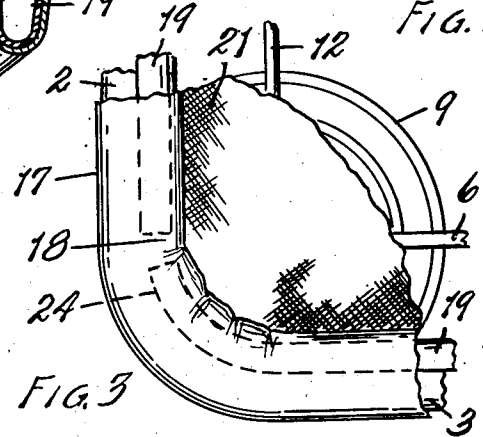
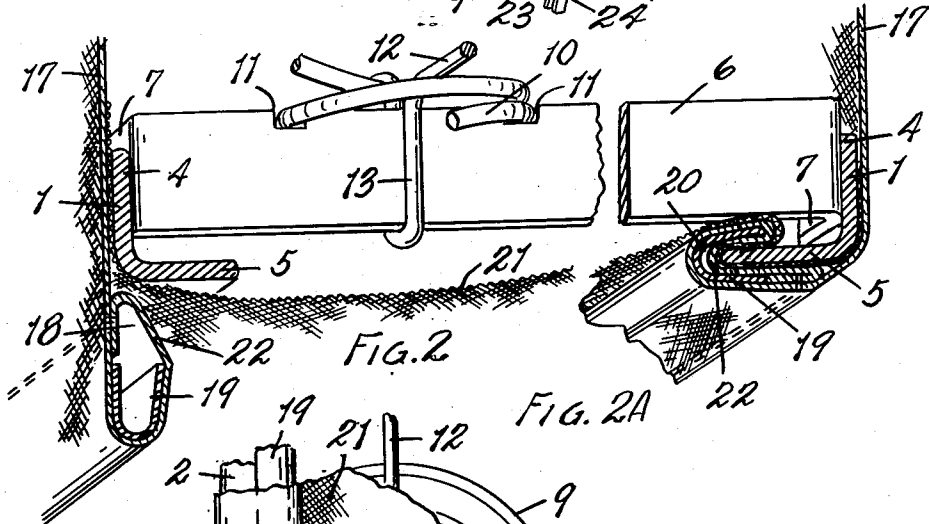
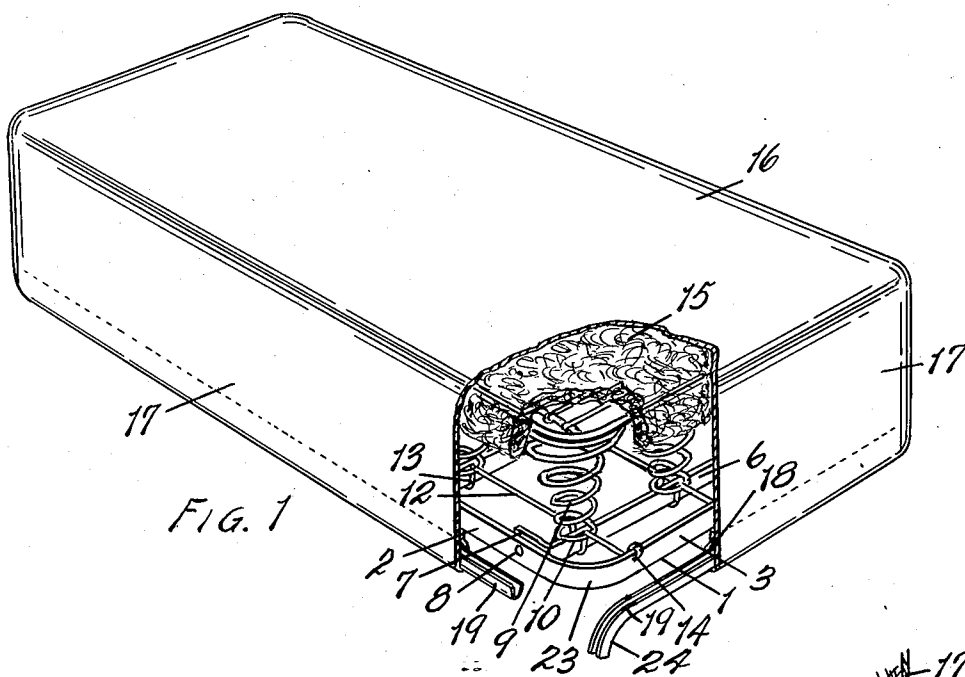


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A. BAPTISTA
SPRING STRUCTURE
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SPRING STRUCTURE

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This invention relates to improvements in spring structures.

