Jan. 5, 1954 A. W. LEHMAN 2,664,576

GUARD RAIL ATTACHMENT FOR BEDS

Filed May 14, 1949

Fig. 1

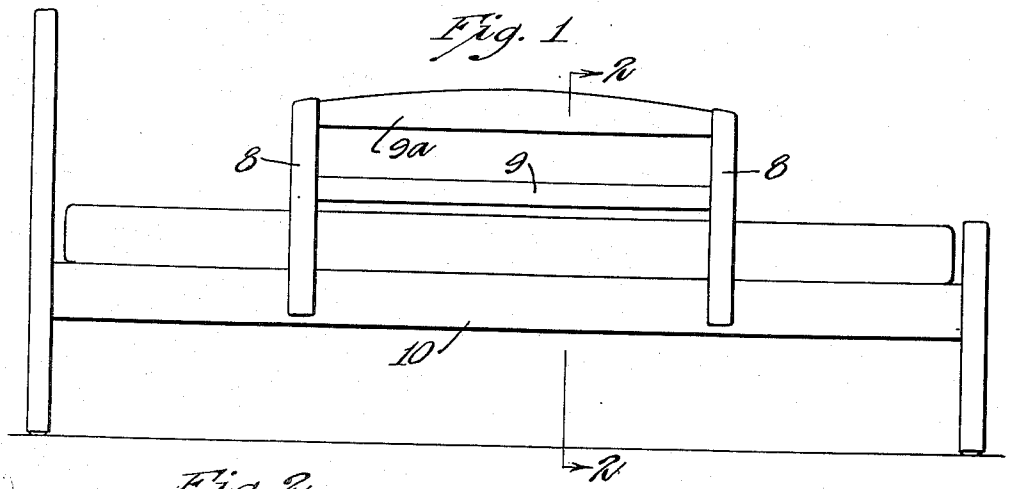


Fig. 2

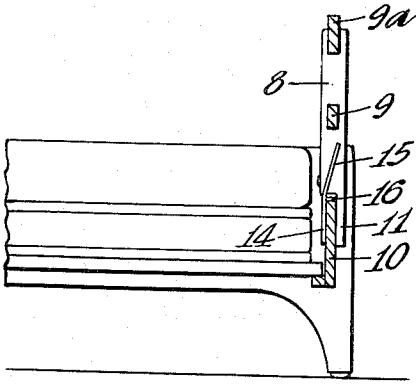


Fig. 7

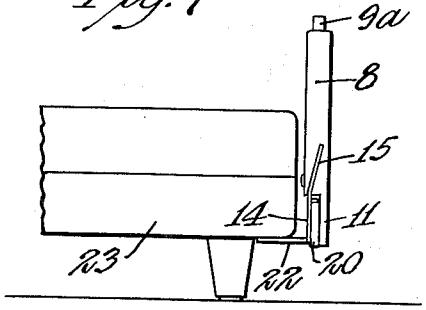


Fig. 3

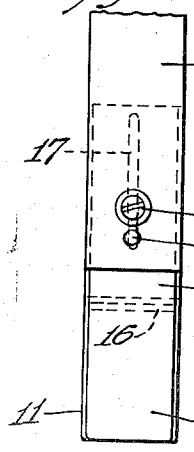


Fig. 4

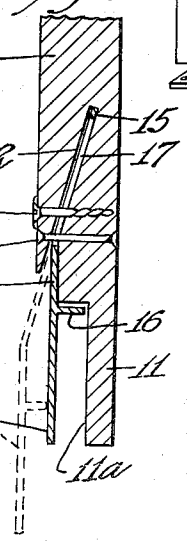


Fig. 6

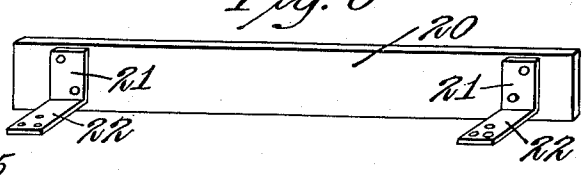
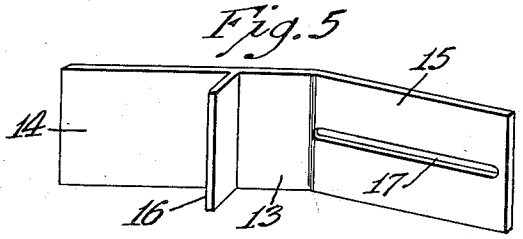


Fig. 5



Inventor
Albert W. Lehman
By James E. Hughes
Attorney

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GUARD RAIL ATTACHMENT FOR BEDS

Albert W. Lehman, Stillwater, Minn., assignor to St. Croix Manufacturing Company, Bayport, Minn., a corporation of Minnesota

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4 Claims. (Cl. 5—331)

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This invention relates to a device which is adapted to be attached to and to extend along and above a side of a bed to guard against accidental falling of the occupant to the floor, the device being particularly although not exclusively adapted for use where a young child, after outgrowing an infant's crib, is to use an ordinary bed and the child needs the protection afforded by a side guard rising above the sleeping surface.

