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2,157,064

BED CONSTRUCTION

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Fig. 1.

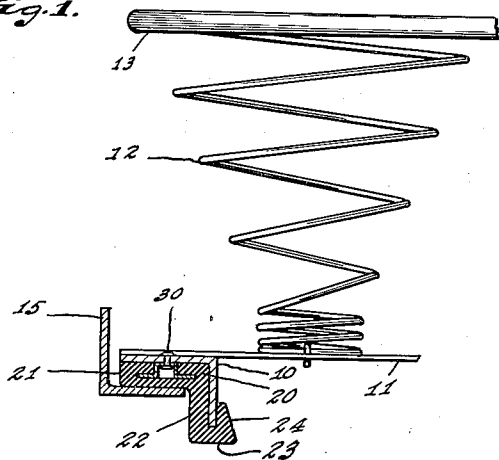


Fig. 2.

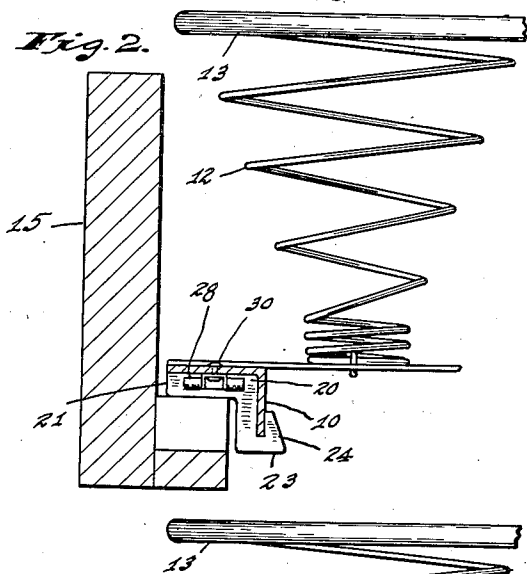


Fig. 3.

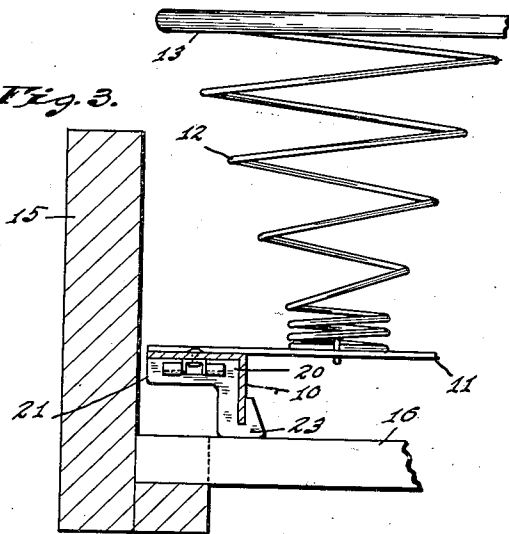


Fig. 4.

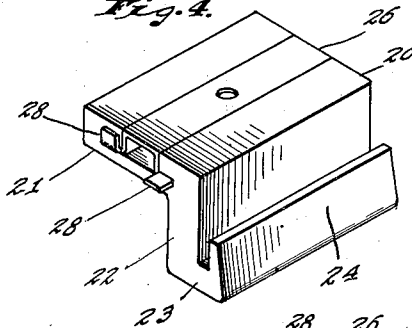


Fig. 5.

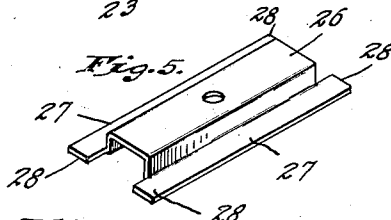


Fig. 6.

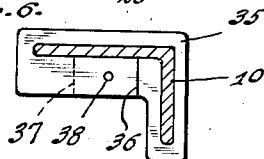


Fig. 7.

