

[54] **PATIENT SELF-TRANSPORTER**

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[51] **Int. Cl.**..... **A47b 83/04**

[58] **Field of Search**..... 5/81 R, 81 B, 92, 110, 5/111, 317 R, 327; 248/188, 239, 248; 297/438, 439, 461, 462; 108/50, 91, 161

[56] **References Cited**

**UNITED STATES PATENTS**

|           |         |               |        |
|-----------|---------|---------------|--------|
| 2,657,965 | 11/1953 | Bargen.....   | 108/91 |
| 2,733,452 | 2/1956  | Tanney.....   | 5/81 B |
| 2,871,073 | 1/1959  | Swanson ..... | 108/91 |

|           |         |                    |         |
|-----------|---------|--------------------|---------|
| 3,329,978 | 7/1967  | Porter et al. .... | 5/81 R  |
| 3,758,894 | 9/1973  | Finley .....       | 5/81    |
| D145,947  | 11/1946 | Larson .....       | 108/161 |

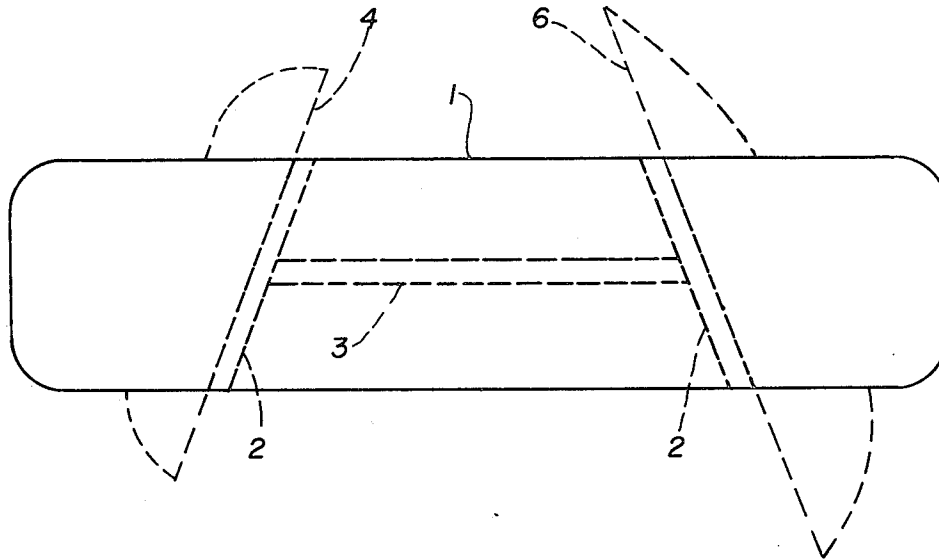
*Primary Examiner*—Casmir A. Nunberg

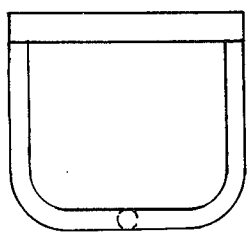
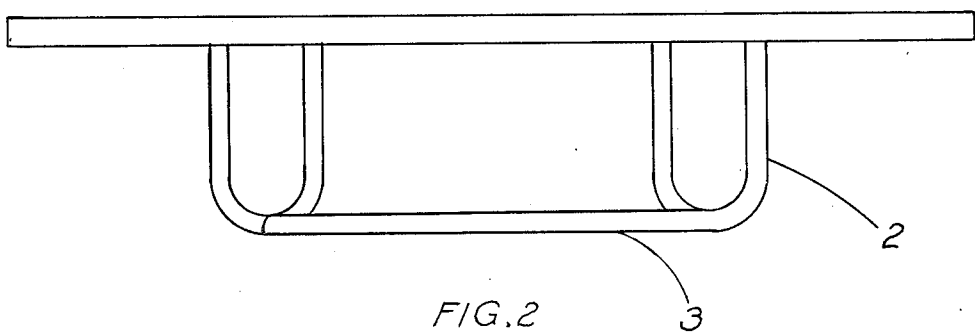
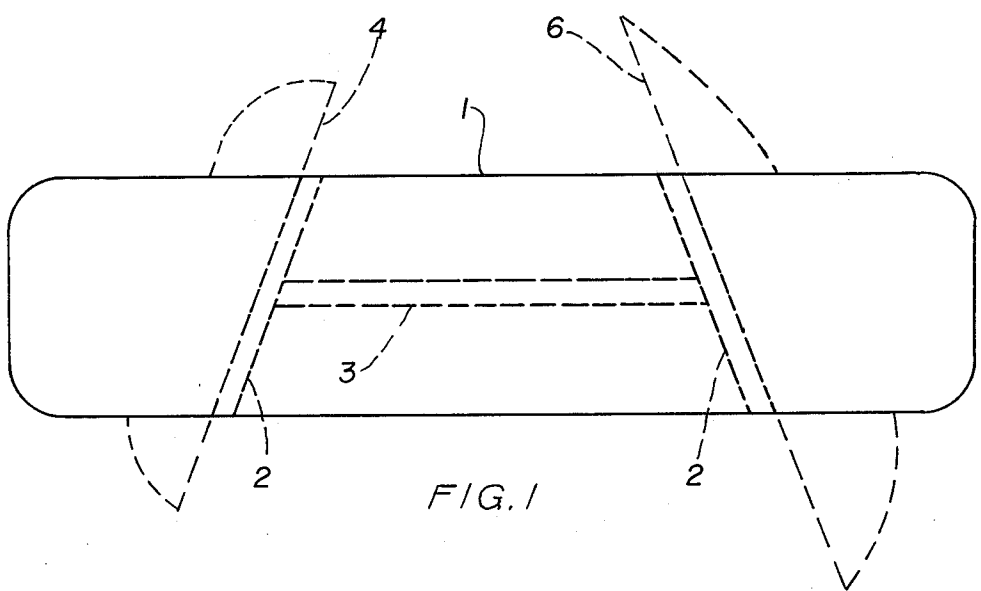
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**ABSTRACT**

A manually self transfer device for the unaided self-transfer of an invalid or patient from a bed to a chair, or the like, by sliding along the top surface of the device. A rigid planar surface structure supports the surface in a horizontal plane. The structure is supported at either end by bed, chair, or car seat. Two down-hanging members connected to the surface structure snugly fit against a chair side and a bed side to secure the device in place so that the patient may slide unaided from bed to chair.

