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(54) **SYSTEM AND METHOD FOR ATTACHING A HEADBOARD TO A BED**

(57) System and method for attaching a headboard to a bed characterized in that said bed has at least two slots in the framework of the bed, at least two L-shaped beams, and a headboard with at least two recesses in the bottom.



Fig. 3a

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Description

Technical Field

[0001] The present invention relates to a system and a method for attaching elements to a bed, and more particularly a system and a method for securely attaching a headboard to a bed.

Background of the invention

[0002] Having a headboard on a bed has several benefits. It can be used to lean against when you are reading a book, and it enhances the general look of the bed.

[0003] Further it is possible to attach lamps, or other items on the headboard sparing the wall from getting too many marks from screws and nails.

[0004] A headboard is usually placed behind beds that are situated against a wall. This makes it possible for a person to lean up against the headboard without destroying it.

[0005] If however the bed is placed away from the wall the headboard needs to be properly attached to the bed to be useful. Taking into consideration that it is usually when the bed is placed away from the wall one has the most use for a headboard, this problem restricts where in a room a bed can be placed.

[0006] Having a headboard properly attached to a bed would be a rather cumbersome process if the bed is not provided with the headboard to begin with. In some solutions the headboard is part of the framework of the bed, in other solutions the headboard is screwed on to the framework afterwards.

[0007] The problem with these solutions is that there is no easy way of attaching a headboard to a bed if it is not already a part of the framework.

Summary of the invention

[0008] It is therefore an object of the present invention, as it is stated in the set of claims, to solve the problems mentioned above.

[0009] The solution is a system for attaching a headboard to a bed characterized in that it comprises a bed with at least two slots in the framework at the head of the bed, at least two beams with an L-shape or a 90° angle, a set of bolts for attaching the beams to the framework of the bed, and a headboard placed over the beams.

[0010] With this solution a headboard can be attached to a bed without the use of tools, and without reducing the general impression of the bed. The use of an angular beam that is securely attached to the frame and to the headboard provides a strong connection between the frame and head board. The presented solution provides a self-supporting combination of bed and head board, that omit the need of extra support for the headboard from a wall. The bed can thereby stand any place in a room, allowing free space on any side of the bed.

[0011] When the headboard is not attached to the bed, plugs that match the frame of the bed is put into the slots hiding the holes.

[0012] It is thereby described a system for attaching a headboard to a bed, where said bed has at least two openings and inner beam attachment means in the framework of the bed. Said headboard is provided with at least two recesses in the bottom. The system also comprises an angled beam comprising a frame part and a headboard part, the frame part being introducible into the frame of the bed through the openings and being fastenable to the frame by means of the attachment means, the headboard part being introducible into the headboard through the recesses in the headboard, thereby connecting the headboard to the bed.

[0013] The system provides an easy way to mount a self-supporting headboard on a bed in a process with few steps. The angled beam is releasably attached to the bed frame. The shape of the beam allows the user of the bed to lift the headboard onto the beam after attaching it to the bed, presenting a very easy and quick way of attaching a headboard to a bed.

[0014] In one aspect of the system, plugs or covers cover the openings when they are not in use. As the openings can be covered when it is not desirable to attach a headboard, it is possible for the manufacturer to produce beds suitable for attachment of a headboard independently of if a headboard is being attached to the bed at a later stage. This gives a flexibility to the design of the bed without a comprehensive adaption of the production process to each specific design.

[0015] In a preferred embodiment of the system, bolts fasten the beams to the inner side of the framework of the beds. In other words, the frame part of the beams and the inner side of the bed frame are provided with corresponding attachment organs such as holes into which a bolt or screw can be screwed through the beam and into the bed frame, thereby providing a sturdy connection between the beam and the bed. It is an advantage for the system if said bolt can be hand tightened.

[0016] In another embodiment of the system, the frame of the bed is provided with guiding means. The guiding means guide and support the frame part of the angled beam, to ensure the correct position of the beam. As the headboard is to be set down onto the standing headboard parts of the beam, it is important that the position of the beams correspond to the recesses in the headboard assigned for the beam.

[0017] In some embodiments of the system, the headboard comprises inner support means for further support of the headboard part of the angled beams. As the connection between bed, beam and headboard preferably should be sufficiently strong to withstand both dragging of the bed by the headboard and one or more persons leaning against the headboard, it can be expedient to provide an inner support structure in the headboard ensuring that the beam is held in a stable position.

