F. BENNETT.

SOFA BED.

APPLICATION FILED OCT. 8, 1910.

1,067,236. **Patented July 15, 1913.**

2 SHEETS—SHEET 1.

Fig. 1

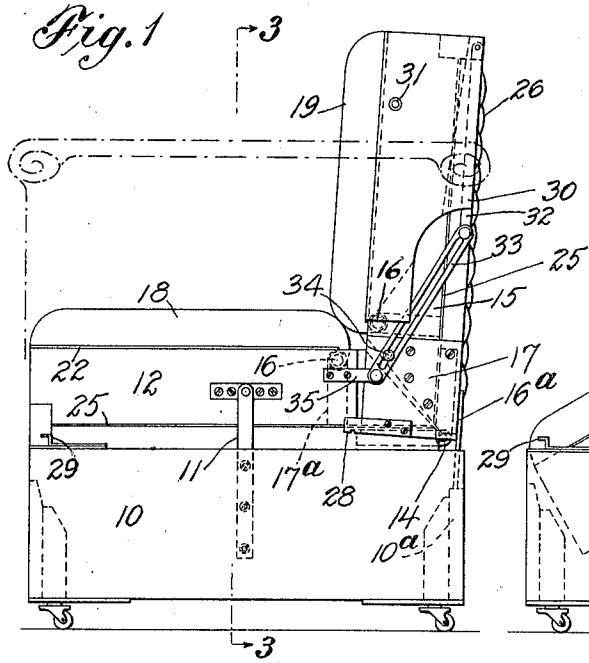


Fig. 2

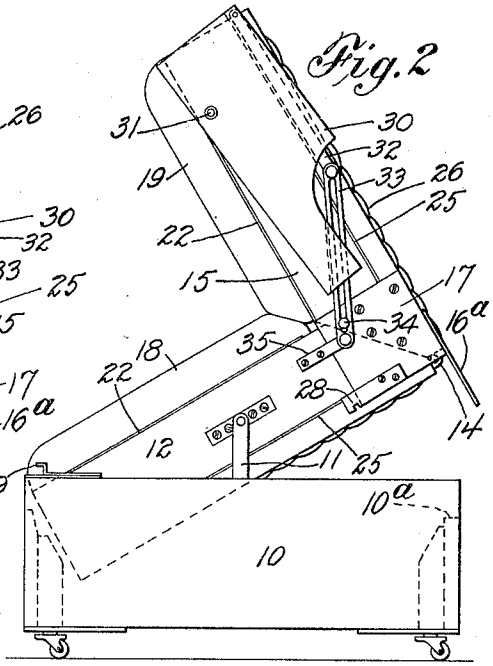
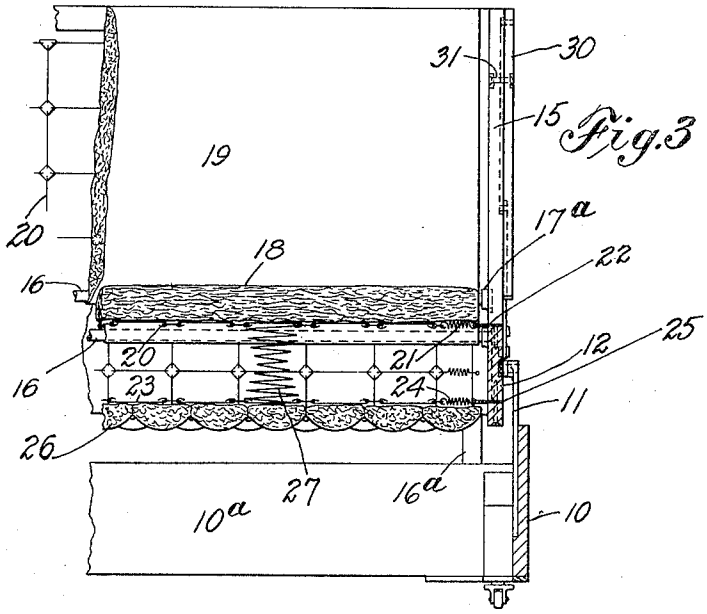


Fig. 3



Witnesses

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2 SHEETS—SHEET 2.

