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2,227,704

BEDRAIL LATCH

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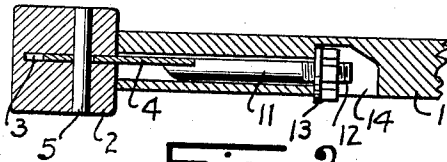


Fig. 2.

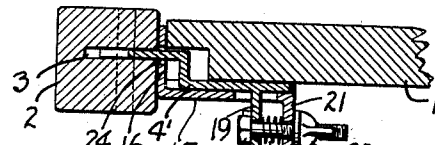


Fig. 4.

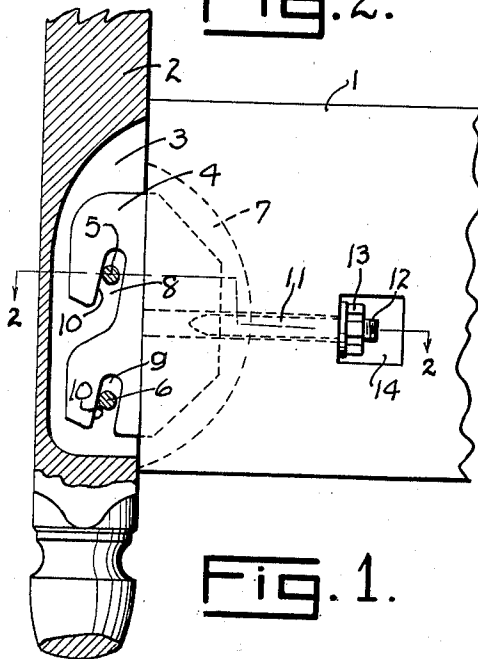


Fig. 1.

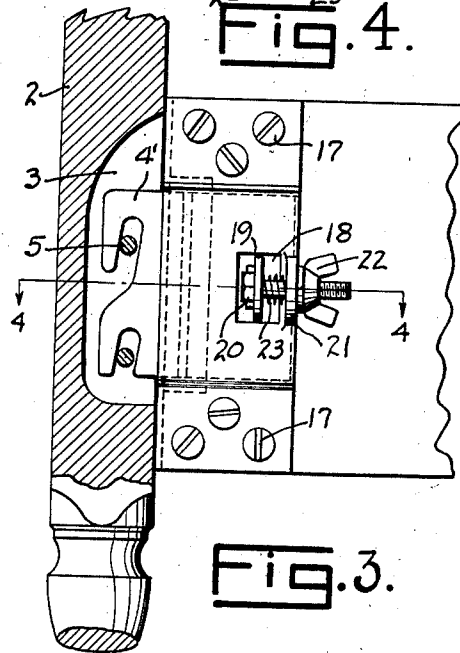


Fig. 3.

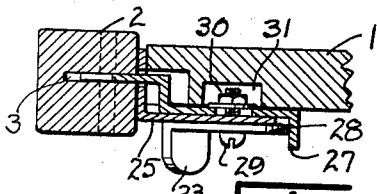


Fig. 6.

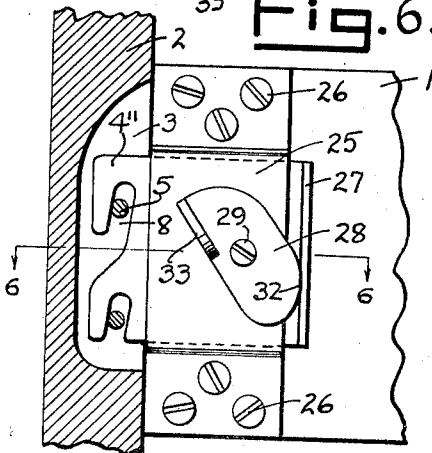


Fig. 5.

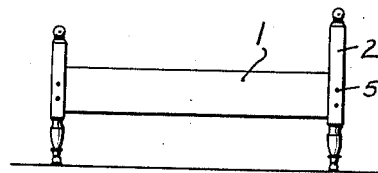


Fig. 7.

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BEDRAIL LATCH

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3 Claims. (Cl. 5—298)

My invention relates to the construction of wooden beds and pertains particularly to the means for latching the side rail to the post of the bed.

5 In wooden beds now in common use the side rail is latched to the corner post by hooked members on the side rail engaging transverse pins set in the post. The hooked members on the rail are inclined so as to give a cam or wedging action to pull the rail tightly against the post. It has been found, however, that after the bed has been used for a short time the hooked members and the pins over which they engage wear to some extent so that finally there is no wedging action to hold the parts together and thereafter the bed becomes unsteady because of the loose connection between the rail and the post. The connection will creak and is generally unsatisfactory because of the poor connection between the parts of the bed.

It is an object of the invention to provide means to maintain a tight connection between the rails and the post even after wear has occurred.

25 It is an object of the invention to provide means to tighten the connection between the parts of the bed by moving the latch member on the rail away from the post so as to tighten the engagement between the hooked members and the pin.

30 In the drawing herewith, Fig. 1 is a broken side view, partly in section, and illustrating one embodiment of the invention.

Fig. 2 is a broken section on the plane 2—2 of Fig. 1.

35 Fig. 3 is a broken view similar to Fig. 1, but illustrating the use of a slightly different embodiment of the invention.

Fig. 4 is a broken section on the plane 4—4 of Fig. 3.

40 Fig. 5 is a broken section illustrating a third embodiment of the invention.

Fig. 6 is a broken section on the plane 6—6 of Fig. 5.

45 Fig. 7 is an assembly view showing the side rail attached to the two end posts.

In the embodiment of the invention disclosed in Figs. 1 and 2, the side rail 1 is shown as broken off to illustrate the latching end thereon, and 2 illustrates the corner post of the bed.

