Jan. 8, 1952 G. HILL 2,582,035

EXTENSION FOR BED RAILS

Filed April 3, 1946

Fig. 1.

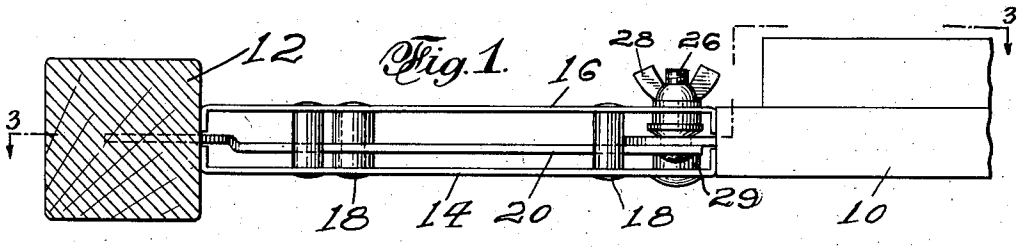


Fig. 2.

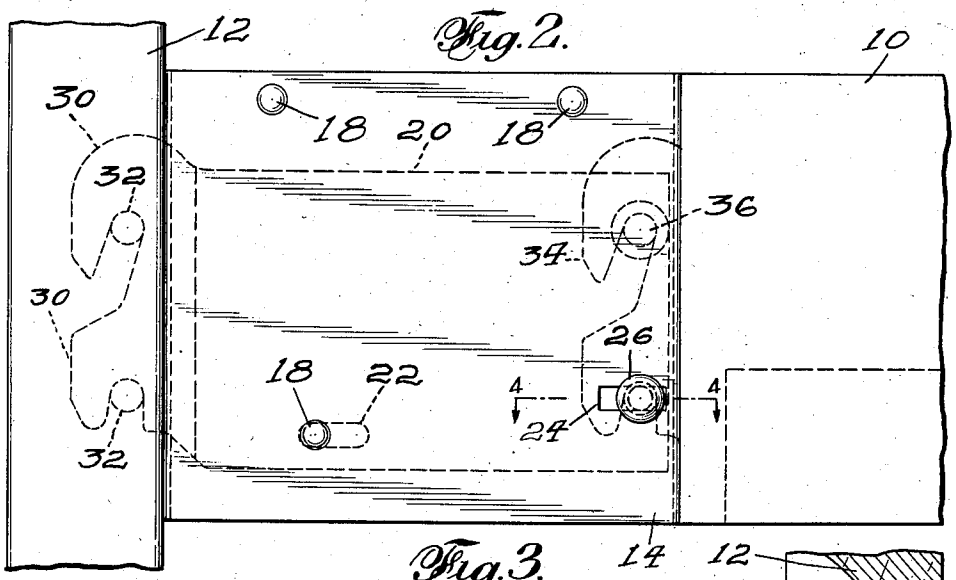


Fig. 3.

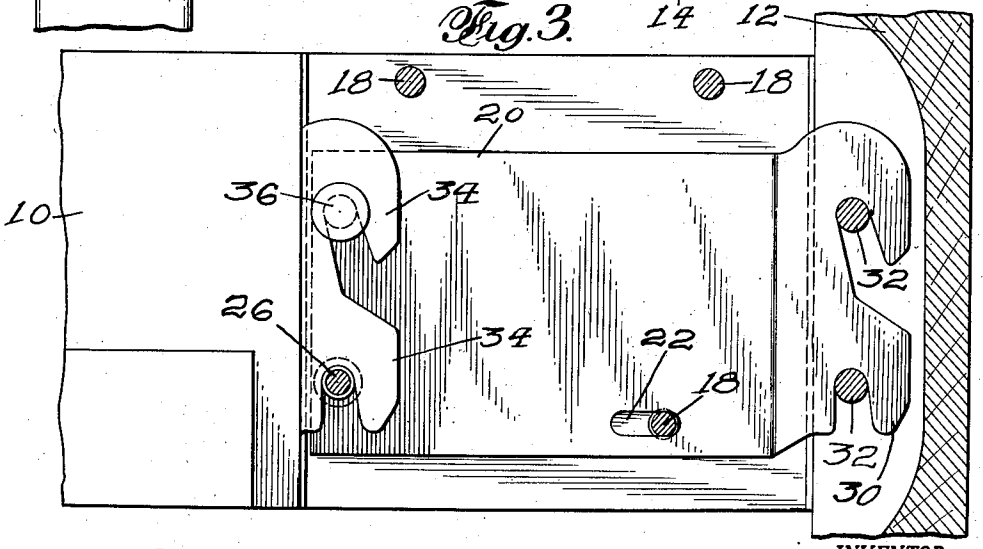
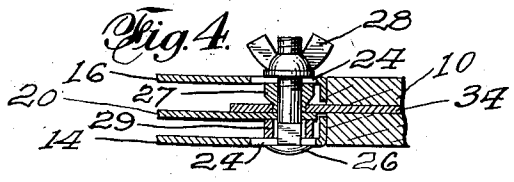


