M. L. EVANS.

CONVERTIBLE FURNITURE.

APPLICATION FILED APR. 24, 1914.

1,197,359.

Patented Sept. 5, 1916.

3 SHEETS—SHEET 1.

Fig. 1.

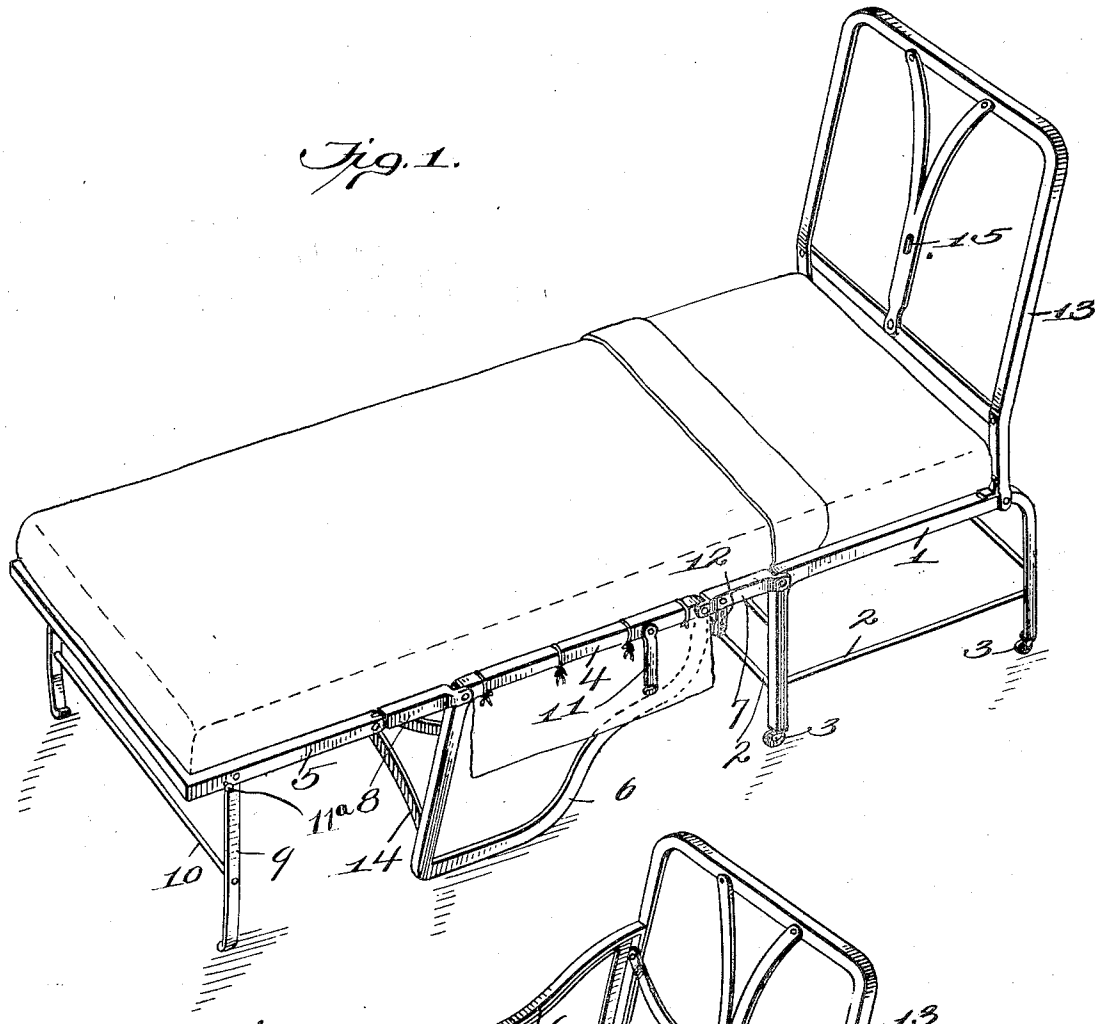
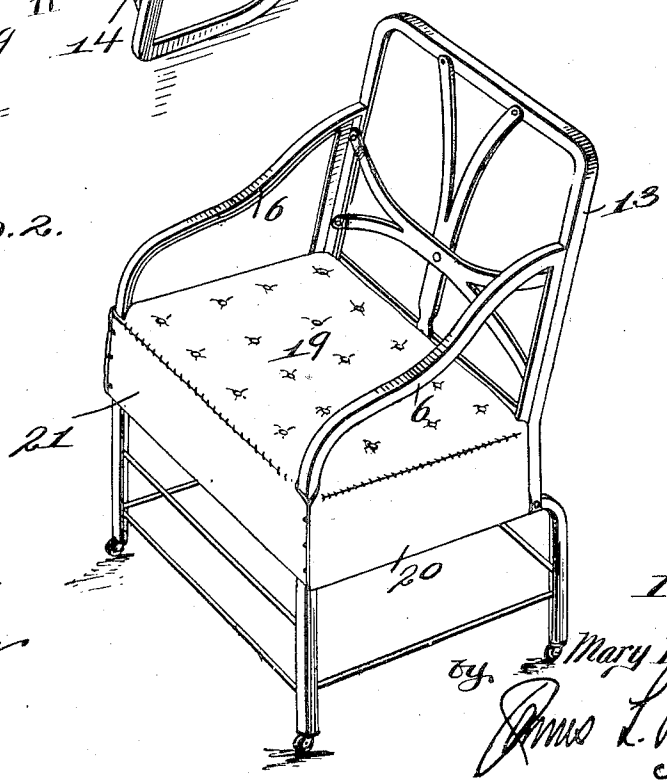


