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BOX SPRING HANGER ASSEMBLY

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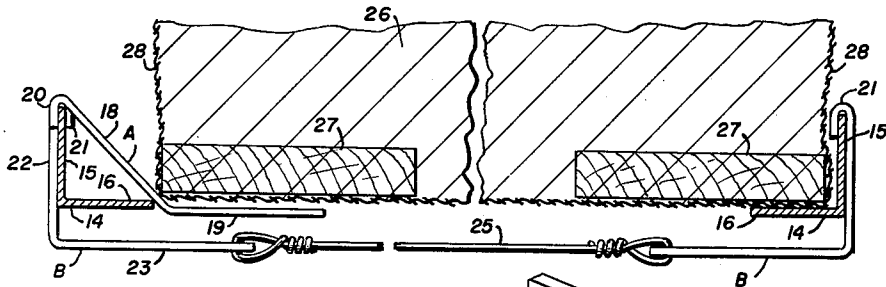


FIG. 2.

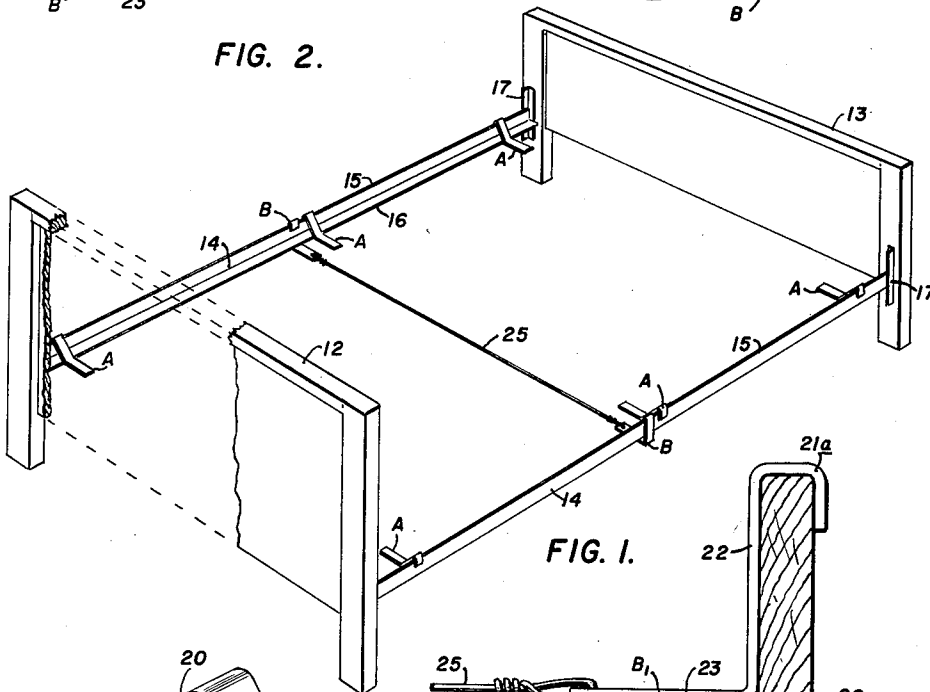


FIG. 1.

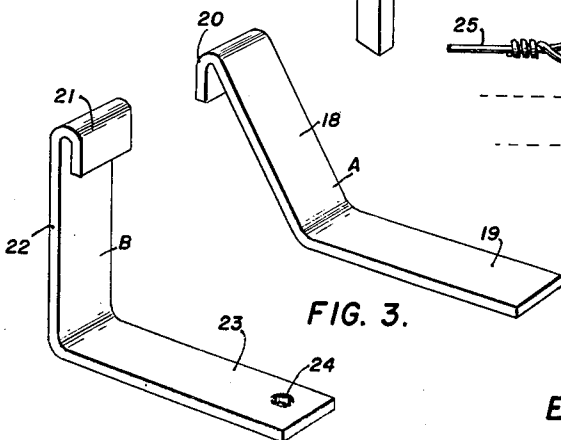


FIG. 3.

FIG. 4.

FIG. 5.

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BOX SPRING HANGER ASSEMBLY

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1 Claim. (Cl. 5-207)

This invention relates to beds and is directed to an improvement in means for supporting box springs on bed frames.

In the type of bedstead having a head and foot board connected by side rails demountably hooked into slots in the corner posts it is the almost universal practice to support the spring on wooden bed slats usually cut from 1 x 4 lumber and resting crosswise of the bed on the flanges of the bed rails. This method is often used as a precaution even when the bed springs are supplied with built in adjustable brackets to engage the rails, as these are unreliable in some cases and are often difficult to adjust to the shape or spacing of the rails.

In the case of box springs which are not supplied with built in brackets, bed slats or a substitute therefor are essential.

It is the purpose of this invention to provide an improved type of hardware to replace the usual bed slats for the purpose of supporting box springs on the type of bed described. Bed slats are bulky, relatively expensive, and usually have to be cut to exactly fit each bed, as there is little margin between being too long or too short. They sometimes slip out of line and fall through the bed, or else the rails spread apart allowing one end of the slat to drop down.

This invention eliminates many of these disadvantages as will be seen from the following description. In the accompanying drawing, which is a part hereof:

FIGURE 1 is a perspective view of one form of the invention applied to a typical bedstead.

