

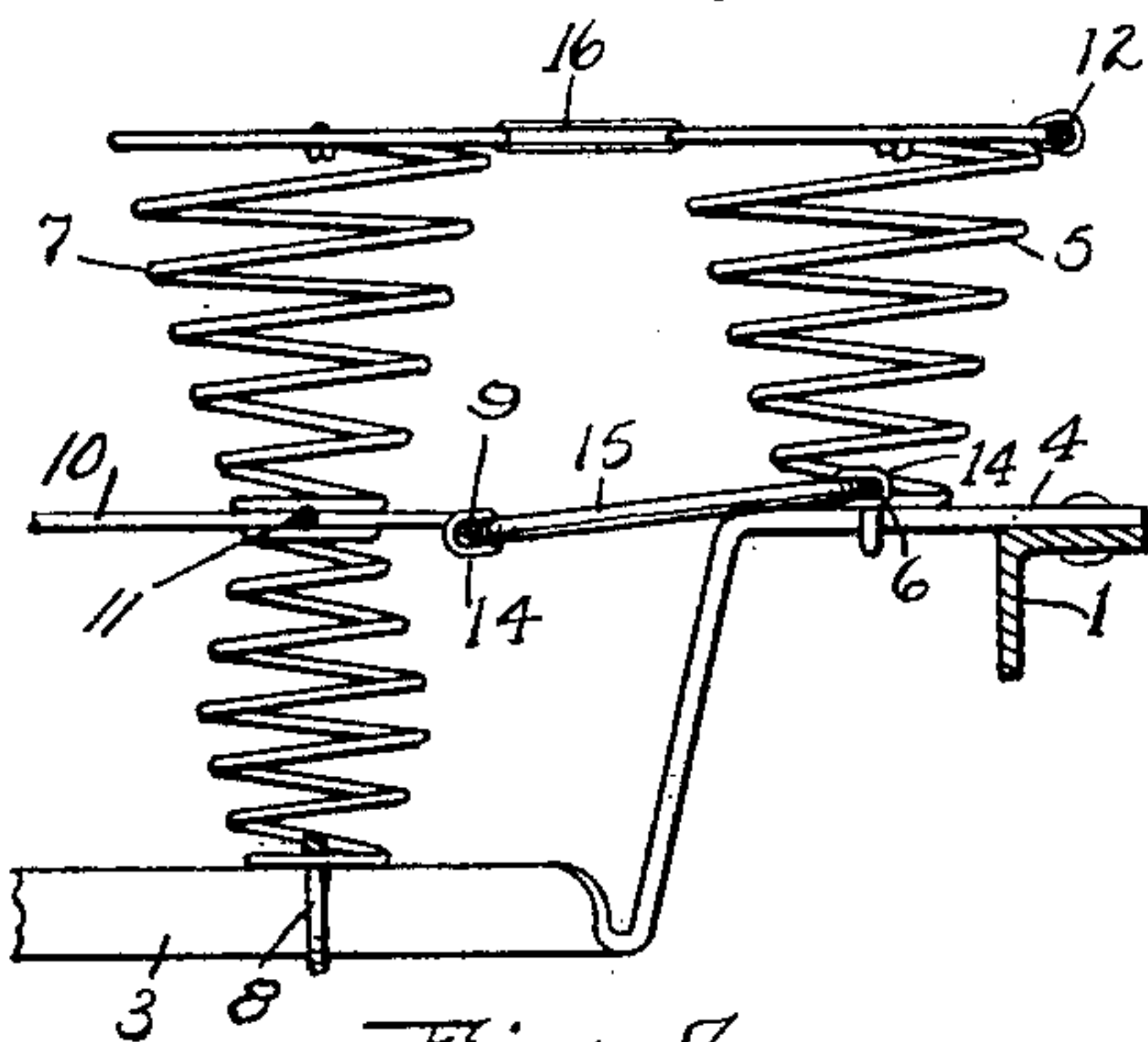