It is an object of my invention to provide a novel guard structure adapted to be securely and detachably fastened, with a minimum of effort, to most of the beds of the several types in common use.

A particular object is to provide such a guard structure with novel attaching means comprising clamp members adapted to securely grip the side frame members of ordinary beds when the guard structure is merely moved into place and thrust downward.

My invention also includes certain novel details of construction which will be more fully pointed out and described in the following specification and claims.

Referring to the accompanying drawing which illustrates, by way of example and not for the purpose of limitation, a preferred embodiment of my invention:

Figure 1 is a side elevational view showing my guard structure in place on a bed of common type;

Fig. 2 is a fragmentary vertical sectional view taken approximately on the line 2—2 of Fig. 1;

Fig. 3 is an inner side elevational view of the lower portion of one of the posts of the guard structure and showing the clamping mechanism carried thereby;

Fig. 4 is a central vertical section through the clamping mechanism and portion of the post shown in Fig. 3;

Fig. 5 is a perspective view of one of the clamp jaw plates;

Fig. 6 is a perspective view of an auxiliary rail for supporting my guard structure on a bed of the common "Hollywood" type, and

Fig. 7 is an end view of the guard structure in place on a bed of the "Hollywood" type.

Referring to the drawing, the guard structure comprises a pair of normally vertical posts 8 which are rigidly connected together by rail members 9 and 9a and means carried by the lower end portions of the posts 8 for attaching the structure in upright position upon a side frame member 10 or similar support extending

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along the side of a bed. The member 10 is of the common type having substantially flat, vertically disposed inner and outer surfaces and a substantially horizontally extending upper edge surface. My improved clamping mechanism is duplicated on each of the posts 8 and is shown in detail in Figs. 3, 4 and 5. The lower end portion of each of the posts 8 is rabbeted to afford a rigid jaw member 11 adapted to overlap one of the vertical sides of the bed frame member 10. Extending obliquely inward and upward from the opposite side of the post 8 is a kerf defining a wedge surface 12 for guiding a movable clamp jaw member. This movable jaw comprises a rigid plate indicated generally by the numeral 13 having a lower end jaw portion 14 adapted to extend along the post and in parallel relation to the jaw member 11. An upper portion 15 of the plate 13 extends obliquely upward to slidably fit in the kerf defining the wedge surface 12. The wedge surface and portion 15 of the plate are preferably disposed at an angle of approximately 15 degrees to a plane contact surface 11a formed on the jaw member 11. Integral with the plate 13 and projecting therefrom toward the jaw member 11 is a rigid projection 16 having a flat bottom surface adapted to engage the upper edge surface of the bed frame member 10.

Formed in the oblique portion 15 of the plate 13 and extending longitudinally thereof is an elongated slot 17 adapted to receive a rivet 18 and screw 19 for slidably fastening the plate on the post 8. The plate 13 is thus free to move downward from the full line position shown in Fig. 4 to approximately the broken line position shown therein. When the guard structure is held in its normal upright position, the plate 13 is biased downward by gravity to extend the jaw portion 14 to an open position wherein this portion of the plate is spaced laterally from the contact surface 11a of the jaw member 11 to the maximum degree.

To adapt my device for use on beds of the common Hollywood type, which are not ordinarily provided with side frame members extending along the side of the spring or mattress support, I provide the auxiliary supporting rail shown in Figs. 6 and 7. This device has a rail 20 of thickness corresponding to that of any of the common side frame members 10 and projecting from the inner side of the rail 20 are angle brackets 21 having horizontally extending arms 22 adapted to be secured to the bottom of a box spring 23

(Fig. 7) or other mattress support for a bed of the Hollywood type, the arms 22 being perforated to receive screws for making the fastening. Thus the rail 20 may be mounted in position to support the guard structure in any selected or desirable position at a side of the Hollywood bed, as indicated in Fig. 7.