**1 Claim, 4 Drawing Figures**





## PATIENT SELF-TRANSPORTER

### BACKGROUND OF THE INVENTION

The principal application of the manually portable lightweight self-transfer device is as an aid to patients in hospitals, nursing homes, and in their personal residence. Typical is the common problem of a patient moving from a bed into a wheelchair, or the reverse. Another example of the problem is the self-transfer of a patient from a car to a wheelchair, or the reverse. Still another example of the problem is the case wherein the patient needs self-transfer means for bathroom usage. There is one example wherein a woman patient had to daily sit in a chair in the television room and wait until her husband came home from work for lunch at which time she could be moved.

The self-transfer device of the invention solves all of these problems which are but a few of many. Now the invalid or patient can help himself or herself without assistance from others. Extensive experimentation with the self-transfer device has confirmed this fact.

### SUMMARY

A rigid, planar surface, having structure to support the surface in a horizontal plane, the structure being supported on two objects, one at either end of the surface, serves as a medium by which either an invalid or a patient may self-carry the self-transfer device on the wheelchair, place it between wheelchair and bed and then slide himself or herself unaided from bed to chair or wheelchair, and other similar operations to facilitate care of the aged and infirm. The surface structure has secured rigidly to it two downhanging members normal to the plane of the surface and so angled as to secure the self-transfer device between two objects such as chair and a bed so that during the self-transfer operation the invalid or patient is not jeopardized from a safety viewpoint.