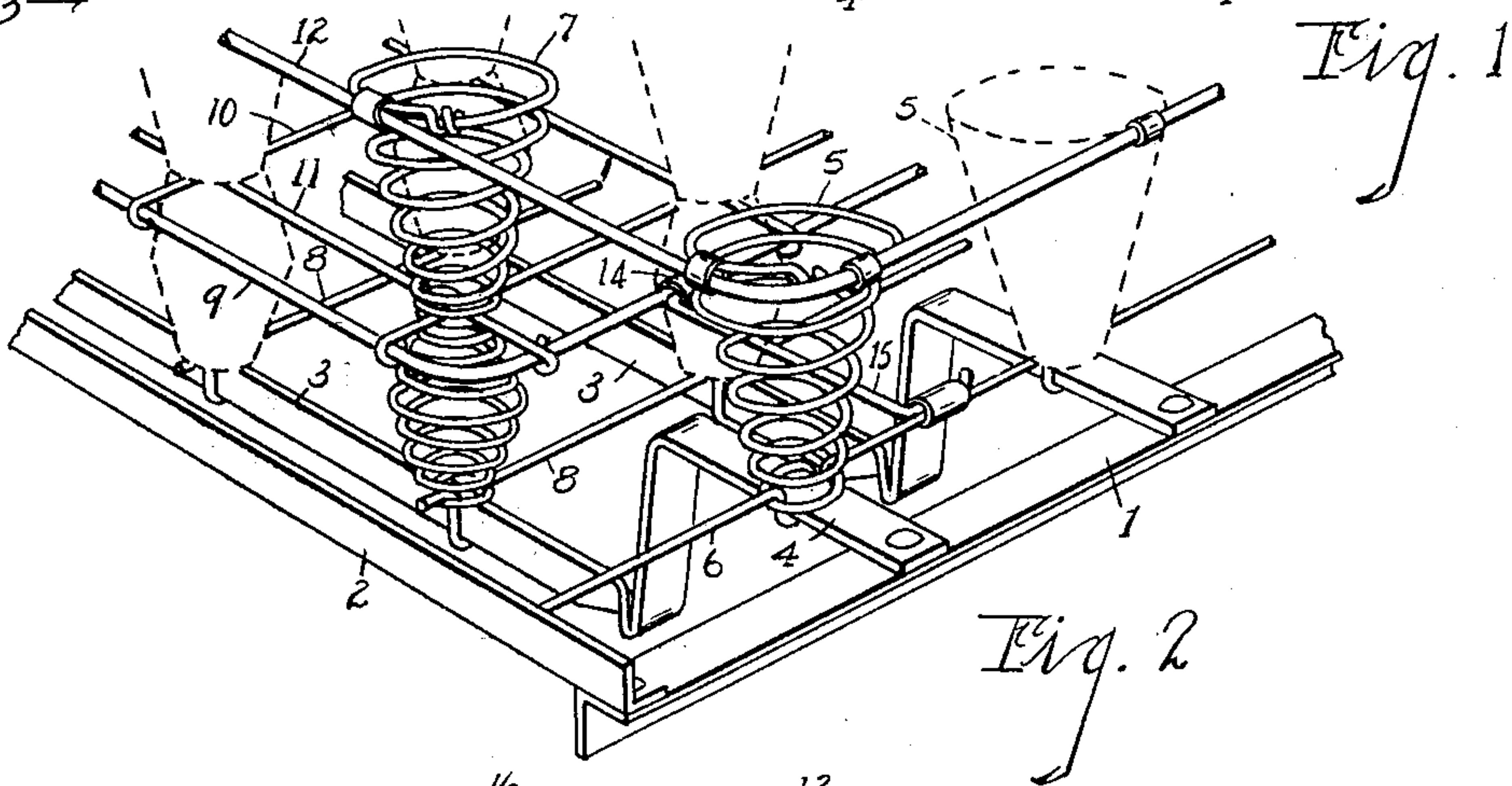
