In the accompanying drawings, which illustrate an exemplification of the principles of this invention, there is disclosed a novel and improved bed rail assembly which comprises a bed rail 10, an end member, end or face plate 12 and a bed lock or support bracket 14. In its assembled relation, the bed rail assembly has the bed lock and end members fixedly and rigidly secured thereto whereby the bed rail and its end may be detachably secured to a bed post 16 as by engaging the bed lock upon a pin 18 carried by the bed post and extending transversely across a vertically extending slot 20 in the bed post. Since the manner in which the bed rail is secured to the bed post forms no part of the present invention, a further description of the same is deemed to be unnecessary for the purposes of the invention claimed herein.

The bed rail 10 is economically formed from a single metal sheet, by rolling over or extending the longitudinal edges of the sheet back upon themselves. Thus there is formed a flat vertical horizontally extending web 22 whose top and bottom longitudinal edges are folded inwardly upon themselves and upon one side of the web to provide top and bottom tubular beads 24 and 26 respectively.

As shown best in Figure 1, these beads are preferably rectangular in cross-section and are constituted by folding the longitudinal marginal top and bottom edges over the web perpendicular to the latter whereby to provide a horizontal top and bottom surfaces upon parallel horizontal top and bottom flanges 28 and 30, these being in turn folded perpendicularly upon themselves towards each other to provide vertical inwardly extending flanges 32 and 34 as shown in Figure 1, while the latter are in turn folded inwardly towards the web and in parallel relation to the flanges 28 and 30 to provide a second pair of horizontal upper and lower flanges 36 and 38 as shown in Figure 2. Finally, the ends of these last mentioned flanges are turned perpendicularly to extending towards each other to provide inwardly projecting flanges 40 and 42, the latter lying against and in side-by-side relation to the web 22 and being fixedly secured thereto as by spot or tack welding, projection welding and the like. It will be observed that the two aligned flanges 40 and 42 provide a clearance space or channel extending medially and longitudinally of the web 22.

A very important feature of this invention resides in the construction of the bed rail which provides a flat horizontal top surface 28 on the upper bead 24 and which provides a smooth continuous plane surface on the outside vertical face of the web 22 which plane surface extends from its junction with the top surface of the flange 28 and the bottom surface of the flange 30. Thus the entire outside surface of the bed rail, as will be apparent from Figure 1 is flat, as is the entire top surface and the entire bottom surface of the tubular beads 32 and 34.

By this construction, a printed finish may be placed upon the flat outer surface of the rail 10, the flat top surface of the upper bead 24 and the flat bottom surface of the bead 26. Thus, the all metal rail in accordance with this invention is caused to very closely simulate a pleasing and artistic appearance of the more expensive, finished wooden bed rails.

The end member 12 of the bed rail assembly consists of an L-shaped member including a flat end or face plate 46 which is of such size and shape as to enable it to conform to the cross-sectional shape of the bed rail and whereby the plate may be closed against the end of the bed rail to thereby close the open outer end of the tubular beads 24 and 26 as shown in Figure 1. Extending perpendicular from one edge of the plate 46
is a flat plate 50 which is so disposed and of such a size that when the end plate 46 is placed against the end of the bed rail, the plate 50 will lie in the channel between the two flanges 49 and 42 and will underlie the latter and be disposed as shown in Figures 1 and 2, in side-by-side engagement with the web 23 whereby the perpendicular portion may be affixedly secured thereto as by projection welding or the like. If desired, the ends of the tubular beads may be also fixedly secured to the coextensive ends of the plates 46 as by welding, and the end of the web 22 may be likewise similarly attached if desired.

The disposition of the plate 46 is a vertically elongated slot 52. The bed lock 34 extends through the slot as set forth hereinafter.

