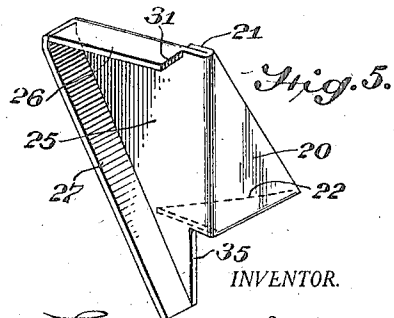
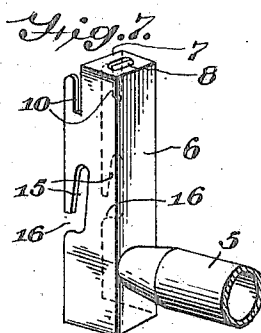
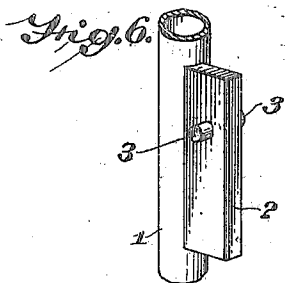
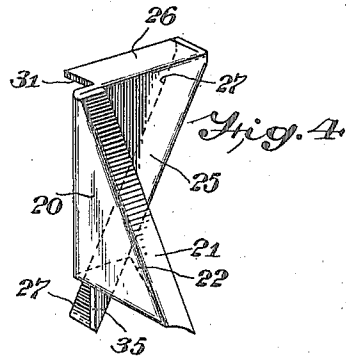
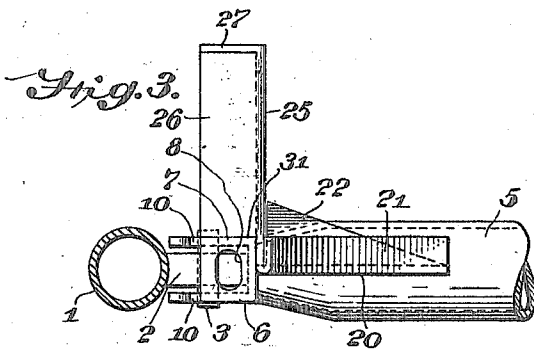
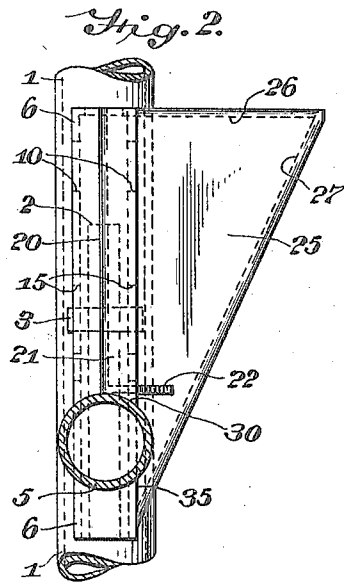
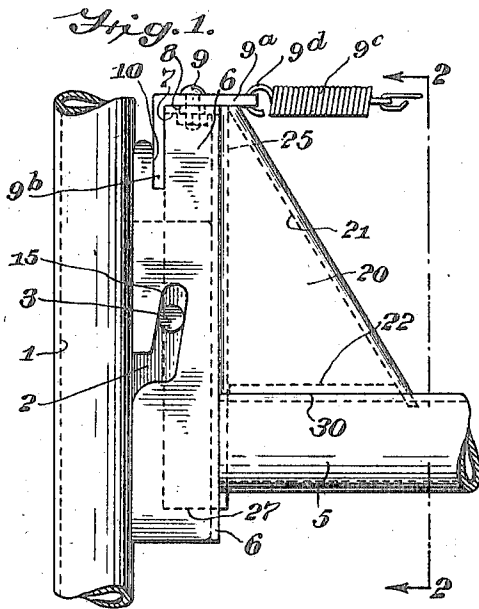


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L. R. DOUGHERTY,  
CORNER CONNECTION FOR BEDSTEADS.  
FILED JUNE 16, 1921.



INVENTOR.  
BY *Laurence R. Dougherty*  
*Cyrus N. Anderson*  
ATTORNEY.

