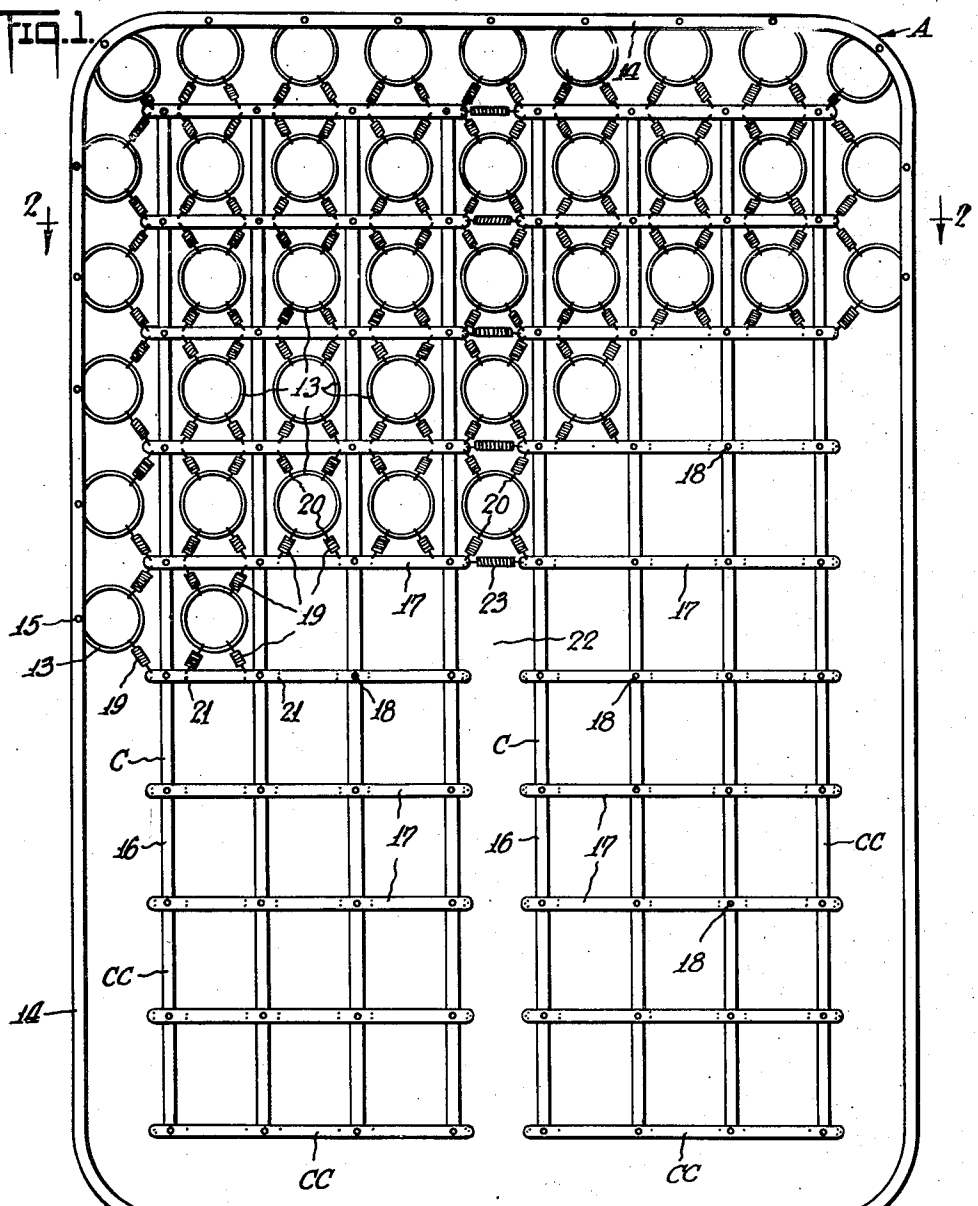
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BEDSPRING CONSTRUCTION

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FIG. 1.



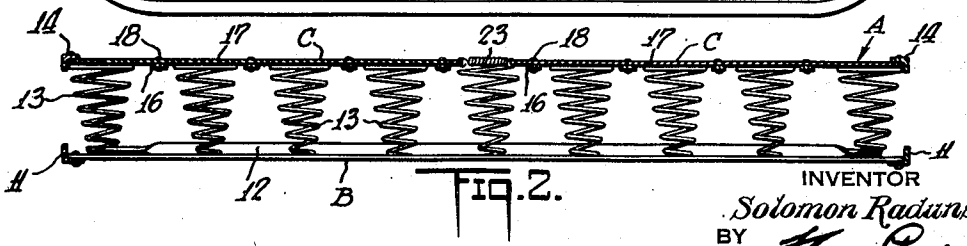


FIG. 2.

