S. M. RAFTERY.

SPRING CONSTRUCTION.

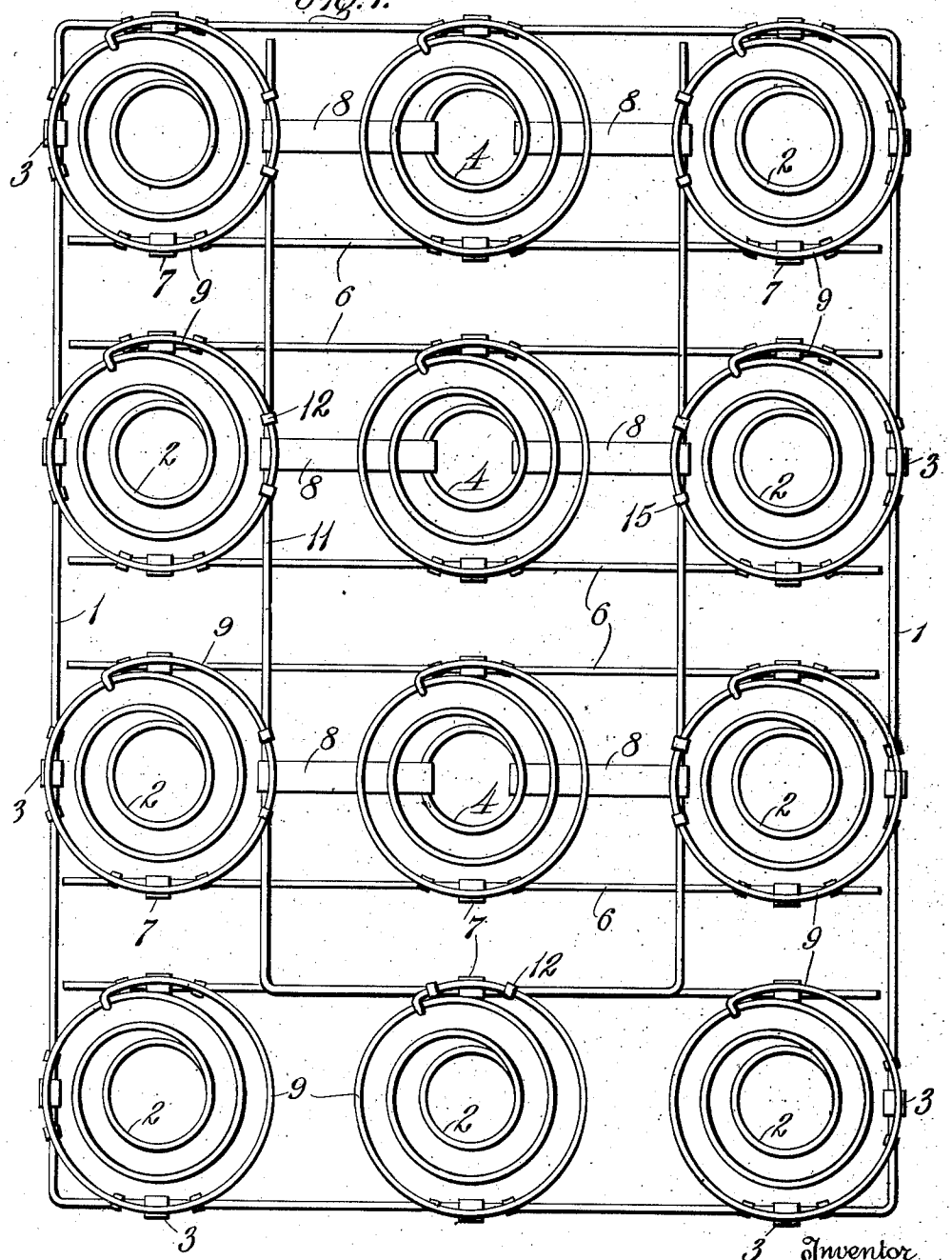
APPLICATION FILED FEB. 15, 1912.

1,079,664.

Patented Nov. 25, 1913

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses
Chas. W. Stauffiger.
A. M. Dorr.

Inventor
Solomon M. Raftery,
By Dauthel & Rankel
Attorneys

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2 SHEETS—SHEET 2.

Fig. 2.

