July 28, 1925. 1,547,650

G. HERZ

DAY BED AND THE LIKE

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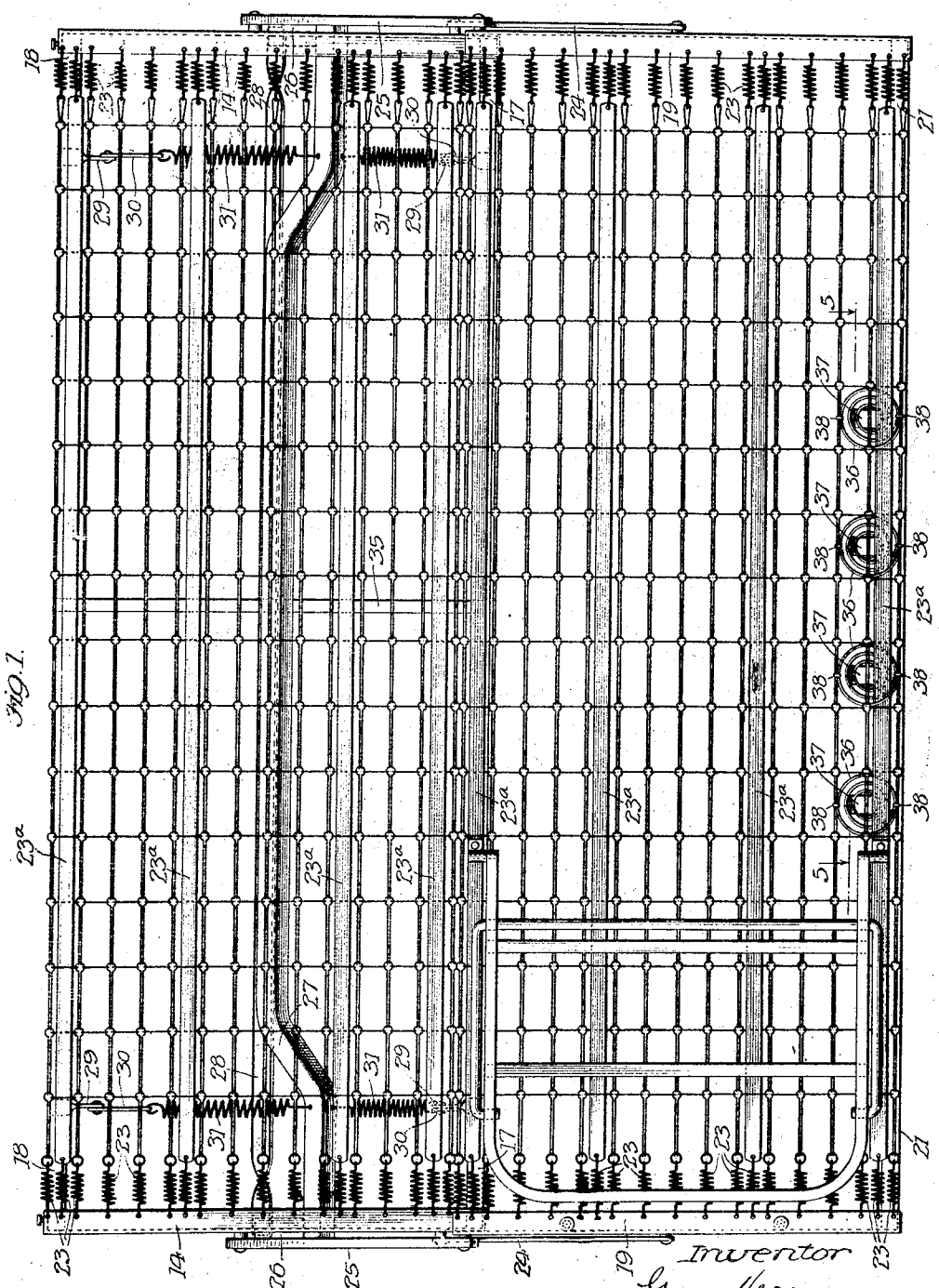


Fig. 1.

