A. ZWOLINSKI.

EXTENSIBLE CHAIR BED.

APPLICATION FILED SEPT. 22, 1919.

1,346,582.

Patented July 13, 1920.

4 SHEETS—SHEET 1.

Fig. 1

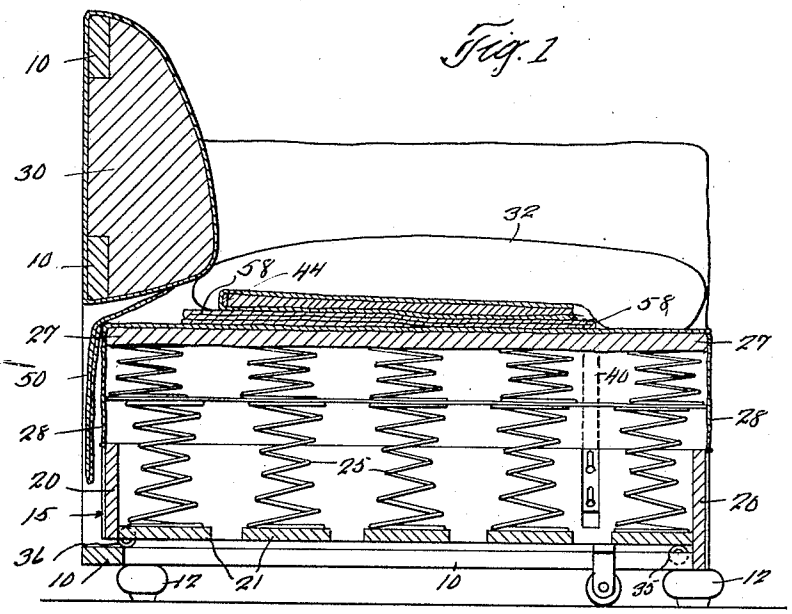
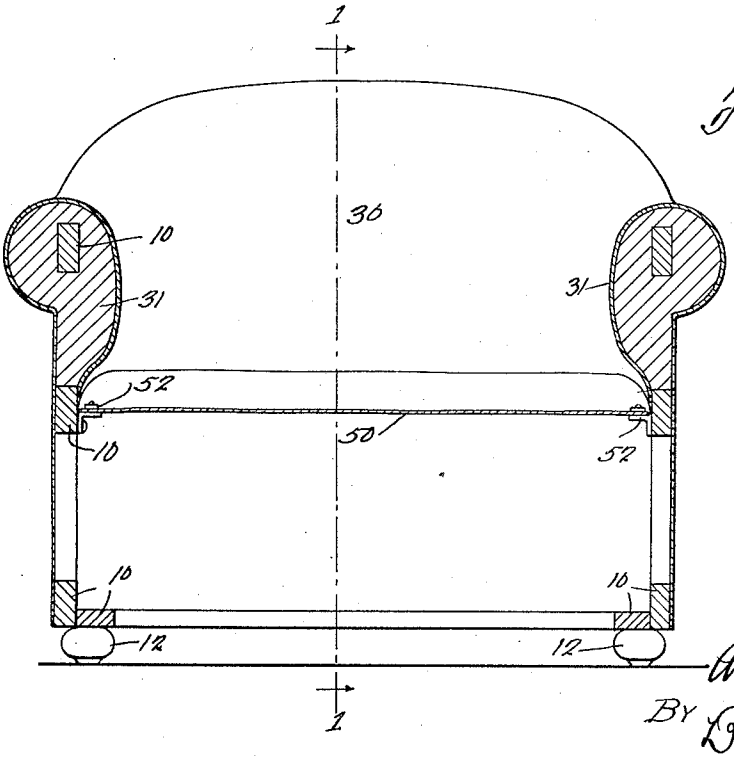


Fig. 2



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4 SHEETS—SHEET 2.

