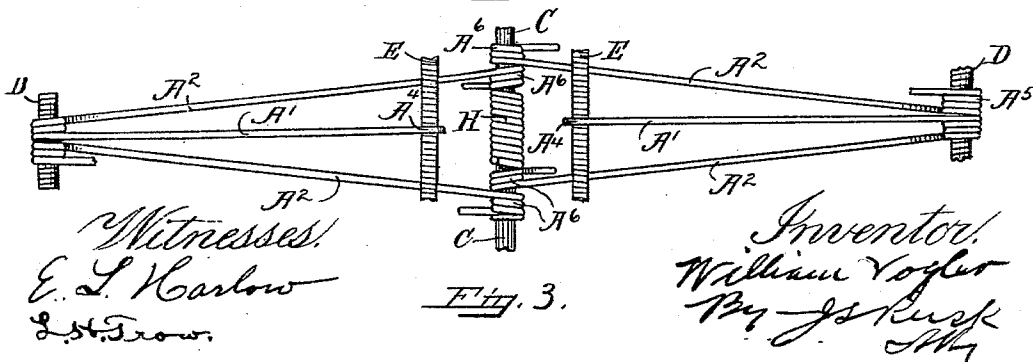
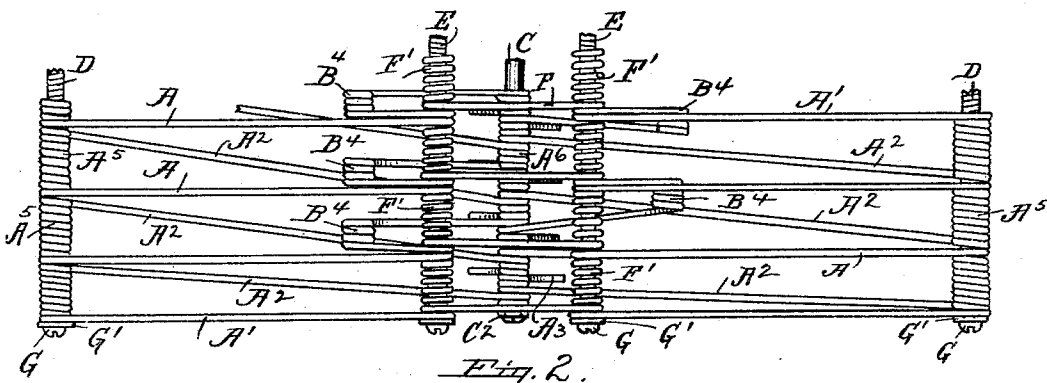
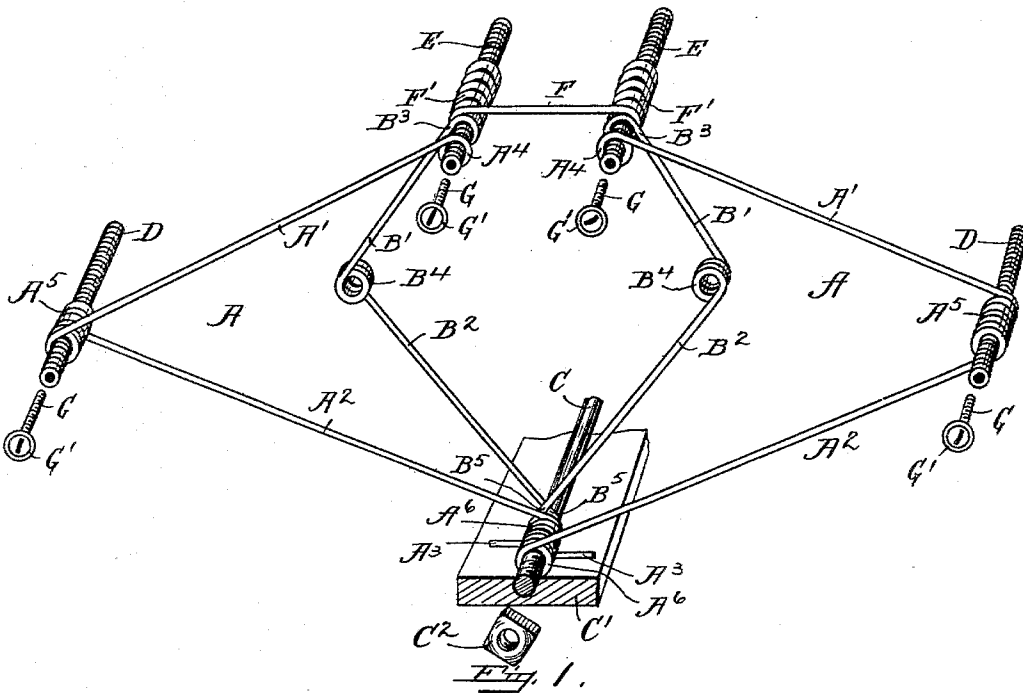


W. VOGLER.
SEAT OR CUSHION.

No. 562,940.