Witness
Martin H. Olsen

Inventor
Gene Herz
By Rector, Hibben, Davis and Macauley
Attys

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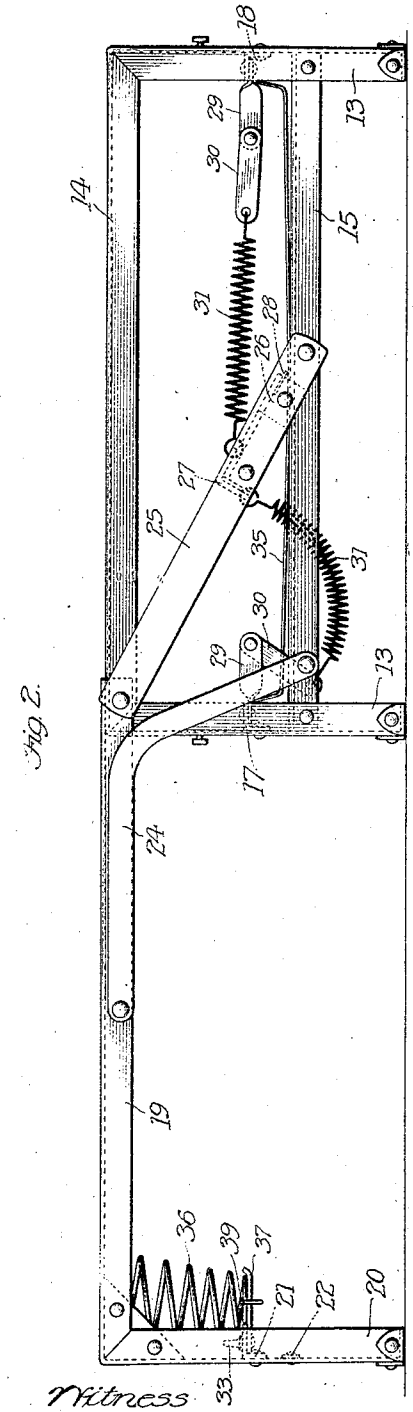


Fig. 2.

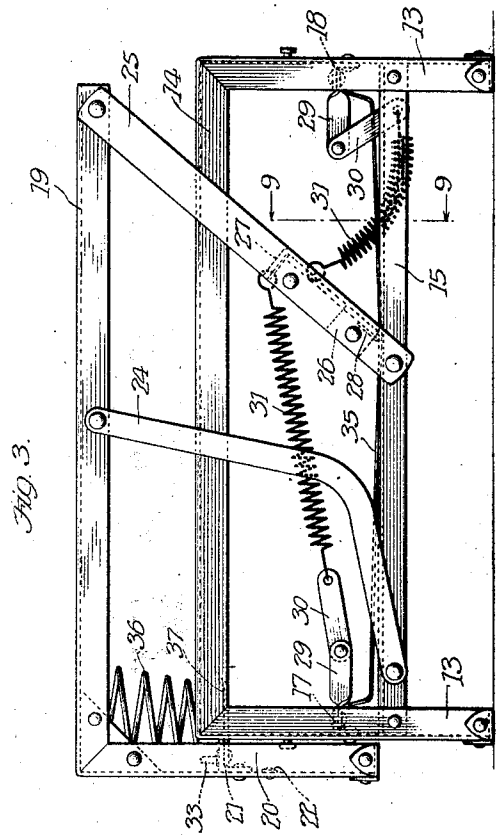


Fig. 3.