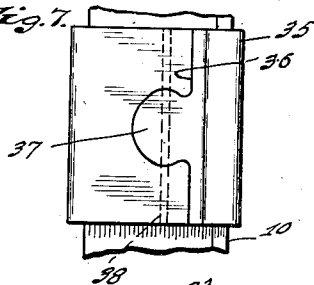
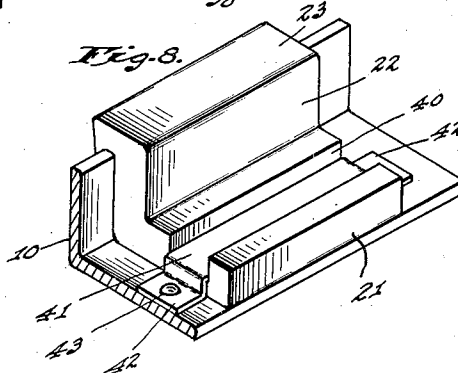


Fig. 8.



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BED CONSTRUCTION

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Application August 14, 1936, Serial No. 95,958

2 Claims. (Cl. 5—207)

It is the object of my invention to provide on a bed spring a cushioning means which will prevent noises that otherwise might result from relative movement of the bed spring and the bed which supports it. A further object of my invention is to provide a cushioning means which will prevent not only noise resulting from relative vertical movement of the bed spring and bed but also those which would result from relative horizontal movement. Still another object of my invention is to provide a cushioning means which will be equally effective whether the bed spring is supported directly upon the side-rails of the bed or upon slats extending transversely between such side-rails.

A bed spring of the type with which my invention is adapted to be associated has a bottom frame which is supported from the bed and which usually is formed of angle iron. In applying my invention to such a spring, I mount at intervals along the sides of this bottom frame cushions of rubber or similar material which cover those faces of the bottom frame that are apt to come into contact with any portion of the bed. These cushions are attached to the bottom frame of the spring by means so arranged as not to interfere with the desired cushioning action. In its preferred form, each cushion is generally L-shaped in cross-section to cover one face of each of the two flanges of the angle iron forming the bottom frame of the spring; and, especially in the case where one of such flanges extends vertically downwardly from the other, the vertically extending leg of the cushion is provided with an extension embracing the lower edge of such vertical angle-flange.

The accompanying drawing illustrates my invention: Fig. 1 is a fragmental vertical section through a bed and bed-spring showing, in section, a cushion in accordance with my invention interposed between the bottom frame of the spring and the side-rail of the bed; Fig. 2 is a view similar to Fig. 1, but illustrating a different type of bed side-rail and showing the cushion in end elevation rather than in section; Fig. 3 is a view similar to Fig. 2 but showing the bed spring as supported upon slats rather than as directly from the side-rail; Fig. 4 is an isometric view of one of the cushions and an associated clip by means of which it is held in place; Fig. 5 is an isometric view of the clip alone; Fig. 6 is a vertical section through one side of a spring frame showing a cushion of a different type; Fig. 7 is a plan view of the cushion illustrated in Fig. 6; and Fig. 8 is a fragmental isometric view illustrating a

cushion generally similar to those shown in Figs. 1 to 4 inclusive but showing a different form of attaching means.

The conventional bed spring with which my invention is adapted to be used embodies a bottom frame 10, usually formed of angle iron, provided with cross-members 11 on which are supported rows of compression springs 12. It is customary to provide in the plane of the upper ends of the springs 12 a border frame, and such a border frame is indicated at 13 in the drawing. It is to be understood that my invention is not concerned with any particular construction of the bed spring, as details thereof may vary.

In the arrangement shown in Fig. 1, the angle iron of which the bottom frame 10 is formed is disposed with one flange horizontal and extending outwardly and with the other flange extending downwardly from the inner edge of such horizontal flange. In the absence of any cushioning means such as is contemplated by my invention the bottom frame 10 rests directly on some part of the bed. When the spring is supported directly from the side-rail 15 of the bed, as illustrated in Figs. 1 and 2, the horizontal flange of the bottom frame rests on such side-rail. In other cases the bottom frame of the spring may be supported from slats 16 extending between the side-rails 15 of the bed, as indicated in Fig. 3; and in such case, the lower edge of the vertical flange of the bottom frame 10 would rest on such slats. As both arrangements for supporting the bed spring are in common use, I prefer to employ a cushioning means which will be effective with either method of support.

The preferred cushioning means illustrated in Figs. 1 to 5 inclusive comprises a cushion 20 of rubber or some other resilient material. Two or more of these cushions are attached to each side of the bottom frame 10. Each cushion is L-shaped in cross-section to provide a horizontal leg 21, disposed against the lower side of the horizontal flange of the angle forming the bottom frame 10, and a vertical leg 22, disposed against the outer face of the vertical flange of such angle. The leg 22 has an extension 23 which passes beneath the lower edge of the vertical angle-flange and is provided with an upwardly extending lip 24 lying against the inner face of such vertical angle-flange.