The main objects of this invention are:

First, to provide a box spring structure for beds, davenports, and the like in which the upholstery is detachably secured to permit ready and secure attachment and to permit removal for cleaning or renewal.

Second, to provide an upholstered spring structure having an iron base frame, together with means for quickly and effectively attaching the upholstery thereto.

Third, to provide a structure having these advantages which is very simple and economical in its parts and the assembly thereof.

Further objects relating to details and economies of the invention will appear from the description to follow. The invention is pointed out in the claims.

Preferred embodiments of the invention are illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view of a structure embodying the features of my invention illustrating certain of the steps of assembling, a portion of the upholstery covering being broken away to better show structural details.

Fig. 2A is an enlarged fragmentary perspective view partially in vertical section showing the parts in assembled relation.

Fig. 2 is an enlarged fragmentary perspective view illustrating the structure in partially assembled condition.

Fig. 3 is an enlarged fragmentary bottom view illustrating the upholstery in fully secured position.

In the accompanying drawing I have not attempted to illustrate the parts in their relative proportions. While my invention is particularly well adapted for box springs for beds, davenports, and the like, it may be adapted for furniture upholstery, automobile seats, backs and the like.

The embodiment of my invention illustrated in the drawing, comprises a base frame designated generally by the numeral 1 and comprises side members 2 and end members 3. This frame is formed of angle iron disposed with the angles facing inwardly and upwardly thereby providing upwardly projecting arms 4 and horizontally disposed arms 5. The cross bars 6 are formed of strips of metal of suitable gauge having laterally turned ends 7 disposed on the inner sides of and secured to the vertical arms of opposed frame members as by means of spot welds 8.

It will be noted that the lower edges of these cross bars are spaced from the horizontal arms

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5 of the frame members. Upholstery springs 9 are secured by engaging their bottom coils 10 in notches 11 provided therefor in the upper edges of the cross members and retainingly clamping the same by means of the tie members 12, which are looped around the cross bars at 13. The ends of the tie members are secured at 14. This detail, however, forms no part of my present invention.

Upholstery padding 15 is conventionally shown in Fig. 1. The upholstery covering 16 is provided with skirt portions 17 embracing the padding material and the springs and extending below the base frame. The skirt portions 17 are provided with pockets 18 in their bottom edges. U-shaped sheet metal upholstery attaching members 19 are arranged in these pockets, the pockets being substantially wider than the attaching members to provide slack which may be folded into the attaching members around the inner edges of the horizontal members of the frame as shown at 20. The bottom closure sheet 21 is arranged on the under side of the base frame and preferably extends upwardly between the skirt and the sides of the base frame, as illustrated in Fig. 2.

It will be understood that generally while the upholstery is being attached the structure is arranged in an inverted position. The bottom closure sheet 21 is of such dimensions that edge portions 22 thereof may be folded within the attaching members and around the edges of the base frame, as is shown in Figs. 2, 2A and 3. With the parts as shown in Fig. 2, the attaching members are swung inwardly into alignment with the edges of the base frame and pushed outwardly, which collapses or folds portions of the pocket walls within the attaching members and snubbingly clamps the same around the edges of the base frame, as shown in Fig. 2A.

The cross members being elevated above or spaced from the horizontal arms of the base frame permit the material to fold within the base frame and into clamping and snubbing engagement by the attaching members. In the structure illustrated, the corners 23 of the base frame are curved and to secure the upholstery at the corners, one opposed pair of attaching members has curved ends 24. With this arrangement the parts are very securely held in assembled relation, the attaching means being entirely concealed, that is, there are no metal parts exposed.