## UNITED STATES PATENT OFFICE.

LAURENCE R. DOUGHERTY, OF PENFIELD, PENNSYLVANIA, ASSIGNOR TO H. D. DOUGHERTY & COMPANY, INCORPORATED, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

## CORNER CONNECTION FOR BEDSTEADS.

Application filed June 16, 1921. Serial No. 477,923.

*To all whom it may concern:*

Be it known that I, LAURENCE R. DOUGHERTY, a citizen of the United States, and a resident of Penfield, in the county of Delaware and State of Pennsylvania, have invented an Improvement in Corner Connections for Bedsteads, of which the following is a specification.

My invention relates to bedsteads, more particularly to the construction of the connection between the opposite ends of the side rails of the spring frame and the corner posts or legs of a three-piece bedstead structure, and it has for its general object to provide a strong and simple structure characterized in part by the efficient manner in which the opposite ends of the said side rails are connected to the said corner posts or legs.

My invention also has for one of its objects to provide the opposite ends of the side rails of the spring frame structure of a bedstead with socket members of channel shape in cross section, the upper ends of which are partially closed and the lower ends open, thereby providing means whereby the spring frame structure may be readily connected with and disconnected from suitable brackets or blocks upon the corner posts constituting parts of the head and foot portions of the bedstead.

A further object of the invention is to provide novel means having permanent connection with the socket members at ends of the said side rails and with adjacent end portions of such side rails for substantially strengthening and stiffening the connection between the two.

Other objects and advantages of the invention will be pointed out in the detailed description thereof which follows or will be apparent from such description.

In order that the invention may be readily understood and its practical advantages fully appreciated, reference may be had to the accompanying drawing in which I have illustrated one form of construction embodying the invention. However, it will be understood that changes in the details of construction may be made within the scope of the claims without departing from the said invention.

In the drawing:

Fig. 1 is a view in side elevation of one

end portion of a bedstead embodying my invention, an intermediate portion only of a corner post being shown;

Fig. 2 is a transverse sectional view taken on the line 2—2 of Fig. 1, the spring being omitted;

Fig. 3 is a view showing a top plan of the connection embodying the invention, and also showing in transverse section the corner post of the bedstead to which it is attached;

Fig. 4 is a perspective view of a strengthening angular member which is adapted to be permanently connected with an end portion of one of the said side rails and with the channel socket member secured to an end of such portion;

Fig. 5 is a similar view looking in a different direction;

Fig. 6 is a perspective view of a portion of a corner post with a bracket or anchor block secured thereto; and

Fig. 7 is a perspective view of one end portion of one of the said side rails with the channel socket member attached thereto but with the other parts of the structure omitted.

Referring to the drawing: 1 designates a corner post of a bedstead having a block 2 secured thereto by welding, brazing or otherwise, which block is provided with a pin 3 extending through an opening there-through, the opposite ends of which pin project short distances beyond the opposite sides of the said block. In the construction shown the block 2 is solid but if preferred it may be hollow.

The constructions at the four corners of the bedstead are identical so that it is deemed unnecessary to illustrate a complete bedstead structure. One corner portion only is shown.

The side rail or bar 5 of the spring frame structure illustrated in the drawing is provided with a socket member 6 which is of channel shape in cross section. The inner portion of the upper end of the socket member 6 is closed, as indicated at 7, and the closure is provided with an elongated opening 8 adapted to receive a bolt 9 which extends through an opening in the horizontal flange of an angle member 9<sup>a</sup> which extends crosswise of the spring frame structure, and the opposite end of which is secured in like man-

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ner to the socket member at the opposite corner of the frame structure. The bolts are fastened by nuts as shown. It will be understood that one of these channel socket members is situated at each corner of the structure and that an angle iron or member 9<sup>a</sup> is situated at the opposite end of the structure from that shown in the drawing.

The outer opposite edge portions of the opposite sides of the channel socket member 6 are provided with slots, as indicated at 10, for the reception of the downwardly extending flange 9<sup>b</sup> of the said angle iron or member.

