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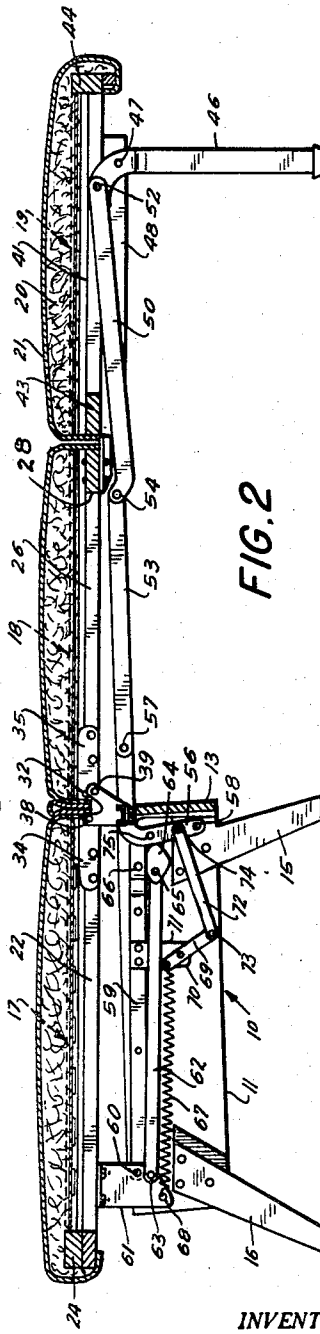
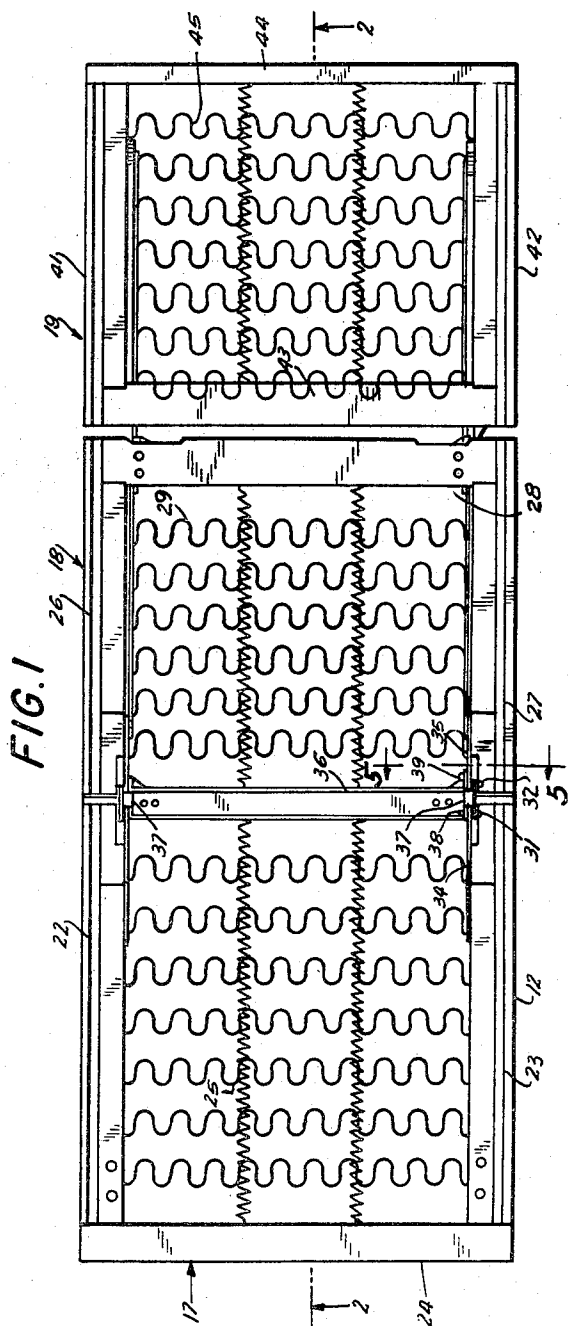
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2 Sheets-Sheet 1



