A. E. IRELAN.

COMBINED DIVAN AND COUCH BED.

APPLICATION FILED APR. 23, 1913.

1,086,369. Patented Feb. 10, 1914.

2 SHEETS—SHEET 1.

FIG. 1.

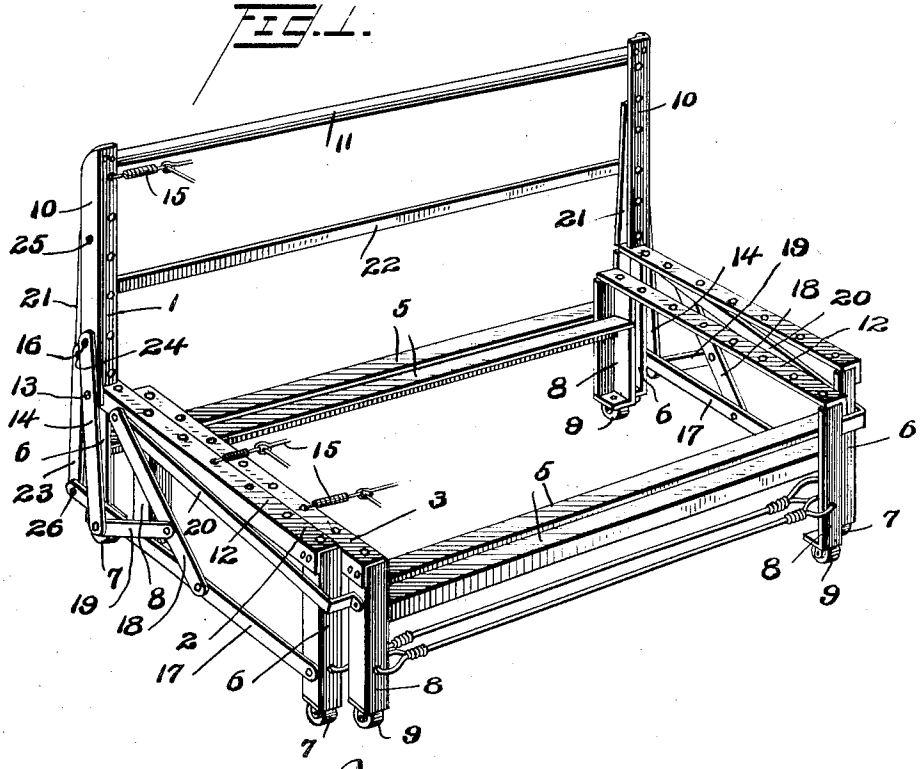
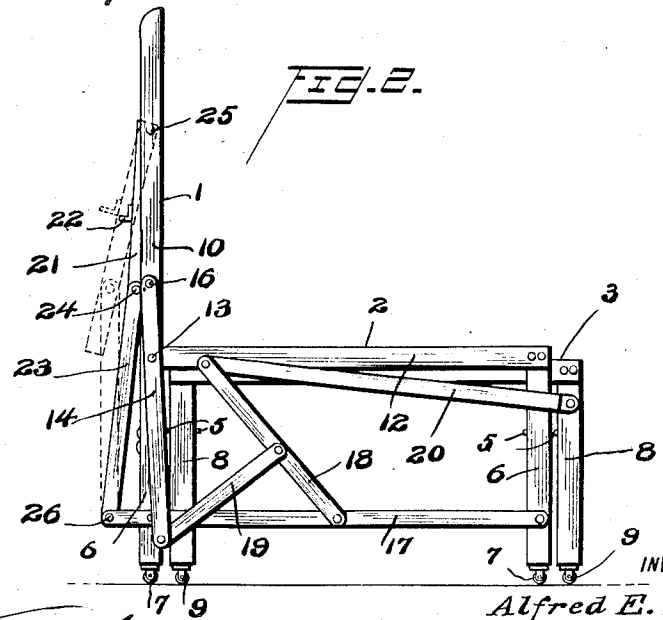


FIG. 2.



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2 SHEETS—SHEET 2.