In use, to securely fasten my guard structure to a member 10 of a bed the jaw members 14 carried by the posts 8 are passed downward adjacent to the inner surface of the member 10 and the guard structure is moved downward to cause the projection 16 to engage the upper edge surface of the frame member 10 and with the jaw member 11 adjacent to the exterior surface thereof. A moderate degree of downward pressure is applied to force the jaw portion 14 into gripping engagement with the frame member 10 by the wedge action of the oblique portion 15 in sliding engagement with the wedge surface 12. This securely fastens the guard structure in place on a bed without further manipulation irrespective of the variations in thickness of the frame members 10 of beds of any of the common modern types of construction. By similar manipulation the device may be attached to a rail 20 mounted on beds of other types.

To detach the guard structure when not needed, it is only necessary to apply a moderate degree of upward force to one of the rails 9 or 9a to thereby draw the jaw portions 14 upward and away from the contact surface 11, thus freeing the device from the side frame member 10 (or rail 20 in case the latter is used). When in use the guard structure is secure against accidental displacement and operates to effectively confine the occupant of the bed against accidental falling from the guarded side of the bed.

Need for the present device often arises where a young child who has become accustomed to a crib having guarded sides relies on the protection of the sides and is likely, during the early period of use of an ordinary adult's bed, to accidentally fall from the bed while sleeping. My device is so simple, inexpensive and compact that it may be stored conveniently when not in use or transported as conveniently as hand luggage in an automobile or other vehicle for use by tourists or when the user is absent from home.

Having described my invention, what I claim as new and desire to protect by Letters Patent is:

1. For a bed having a side frame member formed with substantially vertically and oppositely disposed surfaces and an upper edge surface, a guard structure adapted to extend along and above said frame member, end posts forming parts of said structure and having portions formed to overlie one of the substantially vertically disposed surfaces of said frame member and clamping means carried by each of said posts and comprising an elongated rigid plate having a lower portion extending along the lower end portion of the post and an upper portion extending obliquely upward at an acute angle crossways of the post, said post having a wedge surface for sliding engagement with said upper portion of the plate, means for guiding the plate for limited movement along the post and a rigid projection on said plate disposed to engage the upper edge surface of said frame member, whereby when said guard structure is positioned on said frame member downward pressure exerted by or applied to the guard structure will cause said plate to be actuated to grip said frame member between the lower portions of the post and plate.

2. For a bed, the combination of a side frame member formed with substantially vertically disposed inner and outer surfaces and an upper edge surface, a guard structure extending along and above said frame member, said structure having end posts forming parts of said structure and having portions formed to overlie the outer surface of said frame member, and clamping means carried by each of said posts and comprising an elongated rigid plate having a lower portion extending along the inner side of the post and an upper portion extending obliquely upward at an acute angle crossways of the post, said post being provided with a wedge member for sliding engagement with said upper portion of the plate, and a rigid projection on said plate disposed to engage the upper edge surface of said frame member, whereby when said guard structure is positioned on said frame member downward pressure applied to said structure will cause said plate to be actuated to grip said frame member between the lower portions of said plate and post.

3. For a bed having a mattress support the combination of a member of said support extending along a side of the bed, a rail having substantially vertically disposed side surfaces and an upper edge surface, means rigidly supporting said rail on said member of the mattress support, a guard structure extending along and above said rail, a rigid jaw depending from said structure for engagement with one of said substantially vertically disposed surfaces of the rail, a second jaw depending from said structure and movable to and from said rigid jaw for engagement with the other substantially vertically disposed surface of said rail and means including a member projecting from said second jaw for engagement with the upper edge surface of said rail, whereby when said structure is positioned on said rail downward pressure exerted by or applied to said structure will cause said second jaw to be moved toward said rigid jaw to grip said rail.

4. For a bed having a side frame member formed with substantially vertically disposed surfaces and an upper surface, a guard structure adapted to extend along and above said frame member and means for attaching said guard structure to said side frame member comprising, a jaw depending from said structure for engagement with one of said substantially vertically disposed surfaces, a second jaw movable to and from said first mentioned jaw and engageable with the other substantially vertical surface of said frame member, wedge means operatively connecting said jaws together and a member projecting from said second jaw for engagement with the upper surface of said frame member whereby when the guard structure is positioned on said frame member downward pressure applied by or through said guard structure will cause said second jaw to be moved toward said first mentioned jaw to grip said frame members between the respective jaws.

ALBERT W. LEHMAN.

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