Aug. 12, 1941. I. WALDMAN 2,252,310

COMBINATION CHAIR AND BED

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Fig. 1.

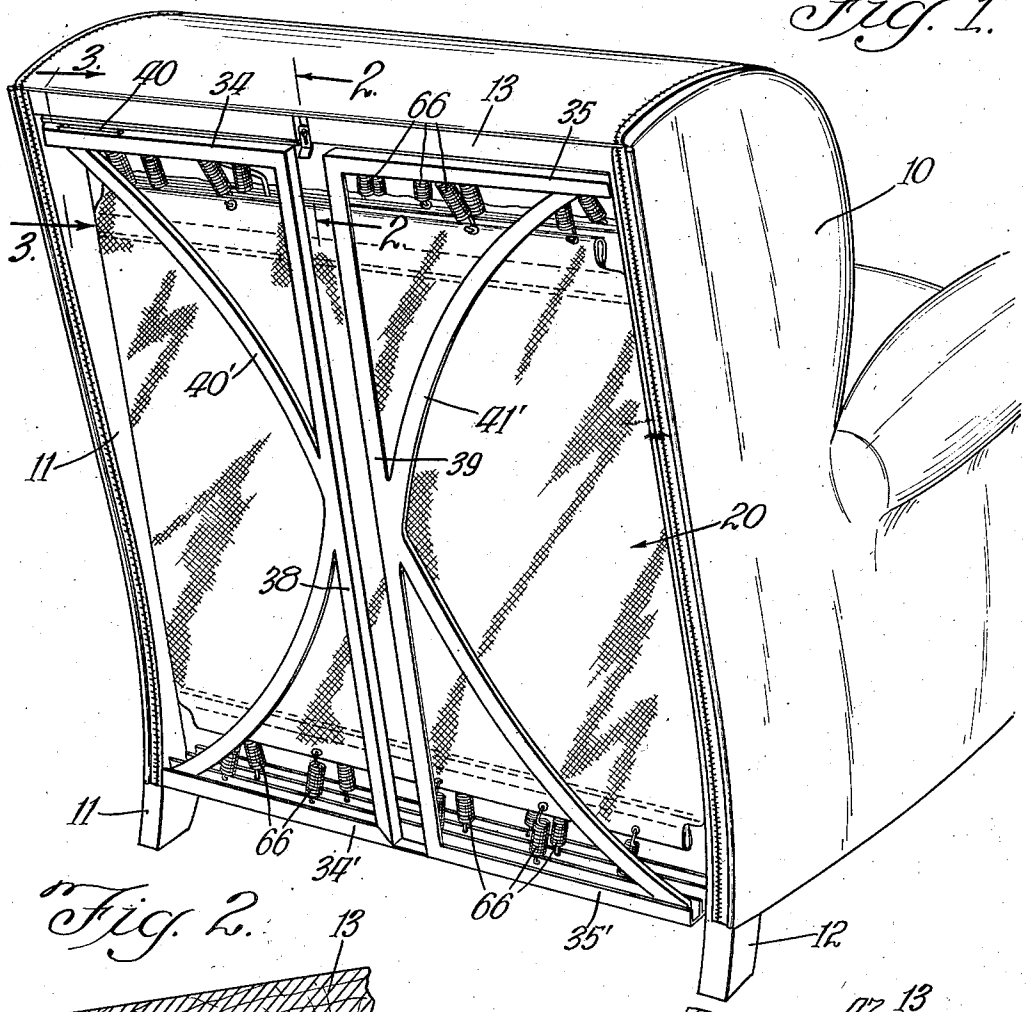


Fig. 2.

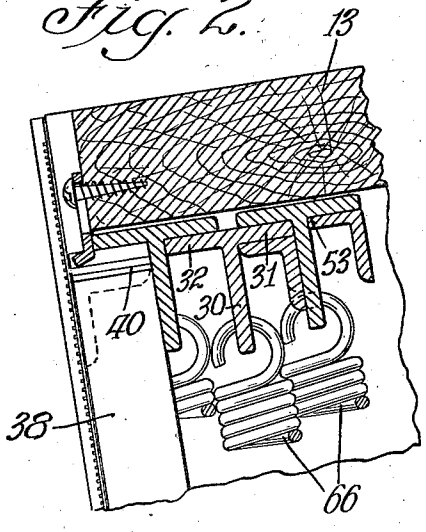
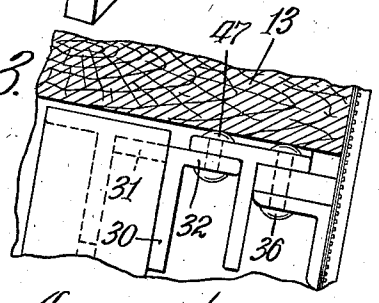


Fig. 3.