50 The corner post is constructed in the usual manner. It has a recess 3 formed therein of sufficient width to receive a latching plate 4 upon the bedrail. Transversely of the slot 3 are two spaced cross pins 5 and 6.

55 The latch plate 4 on the side rail is mounted

within an arcuate slot indicated in dotted lines at 7 and is adapted for slidable movement therein. The forward end of the plate has two upwardly inclined slots 8 and 9 to engage with the cross pins 5 and 6, respectively. Due to the inclination of these slots 8 and 9 the outer edge thereof, shown at 10, forms a cam surface which tends to wedge the plate and side rail to the left of the showing in Fig. 1, thus tending to tighten the side rail 1 against the post.

10 Formed upon the inner edge of the plate 4 is a pin 11. This pin is welded or otherwise integrally connected with the plate and has upon its free end a threaded area 12 to receive a clamping nut 13. The side of the bedrail is recessed at 14 on the inner side of the rail to allow access to the nut 13 so that it may be tightened upon the bolt to exert a pull upon the plate 4 and thus tighten the engagement between the rail and the post.

20 This tightening of the engagement between the plate 4 and the post may be accomplished by slightly different construction as shown in Figs. 3 and 4. In this embodiment the corner post is formed as in the previous embodiment with the leg 2 provided with the recess 3 to engage with the latching plate 4'. The latching plate 4' in this embodiment is mounted within a housing 15, preferably of metal, formed to fit over the end of the rail, as shown at 16, and the main body of the housing plate is secured to the bed by screws 17, shown in Fig. 3. The plate is bent upwardly between the attaching ends to receive the plate 4'. There is an opening 18 in the housing to allow the projection therethrough of a lug 19 on the plate 4'. This lug projects inwardly from the side rail 1 and has an opening therethrough to receive a bolt 20. The inner end of the plate 15 is formed with a laterally extending lug 21, which is also provided with an opening to receive the bolt 20 and a nut is provided at 22 to engage with the bolt 20 and exert a pull, tending to move the two lugs 19 and 21 together. A spring 23 is mounted upon the bolt 20 between the two lugs upon the plates to normally tend to hold them spaced apart.

40 From Fig. 4 will be noted that the latch plate 4' is slidable within the housing 15 and has the forward end offset so that it may project toward the post approximately midway between the two sides of the rail. The portion 16 of the housing is slotted at 24 to allow the passage therethrough of the latch plate. In this embodiment the latch plate is extended from the end of the side rail the desired amount to make a close wedging con-

tact with the pins 5 in the rail and when wear occurs at any subsequent period the latch may be tightened relative to the rail by use of the nut 22 upon the clamping bolt 20. This device acts approximately as does the embodiment previously described.

In Figs. 5 and 6 I have shown how the latch may be operated in a slightly different manner. In this case the latching plate 4'' is slidable beneath the metal plate 25 which is secured at 26 to the side rail. The plate is bent outwardly away from the side rail to which it is attached to provide a space for the sliding therethrough of the latch plate 4''. The inner end of the latch plate is bent laterally away from the side rail 1, as shown at 27, thus providing a bevel or shoulder to engage with a latching cam 28.

The latching cam 28 is mounted on the plate 25 and, as shown in Fig. 6, is pivoted upon a pin 29 which extends through the plate 25 and the latch plate 4'' and has the nut 30 thereon fitting within the side rail. The cam plate 28 has a projecting end which is formed with a cam surface 32 to engage with the flange on the latch plate. There is a laterally extending finger 33 on the opposite end of the cam member whereby that end may be depressed to bring the portion 32 against the latch plate and thus exert a pressure tending to move it away from the bed post 2 and thus tighten the engagement between the rail and the post.

It will be understood that latch members such as are here described are formed at both ends of the side rail 1, and that the engagement between the rail and the post 2 of the bed is the same at both ends of the side rail. The manner of attaching the side rail to the post is now in common use. The invention herein resides in the means which have been provided for moving the latching plate in the side rail away from the post so as to tighten the engagement of the plate with the pins 5 in the post. In this manner the side rail 1 may be held tightly against

the corner post at all times so that no play can take place between the two parts of the bed. I am thus assured that there will be no relative movement of these parts of the bed and that the usual creaking and loose connections between the side rail and the post ordinarily experienced with wooden beds will be eliminated.

I claim:

1. In combination, a housing plate for attachment to a bedrail, a unitary latch plate slidable in said housing plate, hooks formed rigidly upon the end of said latch plate to engage spaced pins upon a bed post, a laterally projecting lug on said latch plate positioned to project through an opening in said housing plate, a lug on said housing at one end of said opening, a bolt extending through said lugs, and a nut to engage upon said bolt and force said lugs toward each other in the manner described.

2. In combination, a housing plate for attachment to a bedrail, a unitary latch plate slidable in said housing plate, hooks formed rigidly upon the end of said latch plate to engage spaced pins upon a bed post, a laterally projecting lug on said latch plate positioned to project through an opening in said housing plate, a lug on said housing at one end of said opening, means engaging said lugs to clamp said lugs toward each other and a spring between said lugs.

3. In combination, a housing plate for attachment to a bedrail, a unitary latch plate slidable in said housing plate, hooks formed rigidly upon the end of said latch plate to engage spaced pins upon a bed post, a laterally projecting lug on said latch plate positioned to project through an opening in said housing plate, a lug on said housing at one end of said opening, means to hold said lugs resiliently apart and to project said hooks from the end of said housing plate and a bolt extending through said lugs to force said lugs toward each other.

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