[0018] In that aspect, the angled beam is dimensioned

to hold the weight of the headboard and withstand side-ways pressure from moving on the bed or leaning towards the headboard. It is therefore advantageous of the beam is dimensioned so that the frame part of the beam will enter into a larger part of the bed frame, that is for example a fifth or fourth part or more of the length of the bed. The headboard part of the beam should also be able to enter into a larger part of headboard, that is for example a fifth or fourth part of the height of the headboard. In that way, the angled beams are dimensioned to provide a self-supporting connection between the bed and the head board.

[0019] It is also described a method for attaching a headboard to a bed where a first leg or frame part (4) of each of the L-shaped or angled beams are placed in the openings in the framework of said bed with the second leg or headboard part pointing upwards on the outside and adjacent to the bed frame, said first leg of the beams being placed in the opening is fastened to the framework of the bed with bolts, the headboard is placed over the second leg of the beams.

[0020] This method provides an easy way of obtaining a sturdy connection between the bed and the headboard.

[0021] In one aspect of the method, the headboard has recesses matching the shape of the second leg or headboard part of the beams. Thereby, the headboard can be set directly onto beams being attached to the frame of a bed.

[0022] The method used for attaching a headboard to the bed is characterized in that one leg of the L-shaped or angled beams is placed in the slots or openings in the bed with the other leg pointing upwards, the leg is fastened to the framework of the bed with bolts. The headboard is placed over the upright legs through recesses cut out in the bottom of the headboard.

Brief description of the drawings

[0023]

Fig. 1a-1b is a perspective view of a bed and a set of angled beams.

Fig. 2 is a perspective view of a bed and with the set of angled beams placed in slots in the frame of the bed.

Fig. 3 is a perspective view of a bed with the set of angled beams placed in slots and a headboard about to be placed on the angled beams.

Fig. 4 is a perspective view of a bed with the headboard in place.

Detailed description

[0024] Figures 1a and 1b are perspective views of an embodiment of the present invention. The figures show

the frame of a bed or box mattress 1 and a set of angled beams 2. At the head end of the bed 1 there is a set of openings 3 in the frame. The angled beams 2 fit in through the openings 3. The angled beams has a frame part suitable for inserting into the frame of a bed or box mattress and a headboard part onto which a headboard can be placed. The frame part is sufficiently long and solid to provide a good anchoring to the inside of the bed frame. The frame part can be provided with holes for screwing the angled beam onto the bed frame. The headboard part will protrude upwards from the frame when the beam is attached to a bed. The headboard part is preferably arranged a distance from the frame surface mainly corresponding to the framework and bolstering of the headboard being situated between the beam and the bed when the headboard is mounted on the beams. The headboard part is sufficiently long and strong to hold the headboard independently of surrounding structure.

[0025] When the beams 2 are not placed in the openings 3, they are covered with covers or plugs. These covers or plugs match the fabric or look of the rest of the frame.

[0026] The inner side of the frame of the bed can be provided with guiding means adjacent to the opening 3, to guide the inserted part of the beam 2 and to maintain the beam 2 in correct position after being inserted into the framework of the bed or box mattress. The guiding means can be for example be blocks, ribs, rails or grooves arranged on the inner surface of the frame.

[0027] Figures 2a and 2b are perspective views where the frame part 4 of the angled beam 2 is inserted through the openings 3 and placed towards the inner surface of the frame. If there are guiding means on the framework, the beam part 4 will abut against these. When the frame part of the angled beams 2 are placed inside the bed frame, they are fastened to the frame of the bed 1. They are each fastened to the frame of the bed 1 by at least a screw, bolt or the like through corresponding holes provided in the frame part of the beam and the frame of the bed. In a preferred embodiment the bolt can be hand tightened by using a wing nut.

[0028] Figures 3a-4b shows the mounting of the headboard 6. At the bottom of the headboard 6 there is a recess 7 on either side. This recess 7 fits over the upward pointing leg or headboard part 5 of the angled beams 2. Inside the headboard, there can be a support arrangement ensuring that the headboard is held fixedly towards the end surface of the bed.

[0029] When the headboard 6 is placed on the headboard parts of the angled beams, the angled beams 2 will not be visible. The angled beam is dimensioned to hold the weight of the headboard and withstand sideways pressure on the headboard, if the bed is moved around using the headboard as the gripping part of the bed. Using a strong angled beam and the above described method for mounting of the headboard, two persons can lean against the headboard 6 without damaging it. Furthermore, it is possible to mount the headboard onto a bed

or release the headboard from the bed without using tools.