Fig. 4.



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EXTENSION FOR BED RAILS

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9 Claims. (Cl. 5—184)

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This invention relates to an extension for bed-rails, and the present application involves further developments and improvements over my previously filed and pending application for patent on bed-rail extension, Serial Number 636,888, filed December 22, 1945, now Patent No. 2,459,880, granted January 25, 1949.

As set forth in the above described application for patent, one of the objects of this invention is to provide an extension for bed-rails which can be interposed between a bed-rail and either the head or foot-board of a bed so as to provide a bed lengthening device.

Another object of the invention is to provide a simple and effective means for extending bed-rails to provide greater comfort for tall persons.

A still further important object of the invention is the provision of a bed-rail extension or bed lengthening device which can be readily applied to almost any type of bed in a minimum time, and without the use of any special tools.

Other and further important objects of the invention will be apparent from the disclosures in the accompanying drawings and following specifications.

The invention in a preferred form is illustrated in the drawings, and hereinafter more fully described.

In the drawings:

Figure 1 is a top plan view of the improved bed-rail extension of this invention, showing the same in position between one end of an ordinary bed-rail and the bed-post.

Figure 2 is an elevation of the structure shown in Figure 1, taken from the outside of the bed.

Figure 3 is a detail view with parts broken away to show the interior construction of the improved bed-rail extension of this invention, and it will be noted that the view is taken from the side opposite to the showing of Figure 2, as indicated by section line 3—3 in Figure 1.

Figure 4 is a detail view, partly in section taken on the line 4—4 of Figure 2, of the combination fastening and locking device which assists in maintaining the bed-rail extension of this invention in proper and desired position.

As shown in the drawings:

The reference numeral 10 indicates generally an ordinary bed-rail such as is used with slight variations in constructions of this type. The reference numeral 12 indicates an ordinary bed-post, and it will be obvious that various modifications of these structures can be employed in connection with this invention with little or no adaptation of the structure of the invention.

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The extension itself comprises an outside plate 14, preferably of metal, and an inside plate 16, also of metal. The plates are secured together in spaced relationship by means of combination spacers and rivets as illustrated at 18. These combined spacers and rivets are placed at strategic positions in the structure, one being preferably adjacent to each corner.

As will be noted, the plates 16 and 14 have their ends turned inwardly toward each other at approximately right angles to their respective main portions, and these inturned ends are of such dimensions that a slot of definite extent remains between the juxtaposed ends of such inturned portions.

Positioned between the plates 16 and 14, and in parallel relationship with both of the plates, is an intermediate element 20, which also comprises a plate of the general outline and construction as best illustrated in Figure 3 and in the dash lines in Figure 2. This plate 20 is slidable between the two outer plates 14 and 16 which comprise the housing of the invention, but is not removable therefrom. This slidable but non-removable relationship is accomplished by providing a slot 22 adjacent one lower corner of the inner plate, and one of the sustaining and supporting rivets 18 is fitted into this slot during assembly. A similar slot is provided at 24 as best shown in Figure 2.

Positioned in this second slot 24 is a bolt 26, having its threaded end protruding beyond the inside plate 16, and this inner end is fitted with a winged nut 28 as best shown in Figures 1 and 4.

A locking element somewhat conical in shape, as shown at 27 in Figure 4, is slidably fitted onto the bolt 26 between the slidable plate 20 and the inside plate 16 and a second spacing and locking element 29 is similarly fitted on to the bolt 26 between the slidable plate 20 and the outside plate 14 so that a tightening of the winged nut 28 will lock all the parts in desired adjusted relationship. This enables the device to be fitted onto bed-rails of different types and also enables of a desired locking of all the parts in desired relationship.