Patented June 30, 1896.



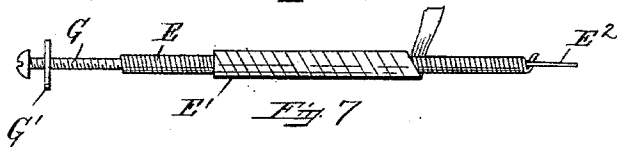
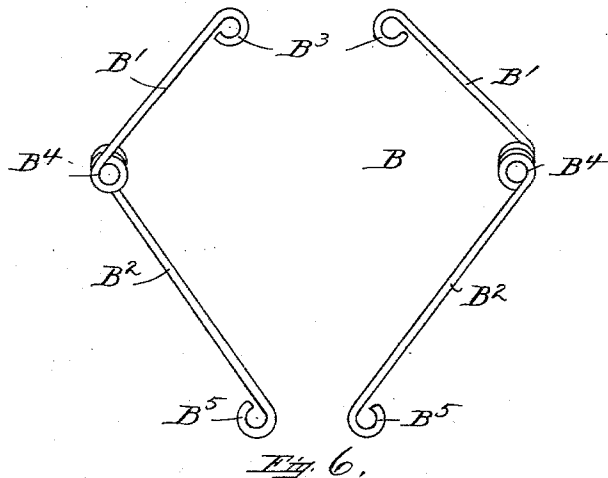
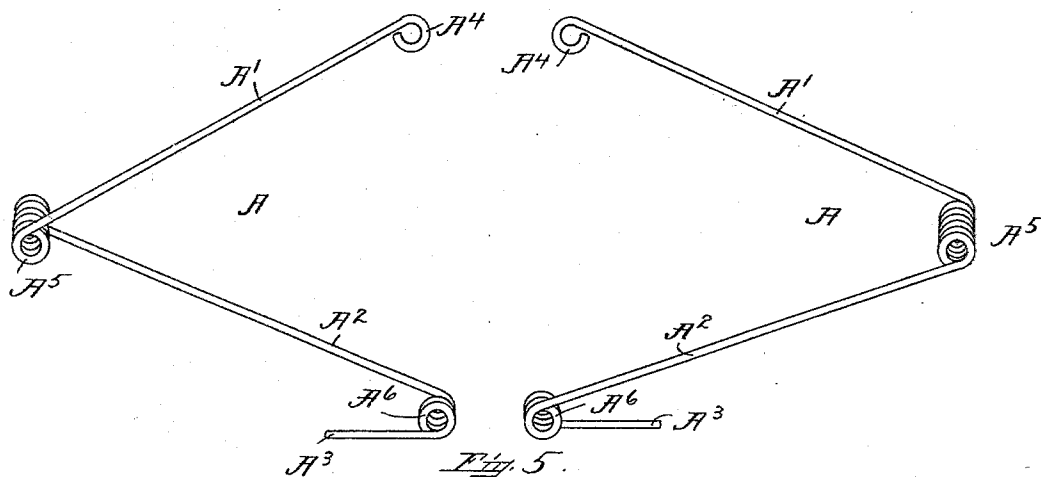
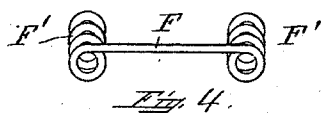
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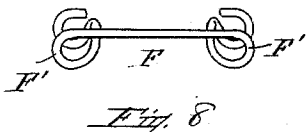
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Witnesses
E. L. Harlow
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Inventor
William Vogler
By J. H. Risk
Att'y

UNITED STATES PATENT OFFICE.

WILLIAM VOGLER, OF SOMERVILLE, MASSACHUSETTS, ASSIGNOR TO THE
AMERICAN METALLIC CUSHION COMPANY, OF WEST VIRGINIA.

SEAT OR CUSHION.

SPECIFICATION forming part of Letters Patent No. 562,940, dated June 30, 1896.

Application filed March 2, 1896. Serial No. 581,491. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM VOGLER, of Somerville, county of Middlesex, and State of Massachusetts, have invented a new and useful Improvement in Seats or Cushions; and I hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has for its object the production of a seat or cushion adapted for use in connection with furniture, chairs, &c., where spring or upholstered seats are employed, and it is an improvement upon the class of seats or cushions described in United States Letters Patent No. 527,633, granted to me October 16, 1894, and reissued to the American Metallic Cushion Company October 15, 1895, and numbered 11,508.