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Fig. 3.

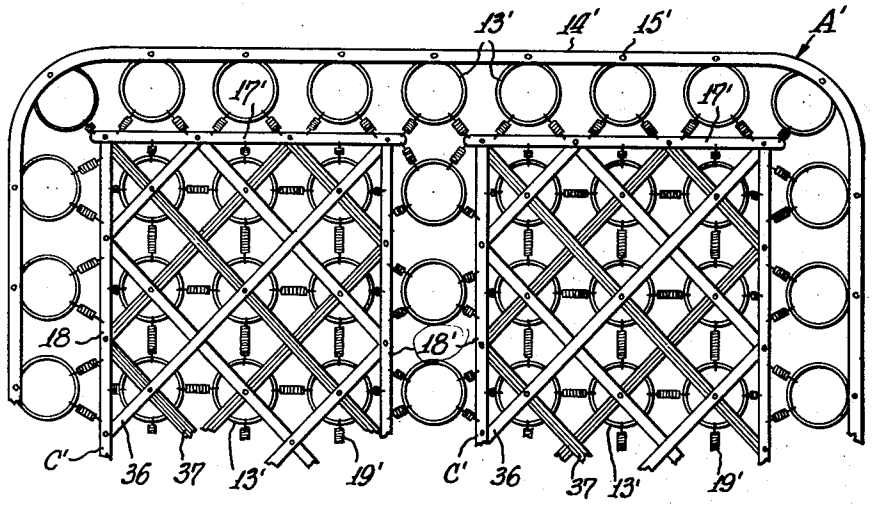
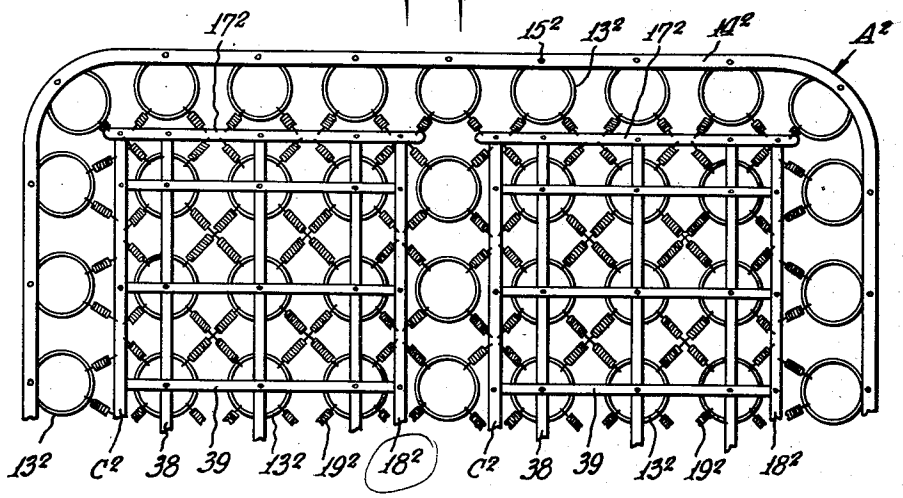


Fig. 4.



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UNITED STATES PATENT OFFICE

2,131,071

BEDSPRING CONSTRUCTION

Solomon Raduns, Brooklyn, N. Y.

Application July 6, 1936, Serial No. 88,921

4 Claims. (Cl. 5—267)

The present invention relates to resilient spring constructions and particularly relates to bed spring constructions.

In springs utilized for double beds, where the weights of the persons reclining or resting upon the bed are disproportionate, there is a tendency for the spring construction of the bed to be more collapsed toward one side than toward the other. This often tends to cause rolling of the person on the more elevated portion of the bed spring toward the more depressed portion with resulting discomfort.

It is among the objects of the present invention to provide an improved, stabilized bed spring construction in which the spring will tend to stabilize itself and will not tend to roll persons at rest from one side of the bed to another, even though persons of substantially different weights recline on opposite sides thereof.

Another object of the invention is to provide an improved bed spring construction which will more readily adjust itself to utilization in double beds to permit more restful sleep even though the persons in the bed are of substantially different weights.

