



(22) Date de dépôt/Filing Date: 2003/06/26

(41) Mise à la disp. pub./Open to Public Insp.: 2004/12/26

(45) Date de délivrance/Issue Date: 2006/04/25

(51) Cl.Int./Int.Cl. **A61G 7/05** (2006.01),
A47C 21/00 (2006.01)

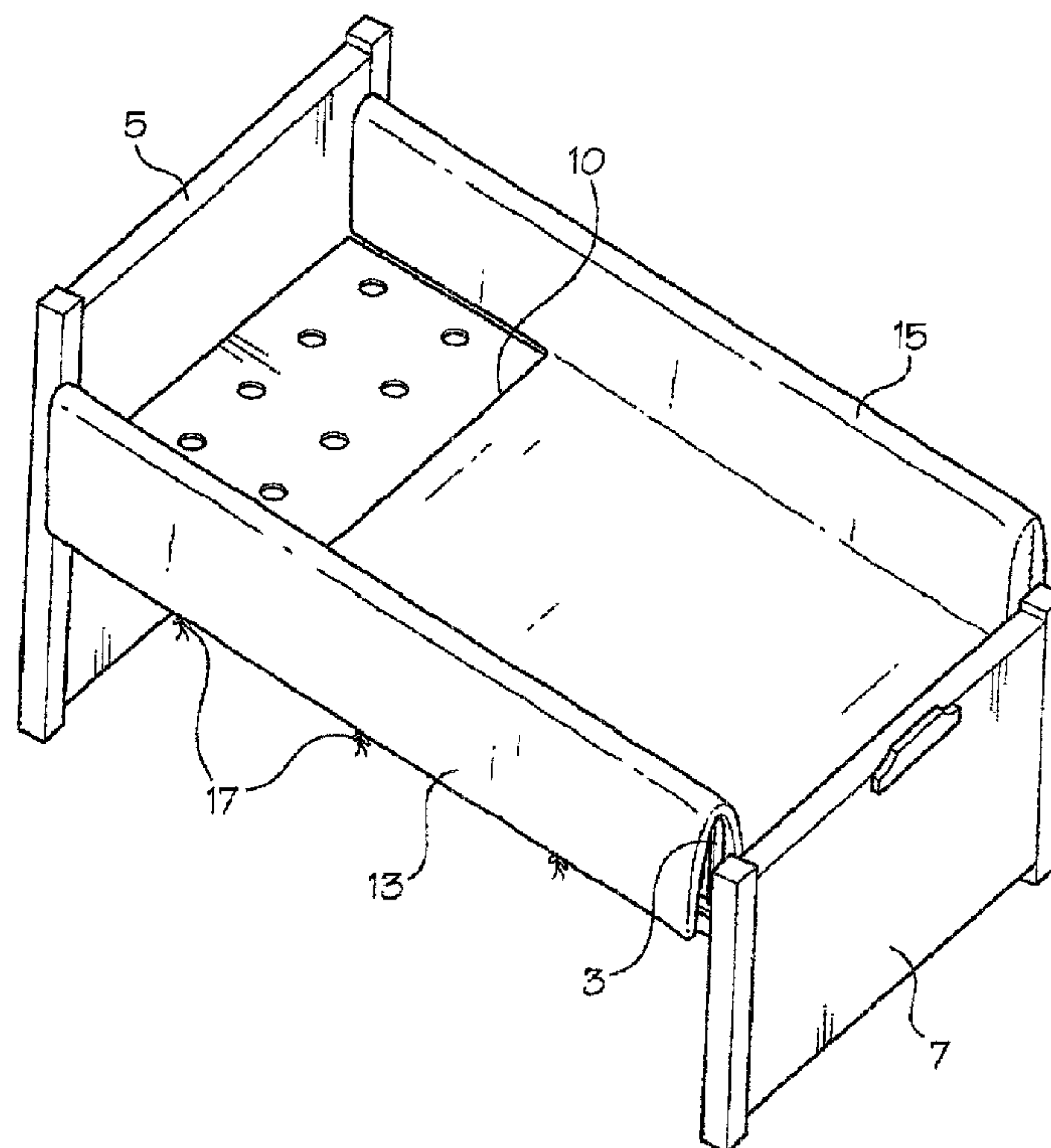
(72) Inventeur/Inventor:
NEIL, DORIS, CA

(73) Propriétaires/Owners:
NEIL, DORIS, CA;
MILLER, CONNIE, CA

(74) Agent: G. RONALD BELL & ASSOCIATES

(54) Titre : **MATELASSAGE THERAPEUTIQUE POUR LITS D'HOPITAL**

(54) Title: **THERAPEUTIC BEDDING PAD FOR HOSPITAL BEDS**



(57) **Abrégé/Abstract:**

A therapeutic bedding pad has a central body portion and two laterally spaced elongated side rail bumper pads is disclosed. The body portion is preferably disposed to overlay a bed frame, underneath a bedding mattress, and, when in place between the mattress and the bed frame, the body portion of the bedding pad will thus cover approximately two-thirds of a bottom length of the bed frame. The two side rail bumper pads are symmetrically disposed laterally opposite the body portion and are substantially the same length as a length of the bed frame. The bumper pads are designed to cover the top portions of the full-length side rails attached to the hospital bed in order to protect the legs and arms of bed-ridden patients from bruising, jamming and injury. In this manner, the head of the hospital bed can be raised without disturbing, or dislodging, the bedding pad, and the bedding pad does not interfere with the normal mechanisms and functions of the hospital bed.

