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Watts

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[54] BED CARRYING FRAME

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[52] **U.S. Cl.** **5/201,** 5/285, 5/288, 5/300

[51] **Int. Cl.**.....**A47c 19/02**

[58] **Field of Search**.....5/300, 288, 282, 286, 285, 5/200, 201; 287/108, 114

[56] **References Cited**

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[57] **ABSTRACT**

A bed carrying frame comprises corner members and rails readily assembled and disassembled. The corner member has a channel to receive the rail and a recess to receive a locking means attached to the rail. The locking means has walls which engage corresponding walls of the recess to wedge the locking means and rail in the recess and channel and thereby preclude longitudinal and transverse movement of the rail with respect to the corner member.

10 Claims, 4 Drawing Figures

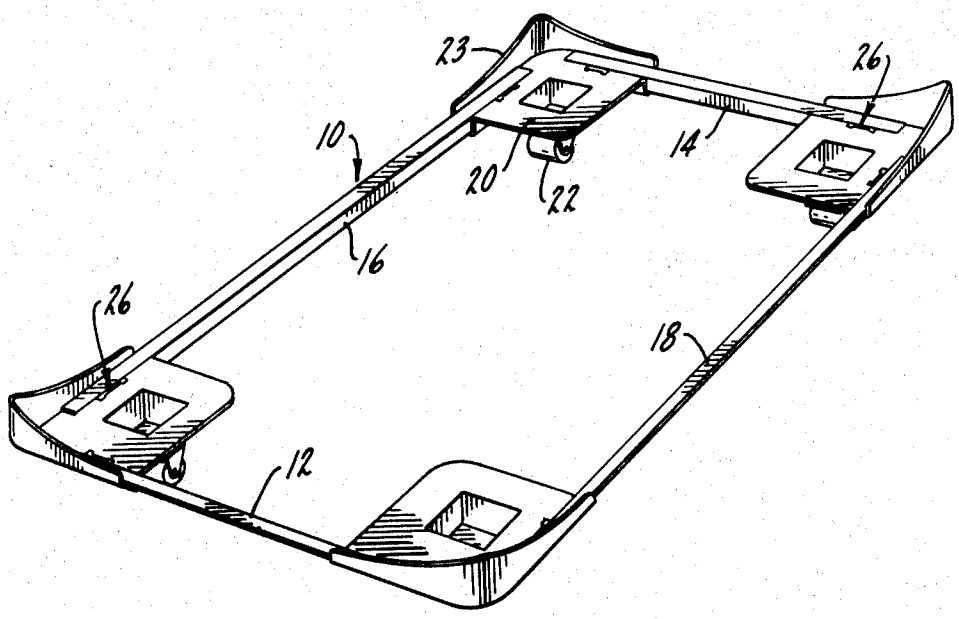


fig.1.