Witness
Martin A. Olsen

Inventor
Gene Herz

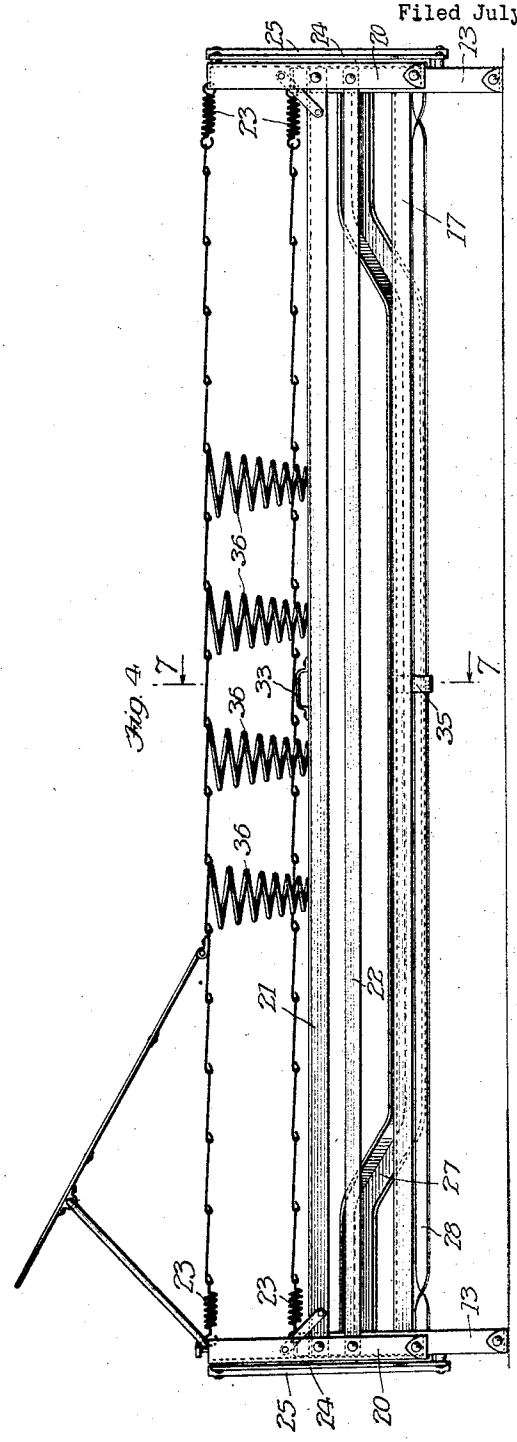
By Rector, Hibben, Davis & Macauley Attys

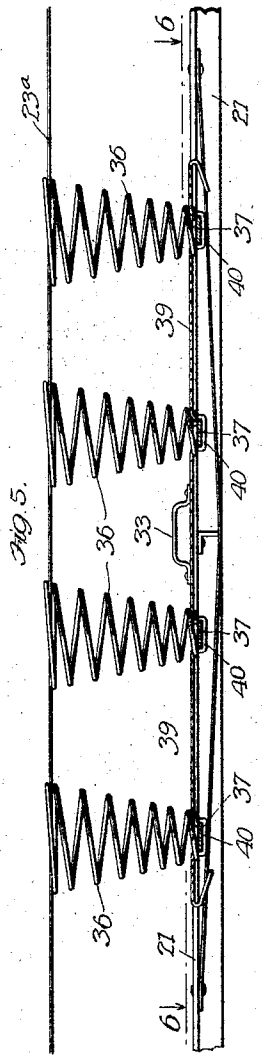
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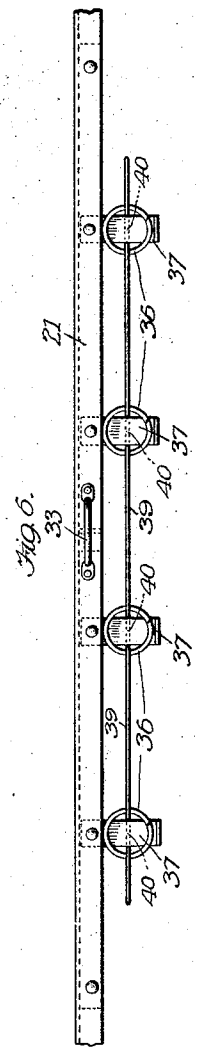
G. HERZ

DAY BED AND THE LIKE

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Witness
Martin H. Olsen.

Inventor
Gene Herz
By Victor, Hilken, Davis & Macauley Attys

July 28, 1925. 1,547,650

G. HERZ

DAY BED AND THE LIKE

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Fig. 7.