ABSTRACT

A therapeutic bedding pad has a central body portion and two laterally spaced elongated side rail bumper pads is disclosed. The body portion is preferably disposed to overlay a bed frame, underneath a bedding mattress, and, when in place between the mattress and the bed frame, the body portion of the bedding pad will thus cover approximately two-thirds of a bottom length of the bed frame. The two side rail bumper pads are symmetrically disposed laterally opposite the body portion and are substantially the same length as a length of the bed frame. The bumper pads are designed to cover the top portions of the full-length side rails attached to the hospital bed in order to protect the legs and arms of bed-ridden patients from bruising, jamming and injury. In this manner, the head of the hospital bed can be raised without disturbing, or dislodging, the bedding pad, and the bedding pad does not interfere with the normal mechanisms and functions of the hospital bed.

THERAPEUTIC BEDDING PAD FOR HOSPITAL BEDS

The present invention relates generally to a therapeutic bedding pad for patient supports, such as hospital beds, primarily for the health care sector. More specifically, the present invention relates to a therapeutic bedding pad designed to fit under the mattress of a hospital bed, and over the full length rails thereof, to prevent bed-ridden patients from having limbs caught between bed rails and bed frames, or from bruising, jamming or injury, and which, at the same time, does not interfere with the mechanisms and functions of the hospital bed.

DESCRIPTION OF THE PRIOR ART

It has been previously proposed in hospital nursing homes to provide bed rails that extend above the mattress level to prevent patients from rolling out of the bed. Hospital beds typically include collapsible side guards, in a parallel relationship, or rectangular design, wherein the side guards are split in at least two separate portions, or units generally corresponding to the length of each adjustable and articulated portion of the mattress support. With such configurations, a rather large gap is left between adjacent side guard units to allow articulation of the different sections of the bed mattress when the side guards are in the raised position. As a result, serious injuries can occur when limbs or other parts of the body of a patient enter those gaps and become entrapped or otherwise caught between adjacent side guard units. Further, this gap can allow patients to bury their face against the mattress as their body slips downward. Trapped persons in this position do not have anything to grab to pull themselves upward, and one arm is usually pinned under their body. This is especially problematic for bed-ridden patients who are too weak to pull themselves from the gap.

There have been efforts made to overcome the hazard with conventional bed split side guards. For example, U.S. Patents Nos. 5,381,571 (Gabhart) and 5,485,699 (Gabhart) disclose a movable protective barrier with a lock mounted on the bed guard so as to maintain or close the gaps between the split side guards units.

5

However, such closures merely unsatisfactorily reduce the potential for patient injury when the mattress is horizontally positioned, and they become inappropriate as the mattress is articulated or secured at different positions. Thus, there remains a need for a therapeutic bedding pad for a hospital bed which can prevent bed-ridden patients from having limbs caught between bed rails and bed frames, and which, at the same time, does not interfere with the mechanisms and functions of the hospital bed. This is of particular importance for patients that are spastic, partially disabled, or paralyzed on one side, for example.

10

15

SUMMARY OF THE INVENTION

Thus, a primary object of the present invention is to provide a therapeutic bedding pad for a hospital bed which prevents bed-ridden patients from having limbs caught between bed rails and bed frames, or from bruising, jamming or injury, and which, at the same time, does not interfere with the normal mechanisms and functions of the hospital bed.

20

One aspect of the present invention provides a bedding pad for a hospital bed having a frame-supported mattress and a bed rail comprising a body portion for overlying a bed frame, and positioned underneath the frame-supported mattress, the body portion having a head end and a foot end; bumper pads disposed laterally opposite the body portion and in parallel relation to sides of the body portion, the bumper pads being substantially the same length as the bed rail and capable of fitting over and substantially

25

covering a top surface of the bed rail; and frame attachment means extending from the bumper pads to detachably secure the bumper pads to the bed rail and allow for positioning of the bumper pads between the bed rail and the mattress, whereby the bumper pads are, when secured to the bed rail, capable of corresponding movement with the bed rail when the bed rail is moved to an extended or lowered position, and wherein the body portion has a total length that is less than a total length of the hospital bed or bumper pads, so as to allow an upper portion of the hospital bed to assume an elevated position relative to a remainder of the hospital bed without dislodging the bedding pad.