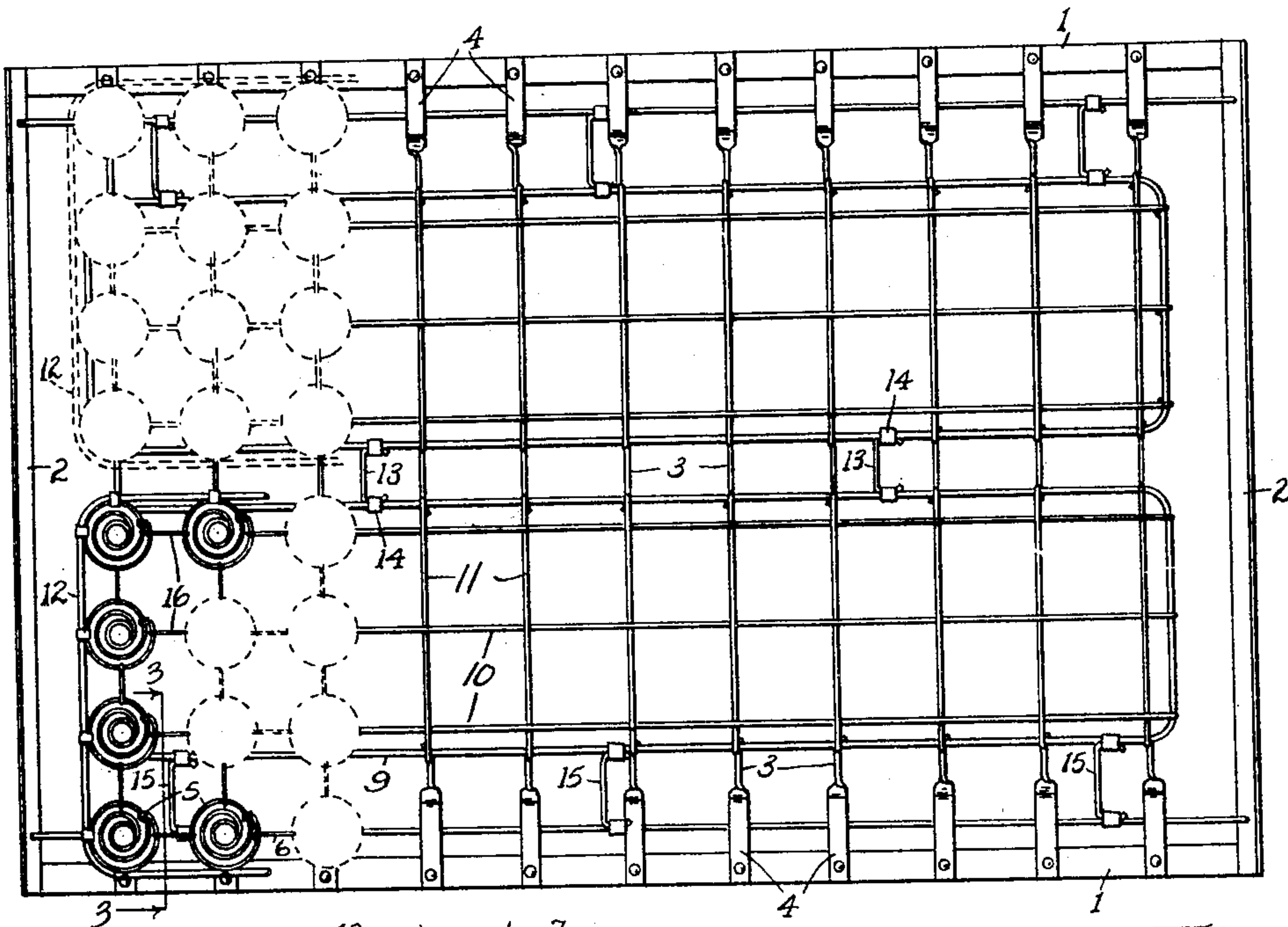
Feb. 14, 1933.

