March 2, 1954 G. GOTTLIEB ET AL 2,670,479

BED CONSTRUCTION

Filed Dec. 28, 1950

FIG. 1

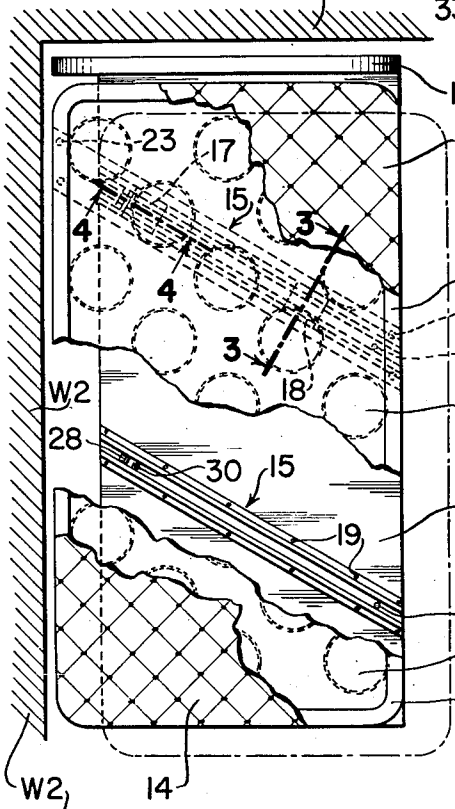


FIG. 5

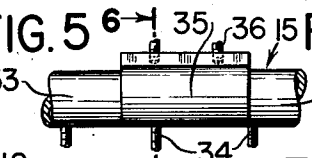


FIG. 6

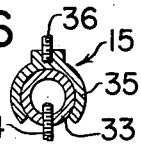


FIG. 3

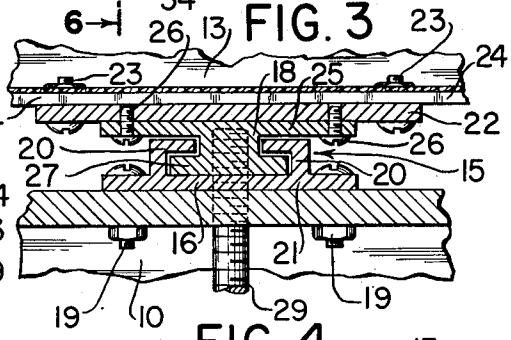


FIG. 4

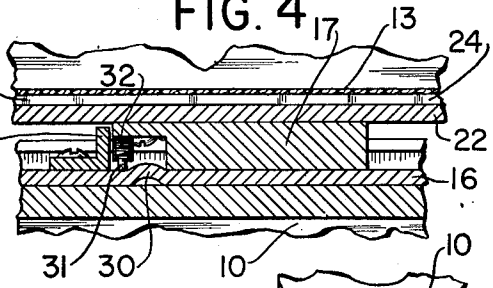


FIG. 8

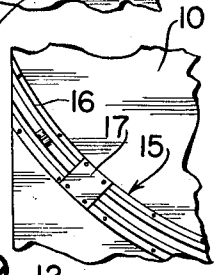


FIG. 7

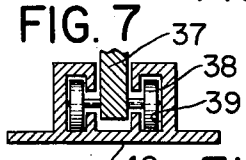


FIG. 2

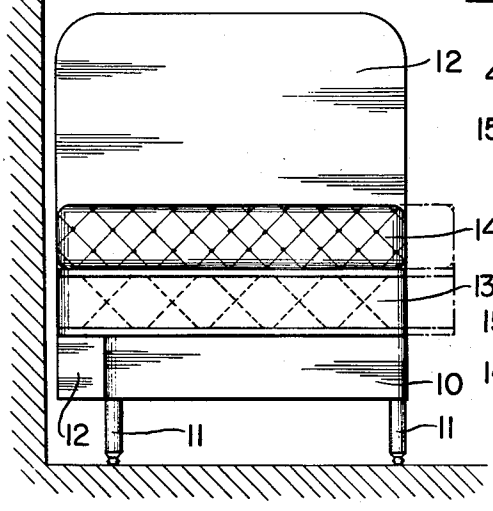
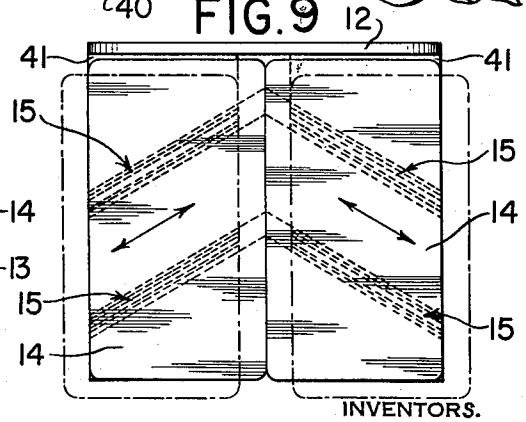


FIG. 9



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BED CONSTRUCTION

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7 Claims. (Cl. 5—131)

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The present invention relates to a bed construction and more particularly to means for slidably connecting a bed spring to a bed frame.