Another aspect of the present invention provides a bedding pad for a hospital bed having a frame-supported mattress and bed rails comprising a body portion for overlying a bed frame, and positioned underneath the frame-supported mattress, the body portion having a head end and a foot end; first and second bumper pads disposed laterally opposite the body portion and in parallel relation to sides of the body portion, the bumper pads being substantially the same length as the bed rails, wherein the first bumper pad is fitted over a bed rail and the second bumper pad substantially covers a top surface of another bed rail; and frame attachment means extending from the bumper pads to detachably secure the bumper pads to the bed rails and allow for positioning of the bumper pads between the bed rails and the mattress, whereby the bumper pads are, when secured to the bed rails, capable of corresponding movement with the bed rails when the bed rails are moved to an extended or lowered position, and wherein the body portion has a total length that is less than a total length of the hospital bed or bumper pads, so as to allow an upper portion of the hospital bed to assume an elevated position relative to a remainder of the hospital bed without dislodging the bedding pad.

A further aspect of the present invention provides a bedding pad for a hospital bed having a bed rail comprising a body portion for overlying a bed frame of the hospital

bed, the body portion having a head end and a foot end; bumper pads disposed laterally opposite the body portion and in parallel relation to sides of the body portion, the bumper pads being substantially the same length as the bed rail and capable of fitting over and substantially covering a top surface of the bed rail; and frame attachment means extending from the bumper pads to detachably secure the bumper pads to the bed rail and allow for positioning of the bumper pads between the bed rail and the bed frame, whereby the bumper pads are, when secured to the bed rail, capable of corresponding movement with the bed rail when the bed rail is moved to an extended or lowered position, and wherein the body portion has a total length that is less than a total length of the hospital bed or bumper pads, so as to allow an upper portion of the hospital bed to assume an elevated position relative to a remainder of the hospital bed without dislodging the bedding pad.

A still further aspect of the present invention provides a bedding pad for a hospital bed having a bed rail comprising a body portion for overlying a bed frame of the hospital bed, the body portion having a head end and a foot end; first and second bumper pads disposed laterally opposite the body portion and in parallel relation to sides of the body portion, the bumper pads being substantially the same length as the bed rails, wherein the first bumper pad is fitted over a bed rail and the second bumper pad substantially covers a top surface of another bed rail; and frame attachment means extending from the bumper pads to detachably secure the bumper pads to the bed rails and allow for positioning of the bumper pads between the bed rails and the bed frame, whereby the bumper pads are, when secured to the bed rails, capable of corresponding movement with the bed rails when the bed rails are moved to an extended or lowered position, and wherein the body portion has a total length that is less than a total length of the hospital bed or bumper pads, so as to allow an upper portion of the hospital bed to assume an

elevated position relative to a remainder of the hospital bed without dislodging the bedding pad.

The therapeutic bedding pad of the present invention has a central body portion
5 and two laterally spaced elongated side rail bumper pads attached thereto, wherein the
body portion of the bedding pad is designed to fit under the mattress of a hospital bed, and
the opposed side rail bumper pads are designed to cover the full-length side rails of a
hospital bed, in order to protect the legs and arms of bed-ridden patients from bruising,
jamming and injuries caused from having limbs caught between the bed rails and bed
10 frame. Preferably, the bedding pad of the present invention is made from flannelette and
1" foam, although it is also possible that foam or padded material encased in, for example,
plastic (so as to facilitate ease of cleaning) or fabric could also be used. Ideally, the
material to be used should also be durable, washable and non-abrasive to the skin of a
patient. The bumper pads of the present invention are soft and padded to cushion the limbs
15 of the patient in the bed against contact with the bed rails. Covering the bed rails should
also reduce minor injuries which result from bumping or scaping the hands, arms or legs
against the bed rails and possibly pulling out an IV or other tubes attached to the patient.
This is particularly important for the delirious patient who is tied to and may be thrashing
against the bed and rails. The present bumper pads also serve to protect the bed rails to
20 some extent from the patients and visitors.

In a preferred embodiment, a central portion of the bedding pad of the present
invention that is directly underneath the mattress will measure approximately two-thirds of
the total bottom length of the mattress and bed it is placed therebetween. When in place,
25 the central portion of the bedding pad placed between a mattress and a bed frame will thus
cover approximately two-thirds of a length of the bed, from the "bottom" of the bed. In this
manner, particularly with respect to hospital beds, the head of the bed is thus allowed to

be raised without disturbing, or dislodging, the bedding pad. Generally speaking, the raising or lowering of the bottom of the bed does not disturb the bedding pad of the present invention in any manner.