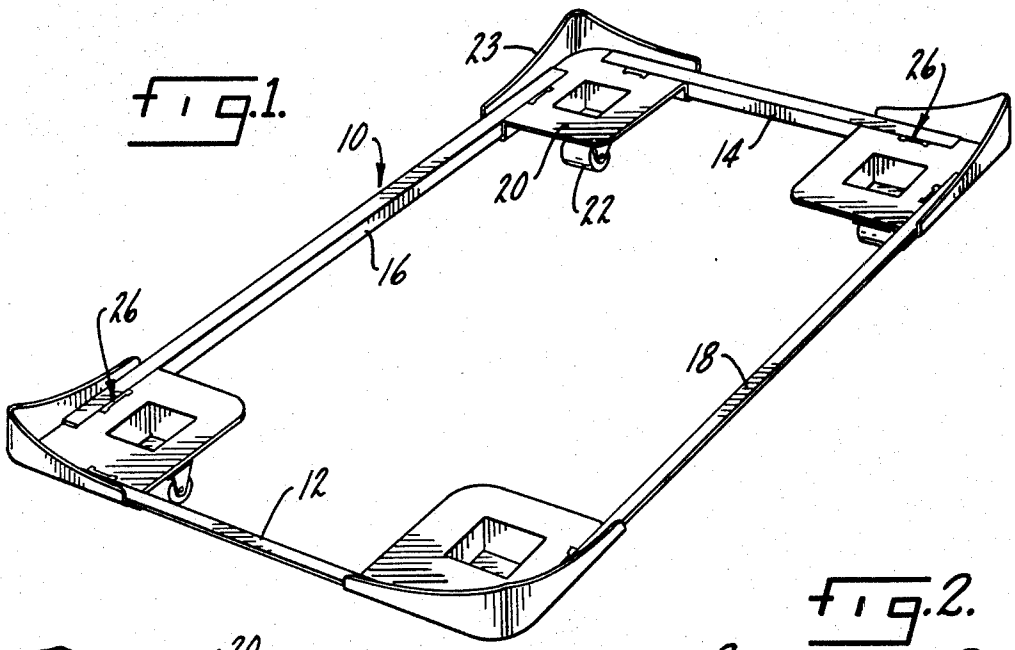
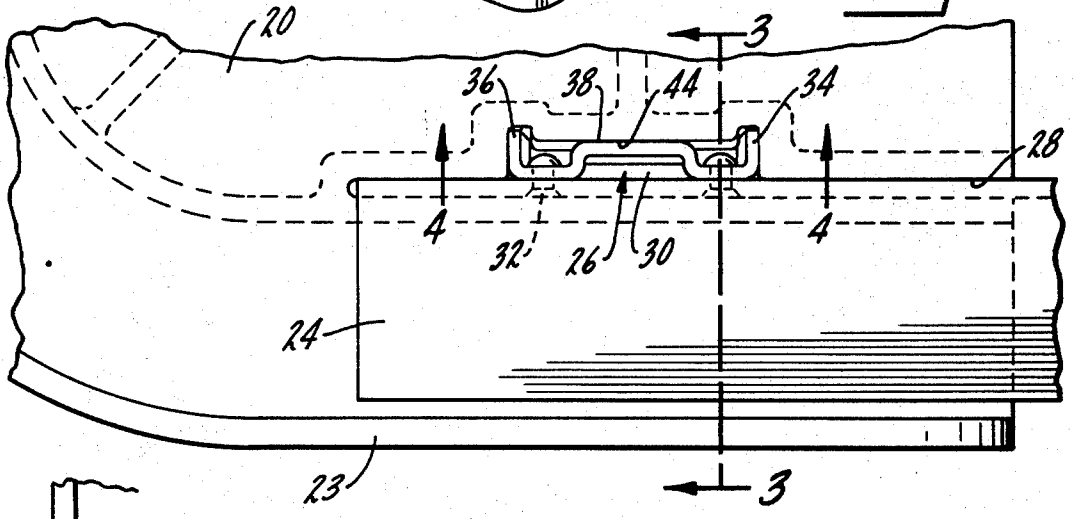


fig.2.



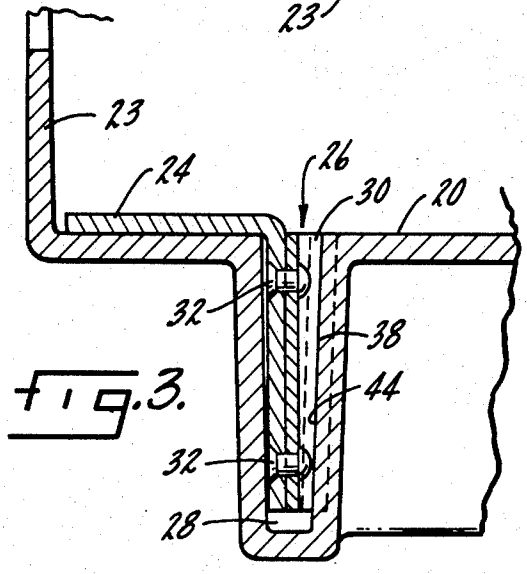
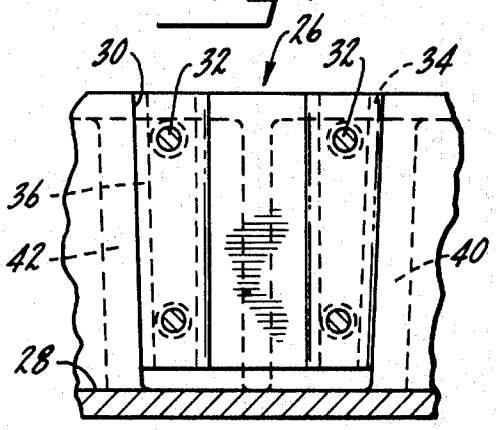