The opposite ends of the bed spring 9<sup>c</sup> are secured to the angle irons 9<sup>a</sup> in any suitable or desired known manner as by hooks, as indicated at 9<sup>d</sup>, which are connected with the horizontal flange of the said angle iron.

The opposite sides of the channel socket member 6, as shown in the drawing, are provided at their central portions with inwardly and upwardly inclined slots 15 which open, as indicated at 16, upon the outer edges of the said side portions.

In assembling the spring frame structure with the head and foot portions of the bedstead, the opposite ends of the pins 3 are engaged with the slots 15 and by reason of the fact that the said slots are inclined inwardly and upwardly the engagement of the said pins and slots causes a clamping action of the inner side or bottom of the said channel members against the edges of the blocks 2 upon the corner posts. This relationship is clearly indicated in Figs. 1 and 3 of the drawing.

For the purpose of strengthening and producing more rigid corner structures, I have provided the angular brace connections between the channel socket members 6 and the adjacent end portions of the side rails 5. These corner bracing members respectively comprise a side portion 20 of right triangle shape which occupies a vertical position in a plane within the opposite sides of a side rail. At its inner downwardly inclined edge hypotenuse the side 20 is provided with an inwardly turned flange 21 and at its bottom or base the said side is provided with a triangular shaped inwardly turned flange portion 22, the outer end of which is situated in adjacent relation to the side 25 of right angle triangle shape of the bracing member, which side 25 extends inwardly and substantially at right angles to the side 20. At its upper basal end the side 25 is provided with an outwardly extending flange 26 and along its downwardly and inwardly inclined hypotenuse edge is provided with an outwardly extending flange 27.

The lower side of the outer edge portion of the triangular inwardly extending flange projection 22 rests upon and is secured by welding or in any other suitable manner to

the upper side of an end portion of a side rail, as clearly indicated at 30 in Figs. 1 and 2. Also the lower end of the flange 21 contacts with the side rail and is secured thereto by welding or otherwise.

The outer side of the outer edge portion of the side 25 rests against a portion of the inner surface of the channel socket member 6 and is secured thereto by welding or otherwise. The shoulder 31, formed by cutting out a section of the outer end portion of the flange 26, is seated against the inner side of the channel member and is fastened thereto by welding or in any other suitable manner.

It will also be noted that the side 25 of the angular bracing member is provided with a cut out section at its lower outer edge portion forming an edge 35 which extends a distance below the flange 22 along and in contact with the inner side of an end of a side rail 5, which edge portion is likewise secured to the side rail by welding or otherwise.

It will be seen that this bracing member, having the angularly related triangular shaped flanged side portions 20 and 25, which is situated in the upper angle between an end of a side rail and a channel socket member secured thereto and which is integrally connected with said rail and socket member by welding or in any other suitable manner, produces an extraordinarily strong corner connection,—one which is adapted to secure the channel socket members to the ends of the side rails in a very rigid manner.

The horizontal flanges 26 integral with the upper edges of the side portions 25 of the angular bracing members, one of which is situated at each corner of the bed structure, afford additional support for the angle members 9<sup>a</sup>.

It will be seen that by my invention I have provided a construction of corner connection for bedsteads which is simple in character but which is of such nature that it is adapted to offer a maximum resistance to the stresses and strains to which the structure may be subjected.

Although my invention is illustrated as embodied in a three-piece bedstead, it will be understood that it is not limited in its application to bedsteads of this character but may be applied to bedsteads of other types of construction.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A corner connection for bedsteads, comprising coupling members one of which is secured to a corner post and the other to an end of a side rail, and a bracing member situated partly within the angle between said rail and the member of the coupling

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secured to said rail, the said bracing member comprising a portion situated in a vertical plane within the opposite sides of said rail and a second portion extending inwardly at substantially right angles to the first named portion, the said member having permanent connection with said rail and socket member.