5 In use, the bedding pad of the present invention is, preferably, measured to fit the exact width of the bed it is to be placed on, thus allowing the mattress to fit on top, and the side rail bumper pads laterally attached thereto, emerge from the underside of the mattress so they can be placed over the rails of the hospital bed. In a preferred embodiment of the present invention, the side rail bumper pads, when in place covering the
10 side rails of the hospital bed, are tied in four places on the outer side of each side rail to secure the device in place to the bed frame, and completely cover both sides of the rails. The side rail bumper pads can be tied by straps or, more preferably, tie portions attached to the material of the side rail protectors. In this manner, the tie portions on the bumper pads can be "tied" together to secure the device in place to the bed frame, much as one
15 would when tying one's own shoes. It will be appreciated that other types of frame attachment means may also be used to secure the bumper pads to the bed frame, such as snaps, buttons, buckles or the like.

 In a further embodiment of the present invention, when an upper portion of the
20 bed frame is elevated to a raised position, along with a corresponding upper portion of the mattress, the pair of bumper pads coupled to each of the side rails may each independently move with the siderails without disturbing or dislodging the bedding pad, if, for example, the siderails are switched between a raised patient-restraining position and a lowered position, so as to provide easy access for a patient. Further, the bedding pad will not interfere with
25 the normal operational mechanisms and functions of the hospital bed.

In a preferred embodiment, the bumper pads are designed differently, wherein one bumper pad is open-ended, so as to allow a foam insert (placed within the bumper pad) to go completely up the inside of the rail, over the top, and down the outside of the rail, thus completely covering the entire top portion of the bed rail, and protecting body limbs that swing over the rail from injury. The opposite bumper pad, by contrast, features a closed end construction, whereby the foam inserted in this end of the bumper pad goes up only the inside of the rail, and extends above the top portion of the rail to cover the top of the rail, but does not completely extend over and down the outside portion of the rail.

In an alternative embodiment, both bumper pads are open-ended, so as to allow a foam insert (placed within the side rail pad) to go completely up the inside of each of the bumper pads, over the top, and down the outside of the rail, thus completely covering the entire top portion of the bed rails.

BRIEF DESCRIPTION OF THE DRAWINGS

Embodiments of the present invention will be further described with reference to the accompanying drawings, in which:

FIG. 1 is a top perspective view of an embodiment of the bedding pad of the present invention in place on a hospital bed, with the mattress removed;

FIG. 2 is a left side perspective view of the embodiment of the bedding pad of the present invention illustrated in Figure 1 in place on a hospital bed, with the mattress removed;

FIG. 3 is a top perspective view of an embodiment of the bedding pad of the present invention in place on a hospital bed, with the mattress placed thereon so as to receive a patient; and

5 FIG. 4 is a left side perspective view of another embodiment of the bedding pad of the present invention in place on a hospital bed, which illustrates the present invention remaining in place and not interfering with hospital bed functions, despite the head and foot of the hospital bed being raised, and the left side rail down.

10

DETAILED DESCRIPTION OF THE DRAWINGS

Illustrated in Figure 1 there is depicted a standard hospital bed (1) comprising side rails (3) a headboard (5), a footboard (7) and a bed frame (9). The bedding pad of the present invention has a central body portion (11) and two laterally spaced elongated side rail bumper pads (13,15) attached thereto, wherein the body portion (11) of the bedding pad is designed to fit under the mattress of a hospital bed (in this Figure, the hospital bed is shown without the mattress in place), and the opposed side rail bumper pads (13,15) are designed to cover the full-length side rails (3) of the hospital bed. As can be seen in Figure 1, a total length of the body portion (11) will cover approximately two-thirds of a total length of the bed, a top portion of the body portion designated as (10). The side rail bumper pads (13,15) in this embodiment are designed differently, wherein one side rail bumper pad (13) is open-ended, so as to allow a foam insert (placed within the side rail pad) to go completely up the inside of the rail, over the top, and down the outside of the rail (3), thus completely covering the entire top portion of the bed rail, and protecting body limbs that swing over the rail from injury. The opposite side rail bumper pad (15), by contrast, features a closed end construction, whereby the foam inserted in this end of the rail pad goes up

only the inside of the rail (3) , and extends above the top portion of the rail to cover the top of the rail, but does not completely extend over and down the outside portion of the rail.

Figure 2 illustrates a left side perspective view of the embodiment illustrated in Figure 1, with the hospital bed again shown without the mattress in place. In this Figure, it can be clearly seen how the side rail bumper pads (indicated as "13" in this Figure) can be secured with, in this embodiment, tie portions (17) attached to the material of the side rail pads. In this manner, the tie portions (17) on the side rail pads can be "tied" to the side rails (3) of the bed frame to secure the bedding pad thereto.

Referring to Figure 3, illustrates a top perspective view of the embodiment illustrated in Figures 1 and 2, but with the mattress (19) placed on the mattress deck. Once the mattress is in place, it can be seen that the body portion of the bedding pad is underneath the mattress (19).