[0030] The angled beams 2 are preferably made of iron, steel or even aluminium as long as it provides sufficient strength for the use requirements of the bed. However, it can also be made of hard plastic, wood or any other stiff substance. The beams 2 can have a square or rectangular cross section, be made of flat metal or T- and H-shaped beams or have a more elaborated cross section.

[0031] The weight of the headboard and the possible inner support means in the headboard will hold the headboard on the beam without the need for further attachment of the headboard to the beam. It is therefore easy to lift the headboard onto or off the bed.

Claims

1. System for attaching a headboard (6) to a bed (1),
characterized in that said bed (1) has at least two openings (3) and inner beam attachment means in the framework of the bed (1), said headboard (6) is provided with at least two recesses (7) in the bottom, an L-shaped or angled beam 2 comprising a frame part and a headboard part, the frame part being introducible into the frame through the openings (3) and fastenable to the frame by means of the attachment means, the headboard part being introducible into the headboard through the recesses in the headboard, thereby connecting the headboard to the bed.
2. System according to claim 1, wherein plugs or covers cover the openings (3) when they are not in use.
3. System according to claim 1, wherein bolts fasten the beams (2) to the inner side of the framework of the beds (1).
4. System according to claim 3, wherein said bolt can be hand tightened.
5. System according to any of the preceding claims, wherein the frame of the bed is provided with guiding means.
6. System according to any of the preceding claims, wherein the headboard comprises inner support means for supporting the headboard part of the angled beams.
7. System according to any of the preceding claims, wherein the angled beam is dimensioned to hold the weight of the headboard and withstand sideways pressure from moving on the bed or leaning towards the headboard.
8. System according to any of the preceding claims,

wherein the angled beams is dimensioned to provide a self-supporting connection between the bed and the head board.

9. Method for attaching a headboard (6) to a bed (1) **characterized in that** a first leg or frame part (4) of each of the L-shaped or angled beams (2) are placed in the openings (3) in the framework of said bed (1) with the second leg or headboard part (5) pointing upwards on the outside and adjacent to the bed frame, said first leg (4) of the beams (2) being placed in the opening (3) is fastened to the framework of the bed (1) with bolts, the headboard (6) is placed over the second leg (5) of the beams (2).
10. Method according to claim 5 wherein the headboard (6) has recesses (7) matching the shape of the second leg (5) of the beams (2).

