

H. O. CRIPPEN.
 GUARD RAIL FOR UPPER BERTHS.
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1,014,126.

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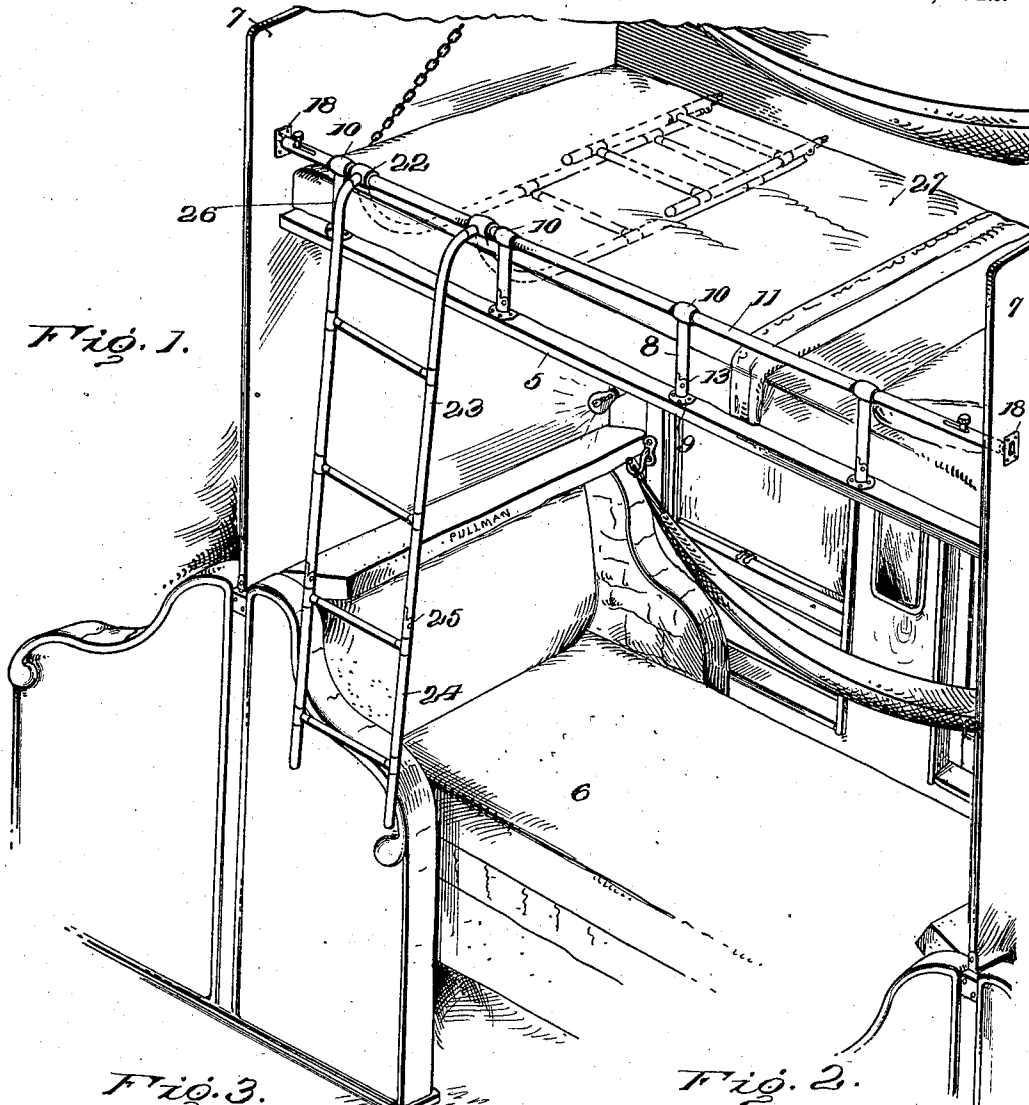


Fig. 1.

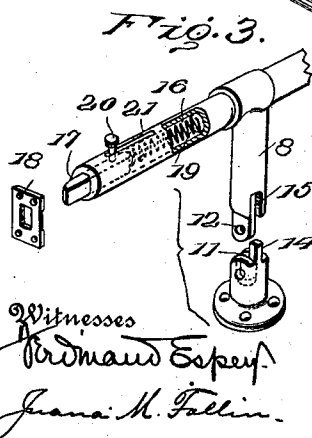


Fig. 3.