fig.3.

fig.4.



BED CARRYING FRAME

This invention relates to a bed carrying frame and more particularly to a corner member and rail combination for a bed carrying frame.

Beds generally comprise a bed carrying frame, a box spring unit and a mattress. The box spring unit is placed in the frame and the mattress is placed upon the box spring unit.

It is an object of the present invention to provide a bed carrying frame which may be readily assembled and disassembled. It is a further object to provide a corner member and rail combination for a bed carrying frame which may be easily assembled and disassembled.

These and other objects more apparent hereinafter are accomplished in accordance with the present invention by the combination of a corner member and rail wherein the rail has locking means adapted to slidably fit into and engage the corner member in such a manner that the rail and corner member are locked together to prevent longitudinal and transverse movement of the rail. The rail and locking means easily slide out of the corner member to disengage or unlock these parts.

The invention both as to its organization and method of operation taken with further objects and advantages thereof will best be understood by reference to the following description taken in conjunction with the following drawings in which:

FIG. 1 is a perspective view of a bed carrying frame embodying the features of the present invention;

FIG. 2 is an enlarged fragmentary plane view of a portion of the bed carrying frame of FIG. 1;

FIG. 3 is a cross-sectional view of the bed carrying frame taken along line 3—3 of FIG. 2; and

FIG. 4 is a cross-sectional view of the bed carrying frame taken along line 4—4 of FIG. 2.

Referring now to the drawings and more particularly to FIG. 1 there is illustrated a bed carrying frame embodying the features of the present invention and indicated generally by reference numeral **10**. The bed carrying frame **10** comprises end rails **12, 14** and side rails **16, 18** which are attached to corner members **20** in accordance with the features of the present invention. The rails **12, 14, 16, 18** and corner members **20** may be easily assembled and disassembled. When assembled in accordance with the present invention these rails are firmly secured to the corner members **20** and longitudinal or transverse movement of the rail is precluded by virtue of the particular locking means employed by the present invention. The corner members **20** each have a castor **22** to permit the bed carrying frame **10** to be readily moved after the box spring unit and/or mattress have been placed on the frame **10**. Each corner member **20** has a flange **23** extending about the corner of the member **20** to prevent the box spring unit from slipping off of the bed carrying frame **10** in either a longitudinal or transverse direction.

Referring now to FIGS. 2–4 also the rails **12, 14, 16, 18** in this instance are angle irons **24** to which are attached locking means indicated generally by reference numeral **26**. The corner member **20** has a channel **28** adapted to receive the downwardly extending leg of the angle iron **24** and a recess **30** communicating with said channel **28** adapted to receive the locking means **26**.

Suitable means, in this instance, rivets **32** are used to attach the locking means **26** to the downwardly extending leg of the angle iron **24**. The locking means **26** is a metal plate or bracket forming two downwardly converging end walls **34** and **36** and a surface **38** intermediate thereof which slants upwardly and outwardly away from the rail. The recess **30** forms downwardly converging end walls **40** and **42** and a surface **44** intermediate thereof which slants downwardly and inwardly toward the channel **28**.

