United States Patent [19]

Kuss

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[54] ADJUSTABLE SUPPORT FOR A WATER MATTRESS

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[52] **U.S. Cl.** .....**5/236,** 5/348 WB, 248/188.2

[51] **Int. Cl.**.....**A47c 27/08**

[58] **Field of Search** .....5/236, 348, 348 WB; 52/641, 52/645, 655; 4/172.19; 248/188.2

[56] **References Cited**

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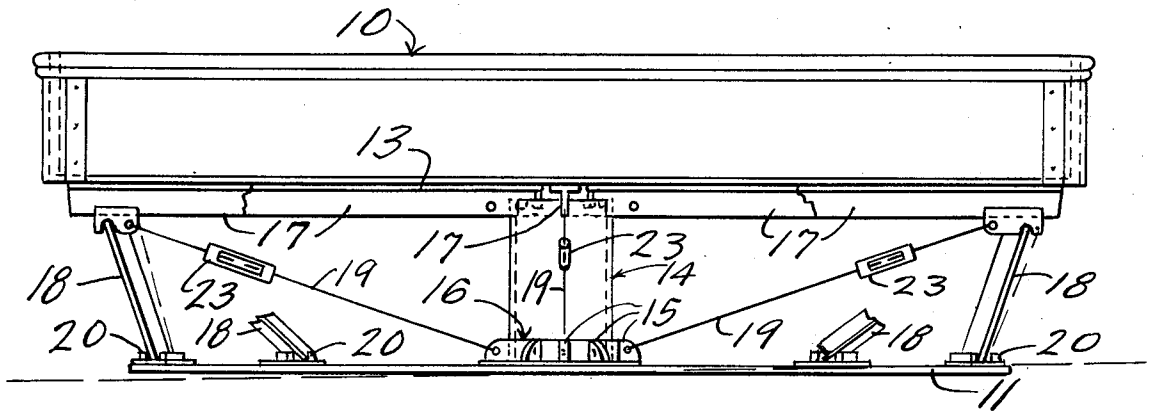
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[57] **ABSTRACT**

The invention is an adjustable support for a water-filled mattress. The support comprises a box-shaped carrier for receiving and supporting a water-filled mattress. The box-shaped carrier is supported over a base member by a plurality of adjustable T-beams. The T-beams are hinged from a central post attached to the base member. Each of the T-beams extends radially from the central post to a corresponding vertically adjustable carrier arm hinged to the periphery of the base member. Adjustable cables extending from the central post to each of the carrier arms supporting the T-beams provide means for raising or lowering the carrier arms and, in turn, the beams resting on the carrier arms for leveling and supporting the box-shaped bed carrier above the base.