Also as best shown in Figure 4, that portion of the bolt 26 adjacent its head is squared so that the bolt itself cannot be turned in the slot 24, but is merely slidable therein. This bolt also passes through the intermediate plate 20, and it will be obvious that a tightening of the winged nut will lock the intermediate plate 20 against any slidable movement with respect to the outer plates,

namely the outside plate 14 and the inside plate 16.

The plate 20 has extensions 30 comprising down reaching spaced ears or hooks adapted to be fitted onto corresponding elements 32, which in themselves are fitted into the bed-post 12 for supporting relationship with the hooked extensions 30.

The bed-rail 10 is obviously also provided with hooked extensions as shown at 34, and when the extension of the invention is used in a bed, these bed-rail hooks are mounted over corresponding bolts or cross elements which form part of the extension. One of these bolts is that previously identified by the reference numeral 26. A second cross element 36 is mounted on the intermediate plate 20 above the bolt 26. The slideability of the plate 20 permits use of the extension with bed posts and rails whose cross elements 32 and hooked extensions 34 vary either in shape or positioning. Different bed manufacturers will employ cross pins and hooks whose lateral divergence may vary up to one quarter of an inch. The present invention is designed to be used successfully with any bed of normal construction manufactured in the United States.

Assembly of the structure will be obvious and after such assembling operation, the winged nut 28 on the bolt 26 is tightened so that all the parts are maintained in locked relationship and without any danger of the bed collapsing.

The extension can obviously be made of different lengths to meet various requirements, and it will be obvious that herein is provided an extension for beds which will enable the ordinary bed to be readily changed so as to accommodate a tall person, while at the same time providing ample security against collapse, either sidewise or vertically. The invention is simple of construction, easily installed, and there is little if any possibility of its getting out of order.

I am aware that many changes may be made and numerous details of construction vary throughout a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted hereon to the preferred showing herein described, but give reference instead to the appended claims.

I claim as my invention:

1. A bed rail extension adapted to be associated with a standard bedstead comprising a spacing shell, a member slidable within said shell and having means on one end adapted to cooperate with the standard hook devices of a bed rail, the other end of said member having means adapted to cooperate with the standard pin devices of a bedpost, said shell having two substantially channel-shaped portions spaced from each other.

2. A bed rail extension comprising a spacing shell, means slidable within said shell and having a cross-pin adapted to cooperate with one of the standard hook devices of a bed rail, and also having hooks adapted to cooperate with the standard pin devices of a bedpost, said shell having a slot at each end whereby one end thereof permits access to said cross-pin while allowing said hooks to protrude beyond the shell.

3. A bed rail extension comprising a spacing shell, means slidable within said shell and having pins adapted to cooperate with the standard hook devices of a bed rail and also having hooks adapted to cooperate with the standard pin devices of a bedpost, said shell having at least one substantially channel-shaped cross-section portion and a slot at each end, whereby one end thereof permits access to said pins while confining the same, and means for securing the extension in desired relationship to a bed rail and an adjacent bed post.

4. A bed rail extension adapted to be associated with a standard bedstead comprising a two part spacing shell, a member slidable within said shell and having hook extensions adapted to cooperate with the standard pin devices of a bed post and cross pins in the shell portions adapted to cooperate with the standard hook device of a bed rail.

5. A bed rail extension as described in claim 4, wherein the shell portions are held together and in clamping relationship with the slidable member by means of a suitable thumb screw.

6. A device as described in claim 5, wherein the adjustable thumb screw permits an adjusted relationship of the inner slidable member with respect to the shell portions and to the juxtaposed portions of the bed rail.

7. A bed rail extension comprising an exterior supporting shell, a member slidable inside the shell, said member having integral hooks adapted to cooperate with the cross pins of a standard bedpost, pins in the shell adapted to cooperate with the hooks of a standard bed rail and means associated with at least one of said pins for fixing the extension into desired adjusted and fastening relationship with the associated bed rail and bedpost elements.

8. A device as described in claim 7, wherein said last named means includes a screw threaded element.

9. A device as described in claim 2, which includes screw threaded means for fixing the extension into desired adjusted and fastening relationship between the bed rail and the bed post.

GLENN HILL.

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