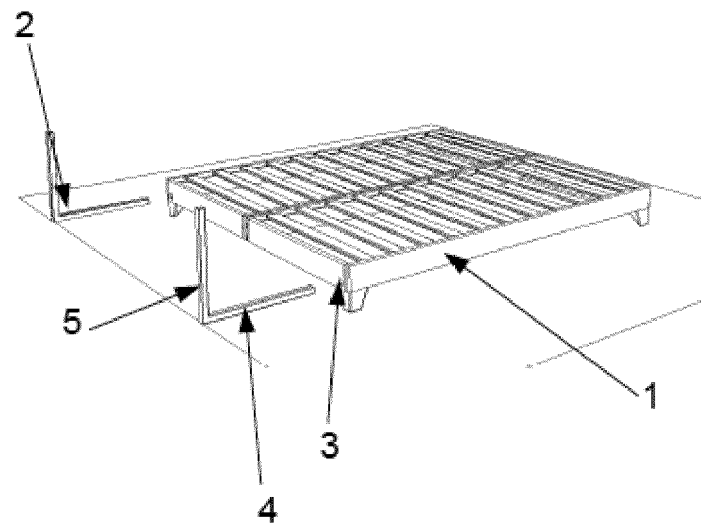


Fig. 1a

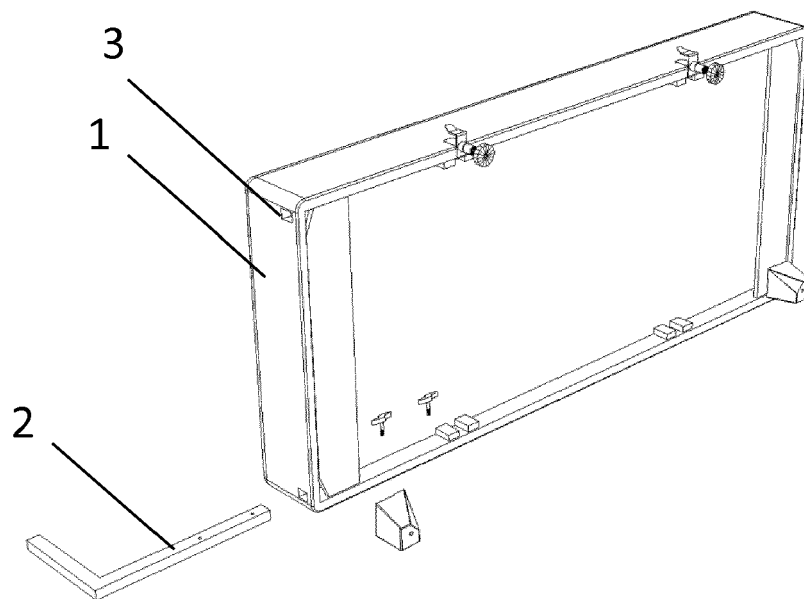


Fig. 1b

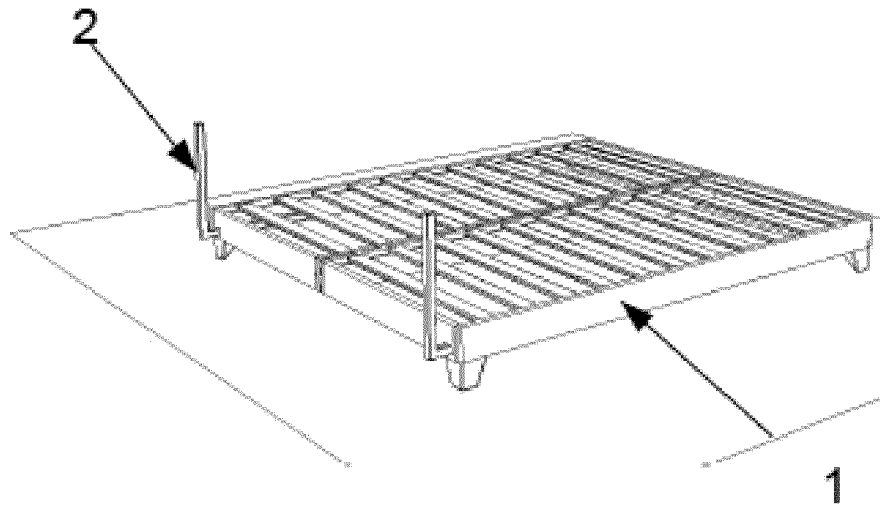


Fig. 2a

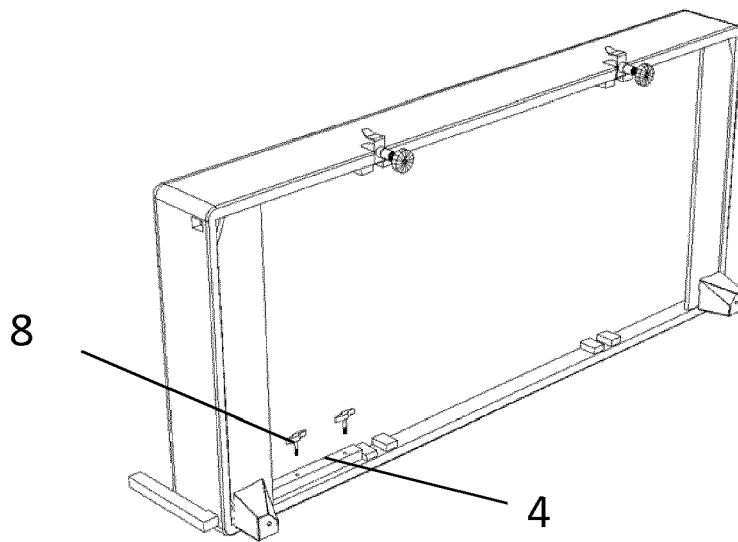
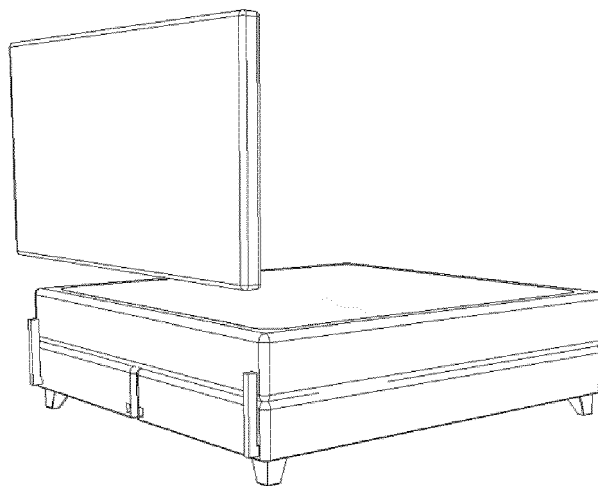
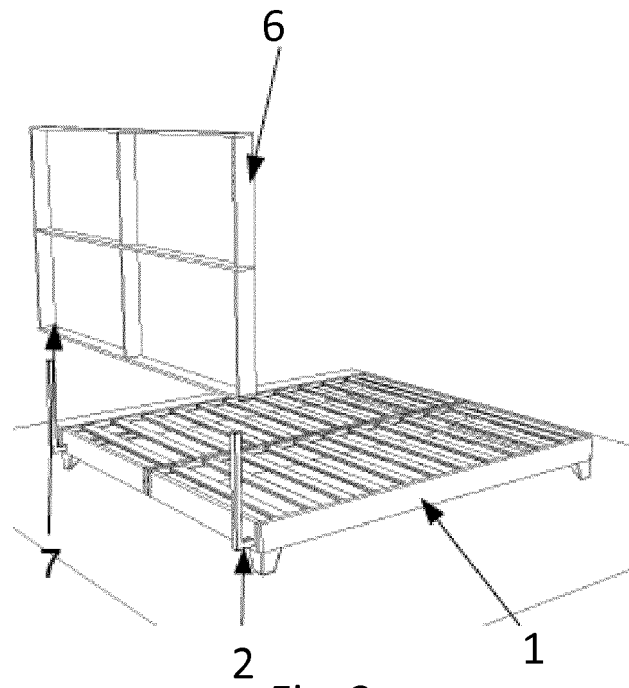


