No. 655,021. Patented July 31, 1900.

E. A. SEABURG.

FURNITURE SPRING.

(Application filed Dec. 29, 1899.)

(No Model.)

Fig. 1

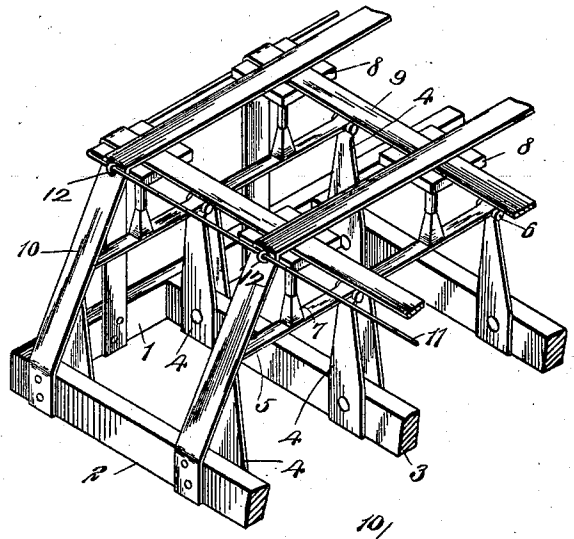


Fig. 2

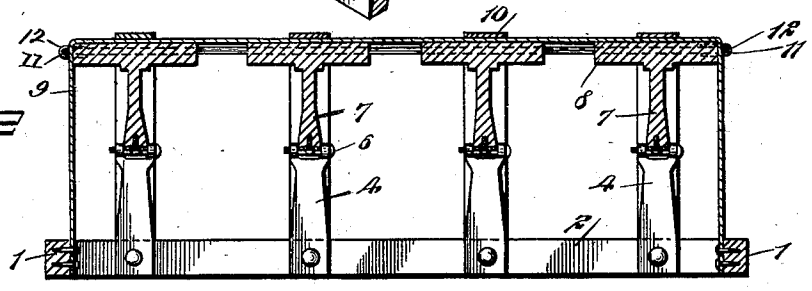
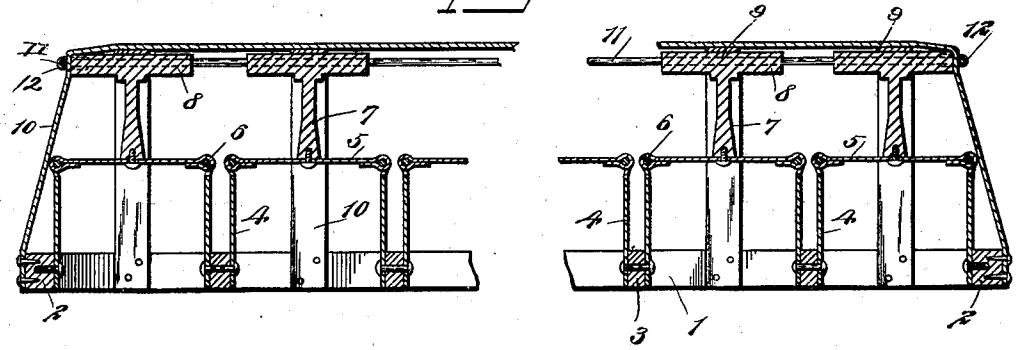


Fig. 3



WITNESSES:

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EDWARD A. SEABURG, OF SEATTLE, WASHINGTON.

FURNITURE-SPRING.

SPECIFICATION forming part of Letters Patent No. 655,021, dated July 31, 1900.

Application filed December 29, 1899. Serial No. 741,932. (No model.)

To all whom it may concern:

Be it known that I, EDWARD A. SEABURG, a citizen of the United States, and a resident of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Furniture-Springs, of which the following is a full, clear, and exact description.

This invention relates to improvements in springs for beds, chairs, sofas, or the like; and the object is to provide a spring that shall combine the advantages of the ordinary helical springs with the strength of woven-wire springs or mattresses and so constructed that each individual spring may be removed for repairs and replaced without interfering with the other springs.

