Oct. 4, 1955 C. HARRIS 2,719,309

BEDSPRING ADAPTERS FOR BEDSTEADS

Filed Feb. 23, 1954 2 Sheets-Sheet 1

Fig. 1

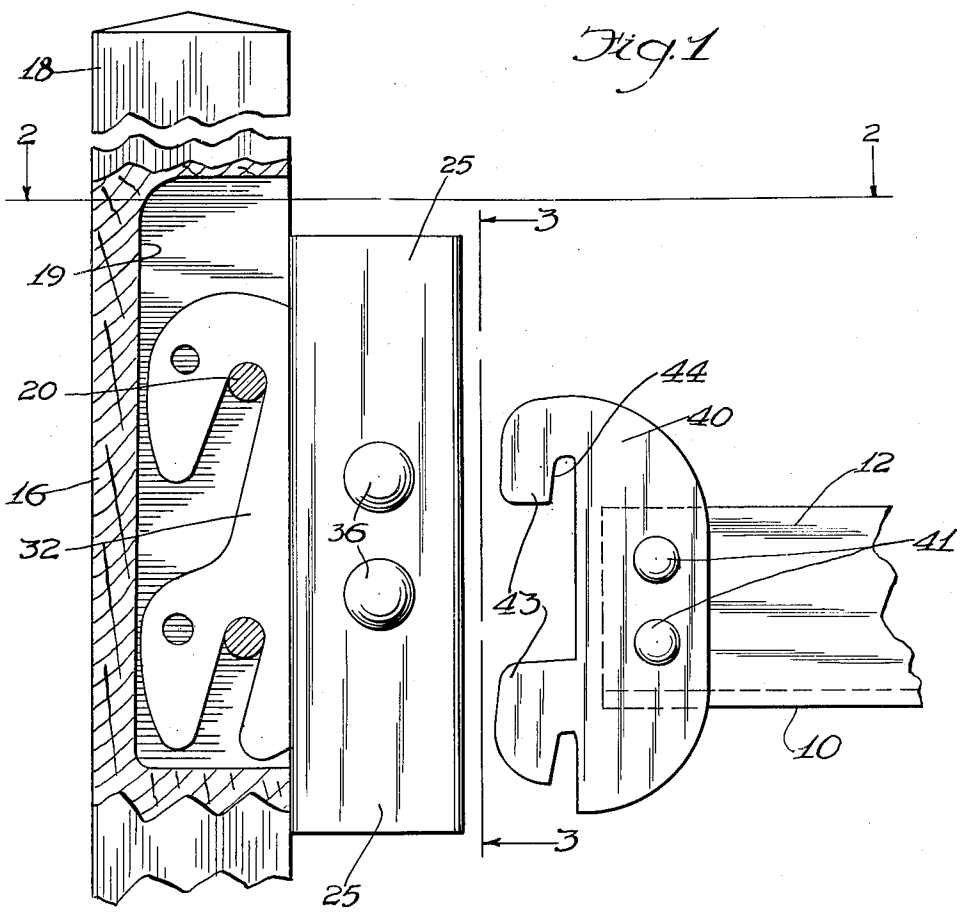
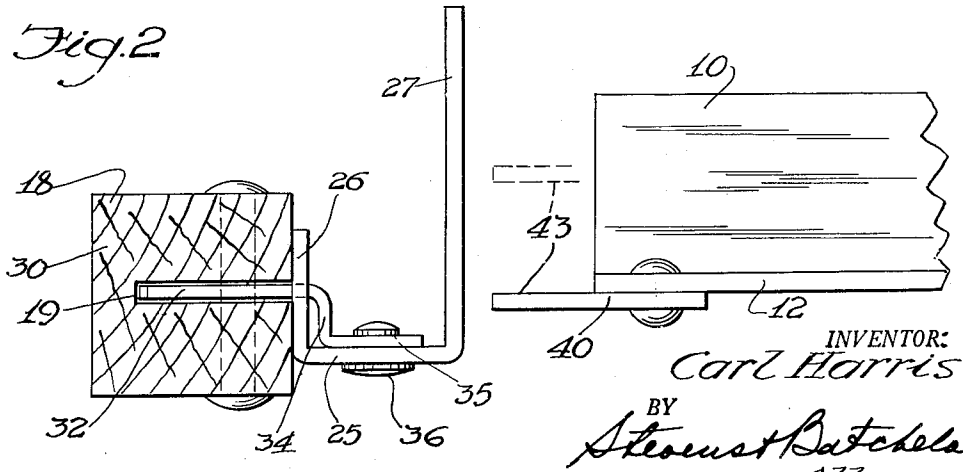