Fig. 2.



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3 SHEETS—SHEET 2.

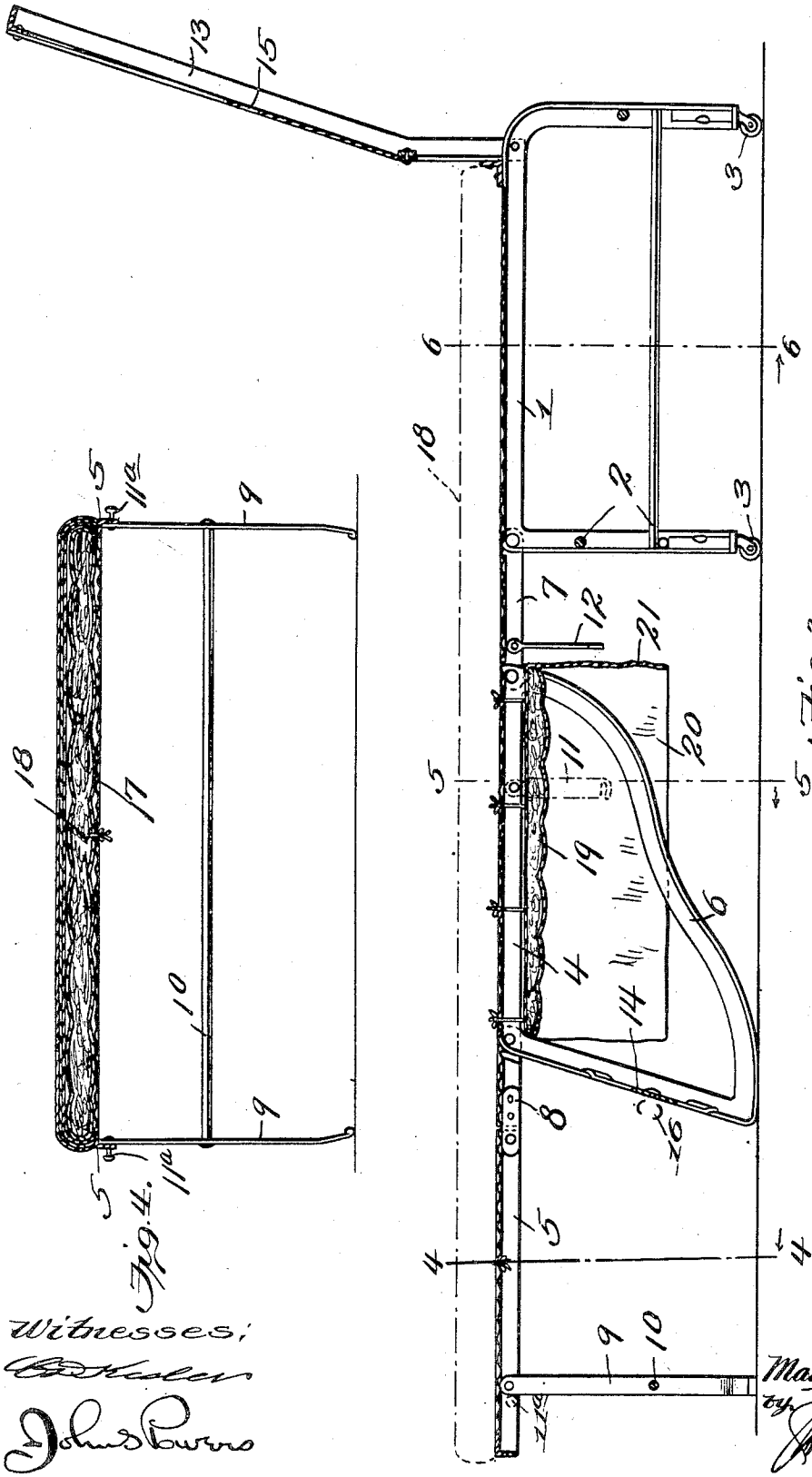


Fig. 3.

Fig. 4.

