabled person must be moved from his bed, where he is confined, to the place where his/her cleaning and personal hygiene will be performed, and thus suffer the trouble and discomfort it entails.

[0005] However, due to the weight of the patient, and for safety reasons, in most cases the transfer is performed using special cranes which, due to their high cost, are only available to large clinics and hospitals and thus causing evident inconvenience and discomfort to the patient, as noted above.

[0006] Another problem with patient care is that in most cases, those caring for the disabled barely have the strength to carry out the hygiene and cleaning tasks thus causing them great fatigue and difficulty, and consequently pain and suffering in the disabled person in the endeavour to meet his needs.

DESCRIPTION OF THE INVENTION

[0007] The multi-service bed, object of the invention, is a bed that provides comfort and functionality to those responsible for cleaning and caring for the hygiene of disabled persons with minimal discomfort in the care provided.

[0008] This bed is characterized in that it allows one person to carry out all the necessary cleaning and hygiene tasks without moving the patient. Furthermore, due to its simplicity, this bed is also very economical.

[0009] The multi-service bed comprises an easily removable mattress and a base structure made of a rustproof material whereon the hygiene and cleaning tasks of the patient can be performed.

[0010] Once the patient has been properly stripped and the bedding has been removed, the parts making up the mattress can be dismantled and removed, moving the patient alternately from one side to another so that a single operator is sufficient to completely remove the mattress, ending with the patient lying on the base structure and ready for the cleaning and hygiene tasks.

[0011] The basic structure incorporates means of evacuation to collect the wastewater and excrement when performing the cleaning and hygiene tasks on the patient. Obviously, the equipment of the invention is complemented with a means of storage of wastewater and excrement placed at the exit of the means of evacuation which will facilitate their removal.

[0012] Once the cleaning and hygiene tasks have been performed on the disabled person he is dried, the base structure is cleaned and dried, to finally close the means of evacuation, and reassemble and replace the mattress parts and the bedding by moving the patient laterally and alternatively, inversely to how it was initially dismantled.

[0013] At this point, the disabled person again rests on the bed's mattress, after having performed all hygiene tasks.

DESCRIPTION OF THE DRAWINGS

[0014] To complement this description, and in order to aid towards a better understanding of the characteristics of the invention, according to a preferred example of practical embodiment thereof, Figure 1 is included as an integral part of said description, wherein a possible diagram of the multi-service bed has been represented with illustrative and non-limiting character, showing the main elements it incorporates.

PREFERRED EMBODIMENT OF THE INVENTION

[0015] In view of the figure, and according to the numbering adopted, an example of preferred embodiment of the invention can be observed, which comprises the parts and elements shown and described in detail below.

[0016] As shown in Figure 1, the multi-service bed (1) essentially comprises the following elements:

- A removable mattress (2), and
- A base structure (3), which also incorporates legs (4) for raising the bed off the floor and means of evacuation (5), to facilitate the disposal of wastewater and excrement.

[0017] These elements are described in detail below.

[0018] The removable (2) mattress may comprise a plurality of independent mattress elements (7), which in matrix form, with at least two elements (7) per row and column, may be removed by moving the patient alternately from one side to another, to enable one operator to be sufficient to completely remove the mattress (2) and ending with the patient lying on the base structure

(3) ready for the cleaning and hygiene tasks.

[0019] The base structure (3) can be made of stainless steel with the shape of an open receptacle and the size of a normal bed. Likewise, removable legs (4) may be incorporated to facilitate its transport.

[0020] The means of evacuation (5) comprise at least one hatch in the central base structure (3) and that can be opened allowing on the one hand, the patient to have a bowel movement without having to prop himself up and, on the other, serving as a wastewater outlet when performing the cleaning and hygiene tasks of the patient. Furthermore, the means of evacuation (5) may incorporate a guard (6) which can be coupled to the hatch and thus provide back support and prevent the patient from slipping.

[0021] Finally, the bed (1) may further incorporate means for wastewater and excrement collection located at the exit of the means of evacuation (4).

as a wastewater outlet when performing the cleaning and hygiene tasks of the patient.