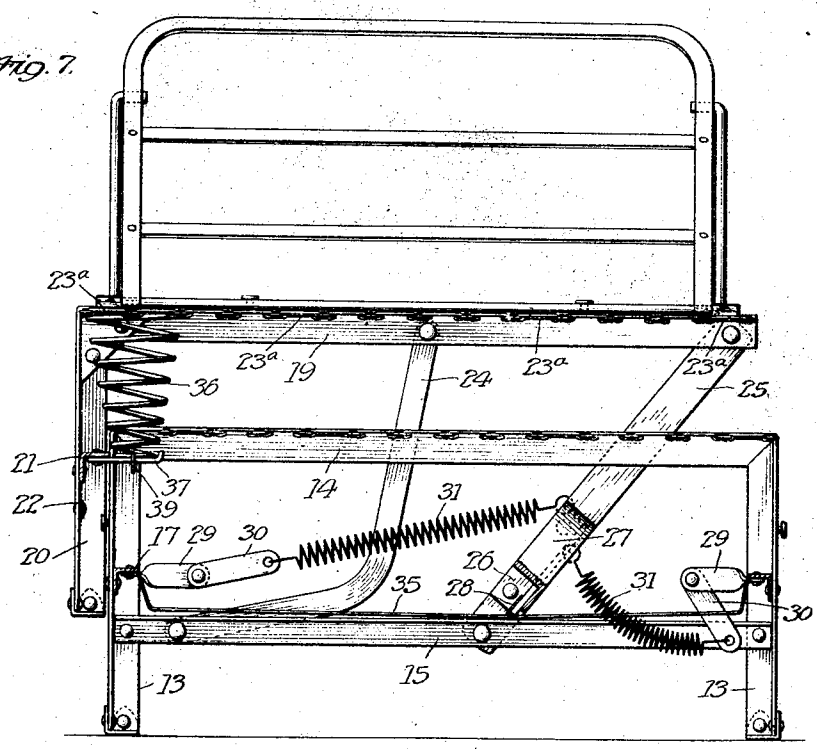


Fig. 8.

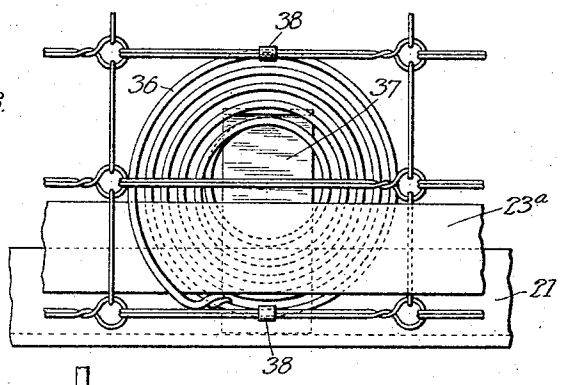
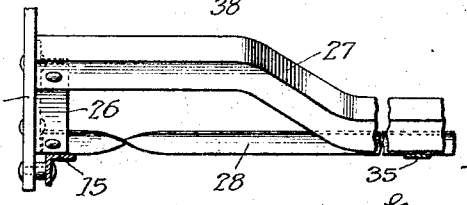


Fig. 9.



Inventor
Gene Herz

Witness
Martin H. Olsen

By Rector, Hibben, Davis & Macauley, Attys

Patented July 28, 1925. 1,547,650

UNITED STATES PATENT OFFICE.

GENE HERZ, OF CHICAGO, ILLINOIS, ASSIGNOR TO HERZ BED COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

DAY BED AND THE LIKE.

Application filed July 2, 1923. Serial No. 648,904.

To all whom it may concern:

Be it known that I, GENE HERZ, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Day Beds and the like, of which the following is a specification.

My invention relates to the type of bed, known as day beds, and the principal object thereof is to provide simple and improved constructions adding materially to the comfort of the users or occupants, as will be apparent from the description hereinafter given.

In the accompanying drawings, Fig. 1 is a plan view of the day bed embodying my invention, the bed being shown extended and with the mattress removed; Fig. 2 is an end elevation of the bed in extended condition; Fig. 3 is a view similar to Fig. 2, but shows the movable bed section in closed position and superimposed on the stationary bed section; Fig. 4 is a front side elevation of the bed in closed condition; Fig. 5 is a detail longitudinal section taken on the line 5—5 of Fig. 1; Fig. 6 is a detail horizontal section taken on the line 6—6 of Fig. 5; Fig. 7 is a transverse section through the bed in closed condition, as on the line 7—7 of Fig. 4; Fig. 8 is a fragmentary plan view showing one of the spiral bed springs at the front edge of the movable bed section and parts of the spring mattress fabric and supporting frame; and Fig. 9 is a fragmentary sectional view, taken as on the line 9—9 of Fig. 3 to show one end of the connecting bars between the rear supporting links.