Fig. 4

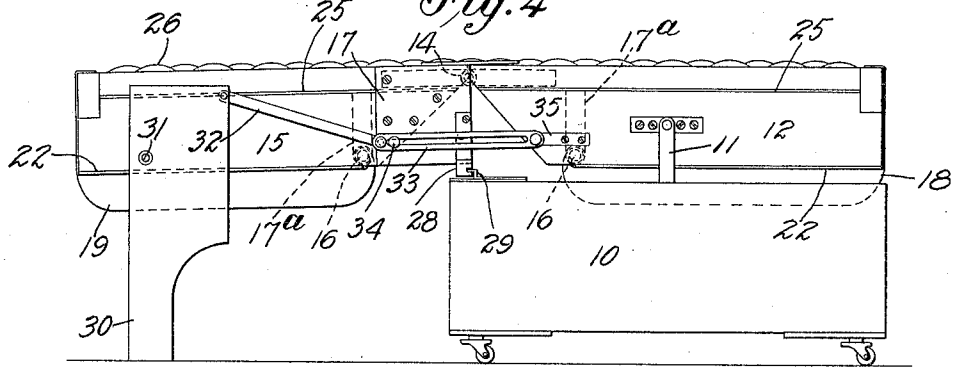
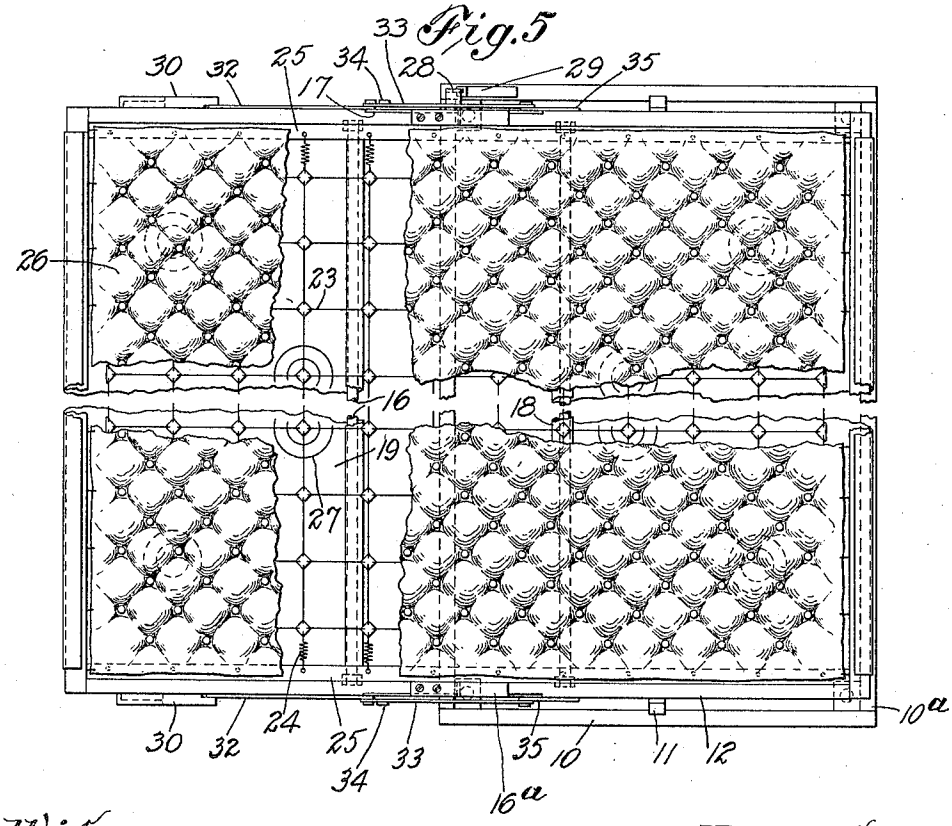


Fig. 5



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UNITED STATES PATENT OFFICE.