FIGURE 2 is a broken sectional detail of the invention in a slightly different arrangement.

FIGURE 3 is a perspective detail of one of the described fittings.

FIGURE 4 is a perspective detail of a second described fitting.

FIGURE 5 is a cross sectional detail of the invention adapted to a wooden bed rail.

One feature of this invention is the manner in which metal fittings for the rails are combined with each other and with a tie wire, not only to support the spring on the rails, but to strengthen the rails against twisting and spreading, thus eliminating all possibility of the spring accidentally falling through the bed or dropping at one corner and becoming wedged between the rails as now often happens. These fittings are of two primary types, A and B, shown in FIGURES 3 and 4, respectively. One way in which they are used is illustrated in FIGURE 1, where they are shown attached to a typical bedstead having a headboard 12, a footboard 13 and side rails 14 made from steel angle stock having a vertical flange 15 and a horizontal flange 16. The rails 14 are attached to the headboard 12 and the footboard 13 by standard hook joints 17.

Each type A fitting consists of a piece of hard steel bar bent to an approximate 45° slope adjoining a horizontal extension 19 at its lower end and having at its upper end a hook 20 fashioned to fit over the top edge of the vertical flange 15 of the rail 14. The slope 18 is long enough to span the distance between the two edges of the rail 14 and the extension 19 is equal to or longer than the slope 18.

Each type B fitting consists of a bar of hard steel bent to a right angle with a hook 21 at the top of the vertical leg 22 to fit over the top edge of the flange 15 of the

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rail 14. The horizontal leg 23 is supplied with a hole 24 at its extremity, and is somewhat longer than the vertical leg 22 which must be enough longer than the vertical flange 15 of the rail 14 to allow for the hook 21 to be slipped over same.

As shown in FIGURE 1, several type A fittings are disposed along each bed rail 14 with the hook 21 engaging the vertical flange 15 while the lower end of the slope 18 rests against the edge of the horizontal flange 16. Near the center of each rail a type B fitting is placed as shown, with the hook 21 engaging the vertical flange 15 and with the horizontal legs 23 extending towards each other underneath the horizontal flange 16. A tie wire 25 is secured under tension to the two type B fittings by threading it through the holes 24 and twisting the ends tightly. FIGURE 2 shows a cross sectional detail of the type B fittings and the wire attached to the rails 14, but this installation differs from the one shown in FIGURE 1 in that the type A fittings are placed on only one bed rail 14. A box spring 26 of which only the wooden frame 27 and cloth cover 28 are illustrated, is shown resting in place as it will usually fit on a typical bedstead. The slope 18 of the type A fitting forces the spring over onto the horizontal flange 16 of the opposite rail 14, holding it securely. The tension wire 25 prevents the bed rails from spreading, and also, on account of the leverage of the B type fitting, prevents them from twisting under the eccentric load on the horizontal flanges 16. This holds true for any width of spring which allows one edge to fall somewhere along the slope 18 of the type A fitting.

The flat extension 19 of the type A fittings is not intended to actually support the weight of the spring 26 except close to the slope 18, but it serves as a stop making it easier to place the spring on the bed and provides a safety margin in case one side of the spring is inadvertently lifted from the bed. The arrangement shown in FIGURE 1 with type A fittings on both rails is used if there is too great a difference between the width of the spring and the bedstead to use the arrangement in FIGURE 2.

FIGURE 5 shows an adaptation of the type B fitting B₁ for use on beds with wooden rails, in which the hook 32a is reversed and enlarged to fit the thickness of the rail 29. In this case, several type B₁ fittings are placed on each rail with the tie wire 25 connecting only the middle pair to guard against spreading of the rails and consequent overloading of the horizontal legs 23 which in this case must support the weight of the spring 26. The phantom line 30 indicates the usual position of the wooden bed slats the type B₁ fittings are replacing.

It can be seen that not only will these fittings be cheaper to supply than the usual five to eight wooden slats, but they do not have to be cut to fit each bed and they can be completely packaged with each bed or mattress or kept on hand in quantity to be supplied by the furniture dealer as needed. Each set is insignificant in weight and bulk compared to the required number of slats.

The invention is not limited to the exemplary construction herein shown and described, but may be made in various ways within the scope of the appended claim.

What is claimed is:

A box spring hanger assembly for a bed having rails along the sides thereof, said rails being comprised of vertical flanges and lower horizontal flanges directed toward each other, said hanger assembly comprising:

first fittings spaced along the length of at least one of said rails, each said first fitting having a hook portion engaging an upper edge of a said rail, a sloping portion having an upper bearing surface extending inwardly from said hook portion to a location inwards of and contacting the inwardly extending edge of a rail's said horizontal flange, and a hori-

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zontal inwardly directed extending portion at the lower end of said bearing surface portion, second fittings located near the middle of each said rail, each said second fitting having a hook portion engaging an upper edge of a said rail, a vertical leg portion depending therefrom and positioned outwardly of said vertical flange, and an inwardly extending horizontal leg portion at the lower ends of said vertical leg portion at the lower ends of said vertical leg portion, and
 tension means connecting said horizontal leg portions.

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