Fig. 2



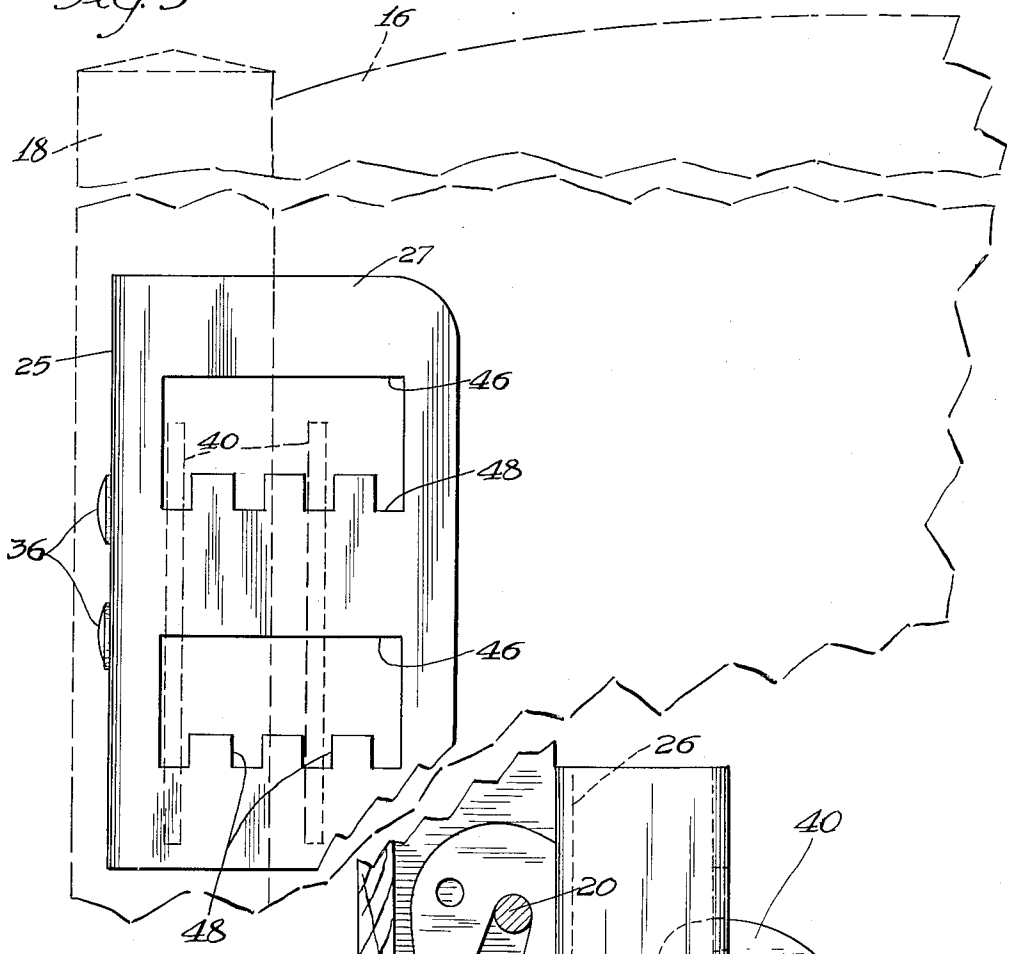
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Filed Feb. 23, 1954 2 Sheets-Sheet 2