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Fig. 4.

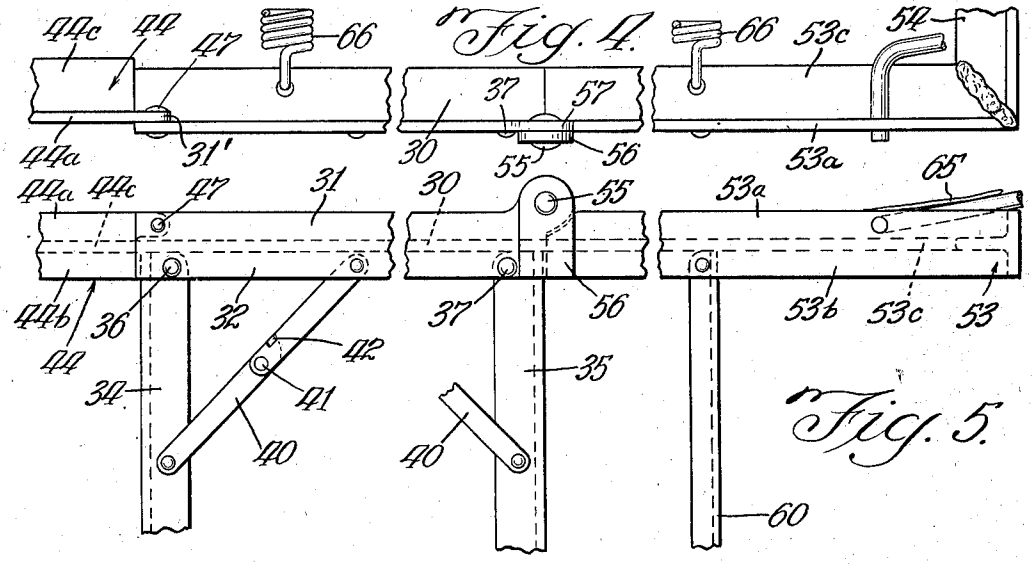
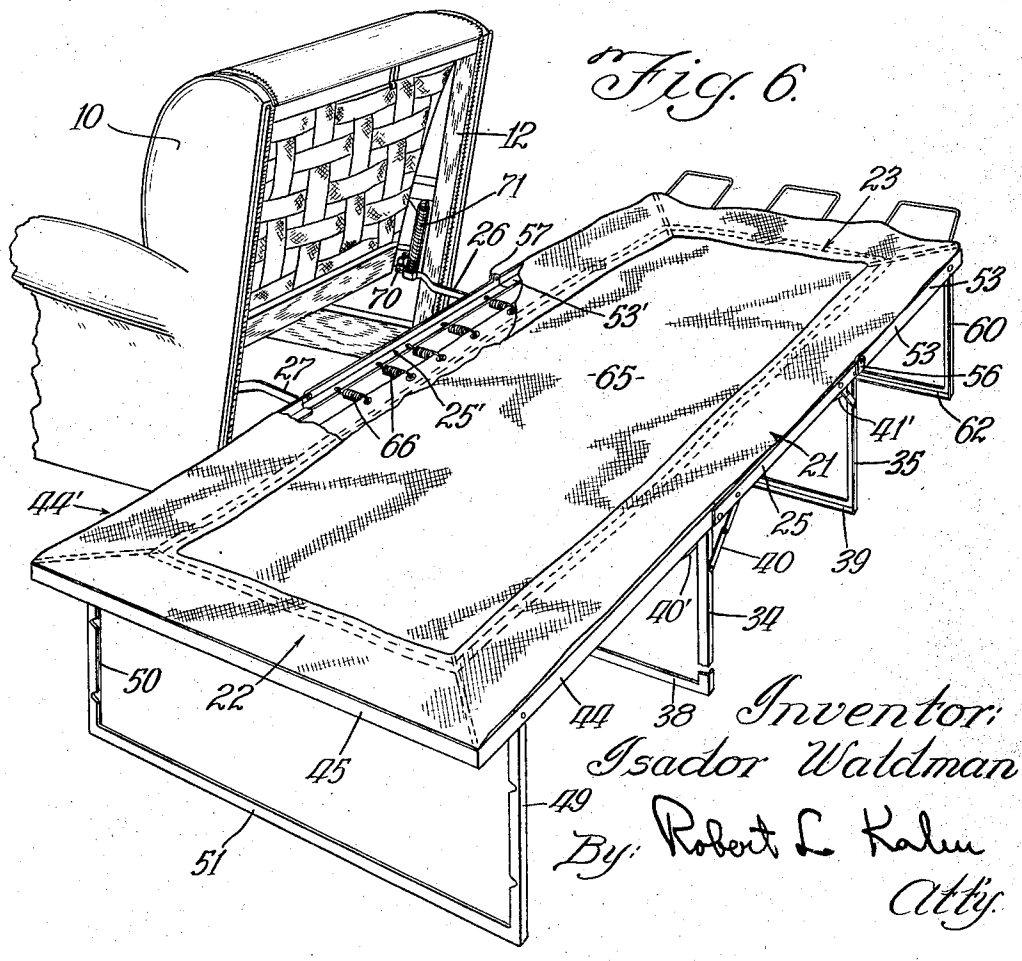