In the present invention I have made all the supports for the spring-wires, excepting the rigid supporting-rod used at the base, of yielding or flexible material, such as coiled-wire springs, and I have made other improvements, which will be hereinafter fully described.

The seat or cushion hereinafter described is adapted for chair and furniture seats in place of the ordinary coiled springs, as my improved seat or cushion presents an edge which, when covered, forms a yielding edge above the usual side puffing.

In the accompanying drawings, which illustrate a construction embodying my invention, Figure 1 is a perspective view showing one set of main and auxiliary spring-wires used in my improved seat or cushion and the supports for said wires, and showing a spring-link extending between and connected to the upper supports. Fig. 2 is a plan view taken at one end of the seat or cushion. Fig. 3 is a detail plan view taken at the center of the seat or cushion, and showing the main spring-wires and supports and an additional wire coil located on the bottom supporting-rod for a purpose to be hereinafter explained, certain other parts being omitted in order to clearly show the additional wire coil. Fig. 4 is a perspective view of one of the upper spring-links, which extends between and is connected to the upper supports. Fig. 5 is a detail view showing two opposite main spring-wires.

Fig. 6 is a detail view showing two opposite auxiliary spring-wires. Fig. 7 is a detail view showing one of the coiled-spring supports. Fig. 8 is a modification of the spring-link shown in Fig. 4.

Like letters of reference refer to like parts throughout theseveral views.

My improved seat or cushion is composed of a series of main spring-wires A, having preferably three branches A' A² A³, the free end of the arm A' being bent to form an eye A⁴, while the wire at the junction of the arms A' and A² is coiled in the form of springs A⁵, and the wire at the junction of the arms A² and A³ is coiled in the form of springs A⁶. The auxiliary springs B are composed of two arms B' and B², the free extremity of the arm B' being bent to form an eye B³, and the free extremity of the arm B² being bent to form an eye B⁵, while the wire at the junction of the arms B' and B² is coiled in the form of springs B⁴.

The lower coils A⁶ of the main springs A and the lower eyes B⁵ of the auxiliary springs B are entered by a rigid rod or bar C, resting upon a board C', which forms a part of the framework of the seat or cushion.

The coils A⁵ of the main springs A are entered on each side by the flexible supports D, consisting of coiled-wire springs, and the upper opposite eyes A⁴ and B³ of the main and auxiliary springs A and B are not entered by one support, as the lower springs A⁶ and B⁵, but are entered independently by flexible supports E, consisting of coiled-wire springs, (see Fig. 1,) and said supports E enter the separated coils F' of the spring-links F, each of which extends between and is connected to the said supports E by the separated coils F', as shown and described.

The open or separated coils F', when weight is applied to the seat or cushion, open and bear against the eyes A⁴ and B³ of the main and auxiliary springs A and B, and hold the same tight, and said coils also, in the operation of the seat or cushion, prevent any noise of the wires when weight is applied to the said seat or cushion.

When weight is applied to the said seat or cushion, the coiled supports E lengthen and would leave a space between the upper eyes of the springs if it were not for the said open

coils F', which, however, as the supports E lengthen, open and fill up the increase of space and thus hold the upper eyes of the springs in their proper positions, and when the weight is removed the said coils move together as the supports E move up to their normal position.

The auxiliary springs B keep the center of the cushion in place, and when weight is removed assist in raising the seat or cushion up to its normal position.

As shown in Fig. 7, the coiled supports E may, if desired, be wrapped with paper E' before being inserted in the coils and eyes of the main and auxiliary springs, so as to prevent any noise, owing to the movement of the eyes and coiled springs on the coiled-spring supports, and there may also, if desired, be inserted within the coiled supports E or D a thin rod E² for the purpose of giving stiffness to the said supports.

For the purpose of holding the spring-wires upon the flexible supports D and E, I have provided screws G, one for each coiled support, and a washer G' on said screw, which bears against the ends of the coiled supports D and E and holds the coils A⁵ and upper eyes A⁴ of the main springs A in place upon the insertion of the said screws into the interior of the said coiled-spring supports.

The lower rigid supporting-rod C rests upon the board C', forming a part of the frame, and on the end of said rod there is screwed a nut C², which bears against the lower coils A⁶ of the main springs A and holds the same in proper place.

In Fig. 8 I have shown a modification of the spring-link, and in the view shown there is simply one turn of the wire to form a single coil, which, however, operates exactly as the coil shown in Fig. 4.

As shown in Fig. 3, I have arranged on the rigid rod C near the center of the cushion an independent wire coil H, which bears against the lower coils A⁶ and spreads out the same with the arms A² of the main springs A. From this it results that when weight is applied to the seat or cushion the top of the same, on both sides of the independent wire coil H, cants toward the center, so that each spring is moved toward the center, and consequently there is not produced the lengthwise or side movement to the seat or cushion which would result if this means were not provided for causing the top of the seat or cushion on both sides above the independent coil H to cant toward the center of the seat or cushion. By thus spacing the bottom, the springs at the top are thrown toward the center, so that when weight is applied there is no endwise or sidewise motion, but the cant of the springs on both sides of the spacing device H is toward that point.