FIG. 3.

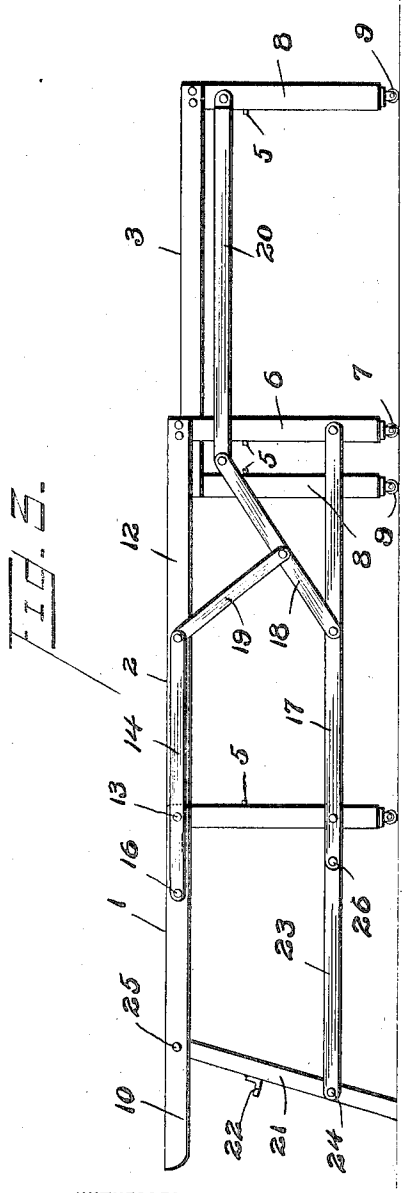
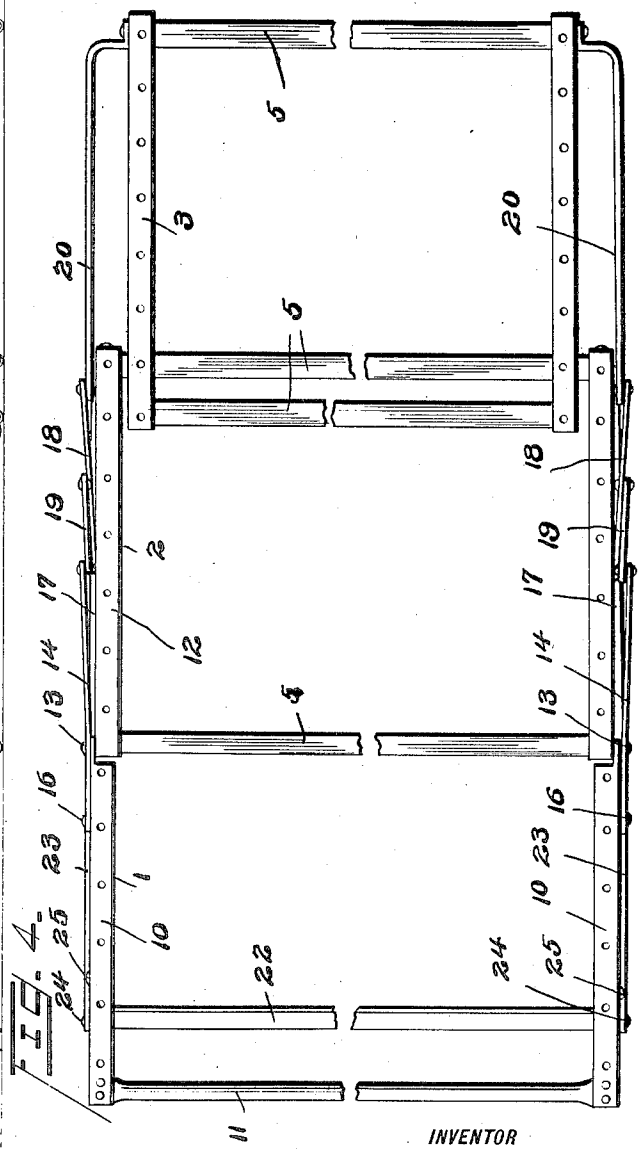


FIG. 4.