Fig. 5.

Fig. 6.



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COMBINATION CHAIR AND BED

Isador Waldman, Chicago, Ill.

Application February 12, 1940, Serial No. 318,476

1 Claim. (Cl. 155—45)

This invention relates to a combination chair and bed and particularly to a chair having a folding bed or cot removably disposed therein.

Easy chairs convertible into beds are well known. Such chairs are inherently bulky and because of bed requirements are necessarily massive. The back and seat of such chairs are customarily utilized to form a bed whose width is that of the chair. Thus the chair upholstery necessarily forms a sort of mattress for the bed.

Such a construction severely limits the design and appearance of the chair proper and results in a construction which is expensive. In hot weather, the chair upholstery is uncomfortable and the use of the upholstery in this manner limits the type of finishing material.

Because the width of the bed and chair are identical, it is evident that either the chair must be unusually wide or the bed uncomfortably narrow. The chair sides and arms at the sides of the bed are ungainly and give the bed an appearance of narrowness while making it difficult to spread bed linen and covers.

By virtue of this invention, a combination chair and bed is provided in which substantial flexibility of design in both the chair and bed are permitted. Except for a recess into which the folded bed is stored, the chair may be made in any desired manner and is susceptible to a large range of styles. The bed itself is compact and strong and may, if desired be used independently of the chair; i. e. the bed may be sold and stored as a separate article. As such, the bed is capable of being folded to occupy but little room.

In general, this invention contemplates the creation of a storage chamber within the back frame of the chair. Within this chamber, and swingably mounted therein is a compact folded cot. In practice, the cot is normally anchored to the chair and thus steadied against creepage or overturning. The width of the cot is limited only by the length of the chair back and thus may be great enough to permit substantial comfort. Furthermore, all sides of the cot are substantially free so that bedding may be disposed easily and conveniently. The chair itself, not being in use, may be utilized as a repository for the sleeper's clothes so that the entire structure functions as a complete unit from the point of view of a fully clothed person desiring to sleep.

Referring to the drawings:

Figure 1 is a view in perspective of a chair having the cot folded up out of use;

Fig. 2 is a sectional detail on line 2—2 of Fig. 1;

Fig. 3 is a sectional detail on line 3—3 of Fig. 1;

Fig. 4 is a plan detail of one side of the top frame;

Fig. 5 is an elevation of the portion of the top frame shown in Fig. 4; and

Fig. 6 is a perspective view of a chair and the cot ready for use.

A chair 10 of any desired style and having a frame and any desired upholstery and finish, has a rear frame portion including a pair of generally vertical posts 11 and 12, the bottoms of which form the rear legs for the chair. The upper portions of posts 11 and 12 are rigidly supported in spaced relation by a cross-piece 13. Within the space outlined by vertical posts 11 and 12 and crosspiece 13 is a free region within which is stored a cot generally designated as 20.

The cot is divided along transverse lines into a center section 21 and end sections 22 and 23 respectively. The center section 21 of the cot includes a pair of spaced parallel T-shaped frame members 25 and 25'. Portion 25' has rigidly attached thereto a pair of arms 26 and 27 constituting the pivotal connection with the chair. Otherwise, both sides 25 and 25' of the section are identical. In fact, the full sides of the cot are the same and in order to prevent unnecessary description only one side of the cot will be described in detail.

As previously pointed out, frame portion 25 has a generally T-shaped section and consists of a web portion 30 and flange portions 31 and 32. It is understood, of course, that this and other portions of the frame of the cot are fabricated of steel or any other suitable material having desired characteristics.