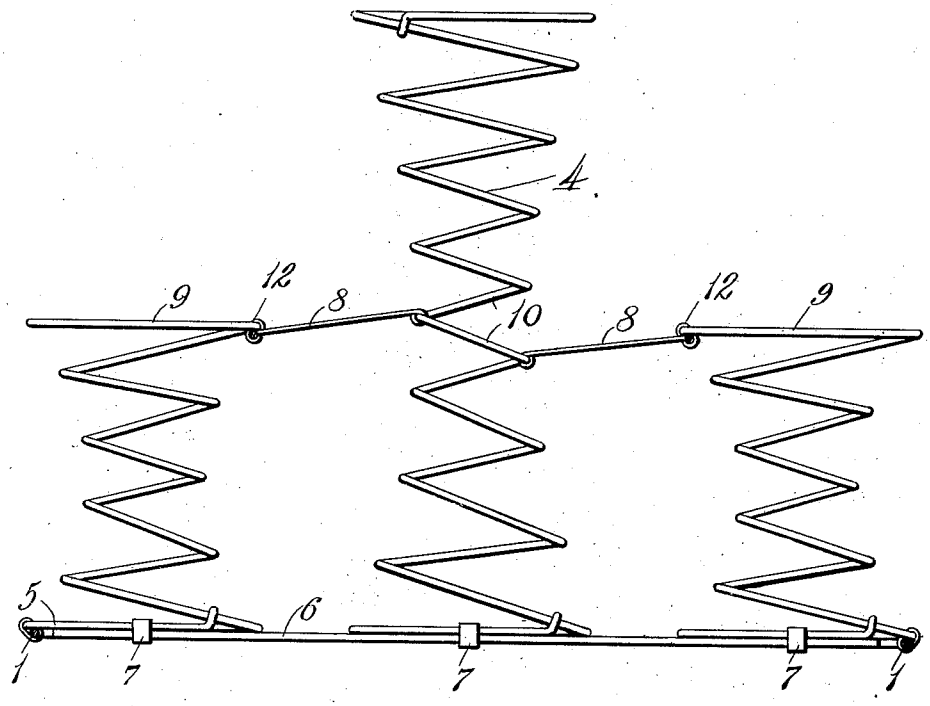
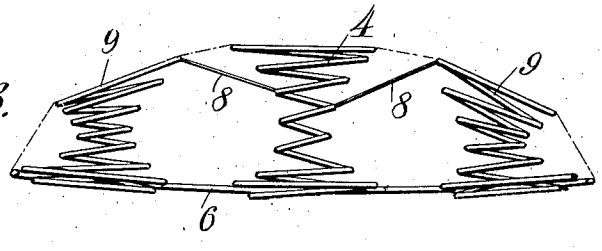


Fig. 3.



Witnesses
Chas. W. Stauffiger
A. M. Dore.

Inventor
Solomon M. Raftery,

By Cushman & Cushman
Attorneys

UNITED STATES PATENT OFFICE.

SOLOMON M. RAFTERY, OF ALBION, MICHIGAN, ASSIGNOR TO NATIONAL SPRING AND WIRE COMPANY, OF ALBION, MICHIGAN, A CORPORATION OF MICHIGAN.

SPRING CONSTRUCTION.

1,079,664. Specification of Letters Patent. Patented Nov. 25, 1913.

Application filed February 15, 1912. Serial No. 677,780.

To all whom it may concern:

Be it known that I, SOLOMON M. RAFTERY, a citizen of the United States of America, residing at Albion, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Spring Constructions, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to back spring construction of simple design adapted to afford a yielding cushion edge for supporting upholstery without the application of edge rolls or the like.

The invention consists in the matters hereinafter set forth and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a view in front elevation of a back spring embodying the invention; Fig. 2 is a view in end elevation thereof; and Fig. 3 is a diagrammatic view showing approximately the position assumed by the members of the construction when upholstery is applied thereto.

Referring to the drawings a rim frame 1 of suitable form and material supports a plurality of marginal body springs 2 of hour-glass or cylindrical type, the base coils of the springs being secured by suitable clips 3 to the frame. Inner body springs 4 of greater height than the marginal springs 2 are supported by attachment of their base coils to the frame and to parallel cross stay rods 6 attached near their ends by clips 7 or the like to the base coils of the marginal springs. Stay strips 8 of suitable material connect the upper turns 9 of the marginal springs to the adjacent body coils 10 of the inner springs. The upper coils 9 of the marginal springs are further interconnected by a suitably disposed continuous member 11 secured as by clips 12 to the inner portions of the turns 9. As a consequence the upper coils 9 of the marginal springs yieldingly conform to upholstery applied thereto as indicated in Fig. 3 as their outer portions tilt down when the upholstery cover is drawn taut over them. This affords a convex spring edge without the use of special rolls or other means.

Obviously, changes in the details of construction may be made without departing from the spirit of the invention and I do not care to limit myself to any particular form or arrangement of parts.

What I claim as my invention is:—

1. A back spring construction comprising a frame, body springs secured around the margins thereof, inner body springs of greater height than the marginal springs and means secured to the middle coils of the inner body springs and to the adjacent portions of the top coils of the marginal springs, the outer portions of the top coils being free to turn downwardly.

2. A back spring construction comprising a rim frame, a plurality of marginal body springs whose base coils are secured thereto, stay rods secured in spaced relation across the frame to the base coils of the marginal body springs, inner body springs supported on the frame and stay rods and provided with upper coils extending beyond the plane of the top coils of the marginal springs and means articulating the intermediate turns of the inner body springs to the top coils of the marginal body springs, the top coils of the latter being free to tilt and the projecting portions of the inner body springs being free to tilt in any direction.

3. A back spring construction comprising a rim frame, a plurality of marginal body springs with their base coils secured to the frame, transverse members of the frame secured to the base coils of the marginal springs, inner body springs of greater height than the marginal springs supported on the rim frame and transverse members, a single member connecting the inner portions of the top coils of the marginal body springs and means articulating the single member to the adjacent intermediate turns of the inner body springs, the outer portions of the body springs being free to tilt.

In testimony whereof I affix my signature in presence of two witnesses.

SOLOMON M. RAFTERY.

Witnesses:

ANNA M. DORR,

LEWIS E. FLANDERS.