5 Claims, 3 Drawing Figures



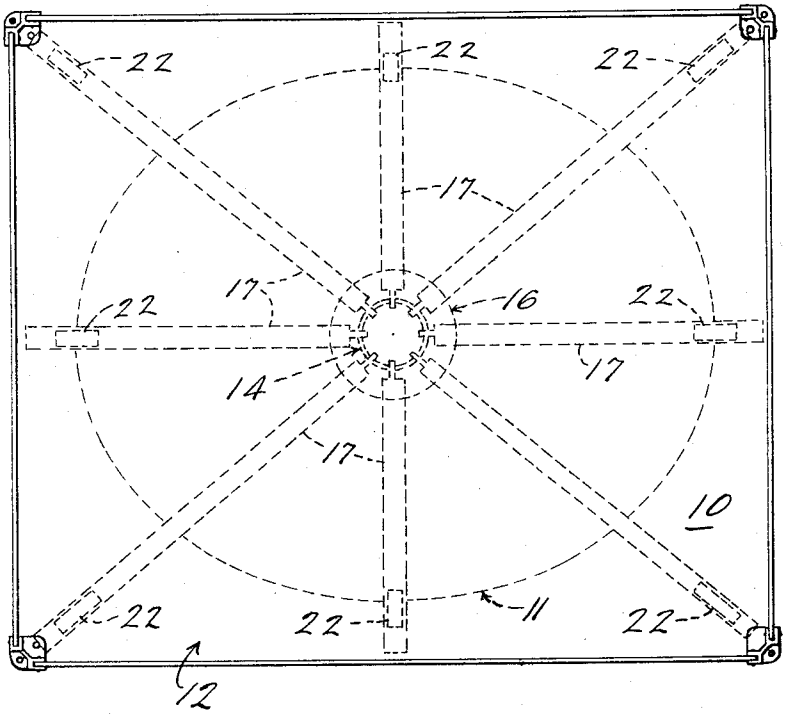


FIG-1-

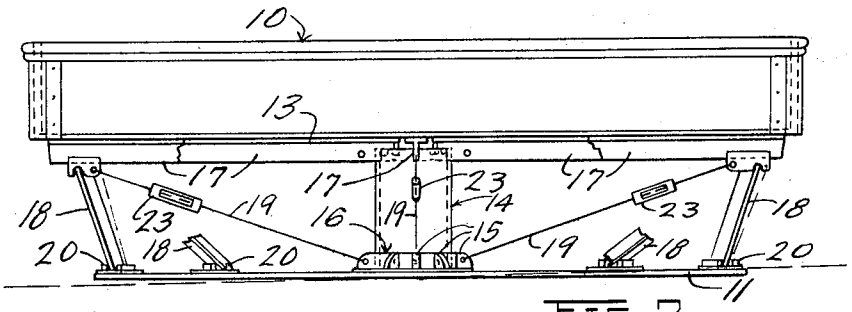


FIG-2-

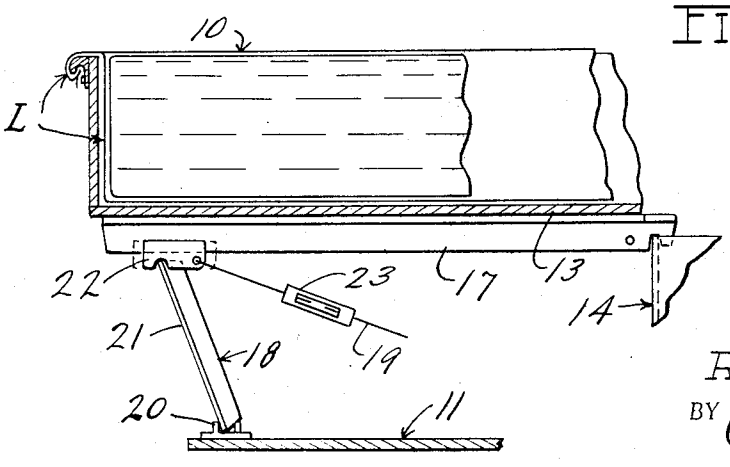


FIG-3-

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ADJUSTABLE SUPPORT FOR A WATER MATTRESS

BACKGROUND OF THE INVENTION

Water-filled mattresses, commonly known as water beds, are made generally of a mattress-size, flexible, water-tight envelope. The water beds are typically placed on a floor and filled in place with water. The fluid nature of the flexible water filled envelope provides a desired cushioning effect to the water bed. Due to the lack of structural rigidity in the filled mattress, however, the bed tends to sag and bulge on unlevel floor surfaces. Furthermore the weight of the filled mattress (a filled double bed sized mattress, for example, weighs about one thousand five hundred ten pounds) causes bulging and weakening of the mattress sidewalls. The extreme weight and bulk of the water mattress also causes difficulty in cleaning around the mattress. Also, when the mattress is on the floor, it is less convenient for the user.

The present invention provides a means of supporting a water bed in a level position above a floor surface and a means for supporting the sidewalls of the water-filled mattress to prevent sagging and bulging therein. Because the support maintains the water bed off of the floor surface, the invention provides greater ease and comfort in use of the mattress.

SUMMARY OF THE INVENTION

The invention is an adjustable support for a water-filled mattress. The support comprises a base member and a vertical support post extending from the center of the base member. A plurality of T-beams, hinged to the top of the support post, extend radially from the post and are supported at their outward ends by vertically adjustable carrier arms. The carrier arms are pivotally supported at the periphery of the base. A channeled carrier member hinged to the top of each of the carrier arms slidably receives and supports one of the T-beams. Support cables extending from the support post to each of the carrier members are each provided with a turnbuckle for adjusting the respective cable's length, thereby adjusting the vertical height of each of the carrier arms supporting one of the T-beams. The vertical height of each of the T-beams is thus adjustable through adjustment of the length of the corresponding support cable. A box-shaped bed container complementary in size to the bed rests upon the T-beams. Means are thus provided for positioning the water mattress in a level position over the base by adjusting the vertical height of each of the T-beams.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a plan view of the adjustable support for a water-filled mattress of the present invention;

FIG. 2 is an elevational view of the adjustable support for a water-filled mattress of the present invention; and

FIG. 3 is an elevational, partially cross-sectional view of the adjustable support for a water-filled mattress of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIGS. 1 and 2, an adjustable support for a water-filled mattress 10 having an elliptical base member 11 and a box-shaped water mattress container 12 supported over the base member 11 is shown. The box-shaped container 12 comprises a floor 13 and peripheral sidewalls which are complementary in area to the water-filled mattress 10 which is placed within the container 12. If desired, a separate liner L may be placed within the container 12 to both protect the water mattress and also to temporarily retain water in the event of a leak due to material failure or accidental rupture of the watertight envelope. A vertically extending central support 14 is attached to the center of the base member 11. A plurality of cable support eyes 15 or other attachment means are attached to a collar 16 around the lower extremity of the central support 14. A plurality of radially extending T-shaped beams 17 are hinged to the upper extremity of the support member 14.