At each end of flange portion 32 are pivotally mounted legs 34 and 35 at points 36 and 37 respectively. The bottom ends of legs 34 and its mate 34' are joined by a crosspiece 38 while a similar crosspiece 39 is provided for legs 35 and 35'. It is understood that these legs and crosspieces are made of steel and preferably have an L cross-section to provide a wide resting surface. In order to brace the leg portions of the center section and particularly to prevent the vertical portions 34 and 35 and their mates from spreading, metal bows 40' and 41' are provided. As clearly shown in Fig. 1 these bows extend from the upper portions of the legs proper and sweep down to and merge with a portion of the center of the crosspieces 38 and 39.

Inasmuch as the greater load is applied to the supports for the center section 21 of the cot, it is preferred to provide a positive locking means to prevent the leg portions of the center

section from collapsing or folding up accidently. For this purpose each leg portion is provided with well known means consisting of links 40 breakable at pin 41 and provided with a suitable locking lug 42.

End section 22 of the cot has side frame portions 44 and 44' and end frame portion 45 all of pressed steel and preferably having similar cross-sections as frame portion 25, namely a T-section with flanges 44a and 44b and a web 44c. The end portions of frame sections 44 and 44' are pivoted to frame sections 25 and 25'. Thus referring to the frame section 44, a pivot pin 47 is disposed in upper flange portions 31 and 44a at the ends thereof. It will be noted that, when extended, frame section 44 is not directly in line with frame section 25 but is offset inwardly a distance substantially equal to the thickness of flange portion 31 although the webs may be aligned. Section 22 of the cot is provided with a support consisting of legs 49 and 50 connected by a cross member 51. This support structure is pivotally mounted on section 22 near the end thereof.

Section 23 of the cot is similarly provided with frame sections 53 and 53' connected by a cross piece 54. The frame has a general T-section with flanges 53a and 53b and web 53c. It will be noted that frame section 55 is in line with section 25 and when extended out as shown in Fig. 5 forms a continuation of the frame section 25 of the center section. Section 23 of the cot is pivotally mounted on the center section 21 by means of pins 55. These pins are mounted in lugs 56 and 57, which as clearly evident in Fig. 4, are off-set from the body portion of flanges 31 and 53a so that the pivot pin 55 is substantially parallel to the webs 30 and 53c and disposed approximately at the upper edge of flange 31. End section 23 is provided with a supporting means consisting of legs 60 and 61 and a cross piece 62.

It is understood that the various cooperating surfaces at the pins are suitably shaped to provide satisfactory hinge action.

By virtue of this disposition of the side frames of the end sections 22 and 23 relative to the center section 21, a compact folding of the cot is assured. Thus, for example, by reference to Fig. 2, it will be noted that frame section 25 of the center section is on one side of the folded bed and frame section 53 of the end section 23 is on the other side, while frame section 44 is disposed between the two frame sections and off-set from the two flange portions of the end frame. In this way flange portions 44a and 44b of frame portion 44 may nest right under the overhanging flange portion of the other two frame portions 25 and 53. It is clear that by virtue of this arrangement the thickness of the cot when folded is substantially equal to the combined dimensions of the flanges of frame sections 25 and 53.

Section 23 of the cot is provided with a plurality of pillow rests 64 pivotally mounted on the cot frame. The entire cot frame may be provided with a heavy canvas or other material 65 supported at spaced intervals by coil springs 66 threaded at various places in the frame.

In order to make it easier to move the assembled cot in and out of the chair, arms 26 and 27 connecting the cot with the chair are suitably pivoted at points 70. A coil spring 71 has one end suitably mounted to a portion of the chair frame and the other end connected to a point on each of arms 26 and 27. By suitable adjustment of the spring tension a predetermined amount of the weight of the entire cot may be eliminated as far as lifting of the cot is concerned.

It is understood, of course, that sections 21 and 23 of the cot which are on the outside when the cot is in a folded position need not necessarily have the form as shown. Thus, the cross section of the frame of these two sections might be angular rather than T-shaped as shown with the flanges on the outside of the folded cot being eliminated.

It is also possible to form the frame of each cot action of tubular steel, with the tubes offset from each other in the manner shown.

What is claimed, is:

A foldable cot comprising a center section having side frame members of a T-section with flanges forming the top of the T and a web, end sections for said cot having frames with a similar cross section and foldable along transverse axes, the web of the frame lying in a horizontal plane when the cot is extended, the flanges of said first end section being offset from the flanges of said center section by a distance substantially equal to the thickness of said flange material, said first section being foldable first and immediately against said center section, said second end section having the flanges thereof in line with the flanges of said center section but adapted when folded to be in line with the flanges of said center section but spaced therefrom in edge to edge relation substantially whereby when said sections are folded the various T-sections of said frame-work nest together.

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