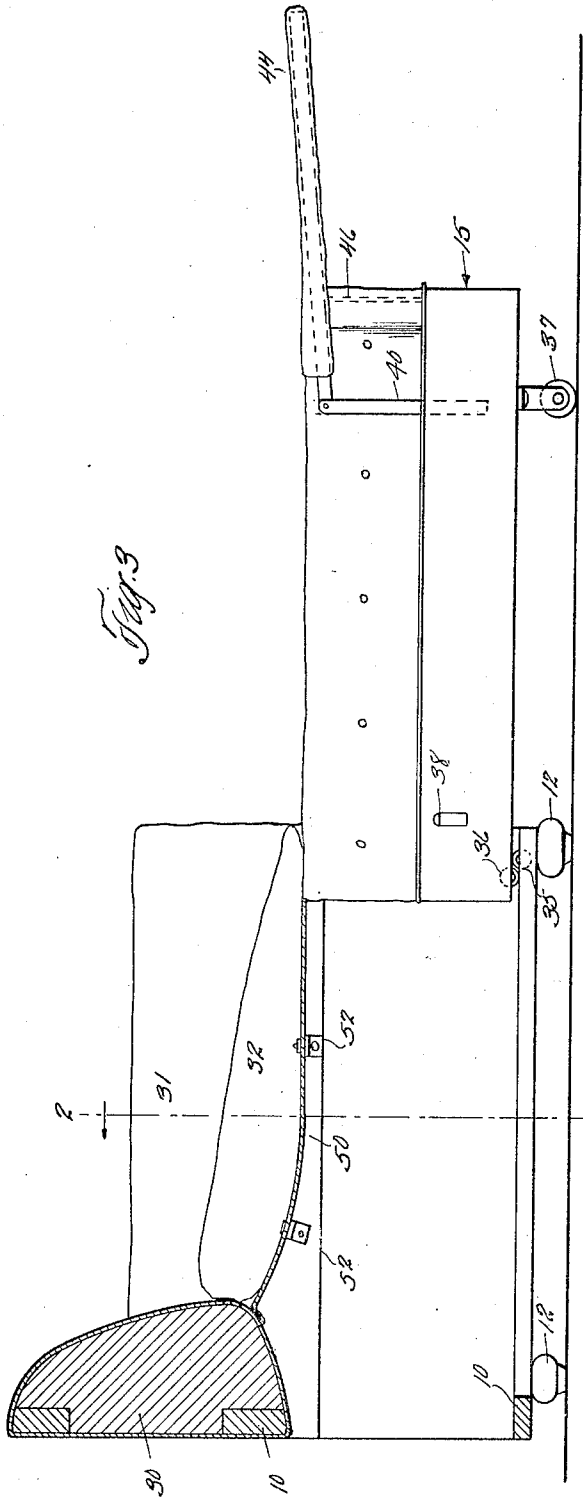


Fig. 3

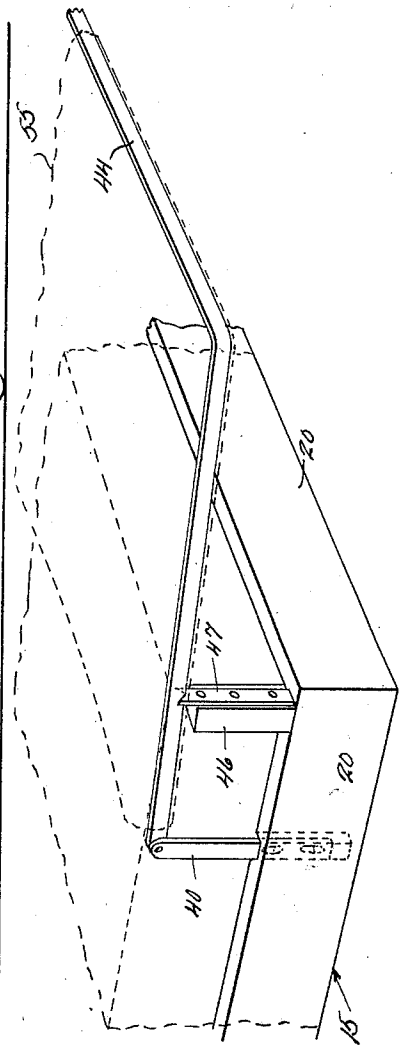


Fig. 4

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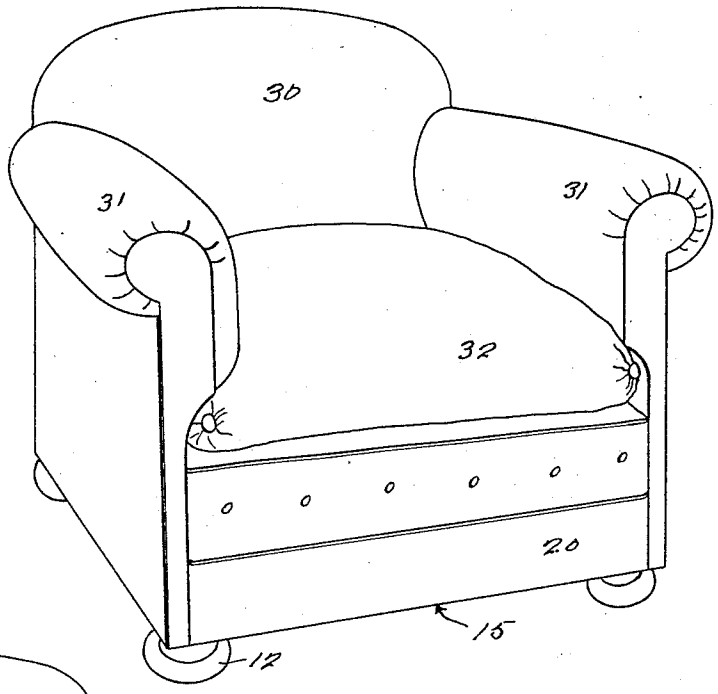