In the use of my improved seat or cushion the portions of the seat indicated by the coils A⁶, eyes B⁵, and ends A³ have a firm support on the board C' of the frame, and when weight

is applied to the top of the seat or cushion it will depress the same, and the top of the seat, composed chiefly of the arms A' and spring-links F, mounted on the coiled-wire-spring supports E, and also the auxiliary springs B, in the center of the seat or cushion, yield under the weight upon said seat or cushion, and at the same time the coiled-spring supports D and E yield more or less or bend to conform to the weight, and thus provide a strong and flexible seat.

The seat or cushion may be covered with upholstery and with a proper amount of hair or other wadding, and the portions of the seat represented by the coils A⁵ and coiled-spring supports D may be spanned by a strip of flexible material commonly known in upholstery as the "puffing" at the front of the seat, and the coils A⁵, when covered, provide a round flexible edge for the seat or cushion.

From the above description it will be evident that the coiled supporting-springs D and E and the rod C constitute a supporting-frame for the seat or cushion.

I do not limit myself to the arrangement and construction shown, as the same may be varied without departing from the spirit of my invention.

Having thus ascertained the nature of my invention and set forth a construction embodying the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a seat or cushion, a series of spring-wires provided with a coil between the ends thereof to form the edge thereof, a support for said spring-wires located in said coils, means for supporting the free ends of said spring-wires, and a series of auxiliary spring-wires connected to the said supporting means of the free ends of said spring-wires adapted to assist in raising said seat or cushion to its normal position when weight is removed.

2. In a seat or cushion, a series of spring-wires provided with a coil between the ends thereof to form the edge thereof, a flexible support for said spring-wires located in said coils, means for supporting the free ends of said spring-wires, and a series of auxiliary spring-wires connected to the said supporting means of the free ends of said spring-wires adapted to assist in raising said seat or cushion to its normal position when weight is removed.

3. In a seat or cushion, a series of spring-wires provided with a coil between the ends thereof, a flexible support for said spring-wires located in said coils, a flexible support for the upper free ends of said spring-wires, a support for the lower ends of said spring-wires, and a series of auxiliary spring-wires connected at the top and bottom respectively to the supports of the upper and lower free ends of the spring-wires and adapted to assist in raising said seat or cushion to its normal position when weight is removed.

4. In a seat or cushion, a series of spring-

wires provided with a coil between the ends thereof and arranged in opposite rows, a flexible support for each row to which the upper ends of said spring-wires of the same row are connected, a flexible support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of said spring-wires, and a series of auxiliary spring-wires connected to the said supporting means of the upper and lower ends of said spring-wires adapted to assist in raising the said seat or cushion to its normal position when weight is removed.

5. In a seat or cushion, a series of spring-wires provided with a coil between the ends thereof and arranged in opposite rows, a flexible support for each row to which the upper ends of said spring-wires of the same row are connected, a flexible support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of said spring-wires, flexible connections between the upper flexible supports to which the upper ends of the said spring-wires in the opposite rows are connected, and a series of auxiliary spring-wires arranged in opposite rows with the upper ends of the said auxiliary spring-wires in the same row connected to the same flexible support to which the upper ends of the said spring-wires of the corresponding row are connected and the lower ends of said auxiliary spring-wires of the same row connected to the same supporting means as the lower ends of the corresponding row of said spring-wires, the said auxiliary spring-wires being adapted to hold the center of said seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

6. In a seat or cushion, a series of spring-wires provided with a coil between the ends thereof and arranged in opposite rows, a flexible support for each row to which the upper ends of said spring-wires of the same row are connected, a flexible support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of said spring-wires, flexible connections between the upper flexible supports to which the upper ends of said spring-wires in the opposite rows are connected and with the coils on each end of said connections separated from each other, and a series of auxiliary spring-wires arranged in opposite rows with the upper ends of said auxiliary spring-wires in the same row connected to the same flexible support to which the upper ends of the said spring-wires of the corresponding row are connected and their lower ends connected to the same supporting means as the lower ends of the said spring-wires, the said auxiliary spring-wires being adapted to hold the center of said seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