As shown in FIG. 1, the T-beams 17 extending from the central support 14 extend to the outer periphery of the box-shaped container 12 to provide a strong structural support under the container 12. Each of the beams 17 is adjustably supported by a carrier arm 18 and its cable support 19.

Referring to FIG. 3, the carrier arm 18 comprises a U-shaped support member 20 fixed to the periphery of the elliptical base member 11. A rigid arm 21 is pivotally mounted in the U-shaped support member 20. A channeled carrier member 22 is hinged to the upper extremity of the rigid arm 21. The channeled carrier member 22 receives one of the T-beams 17 in sliding relationship so that the entire carrier arm 18 may be pivotally adjusted. Each cable support 19 is attached at one end to one of the support eyes 15 attached to the base of the central support member 14 and at an opposite end to the channeled carrier member 22. A turnbuckle 23 located on the cable support 19 provides a means of lengthening and shortening the cable support 19.

By adjusting the turnbuckle 23, the carrier arm can be pivoted either toward or away from the central support 14 thus changing the vertical height of the carrier arm 18 with respect to the base member 11. An adjustment of the vertical height of the carrier arm 18 correspondingly raises or lowers the vertical height of the end of the T-beam 17 resting on the carrier arm 18. By so adjusting each of the peripherally extending T-beams, the bed container 12 resting upon said beams 17 may thus be placed in a level position over the base member 11, thereby leveling the water mattress 10 within the box-shaped container 12. Since the box-shaped bed container 12 is complementary in size to the water-filled mattress 10, the sidewalls of the mattress 10 are supported against bulging by the peripheral sidewalls. Thus means are provided for adjustably supporting a water bed over any type of floor surface.

It will be seen that the above described construction provides a simple and sturdy elevated support for a water bed which can be leveled by the purchaser in situ to suit the particular floor or surface where the bed is to be placed. Each of the various components can be conveniently disassembled for storage in a minimum space.

The device can be sold in prepackaged kit form with the ultimate purchaser separately supplying only the base member **11** and floor **13**, which can be locally purchased in the form of sheet plywood, etc.

Various modifications of the preferred embodiment described above will be apparent to those skilled in the art and may be made without departing from the spirit and scope of the following claims.

I claim:

1. A support for a water bed capable of adjustment to a level condition comprising, in combination, a base member, a vertically extending central support fixed upon said base member, a plurality of beam members hinged to and extending radially outwardly from said central support, a plurality of peripheral carrier arms pivotally supported upon said base member, means on an uppermost extremity of said carrier arms for slideably supporting one of each of said beam members, means for varying the angular position of said carrier arms to thus vary the height of the beam member slideably associated therewith, and a box-shaped mattress support resting upon the upper surfaces of said beam members whereby a water mattress within said mattress support may be leveled by selective adjustment of the height of said beam members.

2. A support for a water bed according to claim **1** wherein said peripheral carrier arms comprise a U-shaped support plate fixed to said base member, a rigid arm member supported at a lower end within a slot in said U-shaped support plate and a slotted carrier member hinged at an upper end of said rigid arm for slideably receiving and supporting one of said beam members above said base.

3. A support for a water bed according to claim **1** wherein means for varying the angular position of said carrier arms comprise a cable attached to said central support at its one end and attached to one of said carrier members of said peripheral carrier arms at its other end and a turnbuckle upon said cable for adjusting the vertical height of said peripheral arms.

4. A self-leveling support for a water bed according to claim **1** wherein said carrier arms comprise a support plate fixed to said base member, a rigid arm member adjustably attached at one end of said support plate, and a carrier member adjustably attached at an opposite end of said rigid arm member for receiving and supporting one of said beam members above said base.

5. A support for a water bed comprising a planar upper mattress support, a lower platform, a central vertical pedestal extending between said upper support and said platform, a plurality of radial beams extending from said central pedestal outwardly toward the periphery of said mattress support and means for adjusting the vertical position of the peripheral ends of said beams whereby said upper support can be leveled.

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