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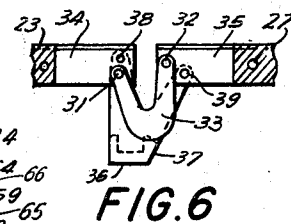
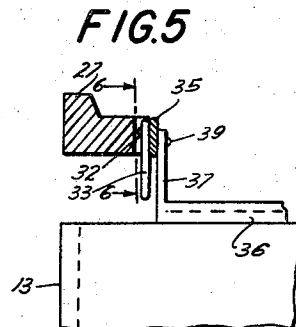
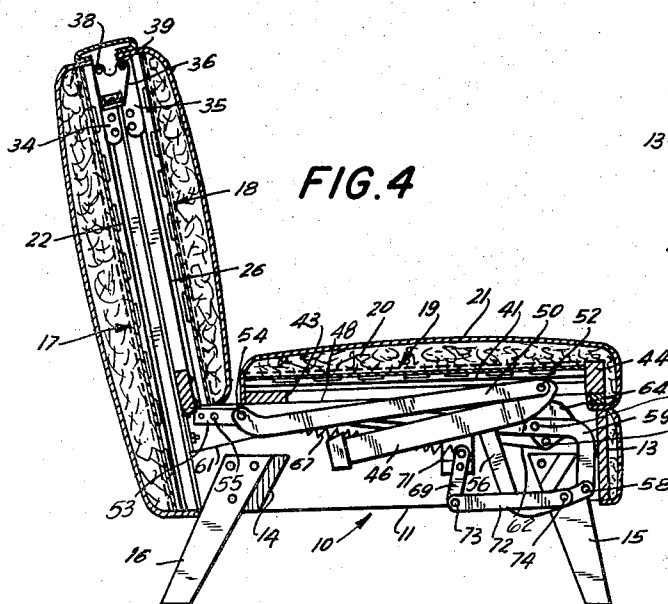
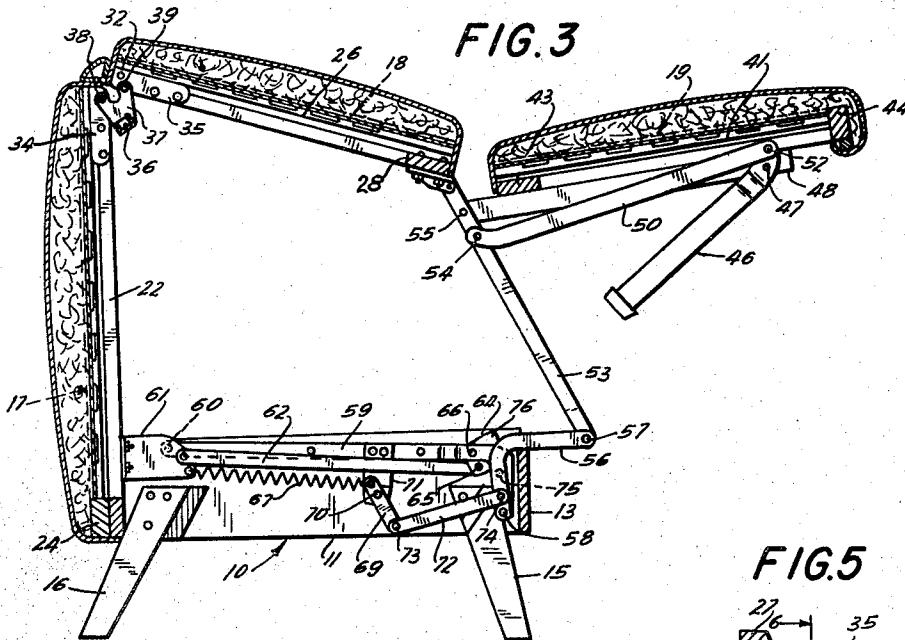
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This invention relates to a chair adapted to be converted to a bed.

An object of the invention is to provide a chair in which the back and seat sections form the sections of the bed.

Another object of the invention is to provide a chair composed of two pivotally connected sections constituting the back of the chair and a seat section pivotally connected to one of the back sections and which sections are connected with the chair frame by linkage construction for movement of the sections from the position constituting the back and seat of the chair to an extended position in which the sections are disposed in alignment to constitute a bed.

Another object of the invention is to provide a chair bed in which the parts forming the chair also form parts of the bed.

The invention also provides a chair bed in which the linkage mechanism connecting the sections together for movement from the chair position to the bed position are wholly disposed within the chair frame when in the chair position.