Other objects will be obvious or will appear during the course of the following specification.

According to one preferred embodiment of the present invention, the upper frame of the bed is provided with two resiliently suspended and supported platforms. These platforms consist of either diagonally or laterally and longitudinally arranged strips, wires or springs, which are supported from the lower portion or base of the spring construction by vertical coil spring elements and which are suspended from the periphery of the bed and connected to each other by longitudinally or laterally extending coils. The platforms in themselves are so arranged that they will be adapted to be depressed more or less independently of each other depending upon the weight of the person reclining thereon, and a depression in one platform does not result in a substantial depression of the other platform when two persons are reclining in the bed at the same time.

In the drawings which show several specific embodiments of the present invention by way of illustration, but to the details of which the present invention is by no means restricted, since many changes and alterations are possible:

Fig. 1 is a top plan view of one form of double platform of the present invention, with only part of the detailed spring structure being shown and with the remainder being omitted to permit greater clarity in the representation of the platforms;

Fig. 2 is a cross-sectional view upon the line 2—2 of Fig. 1; and

Figs. 3 and 4 are respectively fragmentary views of a portion of the platform structures of two alternative embodiments, Figs. 3 and 4 merely being diagrammatic plans of the ends of such alternative bed spring constructions.

Referring to Figs. 1 and 2, the base of the spring construction may have the usual longitudinal frame members 11 and transverse frame structural members 12. The upper structure A of the spring to which the present invention is most particularly directed is supported from the lower structure B by conventional coil springs 13.

The upper structure A is provided with a peripheral frame 14 to which the outer peripheral row of coil springs 13 are connected by attachments 15. Within the frame 14 are the two platforms C which are formed of the longitudinal strips 16 and the lateral strips 17. These strips may be riveted, welded or slidingly connected together at 18.

The two platforms C are suspended from the coil springs 13 by the diagonally extending longitudinal springs 19, which are connected to the upper rungs 20 of the coil springs 13 as best shown in Fig. 1 and to the eyelets 21 in the strips 17.

The lateral strips 17 are also connected to each other across the interspace between the two platforms by the longitudinal springs 23 which are connected between eyes in the adjacent ends of said lateral strips 17.

It will be noted that the spacing between the platforms C—C and between each of the platforms and the periphery of the upper structure A may be substantially greater than the maximum diameter of the coil springs 13, which permits the platforms to partake of substantially differential movements in cooperating or adjusting themselves to the weight of persons resting thereon.

If desired, in each platform construction C only the outside or intermediate longitudinal and outside lateral elements 16 and 17 need be employed, with the remaining portions of the laterals 17 and longitudinals 18 being replaced by wires, transverse springs or constructions such as shown in Patents 1,941,882 and 1,964,296.

The construction shown in Figs. 1 and 2 is relatively simple and does not involve any substantially greater expense than the construc-

tion of other types of bed springs devoid of the double platform construction herein shown.

In the alternative embodiments shown in Figs. 3 and 4, corresponding operating parts are designated by the same numerals primed and provided with a superior 2, respectively with the exception of the numerals 18' and 18^2, which indicate the side elements of the inner platforms.

In both Figs. 3 and 4 the platform structures C' and C^2 are provided with main outside lateral members 17' and 17^2 and main outside longitudinal members 18' and 18^2. If desired the remainder of the platform might be composed as indicated in said patents 1,941,882 or in 1,964,296, or by lateral or diagonal or other combinations of wires, struts, longitudinal springs, and so forth.

As shown in Figs. 3 and 4, however, each platform has a peripheral frame 17' and 18' and 17^2 and 18^2. Within each frame, there is a lattice structure including the diagonal cross braces or strips 36 and 37 in Fig. 3, and the longitudinal and lateral cross braces or strips 38 and 39 in Fig. 4. These cross braces or strips may extend diametrically across the coil spring elements 13'—13^2. These coil spring elements are connected to each other by the longitudinal coils 19'—19^2.

If desired, in the construction shown in Figs. 3 and 4, the peripheral or frame portions of the platforms 17'—18' and 17^2—18^2 may be omitted and the platforms composed entirely of diagonal strips 36 and 37 in Fig. 3 or lateral and longitudinal intersecting strips or lattices 38 and 39 as shown in Fig. 4.