I will describe furniture-springs embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a portion of a bed or furniture bottom embodying my invention. Fig. 2 is a cross-section thereof, and Fig. 3 is a broken longitudinal section thereof.

The frame comprises side bars 1, end bars 2, and intermediate cross-bars 3, connected at the ends with the side bars. Attached to the end bars and to the several cross-bars are upwardly-extended plate-springs 4, and opposite springs—that is, a spring connected to one cross-bar and a spring connected to the next bar directly opposite—are connected at the top by a tie-strip 5, of leather or other suitable flexible material. The ends of the tie-strips are provided with eyes through which fastening-bolts 6 pass, the said fastening-bolts also being extended through perforated lugs or projections on the upper ends of the springs.

Supported at the central portion of each tie-strip 5 is a post 7, which may be connected to the tie-strip by means of a screw, as shown, so as to be easily removed therefrom should occasion require. On the top of each post 7 is a bearing-plate 8, which, as shown, is rectangular in form. The bearing-plate and the post 7 are preferably of wood and, as shown in the drawings, are made integral. Sustaining-springs 9, of flexible material—such, for instance, as leather or webbing—have their ends connected to the opposite side rails 1 and extend over the tops of the bearing-plates 8, and similar springs 10 have their ends connected to the end bars 2 and also pass over the bearing-plates arranged in line. These springs 9 and 10 are designed to prevent undue swinging motion of the bearing-plates and posts.

To further support and strengthen the assembled members, I employ a wire or rod 11, which passes around and engages with the outer edges of the several outer bearing-plates 8, as plainly indicated in Fig. 1, and this supporting-wire may be connected to some or all of the outer plates 8 by means of staples 12 engaging over the wire and passing into the plates.

It will be seen by this construction that when pressure is applied on the bearing-plates the direction of the travel of the standards or posts will be in a vertical line, thus drawing the connected springs toward each other and making a positive and effective spring-bottom for furniture. Another fact to be noted is that in this device there is no metal that comes in contact with cloth or upholstery which may be upon the furniture-bottom or mattress. This is of considerable advantange, as the springs now in general use have a tendency to eat through the fabric of a covering, and thus ruin the upholstery. It will also be noted that the top bearing-plates are so arranged that on a downward movement a considerable drop is accomplished, while the upper ends of the springs move only a short distance. The lower ends of the springs 4 may be fastened to the bars or rails of the frame by any convenient means; but they should be so fastened that any one of the springs can at any time be taken out and replaced when such proceedure is found necessary without interfering in any way with the upholstering or any other part of the device. It will also be noticed that there is no friction in this device, thus making the same absolutely noiseless when in action.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A furniture bottom or spring, compris-

ing a base-frame, plate-springs extended upward from the base-frame, flexible connections between the upper ends of opposite springs, standards mounted on said flexible connections, and flexible bands or strips attached to the side and end rails of the frame and bearing upon said standards, substantially as specified.

2. In a device of the character described, a base-frame, plate-springs attached to and extended upward from said base-frame, flexible connections between the upper ends of opposite springs, posts secured to said connections, bearing-plates on the upper ends of the posts, and bands or strips of flexible material attached at the ends to the frame and bearing upon said plates, substantially as specified.

3. In a device of the character described, a base-frame, springs extended upward from said base-frame, flexible connections between opposite springs, posts extended upward from said flexible connections, flexible bands or strips attached at the ends to the frame and passing over the upper portions of said posts, and a wire or rod passing around and engaging with the outer lines of standards, substantially as specified.

4. In a device of the character described, a base-frame, comprising side rails, end rails and cross-bars, springs extended upward from the end rails and cross-bars, flexible connections between the upper ends of opposite springs, posts removably connected to said connections, bearing-plates on the upper ends of said posts, straps or strips connected to said rails and extending over the several bearing-plates arranged in line, and bands or strips connected to the end rails and also extending over the bearing-plates arranged in line, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD A. SEABURG.

Witnesses:
AUGUST ZAAR,
C. W. SEBENIUS.