Still another object of the invention is to provide a chair bed which is rigidly supported both in the chair position and in the bed position.

With the foregoing and other objects in view, reference is now made to the following specification and accompanying drawings in which the preferred embodiment of the invention is illustrated.

In the drawings:

Fig. 1 is a top plan view of a chair bed combination constructed in accordance with the invention.

Fig. 2 is a longitudinal sectional view taken approximately on line 2-2 of Fig. 1.

Fig. 3 is a view similar to Fig. 2 showing the sections partly swung towards the chair position.

Fig. 4 is a similar view showing the sections in the chair position.

Fig. 5 is an enlarged fragmentary sectional view taken approximately on line 5-5 of Fig. 1.

Fig. 6 is a sectional view taken approximately on line 6-6 of Fig. 5.

Referring to the drawings, the chair bed includes a base frame 10 consisting of opposite side panels 11 and 12, a front panel 13, a cross member 14 connected between the side panels 11 and 12 adjacent the rear thereof and suitable legs 15 and 16 rigidly affixed to said frame.

Swingably connected with the base frame 10 are a plurality of sections 17, 18 and 19 constituting the back and seat portions of the chair when in the chair position and which provide bed forming sections when in the bed position. The sections 17, 18 and 19 are upholstered, the upholstery extending in continuous formation enclosing the sides and top of the sections whereby the joints between the sections are hidden from view and the sections have relative movement from one position to the other without stress on the upholstery. The upholstery consists of filling material 20 supported on springs affixed

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to the sections and with a suitable covering 21 enclosing the filling material and secured to the under side of the sections.

The sections 17, 18 and 19 are preferably of wooden or equivalent construction, the section 17 including oppositely disposed side rails 22 and 23, an end rail 24 and sinuous bed springs 25 affixed at their ends to the side rails of the section. The section 18 also consists of side rails 26 and 27, an end rail 28 and sinuous bed springs 29 affixed at their ends to the side rails of the section. The side rails of the said sections are disposed in end to end relation and are swingably connected together at each side on pivot pins 31 and 32 extending through the ends of a curved metal element 33 and through flat bars 34 and 35 affixed to the inside faces of the confronting ends of the side rails. The inner faces of the side rails are cut away to provide clearances between the pivoted ends of the flat bars 34 and 35 and the side rails so as to accommodate the curved metal elements 33. The pivot pins 31 extend through the lower longitudinal edge portion of the flat bars 34, while the pivot pins 32 extend through the upper longitudinal edge portion of the flat bars 35. The confronting ends of the said side rails are also connected by a transversely extending U-shaped frame member 36 having upstanding legs 37 at the ends thereof. The legs 37 are formed with upstanding projections through which extend pivot pins 38 and 39 pivotally connecting the frame member 36 with the flat bars 34 and 35. The pivot pins 38 extend through the flat bars 34 respectively and through one of the projections of each of the legs, while the pivot pins 39 extend through the flat bars 35 respectively and through the other projection of each of the legs. By this arrangement the frame member 36 rests upon the upper edge of the front panel 13 of the base frame 10 when the sections are in bed forming relation to thereby support the confronting ends of the bed sections 17 and 18 upon the base frame 10 when in the bed forming relation.

The section 19 includes side rails 41 and 42, opposite end rails 43 and 44 and sinuous springs 45 affixed at their ends to the side rails of the section. The said section is swingably connected with the section 18 and is supported at its outer end by legs 46. The legs are pivoted to the section 19 on pivot pins 47 extending through angle bars 48 affixed to the under side of the side rails 41 and 42 thereof.

A linkage construction is connected at each side with the legs 46 and with the sections 17, 18 and 19 and the base frame 10 for swinging the legs to collapsed relation with the outer section 19 with the movement of the sections 17, 18 and 19 from the bed forming relation to the seat forming position. The said linkage construction at each side includes a link 50 which is pivotally connected at its forward end to the free upper end of one of the legs 46 on a pivot pin 52 and at its other end the said link is curved upwardly and is pivotally connected to a link 53 on a pivot pin 54. The link 53 is pivotally connected to the projecting inner end of one of the angle bars 48 on a pivot pin 55 and the other end of the link 53 is pivotally connected to a bent link 56 on a pivot pin 57. The bent links 56 are pivotally connected at their lower ends on pivot pins 58 to flat metal straps 59 affixed to the inside faces of the side panels of the base frame 10.