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COMBINED DIVAN AND COUCH-BED.

1,086,369. Specification of Letters Patent. Patented Feb. 10, 1914.

Application filed April 23, 1913. Serial No. 762,987.

To all whom it may concern:

Be it known that I, ALFRED E. IRELAN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Combined Divans and Couch-Beds, of which the following is a specification.

My invention relates to improvements in combined divan and couch bed which may be securely locked against accidental movement.

A further object is to provide an improved bed couch of the character stated in which that portion of the couch constituting the back of the divan operates when moved to move a sliding section, so that in operating the device, it is simply necessary to move the back section.

A further object is to provide a combined divan and couch bed which comprises three sections, one section constituting the back of the divan, and said back section having an improved arrangement of links connecting the same with a sliding or movable section, so that said back and said last-mentioned section are simultaneously moved relative to an intermediate section.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1 is a perspective view illustrating my device in position as a divan. Fig. 2 is an end view showing in full lines the normal position and in dotted lines the released or unlocked position. Fig. 3 is an end view showing the device spread out as a bed, and Fig. 4 is a plan view of Fig. 3.

My improvements comprise three sections 1, 2, and 3. The section 1 constitutes the back of the divan and one end section of the bed, the section 2 the seat portion of the divan, and the intermediate portion of the bed, and the section 3 the sliding or end section of the bed which when the parts are folded to form a divan, is positioned inside and under the intermediate section 2. The sections 2 and 3 are of general rectangular form having connecting bars 5 to hold them in rigid formation, and these bars as well as the end bars of the frame, are preferably angle irons for strength and durability, and the parts are preferably riveted together as shown. The supporting legs 6 of section 2 are mounted on casters 7, and the legs 8 of section 3 which are shorter than the legs 6, have similar casters 9.

It is of course to be understood that in connection with my improvements, I shall utilize a metallic fabric 15 which connects the end members of all three of the sections, and constitutes an elastic or spring mattress support such as commonly employed in couches of this type.

The back section 1 comprises end bars 10 connected by a bar 11, and both of the bars 10 are pivotally connected to the upper horizontal bars 12 of section 2 by means of rivets 13, so that section 1 is free to swing in the arc of a circle with the rivets 13 as pivots. To the bars 10 of section 1, arms 14 are secured. The rivets 13 above referred to constitute an intermediate connection for the arms, while other rivets 16 secure the arms 14 to bars 10, so that there is a rigid connection between the arms 14 and section 1, so that the free ends of said arms swing in the arc of a circle concentric with rivet 13. Horizontal bars 17 are securely riveted to the legs 6 of section 2 near the lower ends of said legs, and to these bars 17, links 18 are pivotally connected at one end. Links 19 connect the links 18 between the ends of the latter with the free ends of arms 14 and the free ends of links 18 are connected to the forward legs 8 of section 3 by links 20. A frame 21 is pivotally connected to the bars 10 of section 1 as shown at 25, and constitutes legs or props to support section 1 in horizontal position. This frame 21 is strengthened by a connecting angle bar 22 and links 23 pivotally connected at 26 at one end of the rearwardly projecting ends of bars 17, are pivotally connected at their other ends by rivets 24 with the frame 21. These pivots 24, as indicated most clearly in Fig. 2, enable the device to be effectually locked in its folded or divan position, because when they are forced forwardly beyond an imaginary line connecting pivots 25 and 26, the back section 1 will be effectually held in upright position. This forward movement of the frame 21 is limited by the bars 10 of frame 1. In order that

the back may swing down, it is necessary to first swing the frame 21 and links 23 rearwardly to move the pivot points 24 to the position shown in dotted lines in Fig. 2, which requires some little effort.