G. A. STACKHOUSE

1,897,402

SPRING STRUCTURE

Filed June 27, 1930



INVENTOR
George A. Stackhouse
BY *Chapman & Earl*
ATTORNEYS

UNITED STATES PATENT OFFICE

GEORGE A. STACKHOUSE, OF OAKLAND, CALIFORNIA, ASSIGNOR TO L. A. YOUNG SPRING & WIRE CORPORATION, OF DETROIT, MICHIGAN

SPRING STRUCTURE

Application filed June 27, 1930. Serial No. 464,207.

The main object of this invention is to provide a bed spring which presents a substantially continuous top surface for supporting a mattress, and at the same time is made up of units in which one unit may yield independently without materially affecting or transferring the load to the other unit.

Objects pertaining to details and economies of my invention will definitely appear from the description to follow. The invention is defined in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a fragmentary plan view of a bed spring structure embodying the features of my invention, parts being indicated conventionally and no attempt being made to show them in relative proportions.

Fig. 2 is a fragmentary perspective view.

Fig. 3 is a fragmentary view in section on line 3—3 of Fig. 1.

In the embodiment illustrated I provide a main frame made up of angle iron side members 1 and angle iron end members 2 rigidly connected together. The spring supporting bars 3 have upwardly offset hangers 4 at their ends secured to the side members 1 of the main frame. A row of border springs 5 is secured to these hangers by means of the locking rods 6 which are looped to engage the hangers and the bottom coils of the springs resting thereon.

The main or inner body springs 7 are secured to the spring supporting bars 3 by means of the rods 8 which are looped to engage the supporting bars and the bottom coils of the springs 7 substantially as do the bars 6. These inner springs are arranged in sets and the sets of springs are connected by center ties consisting of the frames 9 and the crossed wires 10 and 11 which are connected at their ends to the frames 9 and engaged with intermediate coils of the springs 7. The top border frames 12 are secured to the top coils of the row of border springs 5 and the top coils of the outer springs 7 of the sets of springs.

The adjacent side members of the center tie frames are connected by the links 13 piv-

otally secured to the connected parts by means of the clips 14. The outer side members of the center tie frames are connected by the links 15 to the locking rods 6, thus connecting the center tie frames to the main frame.

With this arrangement the spring units may yield independently without transferring the load to the other units. At the same time a substantially continuous spring supporting surface is presented as in a usual type of bed.

The top coils of the springs are further connected by means of the links 16 or other suitable means to support them in upright position and also to present a supporting surface for the superimposed mattress or other bedding.

I have not in the accompanying drawing attempted to illustrate the parts in proportion, and certain parts are shown conventionally. It is believed, however, that this disclosure will enable those skilled in the art to embody or adapt my improvements as may be desired.

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

1. In a spring structure, the combination with a main frame, spring supporting bars on said main frame having upwardly offset hangers at their ends, a pair of independently yieldable spring units each comprising a row of border springs mounted on the hanger portions of said supporting bars and a plurality of inner springs independently mounted on said spring supporting bars, cross locking wires encircling the end coils of said border springs and the upwardly offset portions of said bars, a center tie for the inner springs comprising a center tie frame for each spring unit and cross members connected thereto and to intermediate coils of the inner springs and top border frames connected to the top coils of the outer springs of the units, links consisting of relatively short rods terminating in ends disposed at right angles thereto and pivotally connected to the adjacent side members of said center tie frames, and links consisting of relatively short rods terminat-

ing in ends disposed at right angles thereto and pivotally connected to the outer side members of said center tie frames and to said locking wires.

5 2. In a spring structure, the combination with a main frame, spring supporting bars on said main frame having upwardly offset hangers at their ends, a pair of independent-ly yieldable spring units each comprising a
10 row of border springs mounted on the hanger portions of said supporting bars and a plurality of inner springs independently mounted on said spring supporting bars, a top frame for each unit, a center tie for the inner
15 springs comprising a center tie frame for each spring unit and cross members connected thereto and to intermediate coils of the inner springs, links pivotally connected to the adjacent side members of said center tie
20 frames, locking wires securing said border springs to said hangers, and links pivotally connected to the outer side members of said center tie frames and to said locking wires.

3. In a spring structure, the combination
25 with a main frame provided with downwardly offset spring supporting bars, independently yieldable spring units each comprising a plurality of long inner and short marginal springs independently mounted on said bars,
30 inner and marginal locking wires for said springs carried by said bars, and a center tie comprising a center tie frame and cross members connected to intermediate coils of the springs and disposed at the level of the bot-
35 tom of the marginal springs, links pivotally connecting the center tie frames to each other, and links pivotally connecting said center tie frames to the marginal locking wires, and top border frames for said spring units con-
40 nected to the top coils of the outer springs thereof.

4. In a spring structure, the combination with a main frame provided with downwardly offset spring supporting bars, independent-
45 ly yieldable spring units each comprising a plurality of long inner and short marginal springs independently mounted on said bars, a top frame for each unit, inner and marginal locking wires for said springs carried by
50 said bars, and a center tie comprising a center tie frame and cross members connected to intermediate coils of the springs and disposed at the level of the bottom of the marginal springs, and links pivotally con-
55 necting the center tie frames to each other, and links pivotally connecting said center tie frames to said marginal locking wires.

In witness whereof I have hereunto set my hand.

60

GEORGE A. STACKHOUSE.