Referring now especially to Figure 4 it will be seen that the bed lock 14 comprises a plate-like member consisting of a head 54 carrying the usual hook or hooks 55 by which the pin 18 of the bed post is engaged to thereby support and secure the end of the bed rail to the bed post. It will be seen that the head 54 is provided with a shank consisting of a laterally offset end portion 59 which is attached to the head 54 as by an angulated portion 60. At that portion where the head 54 joins the angulated portion 60, the head is provided with vertically extending shoulders 61 at the top and bottom thereof, which shoulders are adapted to abut against the face or end plate 46 above and below the slot 52. It is to be noted that the vertical slot 52 is of greater vertical portion in the top and bottom surfaces of the angulated portion 60 and the junction of the same with the head 54 at the rear of the vertical shoulder 61 so as to permit a limited vertical movement of the bed lock in the slot and in the end of the bed rail, whereby the lock may be disposed at different vertical positions in the bed rail. This arrangement is to permit slightly different vertical adjustments of the bed lock in the bed rail as may be required for different sizes of bed rails and for different bedstead assemblies.

The angulated portion 60 permits the lateral offset shank 58 to be disposed in side-by-side engagement with the previously mentioned perpendicular portion 51 or plate 50, to which the shank may be secured as by projection weld as indicated at 63 or any other desired manner. Shown at 65 in Figures 1 and 2 are welds by which the flanges 49 and 42 in turn are secured to the web 22.

It will be observed that this disposition permits a limited vertical adjustment of the bed lock in the end plate of the bed rail and also provides a very rigid attachment of the bed lock to the bed rail by virtue of the solid engagement of the two shoulders 61 with the end plates; the previously mentioned triangular bracing provided by the angulated portion 60, and the rigid attachment of the shank 58 to the member 50 and the latter to the web 22.

It will be observed that there has thus been provided a very simple and economical construction whereby the bed rail may be secured to the bed lock and whereby the strength of the bed rail at its engagement with the post is greatly increased by virtue of the overlying and rigidly mounted flat surface of the web 22, the perpendicular portion 51, the laterally offset shank portion 58 and the angulated portion 60 in conjunction with engagement of the shoulders 61.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention. What is claimed as new is as follows:

1. A metal bed rail assembly simulating the appearance of a wooden bed rail and including a bed rail having an end member secured to an end thereof with a bed hook projecting outwardly from and extending thence a said end member, said bed rail comprising a unitary metal sheet having a flat vertical single thickness web extending longitudinally thereof with upper and lower longitudinal edge portions of said web folded in upon one side of the latter and providing tubular top and bottom beads which are open at the ends of said rail, said end member comprising a pair of integral perpendicular flat metallic first and second plates, said first plate being secured directly to said one side of said web and the second plate being secured directly to an end of said web and said tubular beads for closing the latter and reinforcing said rail end, said second plate having a slot therethrough, said bed hook having a head portion and a shank portion, said shank portion extending through said slot and being engaged in side-by-side relation upon said first plate and being secured thereto.

2. The combination of claim 1 wherein said second plate has edges which extend and are secured between the web and said top and bottom beads.

3. The combination of claim 2 wherein said shank portion has its edges lying between and in spaced relation to the adjacent edges of said top and bottom beads.

4. The combination of claim 1 wherein each of said beads has a pair of bed, mental, flat, upper and lower surfaces extending laterally from said one side of said web, the adjacent horizontal surfaces of said pair of beads having flat vertical flanges lying against said one side of said web and extending towards each other, said second plate having edges disposed in relative overlapping relation with said flanges and being secured thereto.

5. The combination of claim 1 wherein said slot is of greater length than the width of said shank whereby when the latter is disposed therethrough a limited clearance is provided affording limited vertical adjustment of the bed hook thereto.

6. The combination of claim 5 wherein said bead portion has a vertically extending portion providing a vertical shoulder engaging said first plate and limiting longitudinal movement of said bed hook relative to said end member.

7. The combination of claim 1 wherein said bead portion has a vertically extending portion providing a vertical shoulder engaging said first plate and limiting longitudinal movement of said bed hook relative to said end member.

8. The combination of claim 1 wherein said slot is of greater length than the width of said shank whereby when the latter is disposed therethrough a limited clearance is provided affording limited vertical adjustment of the bed hook relative to the end member and bed rail, said bead portion having vertically aligned, flat surfaced vertical shoulders engaging the end face of said second plate above and below the edges of said slot.

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