The operation of my device is as follows: Assuming the parts to be in the position shown in Figs. 1 and 2, and it is desired to lower the back section 1 in order to form a bed, the first step necessary is to move frame 21 so as to swing the pivots 24 rearwardly to the position shown in dotted lines in Fig. 2. Back section 1 may then be swung downwardly. This movement causes the free ends of arms 14 to swing upwardly, exerting a push upon links 19 and 18 to force the links 20 and section 3 forwardly to extend the section 3 to the position shown in Fig. 3. As the back section 1 is swung downwardly, the links 23 compel frame 21 to swing rearwardly or to the left in Fig. 3, so that when the back section 1 is in a horizontal position, the frame 21 will constitute legs or supports for the back.

To move the parts so that they will form a divan, it is necessary simply to elevate the free end of back section 1. This movement causes the arms 14 to swing at their free ends downwardly and rearwardly, the first movement will cause the section 3 to be projected forward slightly, but a continued movement will exert a pull on links 19 and 18 to draw section 3 under section 2. At the same time, links 23 will compel the frame 21 to assume the position shown in dotted lines in Fig. 2. A pressure on frame 21 in a forward direction will compel the pivots 24 to be moved inwardly or forwardly into a position beyond an imaginary line, connecting pivots 25 and 26, thereby forming an effectual lock for the parts in this divan position.

It will thus be noted that with my improvements by simply manipulating the back, I am enabled to change the device from a couch into a bed and vice versa, and that the movable section 3 is controlled entirely by the movement of the back. Furthermore, it will be noted that an effectual lock is provided for the back, so that it cannot accidentally swing downwardly, and various slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a combined divan and couch bed, the combination of three bed sections, one end section having hinged connection to the intermediate section and constituting the back of the divan, the other section movable horizonally relative to the intermediate section, pivoted links supported at the ends of the intermediate section, and links connecting said pivoted links with the end sections, substantially as described.

2. In a combined divan and couch bed, the combination of three bed sections, one end section having hinged connection to the intermediate section and constituting the back of the divan, the other section movable horizontally relative to the intermediate section, pivoted links supported at the ends of the intermediate section, arms rigidly secured to the back section, links connecting said arms with the pivoted links and other links connecting said pivoted links with the horizontally movable end section, substantially as described.

3. In a combined divan and couch bed, the combination of three bed sections, one end bed section constituting the back of the divan when in an upright position, said back section pivotally connected to the intermediate bed section, the other end bed section movable horizontally relative to the intermediate bed section, horizontal bars secured to the intermediate bed section, links pivotally connected to said bars, other links connecting said first-mentioned links with the horizontally movable end section, and means on the back section for swinging said first-mentioned links, substantially as described.

4. In a combined divan and couch bed, the combination of three bed sections, one end bed section constituting the back of the divan when in an upright position, said back section pivotally connected to the intermediate bed section, the other end bed section movable horizontally relative to the intermediate bed section, horizontal bars secured to the intermediate bed section, links pivotally connected to said bars, other links connecting said first-mentioned links with the horizontally movable end section, arms fixed to the back section, and links pivotally connecting the free ends of said arms with the first-mentioned links intermediate the ends of the latter, substantially as described.

5. In a combined divan and couch bed, the combination of three bed sections, one end bed section constituting the back of the divan when in an upright position, said back section pivotally connected to the intermediate bed section, the other end bed section movable horizontally relative to the intermediate bed section, horizontal bars secured to the intermediate bed section, links pivotally connected to said bars, other links connecting said first-mentioned links with the horizontally movable end section, means on the back section for swinging said first-mentioned links, a frame pivotally connected to

the back section, and links pivotally connecting said frame with said bars, substantially as described.

6. In a combined divan and couch bed, the combination of three bed sections, one end bed section constituting the back of the divan when in an upright position, said back section pivotally connected to the intermediate bed section, the other end bed section movable horizontally relative to the intermediate bed section, horizontal bars secured to the intermediate bed section, links pivotally connected to said bars, other links connecting said first-mentioned links with the horizontally movable end section, arms fixed to the back section, links pivotally connecting the free ends of said arms with the first-mentioned links, a frame pivotally connected to the back section, and links pivotally connecting said frame with said bars, substantially as described.

