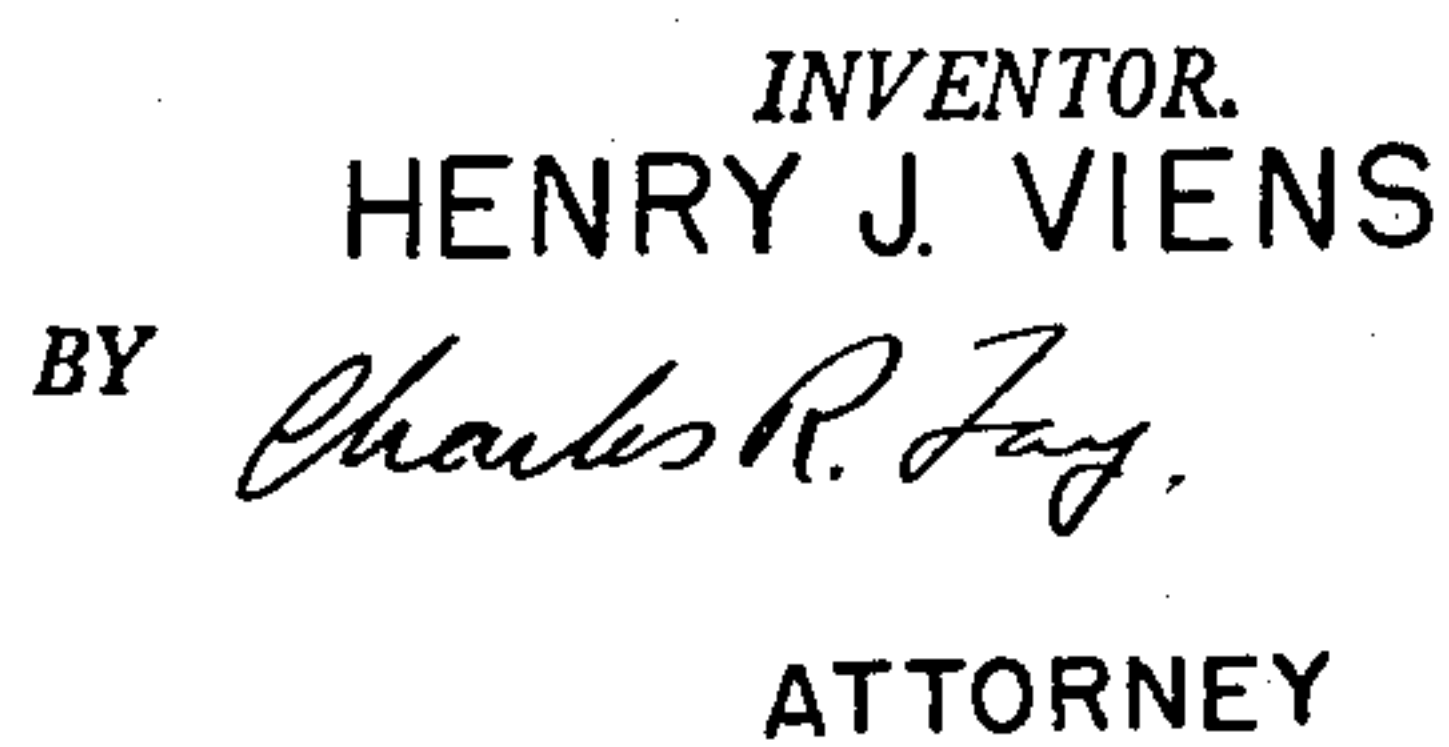


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## LATCHING CONNECTION FOR BED RAILS

Henry J. Viens, Wethersfield, Conn., assignor to Thayer Furniture Corp., Gardner, Mass., a corporation of Massachusetts

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This invention relates to a new and improved latching connection for the rails of beds and cribs and provides an extremely simple and easily operated connection of the class described which is positively held in position but which is simple and easy to apply and easy to remove when it is desired to disassemble the crib or the bed.

Further objects of the invention include the provision of a bracket attached to the end of a bed rail for co-operating latching function with a plate secured to the corner post of a crib for instance, said plate being provided with a hook or hooks which extend upwardly and a dimple or pressed-out portion immediately below the hook of below the lowermost hook of several, in combination with an angular bracket having a rectangular aperture for the reception of each hook, the lowermost aperture being provided with a straight lower edge for snapping over the dimple and latching the bed rail in closely fixed rigid condition with relation to the end of the bed or the corner post of the crib, said bracket being removed only upon the utilization of a sharp blow as by a hammer upwardly on the lower edge of the bracket and being substantially incapable of accidental release.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings, in which

Fig. 1 is a view in side elevation illustrating a crib or bed to which the invention is applied;

Fig. 2 is an enlarged view in side elevation of one of the brackets;

Fig. 3 is an edge view of a hook or latching plate therefor applied to a crib corner post;

Fig. 4 is a view in elevation of the bracket of Fig. 2, looking in the direction of arrow 4, part being in section;

Fig. 5 is a view in front elevation of the latching plate, looking in the direction of arrow 5 in Fig. 3;

Fig. 6 is a view similar to Fig. 5 showing the bracket latched with relation to the latching plate;

Fig. 7 illustrates the application of the bracket to the plate, parts being in section;

Figure 8 illustrates the bracket in latched condition, this figure being taken on line 8—8 of Fig. 6; and

Fig. 9 is an enlarged section on line 9—9 of Fig. 1.