Fig. 3



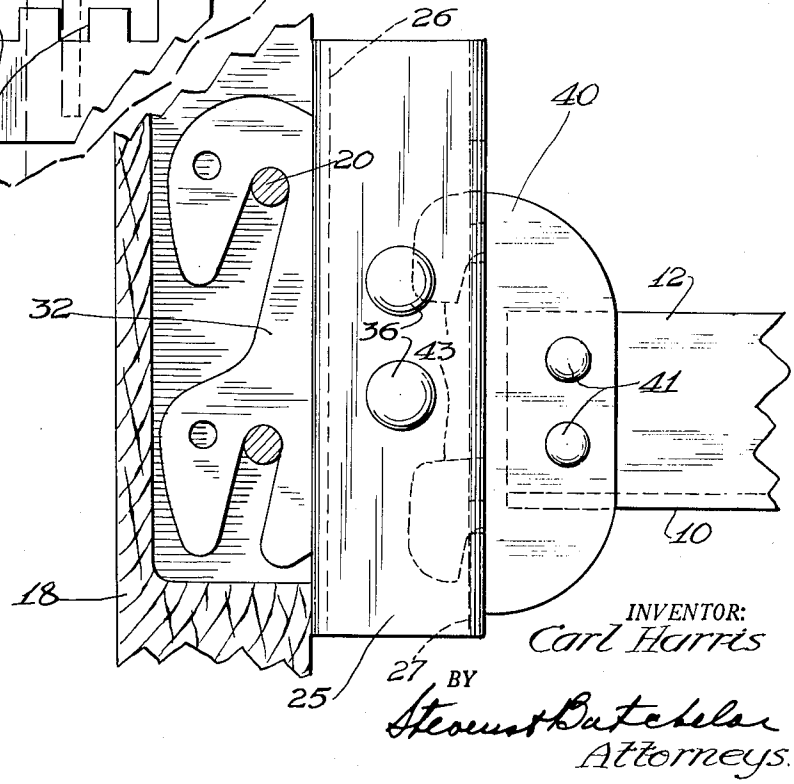


Fig. 4

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BEDSPRING ADAPTERS FOR BEDSTEADS

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Application February 23, 1954, Serial No. 411,684

2 Claims. (Cl. 5—296)

My invention relates to end-pieces of bedsteads, and more particularly to means for connecting the bed rails to them. While in some instances both wooden bedsteads and spring units—such as boxsprings or bedsprings—are manufactured fully by one company, it has become the practice of some furniture companies to manufacture wooden bedsteads alone, while other companies manufacture the spring units to be used in conjunction with such bedsteads. Unfortunately, end-pieces of bedsteads do not have a uniform standard of width, so that when the bed rails are assembled with the end-pieces into a bedstead unit the space between the bed rails is usually substantially wider than a spring unit intended to fit the bedstead. More specifically, the posts of the bed end-pieces are made with vertical slots where they face the correspondingly located ends of the bed rails and hook plates carried by such ends for insertion in the slots. Thus, a bedstead set up in this manner would allow the spring unit to fall through, and it is the practice of furniture dealers to span the bed rails with a number of wood or steel slats in order to procure a support for the spring unit. This practice requires the cutting of the slats to lengths suitable for fitting the bed rails of each bedstead. While this method furnishes the required support for the spring unit, the latter remains spaced between the bed rails and forms a hump or bulge in the sides of the bedspread. In view of this situation, it is one object of the present invention to eliminate the slats and the nuisance of altering the same every time a bedstead is assembled, and to provide an adapter designed for attachment to the posts of a bed end-piece and suitable for the application of wood or steel bed rails with a number of lateral adjustments in order to fit the proper spring unit closely at the sides and form an adequate support for the same.

A further object is to design an adapter of the type mentioned which, by virtue of the fact that both sides of the total length of the spring unit have been given support by resting fully on the total length and width of the horizontal flange of the bed rail, provides a strong and firm foundation for such unit.