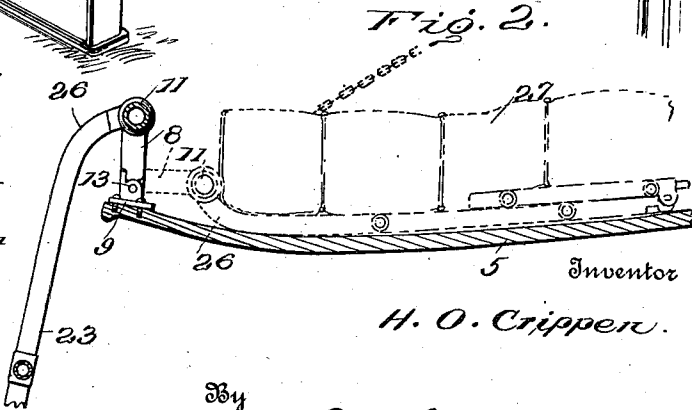


Fig. 2.

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GUARD-RAIL FOR UPPER BERTHS.

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To all whom it may concern:

Be it known that I, HERBERT O. CRIPPEN, citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Guard-Rails for Upper Berths, of which the following is a specification.

This invention relates to guard rails for the upper berths of sleeping cars, steam ships and the like, and has for its object the provision of a comparatively simple and thoroughly efficient device of this character capable of being readily attached to a berth without necessitating any structural changes therein and which will effectually prevent the occupant thereof from falling or rolling out of the berth incident to the rocking or swaying of a car or vessel when in motion.

A further object of the invention is to provide a guard rail, the construction of which is such that it may be swung laterally to upright or operative position at the front of the berth and compactly folded beneath the mattress when not in use.

A further object is to provide a guard rail having a ladder pivotally mounted thereon and provided with a curved or off-set portion so as to clear the forward longitudinal edge of the upper berth, said curved or off-set portion of the ladder by engagement with the mattress also serving to prevent accidental displacement of said mattress when the ladder is moved to folded or inoperative position.

A still further object is generally to improve this class of devices so as to increase their utility, durability and efficiency.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of an upper berth provided with a guard rail constructed in accordance with the present invention; Fig. 2 is a transverse sectional view showing in full lines the ladder in extended or operative position and in dotted lines folded beneath the mattress; Fig. 3 is a detail perspective view, partly in section, showing the construction of one of the pivoted standards and the sliding bolt for locking the rail in operative position.

Corresponding and like parts are referred to in the following description and indicated

in all the views of the drawings by the same reference characters.

The improved guard rail forming the subject matter of the present invention is preferably designed for attachment to the upper berths of sleeping cars, steam ships and the like, and by way of illustration is shown in connection with a section of a sleeping car in which 5 designates the upper berth, 6 the lower berth and 7 the end supports or partitions.

The device comprises a plurality of spaced uprights or standards 8 each formed of pivotally united sections, the lower sections of which are provided with laterally extended flanges 9 for attachment to the upper surface of the berth at the forward longitudinal edge thereof. The upper sections of the standards are provided with sleeves 10 adapted to receive a longitudinally disposed bar 11, the latter being rigidly secured to the sleeves 10 and preferably extended the entire length of the berth, as shown.

The lower section of each standard is bifurcated at 11 to form a socket for the reception of a tongue 12 carried by the mating section, said tongue and socket being provided with registering perforations for the reception of a pivot pin 13, so that the guard rail 11 may be moved to upright or operative position, or swung laterally and downwardly to inoperative position when the berth is folded. The lower sections of the standards at the sockets 11 are formed with upstanding stop lugs 14 which enter correspondingly shaped recesses 15 formed in the mating sections so that when the guard rail is swung laterally and upwardly to upright position, the lugs 14 will bear against the walls of the recesses 15 and thus prevent the guard rail from being swung downwardly over the forward longitudinal edge of the berth.

The opposite ends of the rail 11 are preferably hollow to form chambers 16 in which are slidably mounted locking members or bolts 17 adapted to engage suitable keepers 18 secured to the adjacent end supports 7 so as to rigidly support the guard rail in operative position and prevent the weight of a person coming in contact therewith from accidentally displacing the said guard rail. Arranged at the rear of the locking members 17 are coil springs 19 which serve to normally hold the active ends of the bolts 17

in extended or operative position, said bolts being provided with finger knobs 20 which extend through suitable slots 21 in the guard rail so that by exerting a rearward pressure on the knobs 20, the bolts may be disengaged from the keepers when it is desired to fold the rail.