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4 SHEETS—SHEET 3.

Fig. 5



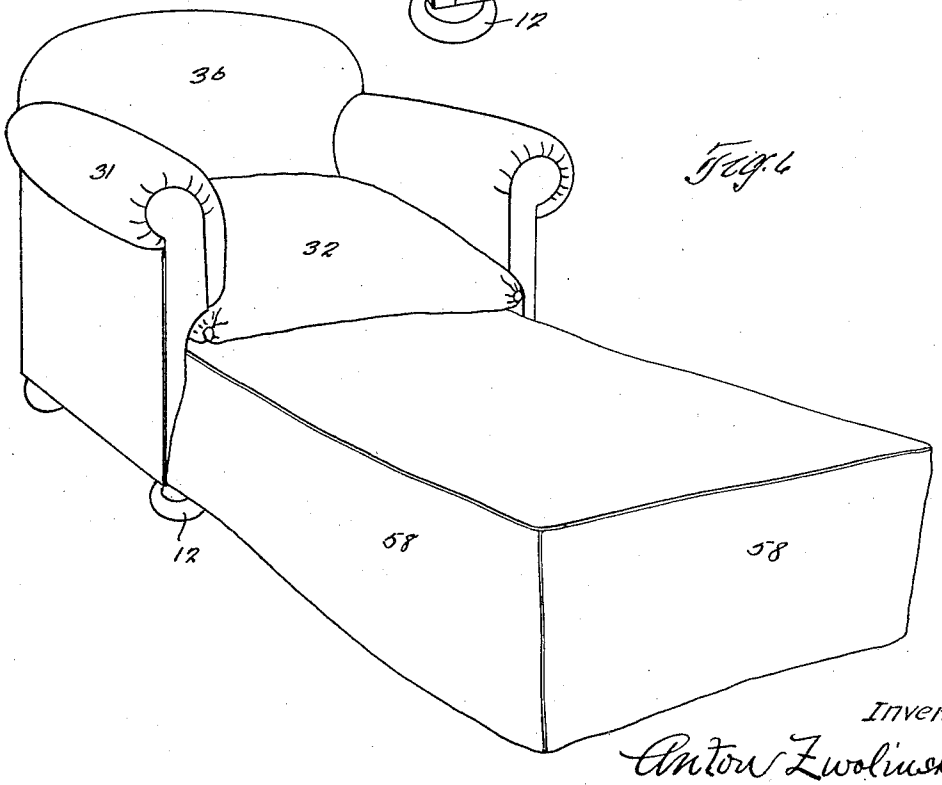


Fig. 6

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4 SHEETS—SHEET 4.