7. In a seat or cushion, a series of spring-wires provided with a coil between the ends

thereof and arranged in opposite rows, a flexible support for each row to which the upper ends of said spring-wires of the same row are connected, a flexible support for each row located in the said coils of the said spring-wires, a support to which the lower ends of said spring-wires of both rows are connected, flexible connections between the upper flexible supports to which the upper ends of the said spring-wires in the opposite rows are connected, and a series of auxiliary spring-wires arranged in opposite rows with the upper ends of said auxiliary spring-wires in the same row connected to the same flexible support to which the upper ends of the said spring-wires of the corresponding row are connected and their lower ends connected to the same support as the lower ends of the said spring-wires, the said auxiliary spring-wires being adapted to hold the center of the said seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

8. In a seat or cushion, a series of spring-wires provided with a coil between the ends thereof and arranged in opposite rows, a flexible support for each row to which the upper ends of said spring-wires of the same row are connected, a flexible support for each row located in the said coils of the said spring-wires, a support to which the lower ends of said spring-wires of both rows are connected, flexible connections between the upper flexible supports to which the upper ends of the said spring-wires in the opposite rows are connected and with the coils on each end of said connections separated from each other, and a series of auxiliary spring-wires provided with a coil between the ends thereof and arranged in opposite rows with the upper ends of said auxiliary spring-wires in the same row connected to the same flexible support to which the upper ends of the said spring-wires of the corresponding row are connected and their lower ends connected to the same support as the lower ends of the said spring-wires, the said auxiliary spring-wires being adapted to hold the center of the said seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

9. In a seat or cushion, a series of spring-wires coiled between the ends thereof to form the edge of said seat or cushion, a flexible support for said spring-wires located in said coils, a flexible support for the upper ends of said spring-wires, a support for the lower ends of said spring-wires, and a series of auxiliary spring-wires adapted to assist in raising said seat or cushion to its normal position when weight is removed.

10. In a seat or cushion, a series of spring-wires arranged in opposite rows and coiled between the ends thereof to form the opposite edges of said seat or cushion, a flexible support for each row to which the upper ends of said spring-wires of the same row are connect-

ed, a coiled-wire support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of said spring-wires, flexible connections between the upper flexible supports to which the upper ends of the said spring-wires in the opposite rows are connected, and a series of auxiliary spring-wires arranged in opposite rows with the upper ends thereof in the same row connected to the same flexible support to which the upper ends of the said spring-wires of the corresponding row are connected and the lower ends thereof connected to the same supporting means as the lower ends of the said spring-wires, the said auxiliary spring-wires being adapted to hold the center of the seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

11. In a seat or cushion, a series of spring-wires arranged in opposite rows and coiled between the ends thereof to form the opposite edges of said seat or cushion, a flexible support for each row to which the upper ends of said spring-wires of the same row are connected, a coiled-wire support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of said spring-wires, flexible connections between the upper flexible supports to which the upper ends of the said spring-wires in the opposite rows are connected, and a series of auxiliary spring-wires adapted to hold the center of said seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

12. In a seat or cushion, a series of spring-wires, a series of auxiliary spring-wires, one or more flexible supports for supporting said main and auxiliary spring-wires consisting of coiled-wire springs, and means for holding said spring-wires on said flexible supports consisting of a screw adapted to be inserted in the ends of the said coiled-wire springs and provided with a washer bearing against the ends of said coiled-wire springs.

13. In a seat or cushion, a series of spring-wires, upper and lower supports for the upper and lower ends of said spring-wires, and a spacing device near the center of said seat or cushion located on the lower support for separating the lower ends of the said spring-wires at the center of said seat or cushion whereby when weight is applied to said seat or cushion the said spring-wires cant toward the point where said spacing device is located.

14. In a seat or cushion, a series of spring-wires, upper and lower supports for the upper and lower ends of said spring-wires, and a spacing device consisting of a wire coil near the center of said seat or cushion located on the lower support for separating the lower ends of said spring-wires at the center of said seat or cushion whereby when weight is applied to the said seat or cushion the said

spring-wires cant toward the point where said spacing device is located.

15. In a seat or cushion, a series of spring-wires coiled between the ends thereof and arranged in opposite rows, a flexible support for each row to which the upper ends of the said spring-wires of the same row are connected, a flexible support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of the said series of spring-wires, and a spring-link extending between and connecting the upper flexible supports to which the upper ends of said spring-wires in the opposite rows are connected and provided with separated coils on each end which surround the said opposite flexible supports.

16. In a seat or cushion, a series of spring-wires arranged in opposite rows and coiled between the ends thereof to form the opposite edges of said seat or cushion, a flexible support for each row to which the upper ends of the said spring-wires of the same row are connected, a coiled-wire support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of the said spring-wires, and a series of spring-links extending between and connecting the upper flexible supports to which the upper ends of said spring-wires in the opposite rows are connected and provided with separated coils on each end which surround the said opposite flexible supports.