Pivotally mounted at 22 on the guard rail 11 is a ladder 23, the lower end of which is preferably provided with an extension 24 pivotally connected with the body of the ladder by a hinge joint 25 similar in construction to the hinge joints of the standards as shown, and adapted to rest against the adjacent car seat. If desired, however, the pivoted section 24 may be dispensed with and the ladder may be solid or rigid throughout its entire length.

The upper or pivoted end of the ladder 23 is curved or off-set at 26 so that when the guard rail is not in use, the off-set portion 26 of the ladder by engagement with the adjacent edge of the mattress 27 will hold said mattress against accidental displacement. Thus it will be seen by grasping the rail 11 and swinging said rail upwardly and outwardly to vertical position and subsequently operating the bolts 17, the guard rail may be securely supported against accidental displacement and in which position it will offer an effective barrier to prevent the occupant of the berth from falling or rolling out of said berth incident to the rocking or swaying of the car when the latter is in motion. It will also be noted that the pivoted end of the ladder by engagement of the adjacent sleeves 10 serves to limit the longitudinal movement of the ladder on the rail and thus cause the ladder to assume the proper position at all times.

When the berth is not in use, the locking bolts 17 are retracted and the guard rail 10, together with the upper sections of the standards swung laterally and downwardly to the dotted line position shown in Fig. 2 of the drawing and in which position the curved or off-set portion 26 of the ladder will bear against the mattress in the manner before stated.

It will, of course, be understood that when the ladders are provided with pivoted sections 24, said sections will be folded beneath the mattress when not in use so as not to offer any obstruction when folding the berth.

It will also be understood that the guard rails may be nickled, japanned or otherwise coated or treated to give the same a neat and attractive appearance.

Having thus described the invention, what is claimed as new is:

1. The combination with a berth, of a folding guard rail pivotally mounted on the berth at the forward portion thereof and adapted to be swung downwardly and rear-

wardly to inoperative position, and means for securing the guard rail in upright position.

2. The combination with a berth, of a folding guard rail pivotally mounted on the berth and adapted to be swung downwardly and rearwardly to inoperative position, means for securing the guard rail in upright position, and a ladder mounted on said guard rail.

3. The combination with a berth, including a mattress and end supports, of a guard rail pivotally mounted on the forward portion of the berth and movable to folded position beneath the mattress, a ladder pivotally mounted on the guard rail, and means for locking said guard rail in upright position.

4. The combination with a berth, of a folding guard rail pivotally mounted on the berth, a ladder pivotally mounted on the guard rail and having its upper end off-set to clear the forward longitudinal edge of the berth, and means for securing the guard rail in upright position.

5. The combination with a berth, including a mattress and end supports, of a folding guard rail pivotally mounted on the berth, a ladder pivotally mounted on the guard rail and having its upper end off-set to clear the forward longitudinal edge of the berth, and means for locking the guard rail in upright position, the off-set portion of the ladder being adapted to engage and prevent accidental displacement of the mattress when the guard rail is swung downwardly and rearwardly to inoperative position.

6. The combination with a berth, of pivotally united standards secured to the berth and provided with interengaging parts, the upper ends of said standards being provided with sleeves, a rail extending through and rigidly secured to said sleeves, means disposed at the opposite ends of the rail and adapted to engage the adjacent end supports of the berth for holding a guard rail in vertical position, and a ladder pivotally mounted on the rail between some of the sleeves and having its upper ends off-set to clear the forward longitudinal edge of said berth.

7. The combination with a berth, including a mattress and end supports, keepers secured to the end supports, a guard rail pivotally mounted on the berth at the forward portion thereof, spring actuated locking members slidably mounted on the opposite ends of the rail and adapted to engage the keepers, a ladder pivotally mounted on the rail and having its pivoted end off-set to clear the forward edge of the berth, and an extension pivotally connected with and forming a part of the ladder.

8. The combination with a berth, of a plurality of standards mounted on the berth, and each formed of pivotally united sec-

tions, the lower section of each standard being provided with a flange for attachment to the berth and having a socket formed therein, and adapted to receive a
5 tongue formed on the mating section, a rail secured to the upper sections of the standards and adapted to be folded downwardly and laterally to inoperative position, means carried by opposite ends of the rail and
10 adapted to engage the adjacent end supports for locking the rail in upright position, stop lugs carried by the lower sections and adapted to engage recesses formed in the upper sections of said standards, and a ladder having its upper end off-set and piv- 15 otally mounted on the guard rail.

In testimony whereof I affix my signature in presence of two witnesses.

HERBERT O. CRIPPEN. [L. s.]

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."