Referring to the embodiment of my invention, the bed comprises two sections, one a stationary bed section and the other a movable bed section connected together by swinging links which serve to support the movable section in superimposed condition upon the stationary section when the bed is in closed condition and also to guide the movable section in its movements while the bed is being extended or closed.

The stationary bed section comprises a frame at each end, preferably made of angle iron and each formed of vertical corner posts 13 connected together by an upper end bar 14 and a lower end bar 15, and the front legs of the frames are connected by a side bar 17 and the rear legs by a side bar 18, these side bars also being formed of angle-iron.

The movable bed section comprises the top end bars 19 to the outer or forward ends of which are secured integral vertical legs 20 connected together intermediate their ends by parallel bars 21 and 22, the former, like the legs 20 and bars 19, being formed of angle-iron, while the bar 22 is preferably formed of a flat metal strip.

Both bed sections are provided with spring mattress fabrics, preferably of the link type, as shown in Figs. 1 and 4, the opposite ends of the mattress fabrics being connected to the end bars 14 and 19 of the respective bed sections by means of coil springs 23 in the usual manner. To improve the operation of each spring mattress fabric, parallel flat strips 23ª (Fig. 1) of thin flexible metal and preferably four in number, are woven, so to speak, into the spring fabric, the ends of the strips being connected to the end bars 14 and 19 of the respective bed sections by means of springs like springs 23.

The movable bed section is pivotally mounted on the stationary bed section by pairs of links 24 and 25, it being understood that each end of the bed is provided with a pair of these links. The upper ends of the links 24 and 25 are pivotally connected to the end bars 19 and the lower ends of the links are pivotally connected to the lower end bars 15 of the stationary bed section. Secured, preferably by rivets, to the link 25 are short angle-irons 26 (Figs. 2, 3, 7 and 9) to which are riveted the ends of an angle bar 27 and a flat strip or bar 28, which thus serves to rigidly connect the two links 25 at the opposite ends of the bed.

Riveted to each side bar 17 and 18 are two arms 29 (Figs. 2 and 3) to which are pivoted links 30 provided with apertures in their opposite ends through which hooked ends of springs 31 project. The opposite or inner ends of the front and rear springs 31, respectively, have hooks projecting through apertures in the horizontal and vertical flanges of the cross bars 27.

When the bed is in closed condition, as shown in Figs. 3 and 4, the lower edges of the laterally extending flanges of the angle bars 26 on the links 25 contact with the upper faces or sides of the horizontal flanges of the lower end bars 15 on the stationary

bed section, the rear side of the movable bed section being firmly supported in this manner through the links 25. The rear edge of the horizontal flange of the side member 21 at the same time engages the forward sides of the front legs 13. When the bed is to be extended, a handle 33 (Fig. 4) on the side bar 21 is grasped and the movable bed section is pulled forwardly, the links 24 and 25 serving to guide and support the movable section during such movement. At the same time the front springs 31, being extended when the bed is closed, serve to aid the operator in the initial movement of the movable bed section, while the rear springs 31 tend to retard the final movement of the movable bed section to its full extended position as they then are extended, as will be readily understood, the reverse action of the springs taking place when the movable bed section is moved from extended to closed condition. When the bed is in its full extended condition, the forward side of the movable bed section is supported on the floor by the legs 20 and the rear end portions of the horizontal flanges of the end bars 19 rest on the forward ends of the end cross bars 14 to support the rear side of the movable bed section.

It will be observed that the rear ends of the end bars 19 of the movable bed section are not directly connected together by a side bar, as such side bar would interfere with the opening of the bed and at the same time would be engaged by the spring fabric and supported mattress cushions or pads of the movable bed section when they sagged or yielded to the weight of the occupants and would therefore form an objectionable obstruction or ridge materially interfering with the comfort of the occupants. In order to prevent the rear ends of the end bars 19 from sagging, or deflecting toward each other, due to the strain or weight on the movable bed section, I provide the cross bars 27 and 28 connecting the links 25 so that these cross bars rigidly space the links apart and prevent movement of the rear ends of the end bars 19 toward each other. It is necessary to connect the ends of the cross bar 27 to the links 25 a substantial distance from the lower supporting pivots for the links 25 in order to overcome any bending tendency of the links 25 and prevent any shearing action on their lower pivots.