7. In a combined divan and couch bed, the combination of three bed sections, one end bed section constituting a back and pivotally connected to the intermediate bed section, the other end bed section movable horizontally relative to the intermediate bed section, pivoted links at the ends of the intermediate section, links connecting the pivoted links with the end sections, a frame pivotally connected at one end to the back section and constituting a support for the latter when in horizontal position, links pivotally connected at one end to a fixed part of the intermediate bed section, and at their other ends pivotally connected to the frame, said last-mentioned pivotal connection adapted to be moved to either side of a line connecting the pivot point of the frame and the pivot point of said link, substantially as described.

8. In a combined divan and couch bed, the combination of three bed sections, one end bed section constituting the back of the divan when in an upright position, said back section pivotally connected to the intermediate bed section, the other end bed section movable horizontally relative to the intermediate bed section, horizontal bars secured to the intermediate bed section, links pivotally connected to said bars, other links connecting said first-mentioned links with the horizontally movable end section, means on the back section for swinging said first-mentioned links, and means for locking said first-mentioned end bed section against rearward movement when in an upright position, substantially as described.

9. In a combined divan and couch bed, the combination of three bed sections, one end bed section constituting the back of the divan when in an upright position, said back section pivotally connected to the intermediate bed section, the other end bed section movable horizontally relative to the intermediate bed section, horizontal bars secured to the intermediate bed section, links pivotally connected to said bars, other links connecting said first-mentioned links with the horizontally movable end section, arms fixed to the back section, links pivotally connecting the free ends of said arms with the first-mentioned links intermediate the ends of the latter, and means for locking said first-mentioned end bed section against rearward movement when in an upright position, substantially as described.

10. In a combined divan and couch bed, the combination of three bed sections, one end bed section constituting the back of the divan when in an upright position, said back section pivotally connected to the intermediate bed section, the other end bed section movable horizontally relative to the intermediate bed section, horizontal bars secured to the intermediate bed section, links pivotally connected to said bars, other links connecting said first-mentioned links with the horizontally movable end section, means on the back section for swinging said first-mentioned links, a frame pivotally connected to the back section, links pivotally connecting said frame with said bars, whereby said frame is caused to swing as the back section is moved and constitute a support for the back section when the latter is in horizontal position, and means for locking said first-mentioned end bed section against rearward movement when in an upright position, substantially as described.

11. In a combined divan and couch bed, the combination of three bed sections, one end bed section constituting the back of the divan when in an upright position, said back section pivotally connected to the intermediate bed section, the other end bed section movable horizontally relative to the intermediate bed section, horizontal bars secured to the intermediate bed section, links pivotally connected to said bars, other links connecting said first-mentioned links with the horizontally movable end section, arms fixed to the back section, links pivotally connecting the free ends of said arms with the first-mentioned links intermediate the ends of the latter, a frame pivotally connected to the back section, links pivotally connecting said frame with said bars, and means for locking said first-mentioned end bed section against rearward movement when in an upright position, substantially as described.

12. In a combined divan and couch bed, the combination of three bed sections, one end section having hinged connection to the intermediate section and constituting the back of the divan, the other section movable horizontally relative to the intermediate section, devices connecting said end sections, means for locking said first-mentioned end bed section against rearward movement

when in an upright position, said means comprising members pivotally connected, one member pivotally connected to said first-mentioned end section, the other member pivotally connected to a fixed part of the intermediate section, and the combined length of said members slightly greater than the distance between their pivotal connections, substantially as described.

13. In a combined divan and couch bed, the combination of three bed sections, one end bed section pivotally connected to the intermediate bed section, the other end bed section movable relative to the intermediate bed section, arms fixed to the first-mentioned end section, and links connecting said arms with the last-mentioned end section, means for locking said first-mentioned end bed section against rearward movement when in an upright position, said means comprising members pivotally connected, one member pivotally connected to said first-mentioned end section, the other member pivotally connected to a fixed part of the intermediate section, and the combined length of said members slightly greater than the distance between their pivotal connections, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALFRED E. IRELAN.

Witnesses:
C. R. ZIEGLER,
S. W. FOSTER.