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3 SHEETS—SHEET 3.

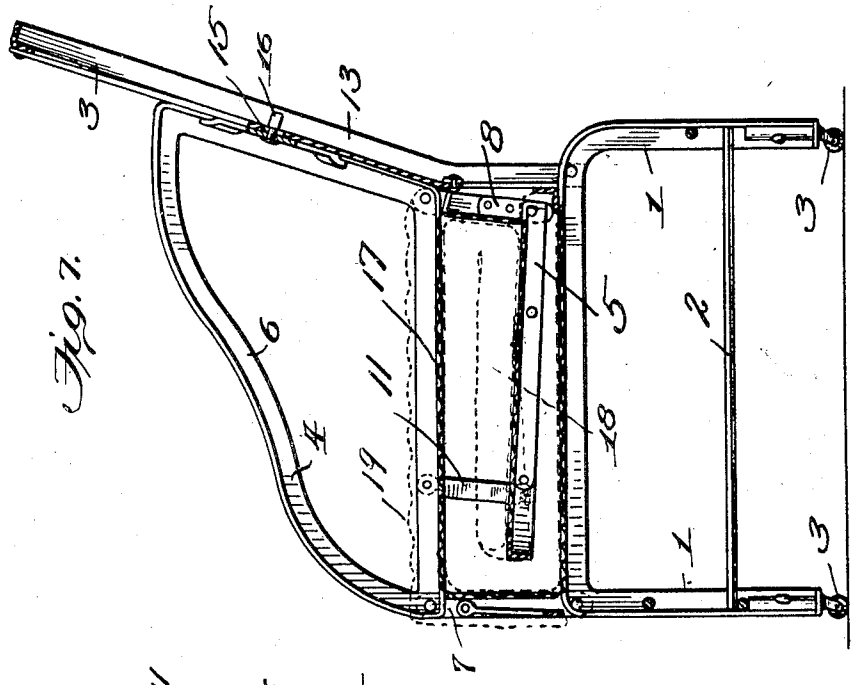


Fig. 7.

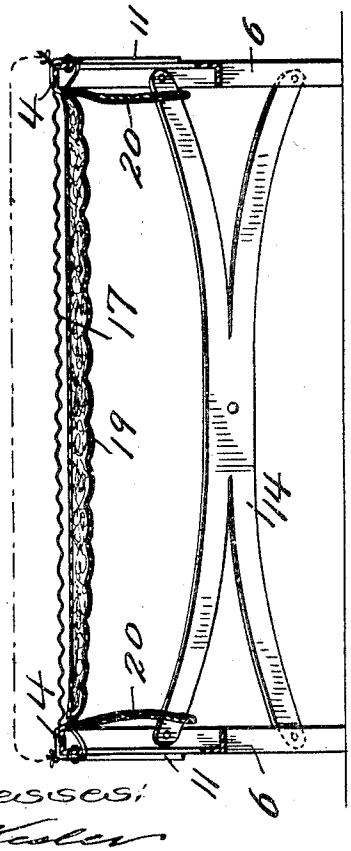


Fig. 5.

