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BEDSPRING BRACKET

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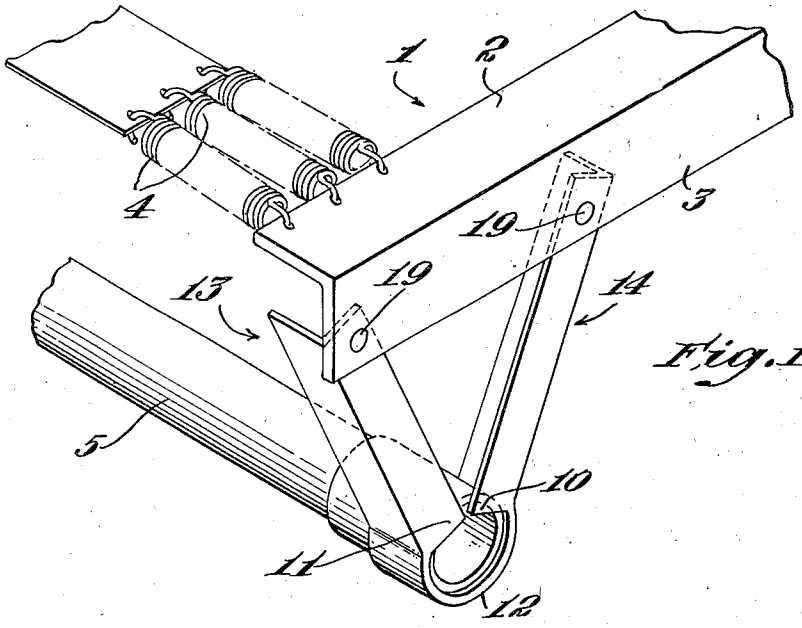



Fig. 1

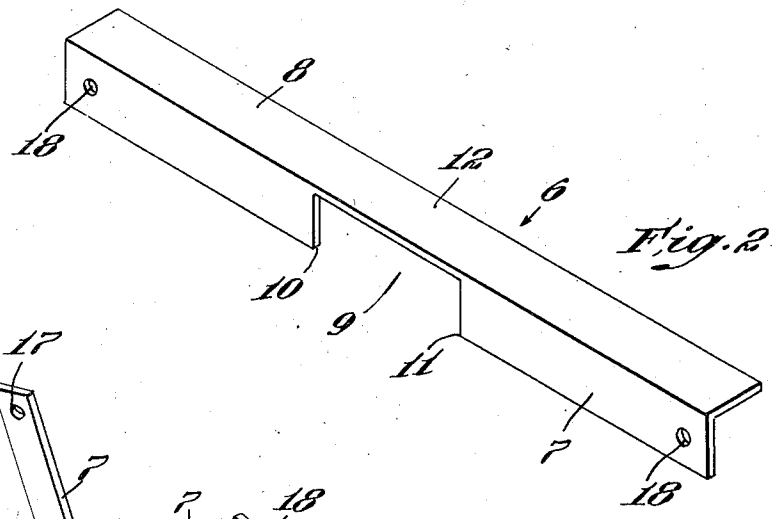



Fig. 2

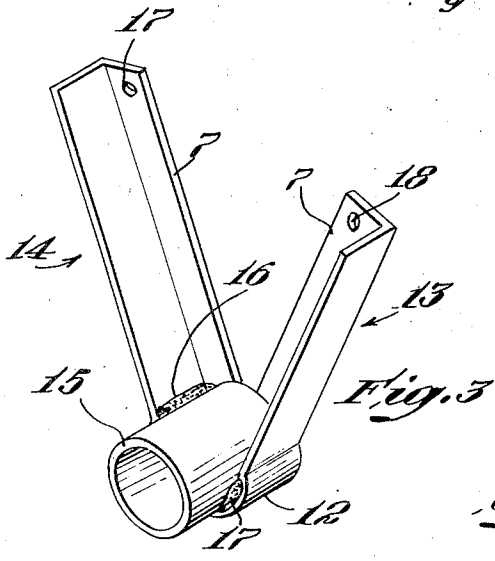



Fig. 3

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## BEDSPRING BRACKET

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2 Claims. (Cl. 5—206)

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This invention pertains to bed springs, and relates more particularly to an improved supporting bracket for use in such a spring, and to a method of making the improved bracket.

Bed springs of the kind in which the resiliency depends upon the presence of coil tension springs having their axes disposed in a plane substantially parallel to the undersurface of the mattress (as distinguished from bed springs using coil compression springs having their axes vertical) usually have end rails of angle bar stock to which the tension springs are connected, and rigid side rails which hold the end rails in properly spaced parallel relation. In order to raise the mattress-supporting surface of the spring to the desired level, it is customary to locate the side rails of the spring several inches, for example six inches below the plane of the top flanges of the end rails. This is accomplished by the use of rigid brackets fixed at their upper parts to the end rails of the spring and usually having sockets at their lower ends which receive the ends of the side rails which are usually of circular transverse section and tubular. Customarily, the brackets employed have been malleable iron castings, but under present conditions arising from the war, it is very difficult to obtain such castings in any adequate quantity. The principal object of the present invention is to provide a novel bracket which may be used in substitution for the customary malleable iron casting, but which may readily be made from standard steel shapes which are still available. A further object is to provide a novel method of making this improved bracket. Other and further objects and advantages of the invention will be pointed out in the following more detailed description and by reference to the accompanying drawings, wherein:

Fig. 1 is a fragmentary perspective view showing one corner of a bed spring and illustrating the improved bracket of the present invention arranged for uniting and holding one of the side rails, and one of the transverse or end rails of the spring in properly spaced relation;

Fig. 2 is a perspective view of a piece of angle bar prepared for use in making the improved bracket; and

Fig. 3 is a perspective view of the completed bracket looking from its inner side.