Fig. 1

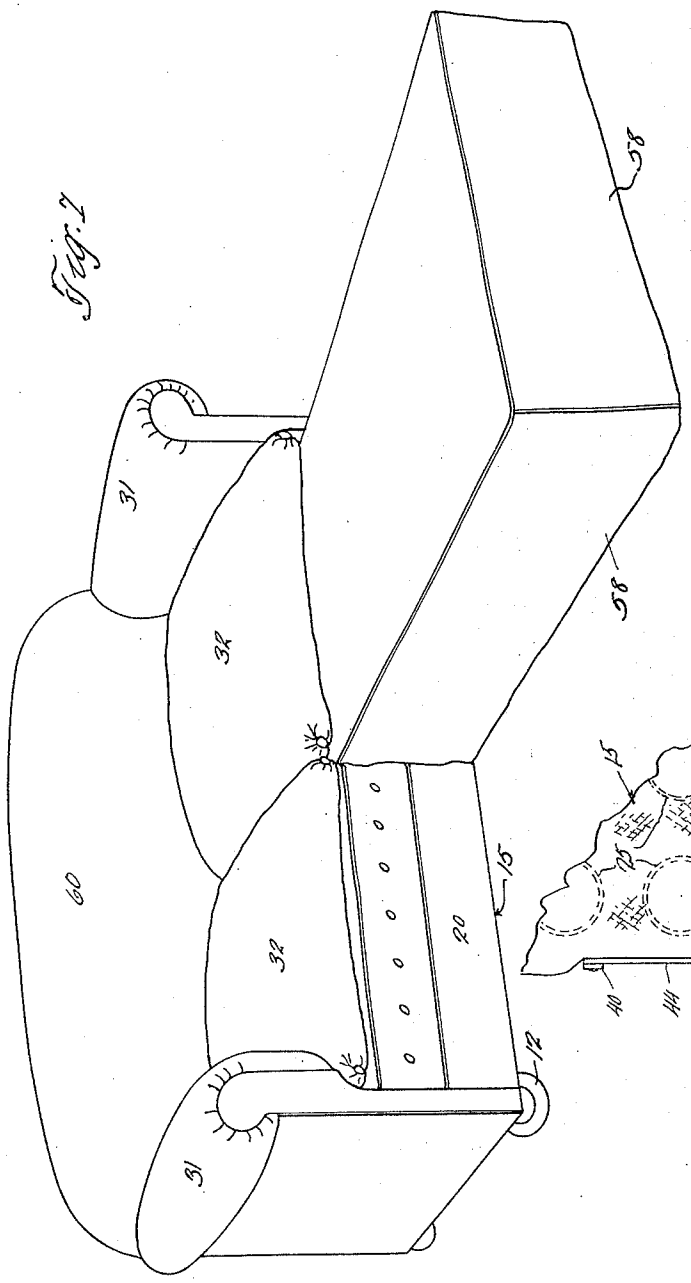
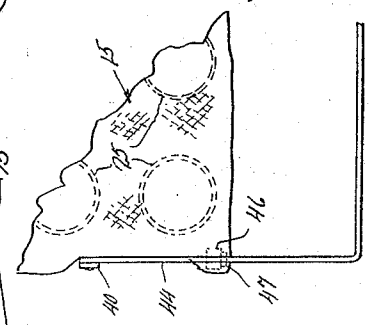


Fig. 8



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UNITED STATES PATENT OFFICE.

ANTON ZWOLINSKI, OF CLEVELAND, OHIO.

EXTENSIBLE CHAIR-BED.

1,346,582. Specification of Letters Patent. Patented July 13, 1920.

Application filed September 22, 1919. Serial No. 325,565.

To all whom it may concern:

Be it known that I, ANTON ZWOLINSKI, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Extensible Chair-Beds, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to extensible furniture, of the combination type, and more particularly to an extensible chair bed.

An object of the invention is to provide a chair or settee having all the comfort and appearance of a high grade article of such type, which can be easily, and practically instantaneously, transformed into a comfortable bed, having a continuous yielding surface free from any "humps" or irregularities in any portion of its length.

Another object is the provision of such an article of furniture by slight alterations in the manufacture of a standard chair or settee of the type which it resembles when in closed position, whereby it may be made cheaply and be extremely durable.

These and other objects will be more fully set forth in this specification and in the accompanying drawings. The essential characteristics of my invention are summarized in the claims.

In the drawings: Figure 1 is a vertical section of my device when in closed position as a chair, on a plane as indicated by the line 1—1 of Fig. 2; Fig. 2 is a similar vertical section taken on the line 2—2 of Fig. 3; Fig. 3 is a side elevation, partly in section, of the device extended to form a bed; Fig. 4 is a fragmentary perspective of the foot portion of the bed; Figs. 5 and 6 are views in perspective of the device in closed and extended positions respectively, constituting a chair and bed; Fig. 7 is a similar view of a settee or davenport having one half in closed position and the other half open to form a single bed; and Fig. 8 is a fragmentary plan of the foot portion of the bed.