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SOFA-BED.

1,067,236. Specification of Letters Patent. Patented July 15, 1913.

Application filed October 8, 1910. Serial No. 585,951.

To all whom it may concern:

Be it known that I, FREDERICK BENNETT, of Ravenswood, Queens county, and State of New York, have invented certain new and useful Improvements in Sofa-Beds, of which the following is a full, clear, and exact specification, such as will enable others skilled in the art to which it appertains to make and use the same.

The underlying purpose which I have in view is to provide an improved arrangement of the parts according to which the bed and sofa surfaces will be separate and distinct from each other, allowing the sofa surfaces—seat and back—to be upholstered in the usual manner for sofas and the bed surface to be provided with a spring and mattress in the manner usual for beds. This avoids the necessity of persons sleeping on the upholstery to the injury of the same and insures a comfortable bed.

It is also an object of the invention to arrange a bed of this character so that the occupant or occupants may lie transversely of the sofa elements, thereby making a bed which will sit sidewise against the wall and not project far out into the room.

Various other features of importance are involved and all of them will fully appear hereinafter and be particularly pointed out in the claims.

Reference is now had to the accompanying drawings, which illustrate, as an example, the preferred manner of practically embodying the invention.

In these drawings:—Figure 1 represents a side view of the sofa bed in sofa adjustment with the arms removed, but indicating their outline by broken lines; Fig. 2 is a side view of the working parts showing them in the act of conversion. Fig. 3 is a fragmentary longitudinal section through the seat, showing the back in elevation; Fig. 4 is a side view showing the parts as a bed; and Fig. 5 is a plan view of the parts in the adjustment of Fig. 4, the view being broken away at the center.

The bed has a box 10, so called, constituting a base or frame and serving to mount all of the parts. To the ends of this base 10, are fastened uprights 11, preferably formed of iron bars and on these are pivoted the ends of the frame 12 of the seat member of the sofa. This frame 12 is preferably formed of wood and is beveled at its rear or inner side so that it may be joined by hinges 14 to the correspondingly beveled lower side of the frame 15 of the back member of the sofa. The back member frame 15 has at its lower ends cheek plates 17 which are fastened to the frame 15 and overlap the frame 12 when the parts are in sofa adjustment. From the lower side of the back frame 15 at each end struts 16^a project downward and, when in sofa adjustment bear on a part, 10^a, of the base to keep the seat frame 12 horizontal. The beveling of the meeting sides of the frames 12 and 15 deprives them of longitudinal support at these parts and this is supplied by brace rods 16 which are fastened rigidly to the ends of the frames, through frame plates 17^a let into the inner surfaces thereof. These brace rods are at the upper rear and lower front portions of the seat and back frames respectively and serve additional functions as will fully appear hereinafter.

Over the top of the seat frame 12, upholstering 18 is fastened as shown, it being secured to the front and end edges and at the back to the brace rod 16 of said frame. Upholstery 19 is fastened to the front of the back frame 15 by securing it to the top and sides thereof and by securing it to the brace rod 16 at the bottom. Under both sections of upholstery 18 and 19 are arranged wire supports 20, having springs 21 which are fastened to metal plates 22 in turn secured to the edges of the frames 12 and 15 under the upholstery. Extending continuously from the lower front edge of the seat frame 12 to the rear upper edge of the back frame 15 and throughout the length of the bed is a wire support 23 joined to the head and foot ends of said frame by springs 24 connected to plates 25 let into the end walls of said frames. This wire 23 supports the mattress 26 which extends over the support continuously between the ends and sides of the bed and is suitably fastened at its edges to prevent it from falling out of place when the parts are in sofa adjustment. Between the supports 20 and 23 helical springs 27 are placed, thus sustaining both upholstery and mattress according to which of them is in use.