Referring to Figure 4, there is illustrated the standard hospital bed (1) featured in Figs. 1-3, comprising side rails (3) a headboard (5), a footboard (7), and a mattress (19). Figure 4 further illustrates a further embodiment of the present invention, showing an upper portion of the bed frame (21) in a raised position along with a corresponding upper portion (23) of the mattress, and which shows one of the siderails (3) on one side of the bed in a lowered position so as to provide easy access for a patient, and further showing the corresponding siderail bumper pad (13) attached to the siderail (3) and swung to a lowered position. Further, although the present invention is disclosed in the context of a bed in a hospital environment, it will be understood that it is equally applicable to a bed, stretcher, gurney, wheel chair, or other patient support, in other environments-such as a patient's home, a nursing home, a convalescent home, etc. In this embodiment, the pair of siderail bumper pads (13,15) coupled to the side rails (3) may each independently move with the

siderails (3) when switched between the raised patient-restraining position shown in Figs. 1, 2, and 3 and the lowered position shown in Fig. 4. In this manner, it can be seen that, when the side rail bumper pads (13,15) are secured to the side rails by the tie rail portions shown in Figure 2, the bedding pad of the present invention does not interfere with the normal mechanisms and functions of the hospital bed, yet remains in place.

The foregoing are exemplary embodiments of the present invention and a person skilled in the art would appreciate that modifications to these embodiments may be made without departing from the scope and spirit of the invention.

THE EMBODIMENTS OF THE PRESENT INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A bedding pad for a bed having a frame and rails, said bedding pad comprising: a body portion for overlying the frame and positioned underneath a frame-supported mattress; first and second bumper pads disposed laterally opposite to the body portion and in parallel relation to sides of the body portion; and frame attachment means extending from the bumper pads to detachably secure the bumper pads to the rails, wherein the bumper pads, when secured to the rails, are capable of corresponding movement with the rails when the rails are moved to an extended or lowered position without dislodging the bedding pad and the body section is positioned on a lower portion of the frame to allow for an upper portion of the frame to assume an elevated position relative to a remainder of the bed without dislodging the bedding pad.

2. A bedding pad according to claim 1, wherein the first and second bumper pads are substantially the same length as the rails.

3. A bedding pad according to claim 1 or 2, wherein the first bumper pad is fitted over a rail and the second bumper pad substantially covers a top surface of another rail.

4. A bedding pad according to claim 1 or 2, wherein the first and second bumper pads each fit over and substantially cover a top surface of the rails.

5. A bedding pad according to any one of claims 1 to 4, wherein the first bumper pad is open-ended so as to completely cover the top portion of a rail by allowing

a foam insert to extend up an inside of the rail, over the top and down the outside of the rail and the second bumper pad is close-ended, so as to allow a foam insert to extend up only the inside of the rail and extend above a top portion of the rail to cover the top of the rail.

6. A bedding pad according to any one of claims 1 to 4, wherein the first and second bumper pads are open-ended, so as to completely cover the top portion of the rail by allowing a foam insert to go completely up the inside of the bumper pads, over the top and down the outside of the rail.

7. A bedding pad according to any one of claims 1 to 6, wherein the bumper pads are made from foam or padded material encased in plastic or fabric.

8. A bedding pad according to any one of claims 1 to 7, wherein the body portion measures approximately two-thirds of the total bottom length of the mattress and bed between which it is placed.

9. A bedding pad according to any one of claims 1 to 8, wherein the body portion measures the exact width of the frame it is to be placed on such that the bumper pads laterally attached thereto emerge from the underside of the mattress so that the bumper pads can be placed over the rails.

10. A bedding pad according to any one of claims 1 to 9, wherein the frame attachment means allows for the positioning of the bumper pads between the bed rails and the mattress.

11. A bedding pad according to any one of claims 1 to 10, wherein the frame attachment means are straps, ties, snaps, velcro, buttons or buckles.

12. A bedding pad according to any one of claims 1 to 11, wherein the bedding pad is made from a washable, durable and non-abrasive material such as flannelette or foam.