The section 17 is swingably connected with the base frame 10 on pivot pins 60 extending through the inner ends of the straps 59 and through brackets 61 affixed to the under side of the said section. Links 62 are pivoted to the brackets 61 on pivot pins 63 located in spaced relation to the pivot pin 60 to provide leverage for moving the links 62 rearwardly and forwardly with the movement of the section 17 to and from the bed forming position. The forward ends of the links 62 are pivoted to

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cam members 64 on pivot pins 65 respectively. The cam members 64 are pivoted to the straps 59 on pivot pins 66 for rotary movement with the movement of the links 62. The section 17 is biased toward the chair forming position by coiled springs 67 which are attached to lugs 68 affixed to the brackets 61. The forward ends of the springs are attached to the upper ends of links 69 pivoted on pivot pins 70 to brackets 71 affixed to the straps 59. The lower ends of the last mentioned links are connected with the bent links 56 by links 72, which latter links are pivoted to the links 69 and to the bent links 65 on pivot pins 73 and 74. This construction biases the movement of the section 19 toward supported engagement on the base frame 10. The bent links 56 are provided with lugs 75 which engage against the downturned forward ends of the straps 59 to limit the forward movement of the bent links. The cam members 64 have cam peripheral edges 76 which engage the lugs 75 and cam the same against the downturned ends of the straps 59 and retain the bent links 56 in the forward position when the sections are in the bed forming relation, thus locking the sections in the bed forming relation. The bent links 56 being retained in said forward position when the sections are in bed forming relation as shown in Fig. 2 of the drawings, the links 53 swing about the pivotal connections 57 with said bent links when the seat section 19 is elevated in the movement of the sections to chair formation. With the movement of the back section 17 toward the upstanding relation shown in Fig. 3 of the drawings, the cam members 64 are moved out of cammed engagement with the bent links 56 whereupon the bent links swing about the pivots 58 from the forward position to an inverted position with the continued movement of the seat section toward seat relation whereby the links 53 swing downwardly to dispose the section 18 in adjacent relation with the back section 17. With the bent links 56 disposed forwardly, the springs 67 function to swing the adjacent ends of the back sections 17 and 18 upwardly about their pivotal connections with the transversely extending member 36 with the initial upward movement of the seat section 19 toward seat relation.

Constructed in this manner, the section 17 abuts against the rear ends of the side panels 11 and 12 of the base frame 10 when the said section is in the chair forming position. The section 18 abuts against the section 17 at the sides thereof when in the chair forming position and the section 19 rests upon the upper edges of the side panels 11 and 12 of the base frame 10 when the sections are in the chair forming position.

In order to move the sections from the chair forming position to the bed forming position, the section 19 is raised and pulled forwardly so as to swing the sections into end to end horizontal alignment, which movement functions to move the legs 46 from collapsed relation with the section 19 to the upright relation for supporting the outer end of the said section. When in this position, the springs 67 are under tension so as to assist in the rearward swinging of the section 17.

While the preferred form of the invention has been shown and described herein, it is to be understood that the same is not so limited but shall cover and include any and all modifications of the invention which fall within the purview thereof.

What is claimed is:

1. In a chair bed of the character described, a rigid base, a foldable frame including a seat section and forwardly and rearwardly disposed back sections constituting a chair back, brackets affixed to said rearwardly disposed back section and pivotally connected to said rigid base, a transversely extending member having upstanding ends pivotally connecting the adjacent ends of said back sections and adapted to rest upon said rigid base for supporting the adjacent ends of said back sections in bed relation, leg members swingably connected with said seat section for supporting the outer end thereof in bed

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relation, a bent link pivoted at each side to said rigid base with the forward ends thereof projecting forwardly beyond said rigid base when the sections are in bed relation, links pivoted to the forward ends of said bent links respectively and pivotally connected to the forward end of said forwardly disposed back section, means at each side pivotally connecting said seat section with said last mentioned links respectively, means pivotally connected to said last mentioned links respectively and to said legs for swinging said legs to collapsed relation with the seat section with the movement of said sections from bed relation to seat relation to dispose the seat section in supported relation on said rigid base and said back sections in adjacent upstanding relation, cam means at each side connected with said base and with said brackets for retaining said bent links in said forward position when the sections are in bed relation, and means biasing said rearwardly disposed back section toward upstanding relation to thereby swing the adjacent ends of said back sections upwardly on their pivotal connections with said transversely extending member with the upward swinging of said seat section from bed relation toward seat relation.