2. A corner connection for bedsteads, comprising a coupling member secured to an end of a side rail and projecting a distance above said rail, a bracing member situated in part in the angle between said rail and said coupling member and rigidly and permanently secured to said rail and said coupling member, said bracing member comprising two triangular portions, the base of one of which portions is situated at the lower edge thereof and is secured to the upper side of a portion of said rail, and the base of the other of said portions situated at the upper end of said bracing member and extending inwardly, and means whereby said coupling member is adapted to be connected with and disconnected from a corner post of said bedstead.

3. A corner connection for bedsteads, comprising an elongated coupling member secured to an end of a side rail, said coupling member being arranged at right angles to and extending a distance above said side rail, a bracing member comprising two integrally connected portions each of which is of right angle triangular shape, one of which portions is located within the angle between the said side rail and the upper end portion of said coupling member, the basal edge of said portion connecting with and being permanently secured to the said rail, and the side edge portion thereof contacting with and being permanently secured to the said coupling member and the other of which portions extending inwardly from the first named portion and the upper basal edge thereof occupying a horizontal plane, and the outer lower edge of said portion extending below the lower edge of the first named portion and being secured to the side rail adjacent the said coupling member, and means for connecting and disconnecting the said coupling member with and from a corner post of said bedstead.

4. A corner connection for bedsteads, comprising a coupling member secured to an end of a side rail and extending above the same, and a bracing member comprising portions integrally connected and angularly related to each other, one of said portions being situated in the angle between the said coupling member and the said side rail, and the lower edge of said portion being permanently and rigidly secured to the said rail, and the other portion extending inwardly, and a portion of the same adjacent the outer edge thereof being in contact with and rigidly and per-

manently secured to the said coupling member, and the upper edge of the said last named inwardly extending portion having an outwardly extending flange the inner end of which is in contact with and rigidly and permanently secured to the inner side of the said coupling member, and the first named portion having an inwardly extending flange integral with the side opposite the angle which is situated within the angle between the said coupling member and the said side rail, substantially as described.

5. In a bedstead, in combination, a side rail having a coupling member permanently and rigidly secured to an end thereof, said coupling member being of channel shape in cross section, and the upper end thereof being closed, the closure being provided with an opening therethrough, a bracing member situated in part within the angle between the said coupling member and the said side rail and having integral connection with the said rail and said coupling member and being provided with an inwardly extending portion, the upper edge of which is substantially flush with the top of the said coupling member, and means whereby said coupling member may be coupled to a corner post of a bedstead.

6. In a spring frame structure for a three-piece bedstead, a corner connection comprising a coupling member secured to an end of a side rail of said structure, the upper end of said coupling member extending a distance above said rail and the said member having a notch in its rear upper end portion into which the depending vertical flange of an angle iron projects, which angle iron extends between and connects opposite corners, and a bracing member secured in the angle between the upper end portion of said coupling member and said side rail and connected to both.

7. In a spring frame structure for bedsteads, a corner connection comprising a coupling member of channel shape in cross section secured to an end of a side rail of said structure and the open side of said member facing outwardly and the upper ends of the opposite sides thereof being provided with downwardly extending slots, an angle iron extending between opposite corners, means for connecting an end portion of said angle iron to the upper end of the said coupling member, one flange of said angle iron being situated in a plane parallel with the plane of the said frame structure and the other flange thereof extending transversely of the plane of said structure and projecting into the said slots, and an angular bracing member situated within the angle between the upper end portion of the said coupling member and the adjacent portion of a side rail and being permanently secured to both.

8. In a spring frame structure for bed-

steads, a corner connection comprising a coupling member secured to an end of a side rail of said structure, the upper end portion of said coupling member projecting a distance 5 above the said side rail, a connecting bar extending between opposite corners of the said frame structure and being connected with the upper end of a coupling member at each corner, and a bracing member comprising 10 angularly related triangular shaped portions, one of said triangular shaped portions being situated in the angle between the upper end portion of a coupling member and the adjacent portion of a side rail and being secured to both, and the other triangular 15 shaped portion of said bracing member extending inwardly and its upper edge being flush with the upper end of the said coupling member and thereby being adapted to aid in supporting the said connecting bar. 20

In testimony that I claim the foregoing as my invention, I have hereunto signed my name this 6th day of June, A. D. 1921.

LAURENCE R. DOUGHERTY.