In order to save space, especially in hotel rooms, beds are often placed against the wall or in a corner. This necessitates the moving of the bed, or at least pivotally swinging it about one of its four corner legs, every day in order to provide access to the sides of the bed positioned against the wall, so that the bed may be made.

Moving of the bed to provide access is difficult and where the bed is resting on carpeting, such repeated movements cause a disproportionate amount of wear to be incurred by the carpeting in the area adjacent the legs of the bed. It is, therefore, an object of the present invention to provide a structure which will give the person making the bed ready access to all sides of the bed without the necessity of moving the bed frame.

In its broadest aspect the objects of this invention can be accomplished by slidably mounting the bed spring on the bed frame, so that the bed spring may be moved away from the wall independently of the bed frame, while the bed frame remains stationary and in a fixed position.

It is a further object of the present invention to provide a means for mounting the bed spring on the bed frame in such a manner that the bed spring can be moved with a minimum of force being required, yet will be held in position against accidental or inadvertent movement.

Still another object of the present invention is to provide a structure for mounting a bed spring on a bed frame for relative movement therebetween which may be readily incorporated into structures presently in use.

It is not desirable to place on a bed any mechanical structure which is visible from the exterior of the bed. The appearance that a bed is mechanically operable is disturbing to most people and therefore must be avoided if the structure is to be generally acceptable. It is therefore important that any mechanical structure employed to make the bed spring and mattress movable relative to the frame, be completely hidden from sight, and it is an object of the present invention to provide such a mechanical structure that will not be visible from the exterior of the bed.

It is still another object of the present invention to provide a means, of the type here under consideration, which will permit full access to the sides of the bed adjacent to the walls

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quickly and easily and have incorporated therein stop means for exactly positioning the bed spring and mattress over the frame when in the closed or normal position and for limiting their relative movement on placing them into the open position.

It is a further object of the present invention to provide a means for slidably mounting a bed spring on a bed frame which is easily and quickly installed and which is of sturdy, yet inexpensive, construction.

These and other objects and advantages of the present invention will be more readily apparent from the following description and drawing of specific embodiments of the present invention. In such drawing:

Fig. 1 is a plan view of a bed construction embodying the present invention;

Fig. 2 is a front view thereof;

Fig. 3 is an enlarged sectional view taken along line 3—3 on Fig. 1;

Fig. 4 is an enlarged sectional view taken along line 4—4 on Fig. 1;

Fig. 5 is a side view of a segment of a modified form of track utilizable in my novel construction;

Fig. 6 is a sectional view taken along line 6—6 on Fig. 5;

Fig. 7 is a view similar to Fig. 6 of another modified form of track;

Fig. 8 is a plan view of still another modified form of track; and

Fig. 9 is a plan view showing how the invention can be incorporated in a double "Hollywood" bed.

The bed construction shown in Figs. 1 and 2 comprises a frame 10 supported on legs 11 and having a headboard 12. Surmounting the frame 10 is a bed spring 13 and a mattress 14. Interposed between the bed spring 13 and frame 10 are the connecting members 15.

The connecting members 15 form a sliding connection between the frame 10 and the bed spring 13 and in the embodiment shown in Figs. 1 and 2 are mounted so that they lie in a line forming an acute angle with the sides of the bed. The connecting members 15 slant away from the head of the bed so that one movement of the bed spring 13 and mattress 14 causes these two parts of the bed to move away from both walls W_1 and W_2 forming the corner in which the bed is located. Of course, if the bed were located in the opposite corner of the room, the connecting members would lie in a line slanting oppositely to that shown in Fig. 1.

The connecting members 15 comprise a lower track 16 and upper carriages 17 and 18, slidably mounted within the track 16. As can be best seen in Figs. 3 and 4, the lower track 16 extends across the bed frame from one side to the other and is positioned along a line which slants away from the head of the bed; thus, it slants away from the wall W_1 as measured from the side of the bed that is to be located adjacent to the other wall, W_2.

The lower track 16 is secured to the bed frame 10 by a plurality of bolts and nuts 19. L-shaped portions 20 extending upwardly from the base 21 of the track 16 form a partially covered groove or channel into which the carriages 17 and 18, mounted on the bed spring 13, fit.

The carriages 17 and 18 are carried on plate 22 which may be secured to the box spring by means of bolts and nuts 23 which are anchored in angle-iron 24 which extends around the periphery of the base of the bed spring 13. Of course any other suitable means may be used to secure the track 16 to the frame 10 and the carriages 17 and 18 to the bed spring 13.

Each of the carriages 17 and 18 is provided with a base 25, passing through a suitable aperture in base 25 and threaded into the plate 22 are bolts 26 for securing the carriages 17 and 18 to the plate 22. The T-shaped portion 27 of the carriages 17 and 18 extends downwardly and fits into the channel formed by the L-shaped portions 20 of the track 16. Since the horizontal part of the L-shaped portions 20 of the track 16 extend over the head of T-shaped portion 27, of carriages 17 and 18, the bed spring 13 cannot be lifted away from the frame 10, and thus cannot tip over when the bed spring 13 and mattress 14 are pulled away from the wall.