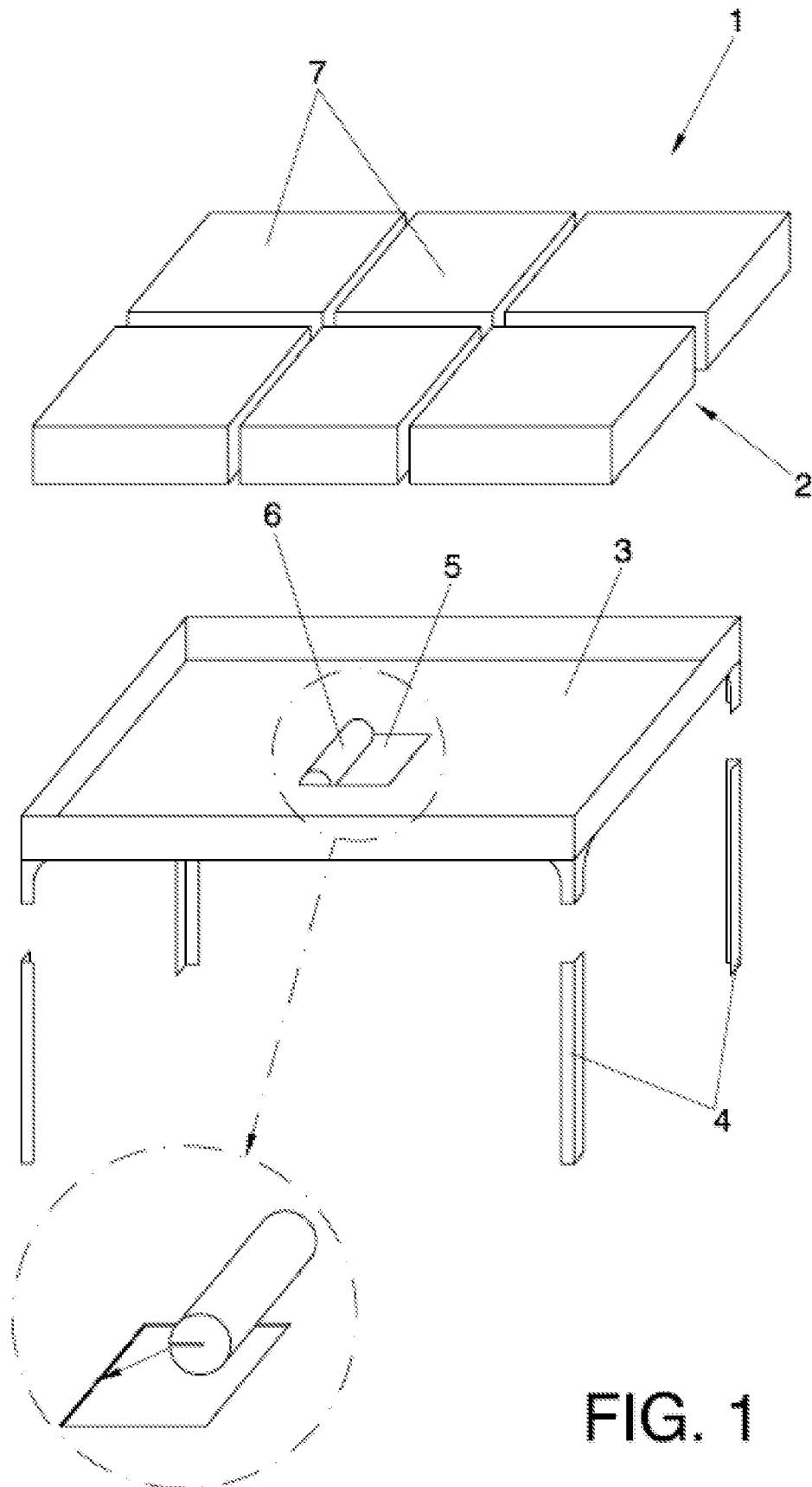
- 5 6. Multi-service (1) bed, according to claim 1 or 5, **characterized in that** it also incorporates a guard (6) which can be coupled to the means of evacuation to provide back support and prevent the patient from slipping.
- 10 7. Multi-service (1) bed, according to claim 1 or 5, **characterized in that** the means of evacuation (5) allows the wastewater and excrement to drain into a means of collection under the base structure (3).

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Claims

1. Multi-service (1) bed, for the resting and hygiene of individuals with reduced mobility, **characterized in that** it comprises:
 - a removable mattress (2), which comprises a plurality of independent mattress elements (7) that can be removed by moving the patient alternately from one side to another. 30
 - a base structure (3), with an open receptacle shape made of a rustproof material and housing the removable mattress (2) and incorporating legs (4) for raising the bed off the floor, and means of evacuation (5) to allow evacuation of both the excrement and wastewater when performing cleaning and hygiene tasks. 35
2. Multi-service (1) bed, according to claim 1, **characterized in that** the plurality of independent mattress elements (7) are arranged in a two-dimensional matrix, with at least two elements in each row and in each column. 40
3. Multi-service (1) bed, according to claim 1, **characterized in that** the base structure (3) has the dimensions of a standard bed. 45
4. Multi-service (1) bed, according to claim 1, **characterized in that** its legs (4) are removable to facilitate its transport. 50
5. Multi-service (1) bed, according to claim 1, **characterized in that** the means of evacuation (5) comprises at least one hatch in the central area of the base structure (3), that opens to allow the patient to position himself to have a bowel movement without having to prop himself up, and at the same time serve 55





EUROPEAN SEARCH REPORT

Application Number
EP 10 18 2304

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 92/16175 A1 (HIMANKA ERKKI [FI]) 1 October 1992 (1992-10-01)	1-3,5-7	INV. A61G7/00
Y	* page 2, line 28 - line 37 * * page 4, line 4 - line 20 * * page 4, line 35 - page 5, line 1; claims 1,2; figures 1-3 *	4	A61G7/02
Y	----- US 3 276 732 A (JACKSON LESLIE K) 4 October 1966 (1966-10-04) * the whole document *	4	
A	----- US 4 982 462 A (WADA MIKUNI [JP]) 8 January 1991 (1991-01-08) * column 3, line 36 - line 61; figures 1,7,11 *	1,3,5,7	

			TECHNICAL FIELDS SEARCHED (IPC)
			A61G A47C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 7 November 2011	Examiner Sommer, Jean
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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07-11-2011

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9216175	A1	01-10-1992 FI 911224 A	13-09-1992
US 3276732	A	04-10-1966 NONE	
US 4982462	A	08-01-1991 JP H02126629 U	18-10-1990