17. In a seat or cushion, a series of spring-wires coiled between the ends thereof and arranged in opposite rows, a flexible support for each row to which the upper ends of the said spring-wires of the same row are connected, a flexible support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of the said spring-wires, a series of auxiliary spring-wires connected at the upper and lower ends respectively to the supports of the upper and lower ends of the said spring-wires, and a series of spring-links extending between and connecting the upper flexible supports to which the upper ends of said spring-wires in the opposite rows are connected and provided with separated coils on each end which surround the said opposite flexible supports.

18. In a seat or cushion, a series of spring-wires arranged in opposite rows and coiled between the ends thereof to form the opposite edges of said seat or cushion, a flexible support for each row to which the upper ends of the said spring-wires of the same row are connected, a coiled-wire support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of the said spring-wires, a series of auxiliary spring-wires connected at the upper and lower ends respectively to the supports of the upper and lower ends of the said spring-wires, and a series of spring-links extending between

and connecting the upper flexible supports to which the upper ends of said spring-wires in the opposite rows are connected and provided with separated coils on each end which surround the said opposite flexible supports.

19. In a seat or cushion, a series of spring-wires coiled between the ends thereof and arranged in opposite rows, a support for each row to which the upper ends of the said spring-wires of the same row are connected, a support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of the said spring-wires, and a series of auxiliary spring-wires connected to the said supports of the upper and lower ends of said spring-wires and adapted to assist in raising said seat or cushion to its normal position when weight is removed.

20. In a seat or cushion, a series of spring-wires coiled between the ends thereof and arranged in opposite rows, a support for each row to which the upper ends of the said spring-wires of the same row are connected, a support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of the said spring-wires, and a series of auxiliary spring-wires arranged in opposite rows with the upper ends of the said auxiliary spring-wires of the same row connected to the same support to which the upper ends of said spring-wires of the corresponding row are connected, and their lower ends connected to the same supporting means as the lower ends of the said spring-wires, the said auxiliary spring-wires being adapted to assist in raising said seat or cushion to its normal position when weight is removed.

21. In a seat or cushion, a series of spring-wires arranged in opposite rows and coiled between the ends thereof, a support for each row to which the upper ends of the said spring-wires of the same row are connected, a support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of said spring-wires, connections between the upper supports to which the upper ends of the said spring-wires of the opposite rows are connected, and a series of auxiliary spring-wires arranged in opposite rows with the upper ends of the said auxiliary spring-wires of the same row connected to the same support to which the upper ends of the said spring-wires of the corresponding row are connected and their lower ends connected to the same supporting means as the lower ends of the said spring-wires, the said auxiliary spring-wires being adapted to hold the center of said seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

22. In a seat or cushion, a series of spring-wires arranged in opposite rows and coiled between the ends thereof to form the opposite edges of said seat or cushion, a support for each row to which the upper ends of said spring-wires of the same row are connected, a support for each row located in the said coils

of the said spring-wires, means for supporting the lower ends of said spring-wires, connections between the upper supports to which the upper ends of said spring-wires of the opposite rows are connected and provided with separated coils on each end which surround said opposite supports, and a series of auxiliary spring-wires arranged in opposite rows with the upper ends of said auxiliary spring-wires of the same row connected to the same support to which the upper ends of said spring-wires of the corresponding row are connected and their lower ends connected to the same supporting means as the lower ends of said spring-wires, the said auxiliary spring-wires being adapted to hold the center of said seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

23. In a seat or cushion, a series of spring-wires arranged in opposite rows and coiled between the ends thereof to form the opposite edges of said seat or cushion, a support for each row to which the upper ends of said spring-wires of the same row are connected, a support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of said spring-wires, connections between the upper supports to which the upper ends of said spring-wires of the opposite rows are connected, and a series of auxiliary spring-wires adapted to assist in raising said seat or cushion to its normal position when weight is removed.

24. In a seat or cushion, a series of spring-wires arranged in opposite rows and coiled between the ends thereof to form the opposite edges of said seat or cushion, a support for each row to which the upper ends of said spring-wires of the same row are connected, a support for each row located in the said coils of the said spring-wires, means for supporting the lower ends of said spring-wires, connections between the upper supports to which the upper ends of said spring-wires of the opposite rows are connected, and a series of auxiliary spring-wires having their upper ends connected to the same supports to which the upper ends of the said spring-wires are connected and adapted to hold the center of said seat or cushion in place, and to assist in raising said seat or cushion to its normal position when weight is removed.

25. In a seat or cushion, a series of spring-wires coiled between the ends thereof to form the edge of said seat or cushion, means for supporting the ends of said spring-wires, a flexible support located in the said coils of the said spring-wires and adapted to yield under the action of weight upon said seat or cushion, and a series of auxiliary spring-wires adapted to assist in raising said seat or cushion to its normal position when weight is removed.