13. A bedding pad according to any one of claims 1 to 12, wherein the bed is a hospital bed.

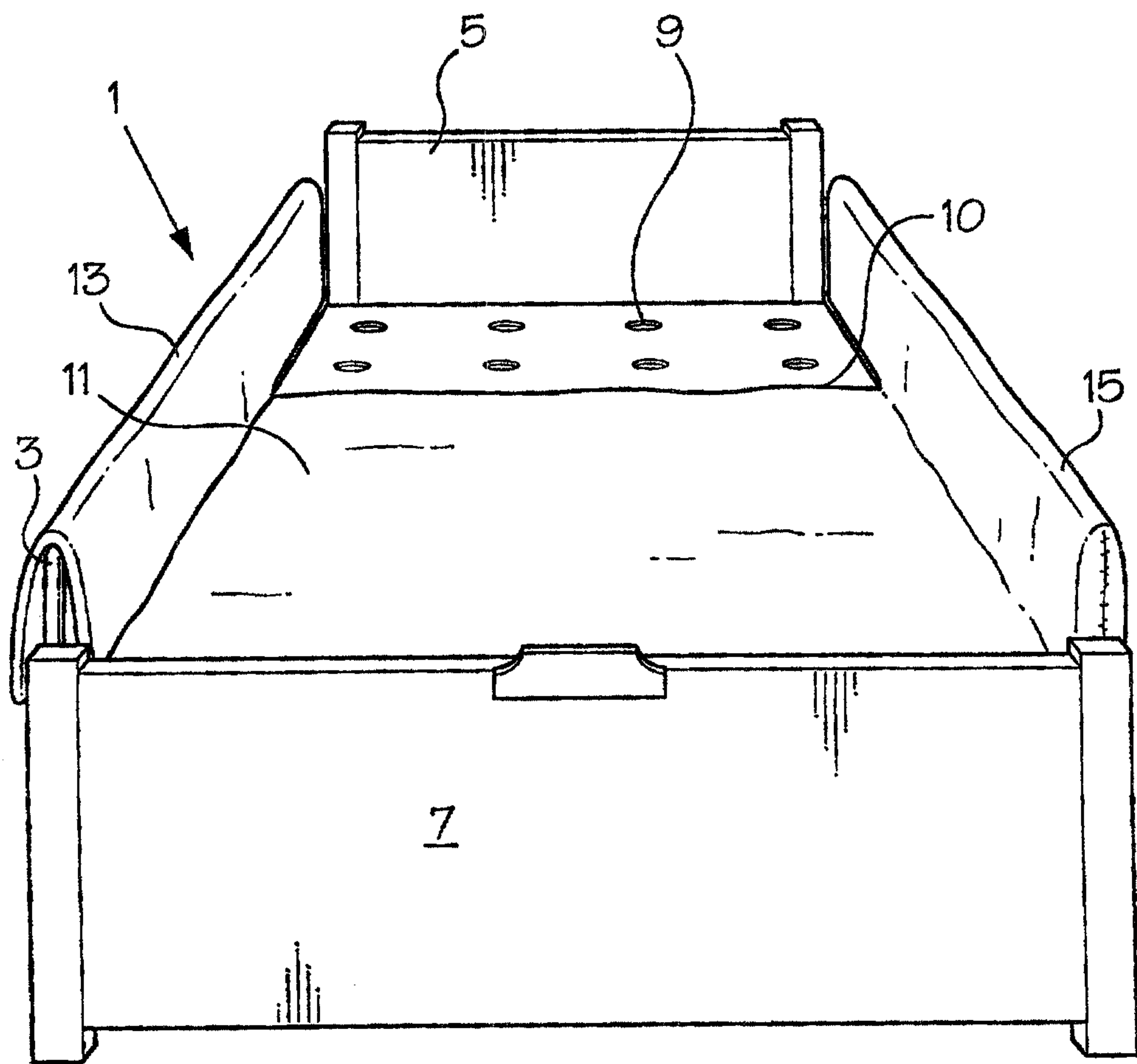


FIG. 1

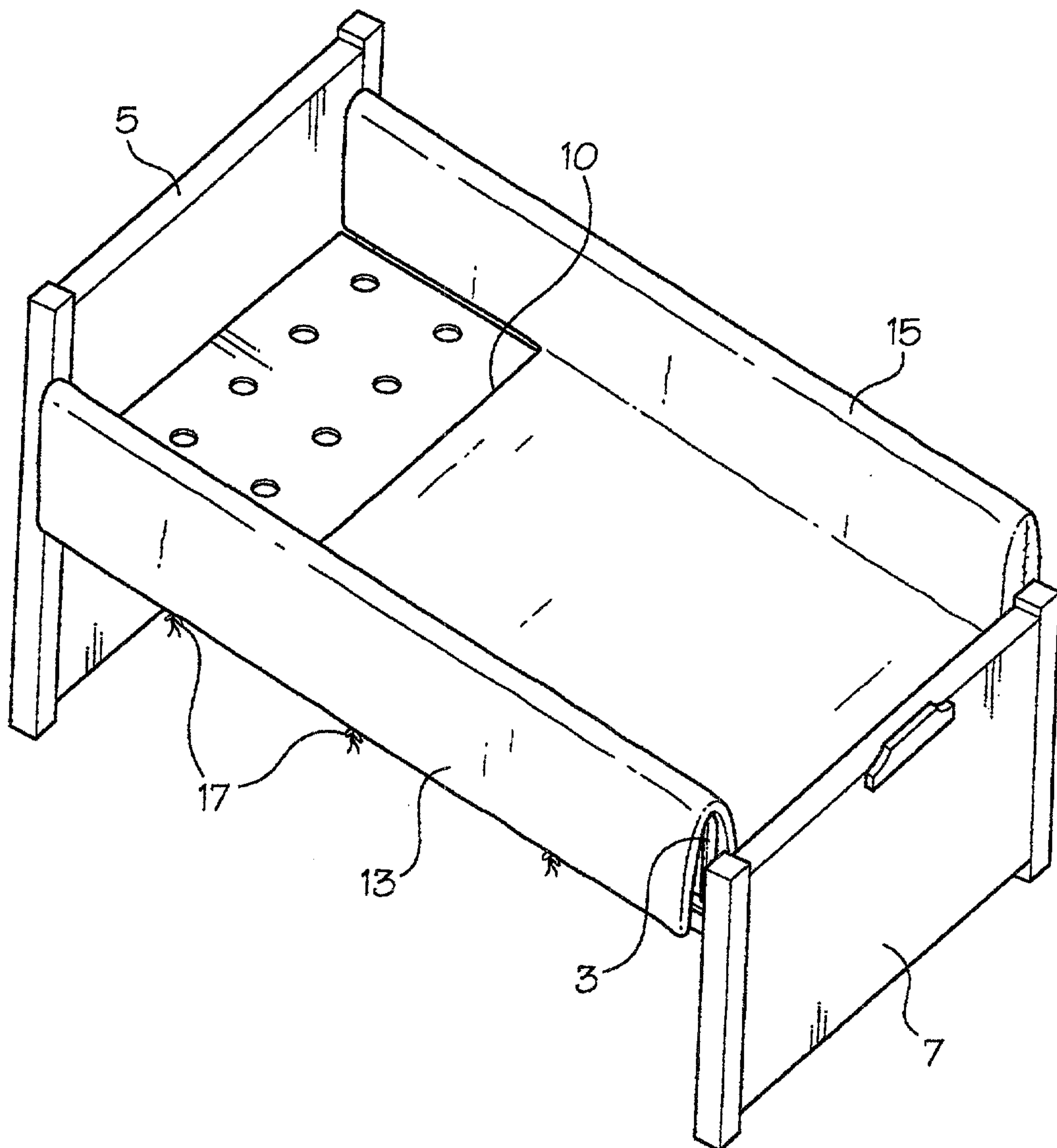


FIG. 2