Referring to the drawings, the numeral 1 designates one of the end rails of a conventional bed spring, this end rail being of angle bar stock having the horizontal upper flange 2 and the vertical outer flange 3. The flange 2 is provided with a series of openings which receive the end portions of the tension springs 4, these springs having their axes disposed substantially in the horizontal plane of the flange 2. The spring also comprises the side rail 5, which is here illustrated and is customarily a length of steel tubing.

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In accordance with the present invention, the bracket which unites the rails 1 and 5 in properly spaced relation comprises a piece 6 (Fig. 2) of standard angle bar stock having flanges 7 and 8 disposed at right angles to each other.

Preferably, this piece of angle bar is of a length approximately twice the height of the desired bracket, although the length of this piece may vary to some extent in accordance with the diameter of the rail 5 and with the angle of divergence of the legs of the bracket as hereinafter referred to. Having provided a piece 6 of the proper length, the flange 7, which is hereinafter referred to for convenience in description as the "front" flange (being the flange which is vertical and exposed at the outside in the completed spring), is cut away at its central part so as to provide a gap 9. The length of this gap 9 is such that the distance between the inner corners 10 and 11 of the flange 7 is of the order of one-quarter the length of the bar 6, although the length of the gap may vary to some extent with the diameter of the cross rail 5. The removal of the flange 7 at the gap 9 leaves the central portion 12 of the flange 8 unreenforced so that this portion 12 may quite readily bend. According to the present invention, this portion 12 is bent to an arcuate, preferably circular curvature so as to bring the inner corners 10 and 11 of the flange 7 into juxtaposition, as shown in Fig. 1, the end portions of the flange 7 being disposed in the same plane and the end portions of the bar 6 diverging upwardly so as to form the legs 13 and 14 of the bracket. As here shown, these legs diverge upwardly at an acute angle, for example an angle of approximately 45°, although the angle of divergence may be varied as desired.

There is also provided a short piece 15 of tubing, for instance standard seamless steel tubing of an internal diameter such as to receive the end of the side rail 5 with a snug fit, the length of the piece of tubing 15 being such as to provide a socket portion for the bracket of a length such as is customary in brackets as heretofore made, for example 1¾ inches. In bending the part 12 of the bar 6, it is so bent that the radius of curvature of its inner surface is substantially identical with the radius of curvature of the outer surface of the socket member 15 of tubing. The piece 15 is now disposed within the

curved part 12, preferably with its end in engagement with the inner surfaces of the corners 10 and 11 of flange 7, and the tube 15 is now permanently secured to the bar 6 by appropriate fastening means, for example welding metal disposed, for instance, at such convenient points 16 and 17. At some stage of the operation, either before or after bending the bar 6, openings 18 are provided at the end portions of the flange 7. These openings are designed to receive rivets 19 or equivalent fasteners whereby the legs 13 and 14 of the bracket are permanently secured to the vertical flange 3 of the end rail 1. Having secured the legs of the several brackets to the rails 1, the ends of the side rails 5 are introduced into the sockets (provided by the tubes 15 and the corner portions 10 and 11 of the bars 6, said corners defining the end of the socket), and after the rails 5 have thus been assembled with the several brackets, the springs 4 which form a part of the mattress support are connected to the flanges 2 of the end rails, thus completing the assembly. If desired, rivets or other fastening means may be passed through the socket members 15, and the ends of the rail 5 to insure permanent union.

While one desirable embodiment of the invention has herein been illustrated and described by way of example, it is to be understood that the invention is not necessarily limited to the precise construction herein shown nor to the precise sequence of method steps but is to be regarded as broadly inclusive of any and all equivalents and modifications falling within the terms of the appended claims.

We claim:

1. A bed spring bracket comprising a length of angle bar and a tubular socket member designed to receive one end of the tubular side rail of the bed spring, the bar having a front flange provided with a gap at its central portion, the other flange being bent to circular curvature at its central part and partially embracing the socket member, the end portions of the bar diverging upwardly with the end portions of its front flange



disposed in the same plane, the axis of the socket being perpendicular to said plane and one end of the socket member engaging the inner surface of said front flange, and means permanently uniting the tubing and bar.

2. A bed spring bracket comprising a piece of angle bar and a short piece of tubing constituting a socket for the reception of one end of a tubular side rail of the bed spring, the angle bar being of a length approximately twice the height of the desired bracket and comprising a front flange having a gap at its central part, the gap being of a length approximating one quarter the length of the bar, the other flange being arcuately curved at its central part, the short piece of tubing being partially embraced by said curved part of the flange, the opposite end portions of the bar diverging upwardly at an acute angle to form legs for the bracket, the end portions of the front flange being disposed substantially in the same vertical plane and the axis of the tubing being perpendicular to said plane with one end of the short piece of tubing abutting the inner surface of the front flange, and welding metal uniting the tubing and angle bar, the upper ends of the front flanges of the respective legs having openings for the reception of fasteners for uniting the bracket to the end rail of a bed spring.

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