July 1, 1941. W. E. WUNDERLICH 2,247,900

BEDSPRING

Filed July 8, 1939

Fig. 1.

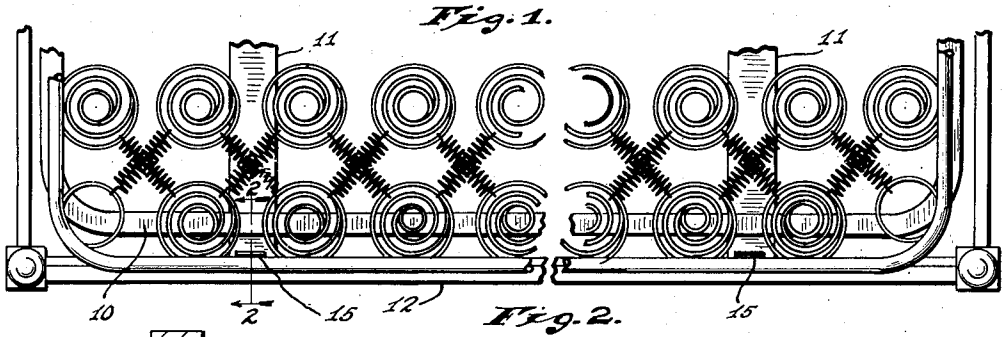


Fig. 2.

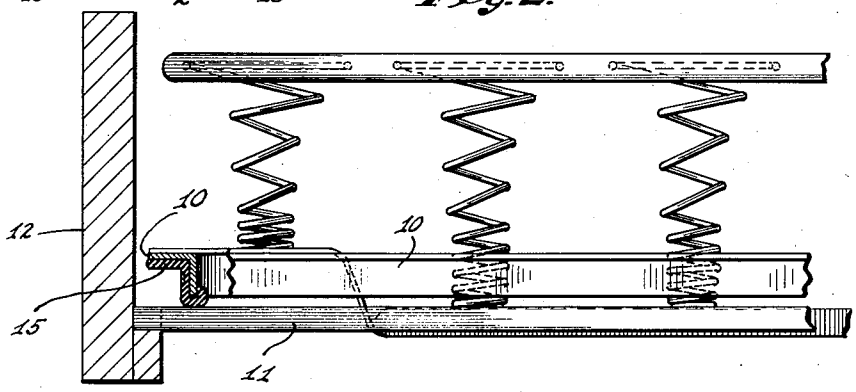


Fig. 3.

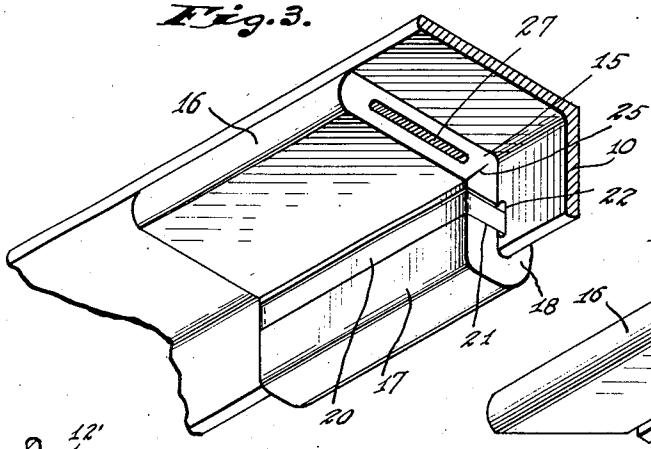


Fig. 5.

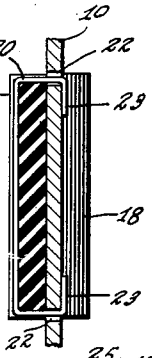


Fig. 6.

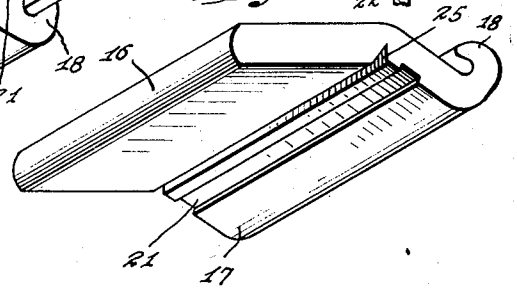
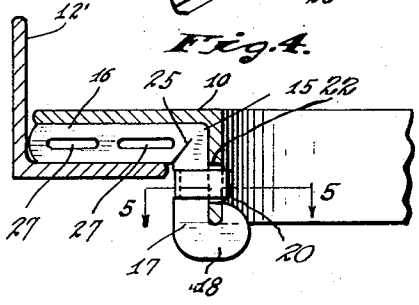


Fig. 4.



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UNITED STATES PATENT OFFICE

2,247,900

BEDSPRING

William E. Wunderlich, Muncie, Ind., assignor to The Moore Company, Muncie, Ind., a corporation of Indiana

Application July 8, 1939, Serial No. 283,451

4 Claims. (Cl. 5—207)

The present invention is an improvement in the construction illustrated and described in my prior Patent No. 2,157,064, granted May 2, 1939. That prior construction embodied cushions of rubber or other generally similar resilient material which were applied to the bottom frame of a bed spring in position to engage spring-supporting portions of a bed.

It is the object of the present invention to improve the effective resilience and to simplify and cheapen the construction of cushions such as those described in my prior patent.