At the same time it is important that this cross bar 27 should not be struck or contacted with when the spring mattress fabric of the stationary bed section sags or yields under the weight of the occupant, as then this cross-bar would form an objectionable obstruction. To eliminate this difficulty and at the same time secure the advantage of connecting the ends of the cross-bar 27 a substantial distance from the lower pivots of the links 25, I have bent the cross bar 27, adjacent its ends, downwardly so that the middle portion of the bar lies a very substantial distance from the spring fabric of the stationary bed section so that when this fabric yields under the weight of the occupant the bar will not be struck thereby. The cross-strip 28 is provided to overcome the tendency of the lower ends of the links 25 to separate, thus taking further shearing action off the lower pivots for the links 25, and the central portion of this strip 28 lies adjacent the vertical flange of the central portion of the bar 27. A cross bar or strip 35, mounted centrally of the bed, is secured at its ends to the central portions of the horizontal flanges of the side bars 17 and 18 of the stationary bed sections, and it is bent downwardly adjacent its ends so that the bar extends under the strip 28. The cross bar 35 acts as a brace to maintain the centers of the side bars 17 and 18 properly spaced apart.

When the bed is in closed condition, it serves as a seat and as a person sitting on the forward edge of the movable bed section has his weight somewhat localized on the movable section there is an increased tendency of the forward edge of the spring mattress section of the movable bed section to unduly sag, and if this were permitted the bed would afford only an uncomfortable seat and the spring mattress fabric would be permanently extended or distorted so that its forward edge would be lower than the rest of this spring fabric even when the bed is not in use. To overcome these difficulties, I have provided at the forward edge of the spring fabric for the movable bed section, a row of spiral bed springs 36, preferably four in number. The lower coils of the bed springs are seated on rearwardly projecting arms 37 riveted to the front side bar 21 and the upper end coil of each spring engages under the spring mattress fabric, the upper coil being connected to the strands of the fabric by means of suitable clips 38. The lower end coils of the springs are secured in place on the arms 37 by means of a wire rod 39 extending under the arms 37 and through and over the lower end coils, the rod 39 being provided with bends 40 (Fig. 5) fitting the arms 37.

It will be obvious that these coiled springs 36 add materially to the stiffness and supporting ability of the front edge of the spring fabric of the movable bed section and at the same time the bed may be closed without interference of the springs 36 with the spring fabric of the stationary bed section, the front edge of the latter being spaced rearwardly of the forward sides of the forward legs 13 of the stationary bed section to accommodate these springs when the bed is in closed condition. The rear edge of the

spring fabric of the stationary bed section extends to the rear ends of the cross end bars 19 which overlap the forward ends of the end bars 14 of the stationary bed section, when the bed is extended, so that then there is no gap between the rear edge of the spring fabric of the movable bed section and the forward edge of the spring fabric of the stationary bed section.

I claim:

1. In a day bed, the combination of a stationary bed section, having a spring mattress fabric, a movable bed section having a spring mattress fabric, links connecting said bed sections to permit the movable bed section to be moved to extended and closed positions and to be superimposed over the stationary bed section when the bed is closed, coiled bed springs positioned under and reinforcing the forward edge of the spring mattress section for the movable bed section, the forward edge of the spring mattress fabric of the stationary bed section being offset rearwardly to accommodate the coiled bed springs when the bed is in closed condition and the rear portion of the mattress section of the movable section being adapted to occupy said offset zone when the bed is in open condition.

2. In a day bed, the combination of a stationary bed section comprising end frames with supporting legs, a spring mattress fabric on said stationary bed section, with its forward edge spaced rearwardly of the forward side of the end frames, a movable bed section having end frames with forward legs and a side bar connecting said legs, links connecting the end frames of the stationary and movable bed sections to permit the movable bed section to be moved to extended and closed positions and to be supported in superimposed position over the stationary bed section when the bed is closed, projections on said side bar of the movable section, extending inwardly of the forward side of the end frames of the stationary section in a plane lower than the plane of the spring mattress fabric of the stationary section when the bed is in closed condition, and coiled bed springs mounted on said projections and under the forward edge of the spring mattress fabric of the movable bed section, for the purpose described.

GENE HERZ.