Referring to the drawings by reference numerals, I provide a chair having members 10 suitably joined at their ends to form a relatively large substantially rectangular chair frame which may be supported by knob or ball feet 12 at the lower corners. Within the base of the chair frame I arrange a similarly shaped frame 15 adapted to be moved outwardly from the chair frame. This frame 15 has side members 20 and bottom members 21 within which may be secured a double set of box springs 25. Above the springs 25 rests a cushion or pad 27 which may be suitably secured to the frame members 20 by a covering 28, thereby constituting the chair seat.

The chair frame may be covered by any suitable material and is preferably heavily upholstered in the style known as "over stuffed" to provide a roomy, luxurious chair having a back 30 and arms 31. A suitable cushion 32 may be provided to be laid over the pad 27.

To permit the frame 15 to be drawn forward easily into extended position to provide a bed, I preferably arrange thereunder rollers 35, and 36. The rollers 35 may be mounted on suitable pivots in the two lower forward corners of the main frame with the bottom of the frame 15 resting thereon. The two lower rear corners of the frame 15 are provided with the similar rollers 36 which rest on the bottom portion of the main chair frame. I also secure to the bottom of the movable seat frame 15 near the forward edges rollers 37, which travel on the floor when the seat portion 15 is extended forwardly from the chair position of Fig. 1 to the bed position of Fig. 3, until the rollers 36 engage the relatively fixed rollers 35 thereby forming a stop which limits further forward movement of the seat frame 15. Suitable adjustable latch members 38 may be provided in the side members 20 to engage the chair frame and hold the seat 15 in extended position.

Suitably secured to the side members 20 of the frame 15 near the forward edges are upstanding bars 40 to which are pivoted the arms of a U-shaped frame or bail 44. This bail is adapted to lie substantially horizontally over the pad 27 toward the back of the chair, but after extending the seat to its forward position the bail 44 may be swung forwardly on its pivots through an angle of about 180 degrees, when it will project forwardly beyond the front of the extended seat and be supported again in substantial horizontal position by suitable upright posts 46. These posts may have secured thereunto strips or bars 47 notched at their upper ends as at 48 to receive the sides of the bail 44 as clearly illustrated in Fig. 4.

To the rear edge of the pad 27 I attach a

flexible member 50 of approximately the same width as the pad, which may be of any strong material such as canvas or heavy ticking, this member being also suitably fastened at its opposite end near the forward edge of the deep upholstered back 30 of the chair. In closed position this member 50 is adapted to depend in a loop behind the springs 25 and rear frame member 20 as shown in Fig. 1. The member 50 is of such length that it will be taut when the seat is extended to its extreme forward position with the rollers 35 and 36 in engagement. The edges of the member 50, when extended, may be supported by suitable snap-fasteners or curtain buttons as illustrated at 52 thereby constituting a smooth continuous surface rearwardly from the top of the pad 27.

The bail 44 is covered with a similar flexible member as at 55 which member overlaps the front edge of the pad 27 when the bail is in forward position, thereby forming a smooth forward extension to the surface of the pad 27. Attached to the sides and end of the bail 44 are curtain members 58 which may be folded over the top of the pad under the bail 44 when in closed position, as illustrated in Fig. 1, and draped around the sides and end of the extended bed, as in Fig. 6.

To transform the chair shown in Figs. 1 and 5 into the bed shown in Figs. 3 and 6, the outer frame member 20 of the movable seat 15 is grasped and pulled forwardly. The rollers 35, 36 and 37 roll over their respective surfaces until the rollers 35 and 36 engage each other forming a positive stop, at which point the flexible member 50 will have become taut. The cushion 32 may then be transferred from the pad 27 to lie over the extended member 50, and the bail 44 swing into its forward horizontal position. There will thus be provided by means of the spring supported pad 27 and the flexible members 50 and 55 at either end, a continuous flexible support ample in length to receive the extended body of the occupant, and with no annoying humps or irregularities in the surface at the junction between the several portions since there is no rigid support surrounding the upper part of the springs 25.

The weight of the body is largely carried by the centrally positioned springs 25, which yield, and carry with them the flexible members 50 and 55 to conform with the lines of the body in any position, constituting, as proven by actual tests and use, an unusually comfortable and satisfactory bed.