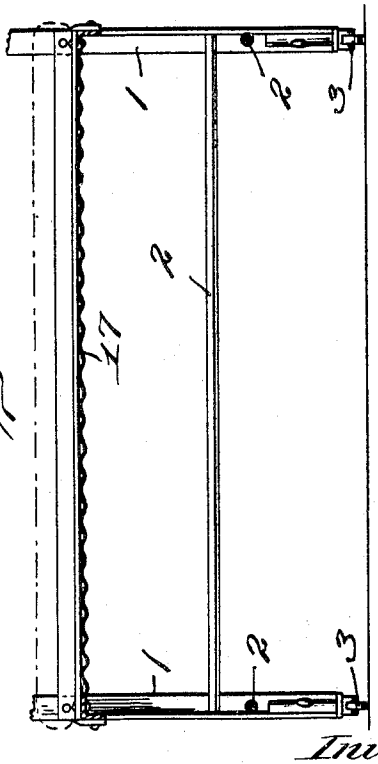


Fig. 6.

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CONVERTIBLE FURNITURE.

1,197,359. Specification of Letters Patent. Patented Sept. 5, 1916.

Application filed April 24, 1914. Serial No. 834,228.

To all whom it may concern:

Be it known that I, MARY L. EVANS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Convertible Furniture, of which the following is a specification.

This invention relates to improvements in convertible furniture and more particularly to a combination chair or divan and couch.

The principal objects of the invention are to provide an article of furniture of the character stated which may be converted from one form to another with ease and facility, requiring no special adjustments in connection with such conversion; which embodies a flexible mattress that is permanently attached to the folding sections, and requires no manipulation incident to the conversion of the article from one form to another; which may be inexpensively manufactured, since it requires no special parts or special manufacturing operations; which is exceedingly strong and durable, either as a bed or couch; which, in either form is highly sanitary; and which withal is of an attractive appearance.

An embodiment of the invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a perspective view of the article with its parts extended to provide a couch; Fig. 2 is a perspective view of the article with its parts folded to provide a chair or divan; Fig. 3 is a vertical longitudinal sectional view of the article when set up as a bed; Fig. 4 is a cross-sectional view on the line 4—4 of Fig. 3 looking in the direction of the arrow; Fig. 5 is a cross-sectional view on the line 5—5 of Fig. 3 looking in the direction of the arrow; Fig. 6 is a cross-sectional view on the line 6—6 of Fig. 3 looking in the direction of the arrow; Fig. 7 is a vertical longitudinal sectional view of the article when set up as a couch.

Similar characters of reference designate corresponding parts throughout the several views.

The construction includes a stationary section 1 made up of side members of substantially inverted U-shape, having their legs connected by suitably arranged longitudinal and transverse braces 2, and provided at their lower ends with casters 3. The construction also includes other sections and connections therebetween which are foldable relatively to one another and to the stationary section 1. The foldable sections are an intermediate section 4 and an end section 5.

The intermediate section 4 includes side members of generally triangular shape having obliquely extending bars 6 which are curved or otherwise formed to provide attractively appearing arms at the sides of the chair. The intermediate section 4 has its side members connected to the adjoining side members of the section 1 by links 7.

The end section 5 is in the form of a generally U-shaped frame and its side bars are connected to the side members of the intermediate section 4 by links 8. The side bars of the section 5 each carry a foldable leg 9 and the legs 9 are connected by a transverse brace 10. The side bars of the section 5 are provided with pins 11^a which, when the article is set up as a bed, limit the downward folding movement of the legs 9, and, when the article is set up as a couch, are engaged by links 11 pivoted to the side members of the section 4 and employed to hang the section 5 from the section 4, as shown in Fig. 7.

The links 7 carry a foldable substantially U-shaped brace 12 which, when the article is set up as a bed, depends from said links, but when the article is set up as a chair, fits between the links in co-planar relation thereto, as shown in Fig. 7, and protects the links against any inward collapse due to the weight of any person who may be sitting on the chair.

The section 1 carries at its rear side an upright frame 13 which forms a head for the bed and a back for the chair. The section 4 has its side members connected at one end of said section by a transverse member 14, and when the article is formed as a chair, the member 14 adjoins the frame 13 in a parallel plane. The frame 13 is provided at a central point with a slot 15 and the member 14 is provided with a button 16 having an enlarged head. The button 16 is introduced through the slot 15 and is given a quarter turn to prevent its retraction from said slot and to thereby lock the section 4 in folded position.