The seat and back frames 12 and 15 are adapted to be shifted over from the posi-

tion of Fig. 1 to that of Fig. 4, as will be fully set forth hereinafter, and for the purpose of holding up the middle of the bed the cheek plates 17 are provided at their lower edges with hooks 28, which lie horizontally in sofa position, but which turn down vertically in bed position and then lock with lugs 29 on the upper front ends of the base 10. This holds the parts firmly and supports the middle of the bed. The back section forms the outer bed section and is supported in bed position by legs 30. These are formed of relatively thin wooden sections and are pivoted to the ends of the back frame 15 by pins 31. To the upper corners of the legs 30, links 32 are pivoted and these in turn are pivoted to links 33 which are slotted throughout and loosely receive in their slots pins 34 attached to the cheek plates 17. The opposite ends of the links 33 are pivoted to bracket plates 35 which are fastened to the ends of the seat section and overhang the cheek plates when in sofa adjustment.

When the parts are adjusted as in Fig. 1, the legs hang vertically at the sides of the back frame 15. As the parts are changed to the position of Fig. 4 the pins 34 slide in the slotted links 33 and swing the links so that the links 32 pull on the legs 30 and throw them crosswise of the back member to the position shown in said view. By referring to Fig. 1, it will be seen that the back stands with a slight space between its beveled lower edge and the opposing beveled edge of the seat, the upholstery of the two sections touching each other. To throw the parts over to bed position, the top of the back section should be grasped and drawn forward. This will first close the aforesaid gap between the beveled edges of the seat and back sections and allow the operator to start the movement gradually, thereby making the operation easy. The two sections now move bodily around the pivot on the brackets 11 as shown in Fig. 2 and finally take the position shown in Fig. 4. The upholstery, it may be seen, is then under the bed protected in every way and not under compression. The mattress is exposed to receive the bed clothes and furnishes an unbroken spring supported surface free from any rigid members. It should of course be understood that in practice the sides of the bed are covered by the arms indicated by broken lines in Fig. 1. These arms cover the mechanism and preserve the appearance of the furniture. The upper parts of the legs alone are exposed and these are made wide and may be finished so that the ornamental character of the furniture is not disturbed.

To return the parts to sofa adjustment a reversal of the above described operation is all that is required. The two sections first close against each other as shown in Fig. 2 and then turn bodily back to the position shown in Fig. 1.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is:

1. A sofa-bed, comprising a suitable base, a reversible seat-member centrally pivoted between the ends of the base, a reversible back-member hinged to the rear side of the seat-member, legs pivoted to the back-member, and a connecting-link having one end pivoted to the seat-member and the other end pivoted to one end of a link pivoted to the leg, whereby said leg is automatically placed in and out of operative position.

2. A sofa-bed, comprising a suitable base, a reversible seat-member centrally pivoted between the ends of the base, a reversible back-member hinged to the seat-member, legs pivoted to the back-member, connecting links having one end pivoted to the seat-member and the other end pivoted to links pivoted to the legs, whereby said legs are automatically placed in and out of operative position, and supports for the adjacent edges of the seat and back members.

3. A sofa-bed, comprising a suitable base, a reversible seat-member, a reversible back-member hinged to the seat-member, swinging legs carried by the back-member, slotted link-connections between the legs, seat and back-member, means locking the seat-member to the base, and a brace-rod providing longitudinal support for each hinged member when in bed position.

4. A sofa-bed, comprising a suitable base, a reversible seat-member centrally pivoted between the ends of the base, a reversible back-member hinged to the seat-member, legs pivoted to the back-member, slotted connecting-links having one end pivoted to the seat-member and the other end pivoted to links pivoted to the legs, pins carried by the back-member, operative in the slots of the connecting-links, and supports for the adjacent edges of the hinged members.

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

FREDERICK BENNETT.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."