I have illustrated my invention applied to a settee or davenport in Fig. 7. The construction and operation is similar to that described since the settee is in reality but two chairs placed side by side with the adjacent sides 31 removed and the backs made integral as at 60. Either seat portion 15 may be drawn forwardly to form a single bed as illustrated, or if desirable, both may be so extended to make a double bed. In the claims I employ the term chair as including settees, sofas, divans, davenports, and the like.

I claim—

1. In combination a chair frame having sides and back, a seat frame slidably mounted within said chair frame and adapted to be extended forwardly of said chair frame, said seat frame having a spring supported pad resting thereon, a foldable member adapted to form a forward extension of the surface of said pad, and a downwardly collapsible member adapted to form a rear extension of the surface of said pad.

2. In combination a chair frame having a rigid back, a seat frame mounted on rollers and adapted to be extended forwardly of said chair frame, said seat frame having a spring supported pad resting thereon and fabric members adapted to form forward and rear extensions of the surface of said pad, whereby upon extending said seat frame a continuous yielding bed surface is attained.

3. In combination, a substantially rectangular chair frame having upholstered sides and back, a seat frame slidably mounted within said chair frame and adapted to be extended forwardly of said chair frame a distance equal approximately to its length, said seat frame comprising a housing for double box springs, a pad resting on said springs, and collapsible members adapted to form forward and rear extensions of the surface of said pad, whereby upon extending said seat frame a continuous yielding bed surface is attained.

4. In combination, an extension bed chair comprising upholstered back, sides and seat, said seat comprising a spring receiving frame movably supported within said chair frame, a flexible pad resting thereon, means whereby said seat frame may be extended forwardly from the chair frame, and collapsible fabric members forming continuous forward and rear extensions of said pad.

5. In combination, a chair frame having an upholstered back, an extensible seat frame mounted therein whereby said seat frame may be extended forwardly of said chair frame, a spring supported pad mounted in said seat frame, a flexible member connected to the rear edge of said pad and to the upholstered back of the chair and a similar flexible member pivoted near the forward edge of said pad, said seat and flexible members being adapted to be extended horizontally to form a continnous yielding bed surface.

6. In combination, a chair frame, an extensible seat frame mounted therein on rollers, whereby said seat frame may be ex-

tended forwardly of said chair frame, a spring supported pad mounted in said seat frame, a flexible member connected to the rear edge of said pad and to the upholstered back of the chair and a similar flexible member pivoted near the forward edge of said pad, said last named flexible member having two positions, one wherein it is folded rearwardly over said pad and the other wherein it is extended forwardly of said pad.

7. In combination, a chair frame having sides and back, an extensible seat frame mounted therein whereby said seat frame may be extended forwardly of said chair frame, a pad mounted in said seat frame, a flexible member connected to the rear edge of said pad and to the back of the chair and adapted to become taut when the seat frame is extended, and means for fastening the side edges of said member to the sides of the chair frame.

8. In combination a frame having a back, and a movable seat, a flexible member connecting the rear of said seat with said back, a bail having its arms pivoted to the sides of said seat near the forward edge, a flexible member supported thereon, said bail being adapted to lie with said flexible member extending rearwardly over said seat, and means comprising supports at the extreme forward corners of said seat adapted to receive the arms of said bail when swung into a forwardly extending position.

9. In combination, a chair having an upholstered back and a forwardly extendible spring seat, a flexible member connecting the rear of said seat with said back and adapted to depend in a loop in the rear of said seat, a bail having arms attached to the sides of said seat near the forward edge, and a flexible member supported thereon, said bail being adapted to lie with its flexible members extending rearwardly over said seat, and a cushion resting on said seat.

10. In combination a frame having an upholstered back and a spring seat, a flexible member connecting the rear of said seat with said back and adapted to depend in a loop in the rear of said seat, a bail at the sides of said seat near the forward edge, a flexible member supported thereon, said bail being adapted to lie with said flexible member extending rearwardly over said seat, and means whereby said seat may be extended forwardly until said first mentioned flexible member becomes taut, said second named flexible member being adapted to be swung forwardly and project in advance of said seat, whereby a continuous yielding bed surface is attained.

11. In combination, a chair frame having a back, a movable seat, a flexible member connecting the rear of said seat with said back and adapted to depend in a loop in the rear of said seat, a bail having its arms attached to said seat, and a flexible member supported thereon, said bail being adapted to lie with its flexible member extending rearwardly over said seat.

In testimony whereof, I hereunto affix my signature.

ANTON ZWOLINSKI.