The stress or pull on the upholstery is distributed throughout the full circumference thereof so that there is a minimum likelihood of

injury and rupture or tear due to stress or pull at some particular point. While the upholstery may be very quickly applied, it also can be quickly released and replaced for cleaning or renewal. This also permits the upholstery being applied by an unskilled person. The dealer may carry different colors and grades so that the customer may make selections therefrom.

I have illustrated and described my invention in a practical embodiment thereof. I have not attempted to illustrate or describe other embodiments or adaptations which I contemplate as it is believed that this disclosure will enable those skilled in the art to embody or adapt my invention 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 of a base frame comprising side and end members of angle section disposed with the arms of the angles facing inwardly and upwardly, the corners of said frame being curved, cross bars having their ends secured to the vertical arms of opposed frame members with their lower edges in spaced relation to the horizontal arms of the frame members, body springs mounted on said cross bars, upholstery disposed on said springs and including a covering having skirt portions with pockets in their bottom edges, elongated upholstery attaching members of U-section for clampingly embracing the horizontal arms of the base frame disposed in said pockets, the pockets being of a width substantially exceeding the width of the attaching members providing slack, said slack providing folds in the walls of the pockets within the attaching members and around the inner edges of the horizontal arms of the base frame, and a bottom closure sheet having its edges underlapping the base frame, and portions thereof folding within said attaching members with said pocket walls, the attaching members being springable to clampingly secure the upholstery skirt and the bottom sheet in snubbing engagement with the base frame, an opposed pair of said attaching members having curved ends for securing the upholstery and bottom sheet at the corners of the base frame.

2. In a spring structure the combination of a base frame comprising side and end members of angle section disposed with the arms of the angles facing inwardly and upwardly, cross bars having their ends secured to the vertical arms of opposed frame members with their lower edges in spaced relation to the horizontal arms of the frame members, body springs mounted on said cross bars, upholstery disposed on said springs and including a covering having skirt portions with pockets in their bottom edges, elongated upholstery attaching members of U-section for clampingly embracing the horizontal arms of the base frame disposed in said pockets, the pockets being of a width substantially exceeding the width of the attaching members providing slack, said slack providing folds in the walls of the pockets within the attaching members and around the inner edges of the horizontal arms of the base frame, and a bottom closure sheet having its edges underlapping the base frame and portions thereof folding within said attaching members with said pocket walls, the attaching members being springable to clampingly secure the upholstery skirt and the bottom sheet in snubbing engagement with the base frame.

3. In a spring structure the combination of a

base frame comprising side and end members of angle section disposed with the arms of the angles facing inwardly and upwardly, cross bars having their ends secured to the vertical arms of opposed frame members with their lower edges in spaced relation to the horizontal arms of the frame members, body springs mounted on said cross bars, upholstery disposed on said springs and including a covering having skirt portions with pockets in their bottom edges, elongated upholstery attaching members of U-section for clampingly embracing the horizontal arms of the base frame disposed in said pockets, the pockets being of a width substantially exceeding the width of the attaching members providing slack, said slack providing folds in the walls of the pockets within the attaching members and around the inner edges of the horizontal arms of the base frame.

4. In a spring structure the combination of a base frame comprising side and end members having inwardly projecting arms, the corners of said frame being curved, body springs supported by said base frame, upholstery disposed on said springs and including skirt portions having pockets along their bottom edges, elongated upholstery attaching members of U-section disposed in said pockets engaged over the inner edge and opposite sides of the inwardly projecting arms of the base frame, the pockets being closed for retainingly supporting the attaching members against lateral displacement therefrom prior to assembly thereof over said inwardly projecting arms, the pockets being wider than the attaching members providing slack, said slack providing folds in the walls of the pockets within the attaching members and around the inner edges of the inwardly projecting arms of the base frame, and a bottom closure sheet having portions thereof folded within said attaching members with said pocket walls, the attaching members being springable to clampingly embrace between the opposite arms thereof the upholstery skirt and the bottom sheet to the inwardly projecting arms, an opposed pair of said attaching members having curved ends for securing the upholstery and bottom sheet at the corner of the base frame.