26. In a seat or cushion, a series of spring-wires coiled between the ends thereof to form the edge of said seat or cushion, means for supporting the ends of said spring-wires, a

support located in the said coils of the said spring-wires, and a series of auxiliary spring-wires adapted to assist in raising said seat or cushion to its normal position when weight is removed.

27. In a seat or cushion, a series of spring-wires bent at the ends thereof, means for supporting the ends of said spring-wires and located within said bends, and a series of auxiliary spring-wires adapted to assist in raising said seat or cushion to its normal position when weight is removed.

28. In a seat or cushion, a series of spring-wires provided with an eye at each end, means for supporting the ends of said spring-wires and located within said eyes, and a series of auxiliary spring-wires adapted to assist in raising said seat or cushion to its normal position when weight is removed.

29. In a seat or cushion, a series of spring-wires bent at the ends thereof, means for supporting the ends of said spring-wires and located within said bends, and a series of auxiliary spring-wires connected to the said supporting means and adapted to assist in raising said seat or cushion to its normal position when weight is removed.

30. In a seat or cushion, a series of spring-wires coiled between the ends thereof, a coiled-wire-spring support for supporting the upper ends of said spring-wires, a coiled-wire-spring support located in the said coils of the said spring-wires, a support for the lower ends of said spring-wires, and a series of auxiliary spring-wires adapted to assist in raising said seat or cushion to its normal position when weight is removed.

31. In a seat or cushion, a series of spring-wires coiled between the ends thereof to form the edge of said seat or cushion, a coiled-wire-spring support for supporting the upper ends of said spring-wires, a coiled-wire-spring support located in the said coils of the said spring-wires, a support consisting of a rigid rod for the lower ends of said spring-wires, and a series of auxiliary spring-wires adapted to assist in raising said seat or cushion to its normal position when weight is removed.

32. In a seat or cushion, a series of spring-wires arranged in opposite rows and coiled between the ends thereof, a coiled-wire-spring support for each row to which the upper ends of the said spring-wires of the same row are connected, a coiled-wire-spring support for each row located in the said coils of the said spring-wires, a support to which the lower ends of the said spring-wires are connected, a series of spring-links extending between and connecting the upper coiled-wire-spring supports to which the upper ends of the said spring-wires of the opposite rows are connected, and a series of auxiliary spring-wires adapted to assist in raising said seat or cushion to its normal position when weight is removed.

33. In a seat or cushion, a series of spring-wires arranged in opposite rows and coiled

between the ends thereof to form the opposite edges of said seat or cushion, a coiled-wire-spring support for each row to which the upper ends of said spring-wires of the same row are connected, a coiled-wire-spring support for each row located in the said coils of the said spring-wires, means for the lower ends of said spring-wires, a series of spring-links extending between and connecting the upper coiled-wire-spring supports to which the upper ends of the said spring-wires in the opposite rows are connected, and a series of auxiliary spring-wires arranged in opposite rows with the upper ends of said auxiliary spring-wires in the same row connected to the same coiled-wire-spring support to which the upper ends of said spring-wires of the corresponding row are connected and the lower ends of said auxiliary spring-wires of the same row connected to the same support as the lower ends of the corresponding row of said spring-wires, the said auxiliary spring-wires being adapted to hold the center of said seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

34. In a seat or cushion, a series of spring-wires arranged in opposite rows and coiled between the ends thereof to form the opposite edges of said seat or cushion, a coiled-wire-spring support for each row to which the upper ends of said spring-wires of the same row are connected, a coiled-wire-spring support for each row located in the said coils of the said spring-wires, a support to which the lower ends of the said spring-wires of both rows are connected, a series of spring-links extending between and connecting the upper coiled-wire-spring supports to which the upper ends of the said spring-wires in the opposite rows are connected, and a series of auxiliary spring-wires arranged in opposite rows with the upper ends of said auxiliary spring-wires in the same row connected to the same coiled-wire-spring support to which the upper ends of said spring-wires of the corresponding row are connected and their lower ends connected to the same support as the lower ends of the said spring-wires, the said auxiliary spring-wires being adapted to hold the center of said seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

35. In a seat or cushion, a series of spring-wires arranged in opposite rows, a support for each row to which the upper ends of the said spring-wires of the same row are connected, means for supporting the lower ends of said spring-wires, connections between the upper supports to which the upper ends of said spring-wires of the opposite rows are connected, and a series of auxiliary spring-wires having their upper ends connected to the same supports to which the upper ends of the said spring-wires are connected and adapted to hold the center of said seat or

spring-wires of both rows are connected, a series of spring-links extending between and connecting the upper supports to which the upper ends of said spring-wires of the opposite rows are connected, and a series of auxiliary spring-wires having their lower ends connected to the same support to which the lower ends of the said spring-wires are connected and having their upper ends connected to the same supports as the upper ends of the said spring-wires and adapted to hold the center of said seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