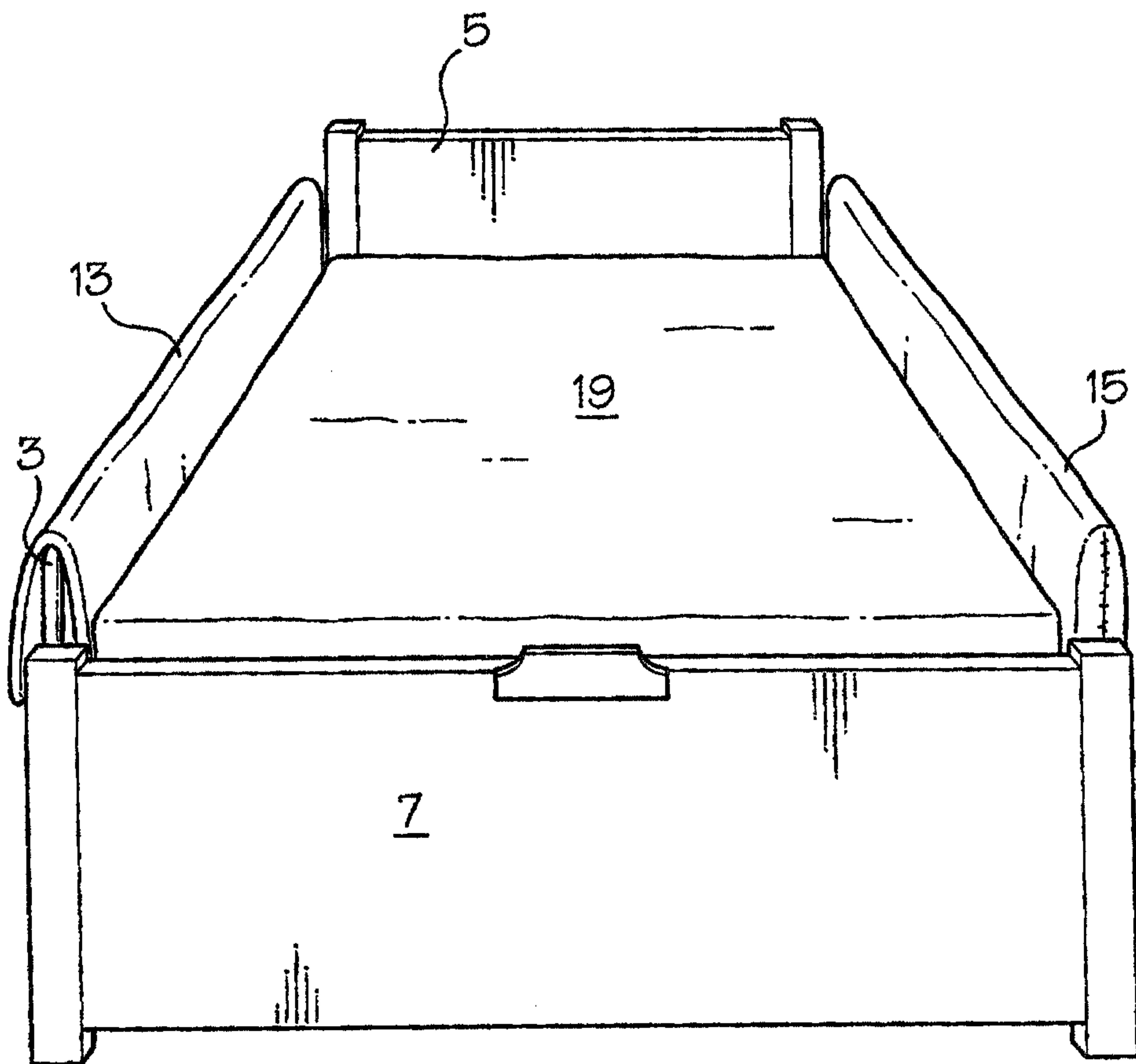


FIG. 3

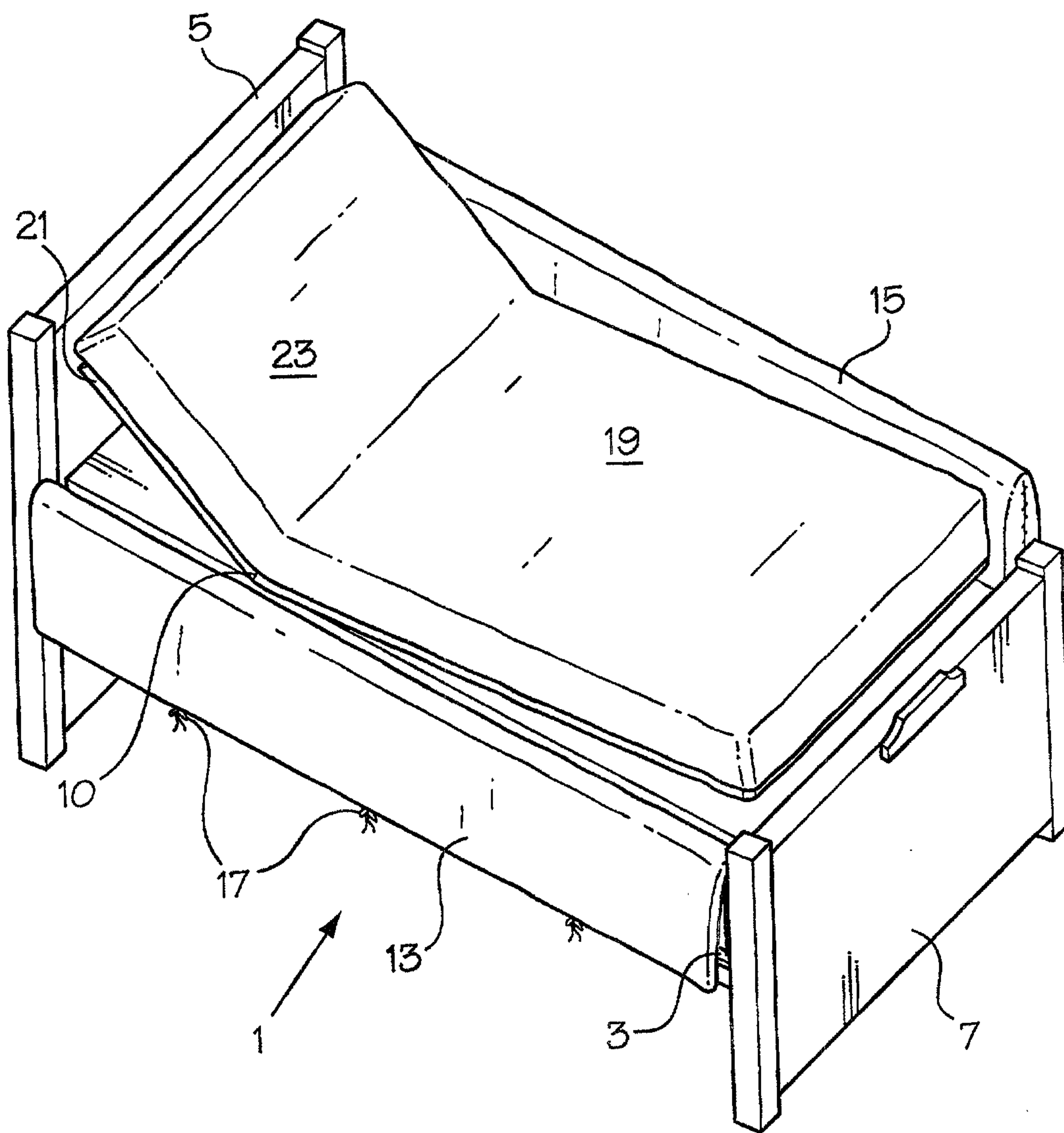


FIG. 4