Each of the sections 1, 4 and 5 is provided with its own means of support. Thus, the side members of the section 1 by virtue of

their inverted U-shape provide stationary supporting legs for said section. The side members of the section 4 which, as above stated, are of generally triangular shape, likewise provide supporting legs for said section, as clearly shown in Fig. 3. The section 5, as above explained, is provided with supporting legs 9. When the article is formed as a bed the upper sides of the sections 1 and 4 and the section 5 are co-planar and are equidistant from the floor.

The structure is completed by a spring 17 and a mattress 18. The spring 17 may be of any suitable flat or open mesh construction capable of being folded without injury in accordance with the folding of the various parts of the article. The said spring is supported conjointly by and between the upper side bars of the section 1, the upper side bars of the section 4, the side bars of the section 5, the links 7 and the links 8. The mattress 18 rests upon said spring and is tied to the sections and to the spring at appropriate intervals.

The section 4 carries at the side of the spring 17 opposite the mattress 18, a suitably upholstered cushion 19 which provides a seat for the chair and adjacent the side bars of the section 4 carries valance strips 20 which, when the article is set up as a chair, are used in combination with a transverse valance strip 21 to conceal the horizontal bars of the sections 1 and 4 and the links 7.

The links 7 and 8, employed as connections between the sections 1 and 4 and the sections 4 and 5, support the section 4 from the section 1 when the article is set up as a chair and provide an intervening clearance or space between said sections which is taken up by the mattress and by the section 5, the latter, when in folded relation, being suspended from the frame 4 by the links 11. The mattress 18 is relatively flexible and readily folds and unfolds with the various connected parts of the article, to this end requiring no manipulation whatever.

Figs. 2 and 7 illustrate the article set up as a chair, in which relation the section 4 is inverted and its bars 6 provide arms for the chair while its back member 14 is connected by the button 16 to the stationary back 13. The section 4 is supported by the links 7 and 8 at an elevation above the section 1 which provides for the convenient folding between said sections of the section 5 and the mattress 18. The section 5, which as above explained is supported by the links 11, is thereby held in determinately spaced relation above the section 1 and its weight is thus taken from those portions of the spring and the mattress which are associated with said section 1. In the inverted relation of the section 4, the cushion 19 is above the spring 17 and, as above stated, provides a seat for the chair. The valances 20 and 21 conceal the upper part of the section 1 and all the elements which intervene and are arranged between the sections 1 and 4 and thus materially aid the appearance of the article.

To convert the article from a chair to a bed, the button 16 is manipulated to disconnect the section 4 from the upright frame 13 whereupon the section 4 is swung outwardly and downwardly to the position shown in Fig. 3. When the section 4 comes to rest on the floor the operator disconnects the links 11 from the pins 11^a and swings the legs 9 outwardly from the section 5 as far as permitted by said pins 11^a. Thereupon the section 5 is swung outwardly relatively to the section 4 until its legs 9 come to rest on the floor at which time the section 5 is co-planar with the spring-carrying portions of the sections 4 and 1.

To convert the article from a bed to a chair, the operations above described are reversed and performed in reverse order. That is to say, the section 5 is folded inwardly upon the spring-carrying flat portion of the section 4 and its legs 9 are folded against its side bars; the links 11 are hooked over the pins 11^a and the section 4, and with it the section 5 are folded inwardly upon the section 1, this movement being continued until those ends of the links 8 which are connected to the section 5 engage the upper bars of the side frames of the section 1. Thereupon the button 16 is manipulated to connect the section 4 to the section 1, in order to prevent any accidental unfolding of the sections in case the chair is inverted or turned on its side or end, as when being moved or stored away.

The various sections and their connecting links are preferably made of angle iron, as shown in the drawing. Such material is strong, inexpensive, and readily operated upon by bending and shearing machines. While the construction of the article of angle iron is preferred, it will of course be understood that the invention is not restricted to the angle iron construction of the sections.

Having fully described my invention, I claim—

1. A combination chair and couch comprising a stationary section having a fixed elevation, an intermediate section and an end section, the intermediate section having supporting legs, foldable supporting legs carried by the end section, links connecting the stationary section and the intermediate section, other links connecting the intermediate section and the end section, the links supporting the intermediate section by a distance equal to their length in spaced relation above the stationary section and the end section being foldable between the intermediate section and the stationary section, and

a mattress supporting spring conjointly carried by the several sections and their connecting links and foldable therewith.