In carrying out my invention I form the cushion with two legs, one of which extends across the bottom of the horizontal flange of the angle-iron forming the bottom frame of the bed spring and the other leg of which extends across the outer surface of the downwardly directed vertical flange of such angle-iron. The latter leg is attached to the associated angle-iron flange and is provided at its bottom with a lip which embraces the lower edge of such flange. To insure that the horizontal leg of the cushion, which is free from direct attachment to its associated angle-iron flange, will remain in contact therewith, the cushion is manufactured with its two legs at an obtuse angle to each other so that when drawn into place within the right-angle formed by the two flanges of the angle-iron its inherent resilience will force and hold the horizontal cushion-leg against the horizontal angle-iron flange.

The accompanying drawing illustrates my invention: Fig. 1 is a fragmental plan view of a bed and bed spring; Fig. 2 is a fragmental vertical section on the line 2—2 of Fig. 1; Fig. 3 is an isometric view illustrating a cushion embodying my invention in place on the bottom frame of the bed spring; Fig. 4 is a vertical section through a bed-spring frame and an associated support in a plane adjacent one end face of a cushioning member, the cushioning member and the arrangement of bed-spring frame and support being somewhat different from the arrangement illustrated in Figs. 1 and 2; Fig. 5 is a horizontal section on the line 5—5 of Fig. 4; and Fig. 6 is an isometric view illustrating a cushion before being applied to the bottom frame of the bed spring.

The bed spring illustrated has a bottom frame 10 which is formed of angle iron and which is supported upon slats 11 extending between side rails 12 of the bed. In the plane of each slat 11, the bottom frame 10 is provided on opposite sides with cushions 15 of rubber or other resilient material. Each of such cushions has a horizontal leg 16 which lies against the lower surface of the outwardly extending horizontal flange of the angle-iron 10 and a vertical leg 17 lying against the outer surface of the downwardly extending vertical flange of such angle-iron. As originally formed (see Fig. 6) the two legs 16 and 17 of each cushion are at an obtuse angle to each other so that the cushion will be stressed when drawn into place against the perpendicular leg of the angle-iron 10. Along the lower edge of the vertical cushion-leg 17 I provide a lip 18 which embraces the lower edge of the vertical flange of the angle-iron 10.

The cushion formed as illustrated in Fig. 6 is held in place on the bottom frame by means acting between the vertical cushion-leg 17 and the associated vertical flange of the angle-iron 10. In the preferred form, this means consists of a sheet-metal strip 20 which is received in a groove 21 in the outer face of the vertical cushion-leg 17, and which is bent to extend inwardly across the ends of such vertical cushion-leg and through holes 22 in the vertical flange of the angle-iron 10. The extreme ends of the strip 20, indicated at 23, are bent against the inner face of the angle-iron 10 to hold the cushion in place, as is clearly shown in Figs. 3 and 5.

To permit the cushion to enter well into the corner formed by the two flanges of the angle-iron 10, its inner surface may be provided with a longitudinally extending V-groove 25 at the junction of the two cushion-legs 16 and 17, such groove being shaped so that it will be substantially closed when the cushion is in place.

With the cushions in place along the sides of the bottom frame of the bed spring, the bed spring may be supported either upon slats 11 as illustrated in Fig. 2 or directly upon side rails 12' of the bed as indicated in Fig. 4. If the bed spring is supported upon slats, it is cushioned by the lips 18; while if it is supported directly upon the side rails, it is cushioned by the horizontal cushion-legs 16. Since the horizontal cushion-leg 16 is not directly associated with any attaching means such as the strip 20, its full resilience is availed of in cushioning the bed spring. If desired, the resilience of the horizontal cushion-leg 16 may be increased by providing it with one or more longitudinally extending openings 27 as indicated in Figs. 3 and 4.

Although the horizontal cushion-leg 16 is free from direct attachment to the horizontal flange of the angle-iron 10, it is nevertheless held firmly in contact therewith as a result of the stress

to which the cushion is subjected when distorted from its normal obtuse-angle form to the right-angle form which exists when the cushion is drawn into place by the attaching means **20**.

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 a member of resilient material having two legs normally disposed to each other at an angle materially greater than 90° and also having a portion of resilient material interconnecting said two legs, and means acting between one leg of said member and the vertical flange of said angle iron for distorting said interconnecting portion and holding the two legs of said member respectively against the outer surface of said vertical angle-iron flange and the lower surface of said horizontal angle-iron flange, that leg of said cushioning member which is associated with the vertical angle-iron flange being provided with a lip embracing the lower edge of the vertical flange.

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 a member of resilient material having two legs normally disposed to each other at an angle materially greater than 90° and also having a portion of resilient material interconnecting said two legs, and means acting between one leg of said member and the vertical flange of said angle iron for distorting said interconnecting portion and holding the two legs of said member respectively against the outer surface of said vertical angle-iron flange and the lower surface of said horizontal angle-iron flange.

3. The invention set forth in claim 2 with the addition that the vertical flange of said angle-iron is provided with holes at opposite ends of said cushioning member, said means comprising a metal strip embracing the adjacent leg of said cushioning member and having its ends extending through such holes and bent against the vertical angle-iron flange.

4. 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 a member of resilient material having two legs normally disposed to each other at an angle materially greater than 90° and also having a portion of resilient material interconnecting said two legs, and means acting between one leg of said member and one flange of said angle iron for distorting said intermediate portion and holding the two legs of said member respectively against the outer surface of said vertical angle-iron flange and the lower surface of said horizontal angle-iron flange, that leg of said cushioning member which is associated with the vertical angle-iron flange being provided with a lip embracing the lower edge of such flange.

WILLIAM E. WUNDERLICH.