It is thus apparent that the applicant has shown a double platform construction in which both platforms are resiliently supported from the base of the spring and resiliently suspended from each other and from the frame, so that they may support substantially different weights of persons reclining thereon varying from 90 to 200 pounds or more without a tendency of one platform being depressed to substantially incline and cause rolling of the person on the other platform.

The bed springs including this double platform construction are much more conducive to comfortable rest and substantially no more expensive in construction than springs of other designs.

The invention is not intended to be restricted to any particular construction or arrangement of parts nor to any particular application of any such construction, nor to any specific method of operation or manner of use, or to any of the various details thereof, herein shown and described as the same may be modified in various particulars or be applied in many varied relationships without departing from the spirit and scope of the claimed invention, the practical embodiments herein illustrated and described merely showing some of the various features entering into the application of the invention.

I claim:

1. A bed spring construction comprising two spaced superimposed peripheral rectangular shaped outside frames, a plurality of uniformly spaced relatively large coil springs, the axes of which are perpendicular to the planes of said frames, said springs being arranged between said frames and the outermost of said springs being arranged around and connected to said frames and being arranged side by side over the entire area enclosed by said outside frames, two smaller rectangular inside frames arranged side by side within and in the plane of the uppermost of said outside frames and being spaced from each other and from the outside frame by about the diameter of said coil springs, said inside frames being supported entirely on and being attached to said coil springs and a plurality of elongated relatively small coil springs lying in the plane of said uppermost outside frame and in the plane of said inside frames extending transversely to said relatively large coil spring and being connected to and in turn connecting together said uppermost outside frame, said inside frames and the uppermost convolutions of said large springs for mutual support.

2. A bed spring construction comprising two spaced superimposed peripheral rectangular shaped outside frames, a plurality of uniformly spaced relatively large coil springs, the axes of which are perpendicular to the planes of said frames, said springs being arranged between said frames and the outermost of said springs being arranged around and connected to said frames and being arranged side by side over the entire area enclosed by said outside frames, two smaller rectangular inside frames arranged side by side within and in the plane of the uppermost of said outside frames and being spaced from each other and from the outside frame by about the diameter of said coil springs, said inside frames being supported entirely on and being attached to said coil springs and a plurality of elongated relatively small coil springs lying in the plane of said uppermost outside frame and in the plane of said inside frames extending transversely to said relatively large coil spring and being connected to and in turn connecting together said uppermost outside frame, said inside frames and the uppermost convolutions of said large springs for mutual support, said inside frames consisting of a crossing lattice work of metallic strips extending over said large coil springs in the areas covered by the said frames.

3. A bed spring construction comprising two spaced superimposed peripheral rectangular shaped outside frames, a plurality of uniformly spaced relatively large coil springs, the axes of which are perpendicular to the planes of said frames, said springs being arranged between said frames and the outermost of said springs being arranged around and connected to said frames and being arranged side by side over the entire area enclosed by said outside frames, two smaller rectangular inside frames arranged side by side within and in the plane of the uppermost of said outside frames and being spaced from each other and from the outside frame by about the diameter of said coil springs, said inside frames being supported entirely on and being attached to said coil springs and a plurality of elongated relatively small coil springs lying in the plane of said uppermost outside frame and in the plane of said inside frames extending transversely to said relatively large coil spring and being connected to and in turn connecting together said uppermost outside frame, said inside frames and the uppermost convolutions of said large springs for mutual support, said inside frames each consisting of a plurality of metallic strips rigidly connected to one another to form a lattice work, and the openings of said lattice work being positioned to enclose the spaces between the large springs and to include the small springs.

4. A bed spring construction comprising two spaced superimposed peripheral rectangular shaped outside frames, a plurality of uniformly

spaced relatively large coil springs, the axes of which are perpendicular to the planes of said frames, said springs being arranged between said frames and the outermost of said springs being arranged around and connected to said frames and being arranged side by side over the entire area enclosed by said outside frames, two smaller rectangular inside frames arranged side by side within and in the plane of the uppermost of said outside frames and being spaced from each other and from the outside frame by about the diameter of said coil springs, said inside frames being supported entirely on and being attached to said coil springs and a plurality of elongated relatively small coil springs lying in the plane of said uppermost outside frame and in the plane of said inside frames extending transversely to said relatively large coil spring and being connected to and in turn connecting together said uppermost outside frame, said inside frames and the uppermost convolutions of said large springs for mutual support, said inside frames each consisting of a plurality of diagonal crossing of the metallic strips rigidly connected together at their crossing points, said crossing points being positioned in the axes of said large springs.

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