A stop member 28 is secured to the track 16 at the side of the bed adjacent to the wall W_2. The stop member 28 by engaging the end of carriage 17 limits the movement of the bed spring 13 when it is moved in the direction toward the wall, and is placed at a point where the bed spring 13 will be properly located in the normal position over the frame 10.

A second stop member 29 is adapted to engage the carriage 18 limiting the movement of the bed spring 13 away from the wall W_2. Since this stop member would interfere with the introduction of the carriages 17 and 18 into the track 16 when the two are initially assembled, and would prevent the removal of said carriages 17 and 18 from the track 16, should it at some time be desired to separate the bed spring 13 from the frame 10, the stop member 29 is adapted to be moved into and out of a position where it will engage the carriage 18. In the embodiment shown the stop member 29 comprises a threaded member which can be moved up and down in an internally threaded aperture within the track 16.

Adjacent to the stop member 28, the base 21, of the track 16, is formed with a portion 30 raised slightly above the rest of the surface of the base 21. A pin 31 urged downwardly by spring 32 rests behind the raised portion 30 when the bed spring 13 is positioned in the normal position. Thus it requires an initial positive force to start the bed spring 13 moving outwardly since it is necessary to compress the spring 32 to permit the pin 31 to clear the raised portion 30 in the track 16. This will prevent the bed spring 13 from being inadvertently moved relative to the frame 10.

As can be noted from Figs. 1 and 2 the frame 10 is slightly narrower than the bed spring 13 and mattress 14. Thus, when the bed spring 13 and mattress 14 are moved from the normal position (shown in solid lines), outwardly, to the maximum position permitted by stop member 29 (shown in dot-dash lines), a space between the wall W_2 and the frame 10 is provided to give the person making the bed full access to that side of the bed.

Figs. 5 and 6 show a modified form of connecting member 15. In this modification the track 33 is tubular and is secured to the frame 10 by means of threaded members 34. The carriage 35 is in the form of a partially circumferential sleeve slidably mounted on tubular track 33 and secured to the bed spring by threaded members 36.

Fig. 7 shows still another modification of the connecting member 15; in this modification the carriages 37 are provided with wheels 38 which fit into enclosed guides 39 formed by the track 40.

Fig. 8 shows a plan view of an arcuate track; any of the modifications shown in Figs. 3 through 7 may be employed in the arcuate form. In Fig. 8 the form of connecting means 15 shown in Figs. 3 and 4 has been illustrated. The track 16 is arcuate so that the bed spring 13 when moved from the normal position will follow this arcuate path. This shape of track is especially adaptable for use where a night table or other piece of furniture is located at the outer corner of the bed near the head board. If the straight line slanting track shown in Fig. 1 were used, an article of furniture so located would interfere with the movement of the bed spring 13 and mattress 14. However, the arcuate track shown in Fig. 8 permits the bed spring 13 and mattress 14 thereon to pivot as it is pulled away from the corner, and the night table or other article of furniture will not interfere with this movement.

Fig. 9 shows a double "Hollywood" bed. Each of the bed springs 13 is secured to the frame 41 by a connecting member 15 similar to that shown in Fig. 1. The two connecting members are slanted in opposite directions, and in the plan view form an inverted V. When the bed springs 13 and mattresses 14 thereon are moved from solid normal position to the dot-dash open position, there is a substantial space between the two to permit ready access to the adjoining sides.

We claim:

1. A bed comprising a frame, a bed spring, means for slidably securing said bed spring to said frame, said means comprising a track secured to said frame, and a carriage slidably engaging said track and secured to said bed spring, the said track extending slantwise across said frame.

2. A bed as claimed in claim 1 wherein said track extends from a point adjacent to one side of said bed to a point adjacent to the other side of said bed, said first mentioned point being nearer the head of the bed than said second mentioned point.

3. A bed as claimed in claim 1 wherein said track extends in a straight line slantwise across said frame, the end of said track adjacent to one side of the bed being nearer to the head of said bed than the other end of said track adjacent to the other side of said bed.

4. A bed as claimed in claim 1 wherein said track extends in an arcuate curve across said frame, the end of said track adjacent to one side of said bed being nearer to the head of said bed

than the end of said track adjacent to the other side of said bed.

5. A bed as claimed in claim 1 wherein said track extends in an arcuate curve across said frame, said curve being concave when viewed from the head of the bed, the end of said track adjacent to one side of said frame being nearer to the head of said bed than the end of said track adjacent to the other side of said frame.

6. A bed as claimed in claim 1 wherein said track is tubular in shape and said carriage comprises a partially circumferential sleeve slidably mounted on said tubular track.

7. A bed comprising a frame, a pair of bed springs, means for slidably securing said bed springs to said frame, said means comprising a track secured to said bed frame and means on said bed spring engaging said track, said track

forming an inverted V, the apex of said V being located at the center of said bed between said bed springs.

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STUART M. STRAUSS.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
544,630	Scherer	Aug. 13, 1895
1,420,755	Runnebaum	June 27, 1922
2,559,998	Rega et al.	July 10, 1951

FOREIGN PATENTS

Number	Country	Date
26,282	Great Britain	1901