41. In a seat or cushion, a series of spring-wires arranged in opposite rows, a support for each row to which the upper ends of the said spring-wires of the same row are connected, a support consisting of a rigid rod to which the lower ends of the said spring-wires of both rows are connected, a series of spring-links extending between and connecting the upper supports to which the upper ends of said spring-wires of the opposite rows are connected, and a series of auxiliary spring-wires having their lower ends connected to the same support to which the lower ends of the said spring-wires are connected and having their upper ends connected to the same supports as the upper ends of the said spring-wires and adapted to hold the center of said seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

42. In a seat or cushion, a series of spring-wires arranged in opposite rows, a coiled-wire-spring support for each row to which the upper ends of the said spring-wires of the same row are connected, means for supporting the lower ends of said spring-wires, connections between the upper supports to which the upper ends of said spring-wires of the opposite rows are connected, and means adapted to assist in raising said seat or cushion to its normal position when weight is removed.

43. In a seat or cushion, a series of spring-wires arranged in opposite rows, a coiled-wire-spring support for each row to which the upper ends of the said spring-wires of the same row are connected, means for supporting the lower ends of said spring-wires, a series of spring-links extending between and connecting the upper supports to which the upper ends of said spring-wires of the opposite rows are connected, and means adapted to assist in raising said seat or cushion to its normal position when weight is removed.

44. In a seat or cushion, a series of spring-wires arranged in opposite rows, a coiled-wire-spring support for each row to which the upper ends of the said spring-wires of the same row are connected, a support to which the lower ends of said spring-wires of both rows are connected, a series of spring-links extending between and connecting the upper supports to which the upper ends of said spring-wires of the opposite rows are connected, and means

40. In a seat or cushion, a series of spring-
wires arranged in opposite rows, a support for
65 each row to which the upper ends of the said
spring-wires of the same row are connected,
a support to which the lower ends of the said

adapted to assist in raising said seat or cushion to its normal position when weight is removed.

45. In a seat or cushion, a series of spring-wires arranged in opposite rows, a support for each row to which the upper ends of the said spring-wires of the same row are connected, means for supporting the lower ends of said spring-wires, a series of spring-links extending between and connecting the upper supports to which the upper ends of the said spring-wires of the opposite rows are connected, and means adapted to assist in raising said seat or cushion to its normal position when weight is removed.

46. In a seat or cushion, a series of spring-wires coiled between the ends thereof, a flexible support for said spring-wires located in said coils, a flexible support for the upper ends of said spring-wires, a support for the lower ends of said spring-wires, and means adapted to assist in raising said seat or cushion to its normal position when weight is removed.

47. In a seat or cushion, flexible supports located on the opposite edges, a series of wires arranged in opposite rows and connected to said flexible supports, a flexible support near the center of said seat or cushion for each row and to which one end of said wires of the same row is connected, flexible connections between said flexible supports near the center of said seat or cushion and forming the center of said seat or cushion, and means adapted to assist in raising said seat or cushion to its normal position when weight is removed.

48. In a seat or cushion, flexible supports located on the opposite edges, a series of wires arranged in opposite rows and connected to said flexible supports, a flexible support near the center of said seat or cushion for each row and to which one end of said wires of the same row is connected, flexible connections between said flexible supports near the center of said seat or cushion and forming the center

of said seat or cushion, and a series of springs connected to said flexible supports near the center of said seat or cushion and adapted to hold the center of said seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

49. In a seat or cushion, coiled-wire-spring supports located on the opposite edges, a series of wires arranged in opposite rows and connected to said coiled-wire-spring supports, a coiled-wire-spring support near the center of said seat or cushion for each row and to which one end of said wires of the same row is connected, a series of spring-links between said coiled-wire-spring supports near the center of said seat or cushion and forming the center of said seat or cushion, and means adapted to assist in raising said seat or cushion to its normal position when weight is removed.

50. In a seat or cushion, coiled-wire-spring supports located on the opposite edges, a series of wires arranged in opposite rows and connected to said coiled-wire-spring supports, a coiled-wire-spring support near the center of said seat or cushion for each row and to which one end of said wires of the same row is connected, a series of spring-links between said coiled-wire-spring supports near the center of said seat or cushion and forming the center of said seat or cushion, and a series of springs connected to said coiled-wire-spring supports near the center of said seat or cushion adapted to hold the center of said seat or cushion in place and to assist in raising said seat or cushion to its normal position when weight is removed.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 7th day of December, A. D. 1895.

WILLIAM VOGLER.

Witnesses:

L. H. TROW,
E. L. HARLOW.