As the patient moves across the self-transfer device, he pushes against the floor with his feet, thereby serving to aid in securing the device in place by forcing the downhanging members tightly against the sides of bed and wheelchair.

An example of the self-transfer operation is as follows. It may be assumed that one end of the self-transfer device is placed on the bed such that one end of the device rests on the edge of the bed and the adjacent angled downhanging member fits snugly against the edge of the bed. In this position, the self-transfer device is disposed lengthwise at an angle of about 70° to the edge of the bed. The other end of the self-transfer device is placed on a chair juxtaposed next to the bed and oriented so that side of the second angled downhanging member fits snugly against the edge of the chair seat, thereby securing the self-transfer device in place between bed and chair.

### BRIEF DESCRIPTION OF THE DRAWING

In the drawing:

FIG. 1 is a plan view of the self-transfer device.

FIG. 2 is a front elevation of the self-transfer device.

FIG. 3 is an end elevation of the self-transfer transport device.

FIG. 4 illustrates the self-transfer device in place between bed and wheelchair which are angled with

respect to each other providing ready accessibility from one to the other by the patient.

Referring to the drawing, FIG. 1 illustrates the contour of the device viewed from the top of the planar surface structure 1. FIG. 1 further illustrates the self-transfer device 1 in place between bed 6 and wheelchair 4, which are partially illustrated as being angled with respect to each other providing ready accessibility from one to the other by the patient. The two outboard sides of the two downhanging members 7 fit securely against the sides of the bed and wheelchair. The arrangements of the downhanging members 2 are seen to be angled symmetrically with respect to the minor axis of the planar surface, and joined by compression strut 3, noting also FIG. 2. Strut 3 may be joined to downhanging members 2 by welding. FIG. 4 illustrates the self-transfer device 5 located between bed 6 and wheelchair 4 such that the outboard sides of the two downhanging members (see 7) fit snugly against the sides of the bed and the wheelchair. One removable side of the wheelchair has been removed by the patient. The wheelchair wheels are locked. FIG. 3 illustrates, in end elevation, the symmetrical arrangement of the parts.

### DESCRIPTION OF THE PRIOR ART

The most pertinent area of search was found to be in Class 5 and in Class 108. Next in order of apparent importance were Classes 128 and 297. The art including stretchers, cots, beds, transfer tables, and the like is extensive, but there were not patents found anticipating the transfer device of the invention.

### DESCRIPTION OF THE PREFERRED EMBODIMENTS

The downhanging members of self-transfer device may be assembled rigidly to the surface structure at different angles relative to each other and to the surface structure. The preferred assembly is illustrated in FIG. 1 where the included angle between the downhanging members is 40°, leaving each downhanging member at an approximate angle of 70° to the major axis of the surface structure 1 (see FIG. 1). The preferred assembly includes the strut 3 positioned as shown in FIGS. 2 and 3.

While not shown, a small drawer can be incorporated in the transfer device under the surface supporting structure for holding toilet articles and the like.

It is conceived that the self-transfer device may be constructed entirely of stainless steel, or of aluminum. The surface supporting structure may be of wood or composition material, and with a plastic surface layer such as Formica.

I claim:

1. A patient self-transfer device comprising:

- a. a rigid, planar surface structure to support the surface thereof in a horizontal plane between two juxtaposed objects such as bed and wheelchair;
- b. two downhanging members each of which is attached rigidly and normal to the supporting surface structure, said members being arranged to contact said objects to secure the structure in position for self-transfer of a patient over said surface from one object to the other object;
- c. wherein the width of the planar surface is equal to one-fourth its length;
- d. wherein the included angle between the planes of the downhanging members is 40°, and the angle

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formed on either side of said 40° angle by the major axis of the planar surface structure is 70°; and  
e. wherein a compression strut is secured to the middle lower portions respectively of the downhanging 5

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members therebetween to strengthen the structure because the forces against the outside faces of said members force them inwardly.

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