A further object is to design an adapter of the type mentioned which, by eliminating the space between the side of the spring unit and the vertical flange of the bed rail, due to the variation in width of the bedsteads, prevents an accumulation of dust and dirt which usually develops in such space.

A further object is to design an adapter of the type mentioned which permits the bed rails to be fitted snugly against the side and along the bottom of the spring unit, thereby imparting a smooth and trim appearance to the bed when it is made and a bedspread is applied to cover the bedding, preventing the bulging of the bedspread at the points where the vertical sections of the bedspread cover the bed rails.

A further object is to design an adapter of the type mentioned which carries its own hook plates for direct

application to the end-piece slots, and forms a support for special hook plates extended from the bed rails.

Another object is to construct the adapter with a transverse series of receptacles to which the special hook plates are selectively applicable.

An additional object is to provide an adapter which creates both a positive and fixed connection between the bed rails and the bedstead end-piece when the proper application of the special hook plates has been made, so that the bedstead becomes put together rigidly.

A still further object is to design the adapter along lines of sturdiness and with a face plate which stabilizes the position of the adapter in relation to the end-piece corner post to which the adapter is applied.

An important object is to construct the novel adapter along lines of simplicity and in a one-piece assembly.

With the above objects in view, a better understanding of the invention may be had by reference to the accompanying drawings, in which—

Fig. 1 is a side elevation, partly broken away, showing the adapter fitted to an end-piece post and about to receive the special hook plate of a bed rail;

Fig. 2 is a section on the line 2—2 of Fig. 1;

Fig. 3 is a section on the line 3—3 of Fig. 1, showing a portion of the end-piece by means of dotted lines; and

Fig. 4 is a view similar to Fig. 1, showing the bed rail assembled with the adapter.

In accordance with the foregoing, specific reference to the drawings indicates one bed or side rail—in the present case a steel rail—of a typical bedstead at **10**, such rail being of angle form opening upwardly, and with the upstanding flange **12** on the outside. A pair of bed rails serve as side supports for a conventional bedspring, boxspring or innerspring mattress, such facility being a unit which requires no end rails, slats or other transverse supports.

Each end-piece **16** has a pair of terminal posts **18**; and these have the slots **19** previously mentioned in the faces opposite the ends of the bed rails. The bedposts **18** have the usual cross-pins **20** which intersect the slots **19** and are designed to be engaged by hook plates at the corresponding ends of the bed rails when the latter are assembled with the end-pieces.

Specifically, the adapter is a channel-shaped piece **25**, the wings **26** and **27** thereof being directed at right angles to the base. The adapter is designed to be positioned vertically, as shown in Fig. 1, and its wing **26**—which is much shorter than its wing **27**—is applicable directly to the inner face of the post **18** on the related side of the bedstead end-piece **16**. It is seen in Fig. 2 that the wing **26** of the adapter spans the post slot **19** equally on both sides; and such wing is made with a vertical perforation through which a standard hook plate **32** extends into the slot **19**. Inwardly of the wing **26**, the hook plate takes an outward offset **34** to form a base **35**; and such base is secured to the adapter base **25** by a pair of rivets **36**.

For the purpose of the present invention, the ends of each bed rail **10** receive a special hook plate **40**. The latter is preferably secured on the outside of the rail flange **12** by a pair of rivets **41**. The hooks **43** of the plate **40** are arranged similarly to that of the standard hook plate **32**, but made much shorter; and the notches **44** of the hooks are positioned vertically and slightly tapered toward their inner ends.

The special hook plates **40** are designed for application to the wings **27** of the related adapters **25**. Fig. 3 shows that each wing **27** is made with a pair of vertically spaced rectangular openings **46**; and the floors of these openings are cut with teeth defining a horizontal series of receptacles **48**. When a pair of bed rails **10** are applied to the bedstead end-piece carrying a pair of

the adapters, the hook plates **40** of the bed rails are moved in a left-hand direction from the position shown in Fig. 1 to engage the hooks **43** in such receptacles **48** as occur opposite them. It is understood that the bed rails are spaced according to the bedspring or mattress unit which they are intended to receive. Due to this spacing, the special hook plates **40** endwise of the bed rails will only fit a set of the receptacles **48** as occur opposite them. Since each adapter has a set of four receptacles—shown full size in the drawings—it is evident that each special hook plate has a leeway of approximately one and five-eighths inches for lateral placement, so that for both bed rails the leeway will be in excess of three inches, which has been found to be an extremely wide variation between the spacing of bed rails and that of the receiving slots in bedstead end-pieces.

