11) Publication number:

0 095 325

A2

(12

## **EUROPEAN PATENT APPLICATION**

(21) Application number: 83302852.5

(51) Int. Cl.3: A 61 G 7/10

22 Date of filing: 19.05.83

30 Priority: 20.05.82 GB 8214686

(43) Date of publication of application: 30.11.83 Bulletin 83/48

Designated Contracting States:
AT BE CH DE FR GB IT LI LU NL SE

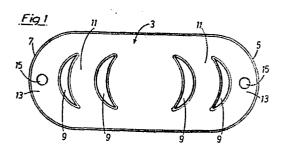
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[64] Improvements in or relating to patient handling aids.

(5) In order to make the lifting of patients by nurses easier a lifting aid is proposed which comprises an elongate member (3) made of flexible material and provided with cut-outs (9) in the opposite ends thereof which define hand holds which enable the sling to be held firmly.



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## DESCRIPTION.

## IMPROVEMENTS IN OR RELATING TO PATIENT HANDLING AIDS.

The present invention relates to a patient handling aid.

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Guidelines are laid down for the lifting of patients by nurses. Traditionally two nurses, attending a patient lying on a bed, stretch forward with their arms under the patient and grasp one anothers wrists, the nurses arms passing under the middle back and thighs of the patient. This is referred to as the "orthodox lift". As each nurse must reach across the bed to lift at arms length with back bent the lift is potentially hazardous and a frequent cause of injury to the nurses.

A safer alternative is the "shoulder lift" but this is not feasible where the patient has a disorder of the shoulder, spine or hips and the "orthodox lift" is unavoidable unless a mechanical hoist is available.

As an aid to patient handling, a sheet on which the patient is lying is grasped at the corners and the patient lifted on the sheet. However, there are practical disadvantages arising from the position of the sheet either before or after the lift.

Further information on the methods of lifting patients can be obtained from the publication entitled "The Handling of Patients: A Guide for Nurse Managers" published by the Back Pain Association in collaboration with the Royal College of Nursing.

Thus a lifting aid is required which reduces the strain on the nurse making lifting less hazardous and which does not present problems as a result of its positioning.

According to the present invention there is provided a patient handling sling comprising a generally elongate flexible member having at opposite

ends thereof cut-outs forming hand-holds.

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Preferably the sling is rectangular, not less than 50 cm in length and 15 cm to 25 cm in width. The flexible member is made from a material which is of sufficient stiffness to be easily passed under the patient, and yet flexible enough to conform to the shape of the patient. Examples of suitable materials are polyurethane; polyurethane with admixed glass-fibre; leather, rubber etc., or other belting material; woven, man-made fibre with added material for stiffening, contouring or softening, as necessary.

The outer periphery of the member and the edges of the cut-outs are smoothly finished to obviate discomfort to patient or nurse. The material is preferably easy to clean or sterilise.

Two or three cut-outs may be disposed in each end of the sling and in preferred arrangements these may be rectangular or approximately crescent shaped.

The invention will now be described further by way of example only with reference to the accompanying drawings of Figures 1, 2 and 3 which illustrate three embodiments of the invention.

The sling shown in Fig. 1 comprises an elongate member, generally indicated as 3, having radiused opposite ends 5, 7, connected by parallel side edges. Two substantially crescent shaped cut-outs 9 are provided in each opposite end of the sling. The cut-outs define hand-holds at each end of the sling. One hand-hold 11 at each end between the two cut-outs 9 and one hand-hold 13 at each end between the outermost hand-hold 9 and the end of the elongate member 3. In addition each end of the sling has a hole 15 for hanging it on a hook.

Fig. 2 is similar to Fig. 1 and corresponding reference numerals have been used to denote corres-

ponding parts. This embodiment has an extra pair of cut-outs 17 defining an extra hand-hold 19 on each end. The cut-outs have a similar shape to those illustrated in Fig. 1, but the general shape of the sling is more rectangular with only a shallow radius of the opposite ends.

Fig. 3 shows a further embodiment in which the elongate flexible member is rectangular and has six rectangular shaped cut-outs 21, defining three hand-holds 23 at each end of the sling. Stitching around the edges of the cut-outs acts as reinforcement.

In the case of all three embodiments the sling is made from a material which is of sufficient stiffness to enable it to be passed under the patient, and of sufficient strength to withstand the forces exerted on it during lifting of the patient. Furthermore, the material should be sufficiently flexible to shape the patient and soft or rounded at the edges and around the cut-outs to prevent discomfort. The edges of the hand-holds may be radiused. Suitable materials are polyurethane; polyurethane with admixed glass-fibre; leather, rubber etc., or other belting material; woven, man-made fibre with added material for stiffening, contouring or softening, as necessary. It is preferable that the materials are easy to clean or sterilise.

In use two slings would commonly be employed. One would be threaded under the patient in the region of the thighs whilst the other would be in the region of the lower to middle back. In this position the outermost hand-holds would be positioned well to the side of the patient; thus the nurse can grip these and lift without having to stoop with bent back. Thus, possible injury to the nurse is avoided. For other methods of lifting patients (e.g. the "shoulder")

lift" from bed to chair) only one sling would be used, using the innermost hand-holds. The sling, in effect, acts as an extension of the arms of the nurses.

The slings are not less than 50 cm in length and preferably between 50 cm and 75 cm in length, and between 15 cm to 25 cm in width. The cut-outs are preferably about 12 cm wide.

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## CLAIMS.

1. A patient handling sling characterised in that the sling comprises a substantially elongate flexible member (3) having at opposite ends thereof one or more cut-outs (9) forming hand-holds.

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- 2. A patient handling sling as claimed in claim 1 in which the elongate member is made of flexible material.
- A patient handling sling as claimed in claim
   10 1 or 2 in which two cut-outs are provided in each end of the elongate flexible member.
  - 4. A patient handling sling as claimed in claim 1 or 2 in which three cut-outs are provided in each end of the elongate flexible member.
- 5. A patient handling sling as claimed in any of claims 1, 2, 3 or 4 in which the cut-outs are substantially rectangular in shape.
  - 6. A patient handling sling as claimed in any preceding claim further comprising a hole (15) in the elongate member for receiving a hook.
  - 7. A patient handling sling as claimed in any preceding claim in which the opposite ends of the elongate member are radiused.
- 8. A patient handling sling as claimed in any preceding claim in which the elongate member is made of polyurethane or polyurethane with admixed glass-fibre, or rubber or leather.
  - 9. A patient handling sling as claimed in any of claims 1 to 8 characterised in that the elongate member is made of natural or man-made woven material.

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