Various means may be employed to hold each of the cushions 20 in place. The means illustrated in Figs. 1 to 5 inclusive takes the form of a sheet-metal clip 26 formed into a U-shaped section and provided with co-planar longitudinally

extending flanges 27. The horizontal leg 21 of the cushion has a T-shaped slot proportioned to receive the clip 26, the body of which corresponds in length to the length of the cushion. The flanges 27, however, project longitudinally beyond the body of the clip at each end thereof to provide end tabs 28.

In using the clip 26 to attach one of my cushions, it is secured in longitudinally extending position against the lower face of the horizontal angle flange, as by means of a rivet 30. With the clip in position, the associated cushion is slid into place by longitudinal movement, the clip entering the T-shaped slot provided in the horizontal cushion-leg 21. Because the flanges 27 are longer than the cushion, the flange-ends 28 will project beyond the cushion at each end thereof and may be bent, preferably upwardly, to prevent removal of the cushion.

When a bed spring equipped with cushions of the type illustrated in Figs. 1 to 4 inclusive is supported from the side-rail of the bed, as in Figs. 1 and 2, the horizontal legs 21 of the cushions rest upon such side-rails and prevent any noise which might otherwise result from relative vertical movement of the spring and the bed. Upon any horizontal movement of the spring in the bed frame, the vertical leg 22 of the cushion would engage the side-rail. If the bed spring is to be supported upon slats 16, as indicated in Fig. 3, the extension 23 interposed between the slat 16 and the bottom edge of the vertical angle flange would exert the desired cushioning action. The clip 26, being embedded in the horizontal leg 21 of the cushion, does not come into contact with any part of the bed and therefore does not interfere with the cushioning action.

A somewhat different form of cushion is illustrated in Figs. 6 and 7. This cushion, designated at 35, is formed to embrace all faces of the angle 10 and, like the cushion 20, is preferably formed of rubber although other resilient material may be used. Desirably, the cushion 35 is provided with a generally longitudinally extending slit 36 so that it can be applied to the side of the bottom frame 10 at any desired point. To hold the two edges of the slit 36 together, they are preferably formed to provide interfitting dove-tailed portions 37, and the connection thus effected may, if desired, be supplemented by a longitudinally extending pin 38.

The cushion illustrated in Fig. 8 is substantially identical to that shown in Figs. 1 to 4 inclusive except that the horizontal leg 21, instead of being provided with a T-shaped slot, is provided with a groove 40. To attach such a cushion to the bottom frame 10, I employ a metal strap 41 which is received in the groove 40 and which is provided with off-set end portions 42 secured to the horizontal flange of the bottom frame 10, as by means of rivets 43.

The cushion illustrated in Figs. 6 and 7 as well as that illustrated in Fig. 8 operate in the same way as does the cushion of Figs. 1 to 4 inclusive, preventing the possibility of noise which would occur from relative horizontal movement or relative vertical movement of the bed spring and the bed.

I claim as my invention:

1. In a bed spring having a bottom frame formed of angle iron with a horizontal flange projecting outwardly and a vertical flange projecting downwardly, cushioning means on said bottom frame, said cushioning means comprising an L-shaped member of resilient material lying against the lower face of said horizontal flange and the outer face of said vertical flange and having an extension embracing the lower edge of said vertical flange, and a clip secured to the lower face of said horizontal flange and having a flange disposed parallel to such lower face, said member being slotted for the reception of said clip, the ends of said clip-flange projecting outwardly beyond the end faces of said member and being bent to engage said end faces and thereby to prevent longitudinal movement of said member.

2. In a bed spring having a bottom frame formed of angle iron with a horizontal flange projecting outwardly and a vertical flange projecting downwardly, cushioning means on said bottom frame, said cushioning means comprising an L-shaped member of resilient material lying against the lower face of said horizontal flange and the outer face of said vertical flange, and a clip secured to one of such flange-faces, said member being provided with a longitudinal slot for the reception of said clip, and said clip embodying portions engaging the end faces of said L-shaped member to prevent longitudinal displacement thereof.

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