2. A combination chair and couch comprising a stationary section having an upright transverse frame, an intermediate section and an end section, the intermediate section having supporting legs, foldable supporting legs carried by the end section, links connecting the stationary section and the intermediate section, other links connecting the intermediate section and the end section, the links supporting the intermediate section by a distance equal to their length in spaced relation above the stationary section and the end section being foldable between the intermediate section and the stationary section, means for connecting the intermediate section to the upright frame when the article is set up as a chair, and a mattress supporting spring conjointly carried by the several sections and their connecting links and foldable therewith.

3. A combination chair and couch comprising a stationary section having an upright transverse frame provided with a central opening, an intermediate section and an end section, the intermediate section having supporting legs and provided with a transverse frame having a central fastening button for coöperation with said opening, foldable supporting legs carried by the end section, links connecting the stationary section and the intermediate section, other links connecting the intermediate section and the end section, and a mattress supporting spring conjointly carried by the several sections and their connecting links.

4. A combination chair and couch comprising a stationary section having an upright transverse frame provided with a central opening, an intermediate section and an end section connected to the intermediate section, the intermediate section having supporting legs and provided with a transverse member having a central fastening button for coöperation with said opening, links connecting the stationary section and the intermediate section and a mattress supporting spring conjointly carried by the sections and their connecting links.

5. A combination chair and couch, comprising a stationary section provided at its rear side with an upright transverse frame, an intermediate section, and an end section, the intermediate section having supporting legs and provided with a transverse member which, when the article is set up as a chair, adjoins and bears against said upright frame, foldable supporting legs carried by the end section, links connecting the stationary section and the intermediate section, other links connecting the intermediate section and the end section, the links supporting the intermediate section by a distance equal to their length in spaced relation above the stationary section and the end section being foldable between the intermediate section and the stationary section, and a mattress supporting spring conjointly carried by the several sections and their connecting links and foldable therewith.

6. A combination chair and couch, comprising a stationary section provided at its rear side with an upright transverse frame, an intermediate section, and an end section connected to the intermediate section, the intermediate section having supporting legs and provided with a transverse member which, when the article is set up as a chair adjoins and bears against said upright frame, links connecting the stationary section and the intermediate section, the links supporting the intermediate section by a distance equal to their length in spaced relation above the stationary section and the end section being foldable between the intermediate section and the stationary section, and a mattress supporting spring conjointly carried by the sections and their connecting links and foldable therewith.

7. A combination chair and couch comprising a stationary section, an intermediate section, and an end section, the intermediate section having supporting legs, foldable supporting legs carried by the end section, links connecting the stationary section and the intermediate section, other links connecting the intermediate section and the end section, hanger links carried by the intermediate section to support the end section therefrom in the folded relation of the sections, and a mattress supporting spring conjointly carried by the several sections and their connecting links.

8. A combination chair and couch comprising a stationary section, an intermediate section, and an end section, the intermediate section having supporting legs, foldable supporting legs carried by the end section, pins at the sides of the end section to limit the outward swinging movement of said legs, links connecting the stationary section and the intermediate section, other links connecting the intermediate section and the end section, hanger links carried by the intermediate section to support the end section therefrom in the folded relation of the sections and having hook-like ends for engagement with said pins, and a mattress supporting spring conjointly carried by the several sections and their connecting links.

9. A combination chair and couch comprising a stationary section having a fixed elevation, an intermediate section, an end section, connecting links between the intermediate section and the stationary section and between the intermediate section and the end section, and a mattress-supporting spring carried conjointly by said sections

and links and foldable therewith, the intermediate and the end sections being foldable relatively to one another and, conjointly, relatively to the stationary section and all of the links engaging the stationary section to support the intermediate section, when folded, in spaced relation at a fixed elevation from and above the stationary section.

10. A combination chair and couch comprising a stationary section having a fixed elevation, a second section, links connecting the sections and enabling the second section to be extended into planar alinement with the stationary section or to be folded thereover, a mattress-supporting spring carried conjointly by said sections and links, and means in addition to said links engaging said stationary section for supporting the second section, when folded, at a fixed elevation above and spaced from the stationary section.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

MARY L. EVANS.

Witnesses:
JOHN S. POWERS,
CHAS. S. HYER.