Fig. 2b



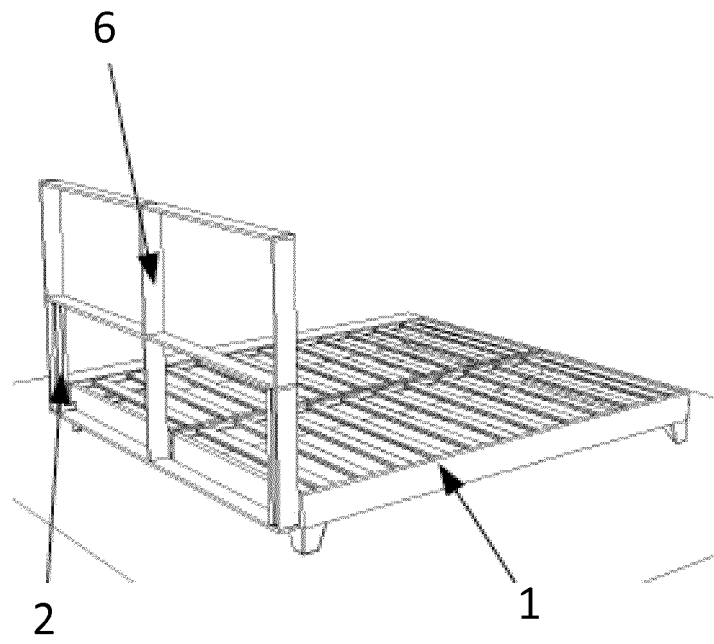


Fig. 4a

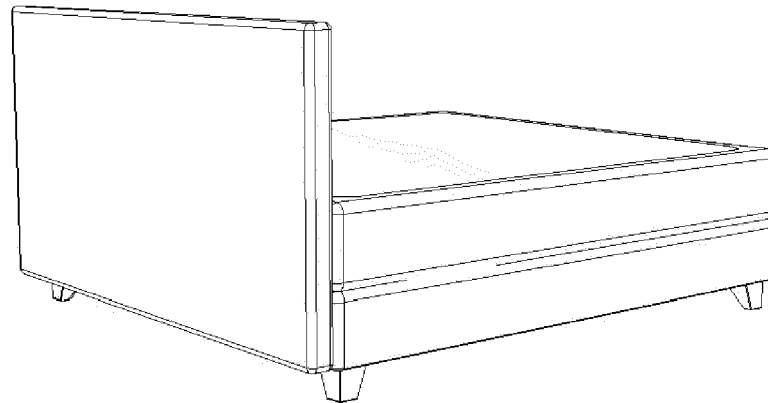


Fig. 4b



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 Application Number
 EP 15 19 0217

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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
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Place of search		Date of completion of the search	Examiner
The Hague		3 March 2016	Tempels, Marco
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
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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