5. In a spring structure the combination of a base frame comprising side and end members having inwardly projecting arms, body springs supported by said base frame, upholstery disposed on said springs and including skirt portions having pockets along their bottom edges, elongated upholstery attaching members of U-section disposed in said pockets engaged over the inner edge and opposite sides of the inwardly projecting arms of the base frame, the pockets being closed for retainingly supporting the attaching members against lateral displacement therefrom prior to assembly thereof over said inwardly projecting arms, the pockets being wider than the attaching members providing slack, said slack providing folds in the walls of the pockets within the attaching members and around the inner edges of the inwardly projecting arms of the base frame, and a bottom closure sheet having portions thereof folded within said attaching members with said pocket walls, the attaching members being springable to clampingly embrace between the opposite arms thereof the upholstery skirt and the bottom sheet to the inwardly projecting arms.

6. In a spring structure the combination of a base frame comprising side and end members

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having inwardly projecting arms, body springs supported by said base frame, upholstery disposed on said springs and including skirt portions having pockets along their bottom edges, elongated upholstery attaching members of U-section disposed in said pockets engaged over the inner edge and opposite sides of the inwardly projecting arms of the base frame, the pockets being closed for retainingly supporting the attaching members against lateral displacement therefrom prior to assembly thereof over said inwardly projecting arms, the pockets being wider than the attaching members providing slack, said slack providing folds in the walls of the pockets within the attaching members and around the inner edges of the inwardly projecting arms of the base frame.

7. In a spring structure the combination of a base frame comprising side and end members having inwardly directed edges, body springs supported by said base frame, upholstery disposed on said springs and including a covering having skirt portions with pockets along their bottom edges, elongated upholstery attaching members of U-section disposed in said pockets and embracing said inwardly directed edge portions of the said base frame, the pockets being of a width substantially exceeding the width of the attaching members providing slack, said slack providing folds in the walls of the pockets within the attaching members and around the said edges of the base frame, and a bottom sheet having portions thereof folded with said pocket walls within the attaching members, certain of said attaching members having an offset end for securing the upholstery and bottom sheet at the corners of the base frame.

8. In a spring structure the combination of a base frame comprising side and end members having inwardly directed edge portions, body springs supported by said base frame, upholstery disposed on said springs and including a covering having skirt portions with pockets along their bottom edges, elongated upholstery attaching members of U-section disposed in said pockets and embracing the opposite sides of said edge portions of said base frame, the pockets being of a width substantially exceeding the width of the attaching members providing slack, said slack providing folds in the walls of the pockets within the attaching members and around the said edge portions of the base frame, and a bottom sheet having portions thereof folded with said pocket walls within the attaching members.

9. In a spring structure the combination of a base frame comprising side and end members having inwardly directed edge portions, body springs supported by said base frame, upholstery disposed on said springs and including a covering having skirt portions with pockets along their

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bottom edges, elongated upholstery attaching members of U-section disposed in said pocket and embracing the opposite sides of said edge portions of said base frame, the pockets being of a width substantially exceeding the width of the attaching members providing slack, said slack providing folds in the walls of the pockets within the attaching members and around the said edge portions of the base frame, and certain of said attaching members having an offset end for securing the upholstery and bottom sheet at the corners of the base frame.

10. In a spring structure the combination of a base frame comprising side and end members having inwardly directed edge portions, body springs supported by said base frame, upholstery disposed on said springs and including a covering having skirt portions with pockets along their bottom edges, elongated upholstery attaching members of U-section disposed in said pockets and embracing the opposite side of the said edge portions of said base frame, the pockets being of a width substantially exceeding the width of the attaching members providing slack, said slack providing folds in the walls of the pockets within the attaching members and around the said edge portion of the base frame.

11. In a spring structure the combination of a base frame comprising a side member having an edge portion extending longitudinally of the side member, a spring structure disposed on said base frame, upholstery disposed on said spring structure and having a skirt portion overlapping a side edge portion of the spring structure and overlapping said side member, said skirt having a pocket extending longitudinally of said side member, an upholstery attaching member of U-section disposed in said pocket and clampingly embracing said edge portion of said side member, the pocket being of dimensions to provide slack, said slack providing a fold in the enclosure wall of the pocket within the attaching member and around said edge portion of the side member, said pocket being closed to retainingly support the attaching member against lateral displacement therefrom prior to assembly of the attaching member over the edge portion of the side member.

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