The reference numerals 10, 10 illustrate the end of a bed or the corner posts of a crib and in the latter case, these are provided with upright plates 12 having a series of hooks 14 thereon for the vertically adjustable support of a mattress support. The bed rail or angle-iron 16 is secured by its brackets 18, 20 to the respective corner posts 10, 10 and holds the bed or crib in rigid condition without the necessity of relying upon the crib spring support for holding the crib in rigid condition at all times.

Referring to Figs. 2 and 4, the bracket 20 is shown in detail, this bracket being the same as bracket 18 but reversed and being secured by any desired means such

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as rivets 22 to the angle-irons 16. The brackets are each provided with a flange 24 which has considerable vertical height as compared with the angle-iron or the bed rail and in the case illustrated, this flange is provided with a pair of relatively similar rectangular apertures 26 and 28.

At its lower end, each plate 12 may be provided with latching plate extensions indicated at 30. Each plate 30 is punched out to form a pair of hooks 32 and 34, leaving apertures such as those at 36 as will be apparent to those skilled in the art. Each latching plate 30 may be provided with any desired means for securing the same to the corner post and one of the main novel features of the latching plate resides in the dimple 38 which appears in exact spaced relation below the lowermost hook which is indicated at 34.

Each plate 12 is provided with end flanges 44, 46, these flanges being apertured and receiving the respective guide-rods 48 secured to the respective corner posts 10 at the upper ends thereof as at 50. The conventional drop side generally indicated at 52 slides vertically on the rods 48, as is well known in the art, but the novel feature here is that the single plate 12 has the three functions of supporting and locking the rail 16, adjustably supporting the crib mattress spring, by hooks 14, and providing extra lateral support and sidewise stability to the drop side. The usual fastening for the drop side allows swaying of the rods 48, but the flanges 46 prevent this in the present invention.

In assembling the bed rail to the bed or the crib, the respective bracket is positioned so as to enter its hooks 32 and 34 through the respective apertures 26 and 28 as is best shown in Fig. 7. This is done by moving the bed rail and bracket to the right as shown in Fig. 2, so that the respective apertures will engage the hooks of Fig. 3. Upon pressing downwardly, the lower edge of the bracket indicated at 40 comes to rest on the dimple or projection 38, see particularly Fig. 7, and the hooks do not firmly and solidly hold the bracket.

However, by applying a sharp downward blow according to arrow A in Fig. 7, the edge 40 will be snapped out and past projection 38, being cammed outwardly against the holding action of the hooks. When the edge at 42, which is the lowermost edge of aperture 28, passes the dimple 38, the flange at its lower end then snaps in the reverse direction to be firmly and solidly held against the latching plate 30 by the resilient action of the hooks 32 and 34. It is virtually impossible to disconnect the bracket from the hooks in the absence of the application of a short blow upwardly in the direction of arrow B in Fig. 8 to again snap the portion of flange 24 that exists between edges 40 and 38, so that the bracket will then be lifted free from the hooks as will be apparent from inspection of Fig. 7.

It is believed that this invention clearly presents an inexpensive and easily operated positive connection between the bed rail to the ends of the bed or a crib rail or angle-iron to the corner posts of the crib, and it will be appreciated that it will be virtually impossible to accidentally disconnect the bed rail or crib rail from its respective supporting means.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but what I claim is:

1. A self-latching bed-rail connection for detachably fastening the bed-rail to the end portions of a bed or crib comprising a plate on each said end portion, said plates facing each other, an upwardly-directed hook on each plate, and a projection on each plate below the hook and spaced therefrom; a bracket at each end of the bed-rail, a flange on each bracket, and an aperture in each



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flange, each aperture receiving a hook at the respective end portion and temporarily holding the bed-rail with the lower edge of each flange resting on its corresponding projection, and the material of the flange between such lower edge and the adjacent edge of the respective aperture yielding and snapping over the respective projection upon a force being exerted down on the bracket, the opposite edge of the aperture then being held to the hook at the bight thereof and the projection being held in close, latched, contact with the said adjacent aperture edge, the distance from the bight of the hook to the projection being substantially equal to the distance between the said edges of the aperture.

2. A self-latching bed-rail connection for detachably fastening the bed-rail to the end portions of a bed or crib comprising a plate on a said end portion, a bracket on the bed-rail, a flange on the bracket having an aperture therein, the aperture being generally rectangular and having an upper and a lower edge, a hook on the plate, a projection on the plate spaced from the hook at the bight substantially the same as the distance between said aperture edges, said aperture receiving the hook and the latter holding the bracket against motion normal to the

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plate, the upper aperture edge resting against the hook at the bight thereof, and the projection being latchingly held to the lower edge of the aperture and holding the bracket against motion to remove the bracket from the hook in a direction parallel to the plate.

## References Cited in the file of this patent

## UNITED STATES PATENTS

10	765,402	Storch	July 19, 1904
	1,247,938	Curtenius	Nov. 27, 1917
	1,745,653	Weston	Feb. 4, 1930
	2,242,307	Kroll et al.	May 20, 1941
	2,328,316	Webb	Aug. 31, 1943
15	2,522,001	Siegel	Sept. 12, 1950
	2,532,236	Klazkin	Nov. 28, 1950
	2,641,772	Cook	June 16, 1953

## FOREIGN PATENTS

20	160,034	Great Britain	Mar. 17, 1921
	253,469	Great Britain	June 17, 1926
	796,315	France	Jan. 22, 1936
	485,348	Canada	July 29, 1952