The rail and the corner member **20** are attached by placing the rail in the channel member **28** and the locking means **26** thereof in the recess **30** and forcing the rail and its locking means downwardly into the channel **28** and the recess **30**, respectively. As the locking bracket moves downwardly into the recess **30** the end walls **34** and **36** come into contact with the end walls **40** and **42**, respectively, of the recess **30** and the locking bracket becomes wedged between the walls **40** and **42**, which prevents movement of the rail along its longitudinal axis. At the same time the surface **38** of the locking bracket contacts the slanting surface **44** of the recess and wedges the locking bracket and rail within the recess **30** and the channel **28**, which precludes movement of the rail in a transverse direction. Firm locking of the rail and the corner member can be assured by striking the rail with a hammer or other suitable means to firmly wedge it into the corner member **20**. Likewise, the rail may be readily detached from the corner member by striking it in the opposite direction.

Similarly, all ends of the side and end rails may be attached to and disconnected from the corner members **20** of the bed carrying frame **10**. It will be understood that the same locking arrangement may be used with rails having rectangular-tubular configurations, triangular-tubular configurations and the like.

While the embodiments described herein are at present considered to be preferred, it is understood that various modifications and improvements may be made, and it is intended to cover in the appended claims all such modifications and improvements as fall within the true spirit and scope of the invention.

What is claimed is:

1. A bed carrying frame including a corner member having a channel therein to receive a rail and a recess therein to receive a locking means attached to said rail, said locking means having a slanting wall and a slanting surface, said recess including a slanting wall which cooperates with the wall of said locking means to wedge the locking means in the recess and thereby prevent movement thereof in one direction and a slanting surface which cooperates with said surface of said locking means to wedge the rail and locking means in the channel and recess and thereby prevent movement of said locking means in a second direction.

2. The bed carrying frame of claim **1** wherein said locking means wedges in said recess by downward movement of said locking means in said recess.

3. A bed carrying frame including a corner member having a channel therein to receive a rail and a recess in said channel adapted to receive a locking means attached to said rail, said locking means having two downwardly converging walls and a surface intermediate thereof which slants upwardly and away from said rail, said recess having two downwardly converg-

ing walls which cooperate with the walls of said locking means to wedge the locking means therebetween and thereby prevent movement thereof in one direction and a surface intermediate thereof slanting downwardly and inwardly toward said channel which cooperates with said surface of said locking means to wedge the rail and locking means in the channel and recess and thereby prevent movement thereof in a second direction.

4. The bed carrying frame of claim 3 wherein said rail is an angle member with a downwardly extending vertical leg and an outwardly extending horizontal leg, said locking means being attached to said vertical leg and said channel receiving said vertical leg.

5. The bed carrying frame of claim 1 wherein said rail is a tubular member of rectangular configuration.

6. The bed carrying frame of claim 1 including four corner members and four rails, each end of said rails being attached to a corner member in the same manner.

7. A corner member and rail combination for a bed carrying frame comprising a corner member having a channel therein to receive said rail and a recess therein to receive a locking means attached to said rail, said locking means having a slanting wall and a slanting surface, said recess including a slanting wall which cooperates with the wall of said locking means to wedge the locking means in the recess and thereby prevent movement thereof in one direction and a slanting surface which cooperates with said surface of said locking means to wedge the rail and locking means in the channel and recess and thereby prevent movement of said locking means in a second direction.

8. The corner member and rail combination of claim 7 wherein said locking means wedges in said recess by downward movement of said locking means in said recess.

9. A corner member and rail combination for a bed carrying frame comprising a corner member having a channel therein to receive said rail and a recess in said channel adapted to receive a locking means attached to said rail, said locking means having two downwardly converging walls and a surface intermediate thereof which slants upwardly and away from said rail, said recess having two downwardly converging walls which cooperate with the walls of said locking means to wedge the locking means therebetween and thereby prevent movement thereof in one direction and a surface intermediate thereof slanting downwardly and inwardly toward said channel which cooperates with said surface of said locking means to wedge the rail and locking means in the channel and recess and thereby prevent movement thereof in a second direction.

10. The corner member and rail combination of claim 9 wherein said rail is an angle member with a downwardly extending vertical leg and an outwardly extending horizontal leg, said locking means being attached to said vertical leg and said channel receiving said vertical leg.

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