It is desirable to have the maximum width of a given bed rail assembly not exceed that of the bedstead end-pieces. Thus, as suggested in Fig. 3, finely-dotted lines represent the maximum width placement of the hook plates **40**, that is, for the widest bed rail assemblies; and long dotted lines in the same figure show the placement of a bed rail assembly whose hook plates **40** are more closely spaced, so that the adjustment always is in an inward direction.

It is to be noted that the stock of the wings **27** surrounding the hook-receiving openings **46** has the effect of absorbing part of the load to which the notched (**48**) bottom walls of openings **46** are subjected. Also, the top walls of the openings **46** are so spaced from the load-receiving bottom walls as to admit of shifting of the hooks **43** from one notch **48** to another while the hooks **40** remain in the openings **46**. Furthermore, the top wall of each opening **46** serves as a stop to indicate when the hooks **43** have been cleared from a notch **48**.

It is now apparent that the novel adapter has a number of advantageous features. First, it eliminates the need of slats in assembling spring units with bedsteads. Further, it requires no change or special fastening means for adaptation to the bedstead end-pieces, since the adapter carries a standard hook plate. Further, the adapter seats flatly against the bedpost to which it applies in view of the balanced application of the wing **26** to the slot **19** of the bedpost. Further, the adapter makes it possible to make up bedsteads from any end-pieces and spring units selected or available and insure the proper fit of the spring unit between the bed rails. Further, the hook plate **32** of the adapter is reinforced by its offset **34** and secured to the adapter on the inside, where its position is concealed. Further, the channeled form of the adapter and its heavy construction make it a rigid adjunct for the bedpost. Further, the selective adjusting feature of the receptacles **48** is contained in the sturdy adapter wing **27** and requires no extra parts in order to receive the hook plates of the bed rails. Further, the adjustment makes it feasible to assemble

the end-pieces with the bed rails very quickly in view of the flexibility of the adapters, as previously mentioned. Finally, it is apparent that the adapter is a sturdy, one-piece article, a supply of which may be kept in stock or readiness in furniture stores or warehouses for use in the expeditious assembling of bedsteads.

While I have described the invention along specific lines, various minor changes or refinements may be made therein without departing from its principle, and I reserve the right to employ all such changes and refinements as may come within the scope and spirit of the appended claims.

I claim:

1. An adapter for connecting a bed rail to a vertically slotted upstanding end-piece of a bedstead and comprising in combination, a substantially channel-form member providing a bight portion at its outer end and spacedly opposed inwardly extending walls, one wall having a closed transverse slot therein and arranged for flat contact against said end-piece with its slot aligned with said end-piece slot, a hook plate extending through said wall slot and having an outer hook portion projectable into said end-piece slot to engage the usual cross pin means therein and draw said slotted wall against said end-piece, the inner portion of said hook plate having an offset seating against the bight portion of said member and secured to the latter, the other wall of said member providing closed longitudinally extending rail hook-receiving slot means, the latter providing rail hook-sustaining lower wall means for supporting a rail hook at a plurality of positions in the direction of the length of said slot means without removal of the rail hook therefrom, and the wall stock surrounding said slot means reinforcing the load-supporting lower wall of said slot means.

2. The combination set forth in claim 1, said lower wall means of said longitudinally extending slot means being spaced from the upper slot wall a distance greater than the depthwise dimension of rail carried hooks, said lower wall means providing laterally spaced rail hook seating notches, and the wall of the slot means serving as a stop for the rail carried hook when the latter is being lifted preparatory to shifting from one notch to another.

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