2. In a chair bed of the character described, a rigid base, a foldable frame including a seat section and forwardly and rearwardly disposed back sections constituting a chair back, brackets affixed to said rearwardly disposed back section and pivotally connected to said rigid base for swinging movement of said section from upstanding relation to horizontal bed relation, means pivotally connecting the adjacent ends of said back sections in end to end relation, leg members swingably connected with said seat section for supporting the outer end thereof in bed relation, a bent link pivoted at each side to said rigid base with the forward ends thereof projecting forwardly beyond said rigid base when the sections are in bed relation, links pivoted to the forward ends of said bent links respectively and pivotally connected to the forward end of said forwardly disposed back section, means at each side pivotally connecting said seat section with said last mentioned links respectively, means pivotally connected to said last mentioned links respectively and to said legs for swinging said legs to collapsed relation with the seat section with the movement of said sections from bed relation to seat relation to dispose the seat section in supported relation on said rigid base and said back sections in adjacent upstanding relation, cam means at each side connected with said base and with said brackets for retaining said bent links in said forward position when the sections are in bed relation, and means biasing said rearwardly disposed back section toward upstanding relation to thereby swing the adjacent ends of said back sections upwardly on their pivotal connections with the upward swinging of said seat sections from bed relation toward seat relation.

3. In a chair bed of the character described, a rigid base, a foldable frame including a seat section and forwardly and rearwardly disposed back sections constituting a chair back, brackets affixed to said rearwardly disposed back section and pivotally connected to said rigid base for swinging movement of said section from upstanding relation to horizontal bed relation, means pivotally connecting the adjacent ends of said back sections in end to end relation, leg members swingably connected with said seat section for supporting the outer end thereof in bed relation, a first link pivoted at each side to said rigid base with the forward ends thereof projecting forwardly beyond said rigid base when the sections are in bed relation, a second link pivoted at each side to the forward ends of said first links respectively and pivotally connected to the forward end of said forwardly disposed back section, means at each side pivotally connecting said seat section with said second links respectively, means pivotally connected to said second links respectively and to said leg members for swinging said leg members to collapsed relation with the seat sec-

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tion with the movement of said sections from bed relation to seat relation to dispose the seat section in supported relation on said rigid base and said back sections in adjacent upstanding relation, cam means at each side pivoted to said rigid base, and a third link at each side pivotally connected to said brackets and to said cam means respectively for camming said cam means against said first links respectively with the movement of said rearwardly disposed back section toward bed relation to thereby retain said first links in said forwardly projecting relation during a portion of the movement of said sections to and from seat relation and for swinging said cam means out of engagement with said first links with the movement of the rearwardly disposed back section to upstanding relation to thereby permit of the swinging of said forwardly disposed back section into adjacent relation with the rearwardly disposed back section.

4. In a chair bed of the character described, a rigid base, a foldable frame including a seat section and forwardly and rearwardly disposed back sections constituting a chair back, means pivotally connecting said rearwardly disposed back section to said rigid base for swinging movement of said section from upstanding relation to general horizontal bed relation, means pivotally connecting the adjacent ends of said back sections in end to end relation, leg members swingably connected with said seat section for supporting the outer end thereof in bed relation, a first link at each side pivoted to said

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rigid base for movement to a forward position with the forward ends thereof projecting forwardly beyond said rigid base when the sections are in bed relation, a second link at each side pivoted to the forward ends of said first links respectively and pivotally connected to the forward end of said forwardly disposed back section, means at each side pivotally connecting said seat section with said second links respectively, cam means at each side pivoted to said rigid base and actuated by the movement of said rearwardly disposed back section for retaining said first links in said forward position when the sections are in bed forming relation, and means biasing said rearwardly disposed back section toward upstanding relation to thereby swing the adjacent ends of said back sections upwardly on their pivotal connections with the upward swinging of said sections from bed relation toward seat relation.

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