

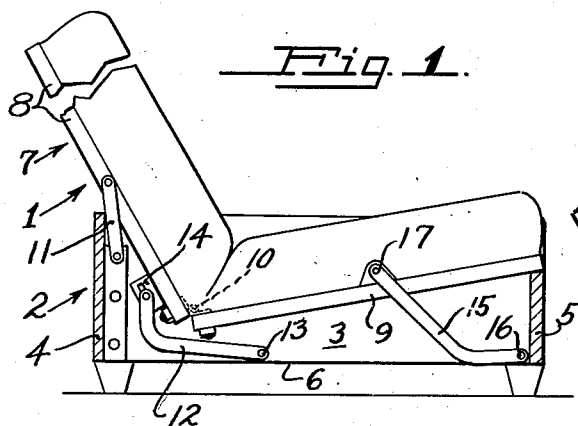
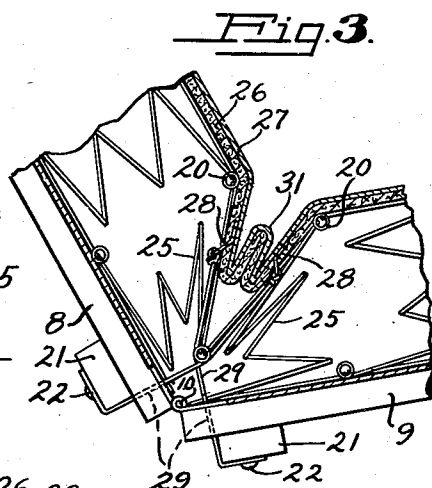
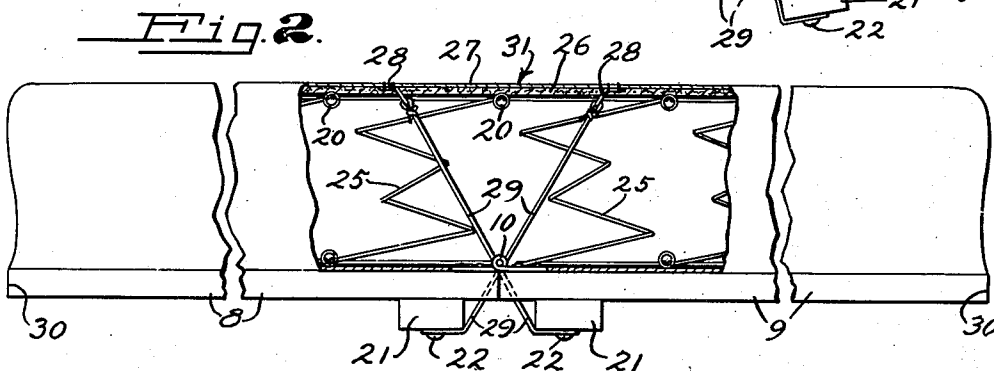
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DIVAN BED

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DIVAN BED

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3 Claims. (Cl. 5-47)

The present invention relates to divan beds and this application is an improvement of my prior application, Serial Number 202,480, Patent No. 2,249,266, and is particularly intended for use with the structure shown in my still earlier application, Serial Number 124,050, since issued into Patent No. 2,248,603. The principal object of the invention is to provide a device of this character which may be readily converted from a divan into a bed and vice versa.

A further object of the invention is to provide a divan bed which when used as a divan provides a relatively low seat so as to permit the use of loose cushions for building it up to normal seating height, but which when converted into a bed raises the seat to bring it up to convenient bed height.

It is further proposed to provide suitable operating mechanism for the divan bed which allows changes to be effected with a minimum of effort.

And finally it is proposed to provide a mattress or upholstery for the divan bed in which the cover is anchored with concealed anchorage in such a manner that it is stretched taut and forms an even surface whether the device is used as a divan or a bed.

While the term divan is commonly used to signify a body rest of the sofa type, with room for two or three persons, it should be understood the principles of the present invention apply also to a single seat body rest, such as a chair.

Further objects and advantages of my invention will appear as the specification proceeds.

The preferred forms of my invention are illustrated in the accompanying drawing in which:

Fig. 1 shows a side elevation, partly in section of my divan bed,

Fig. 2, a detail view, partly in section, disclosing upholstery construction used in my invention,

Fig. 3, a fragmentary sectional detail view of the hinged portion of the divan bed showing the upholstery in partly collapsed condition.

While I have shown only the preferred forms of my invention I wish to have it understood that various changes or modifications may be made within the scope of the claims hereto attached without departing from the spirit of the invention.

In the form shown in Figures 1-3 the divan bed 1 comprises a main frame 2 consisting of two side pieces or arm rests 3, a rear member 4 and a front member 5, the latter being some-

what lower than the former and both cooperating with the arm rests in forming a rectangular box 6. It also comprises a movable mattress frame 7 which latter is made in two sections 8 and 9 which will be referred to hereinafter as the back and seat sections respectively and which have a hinged connection at 10. The hinge is arranged to allow the two sections to assume a position of angularity as in Fig. 1 and to swing into positions of partial or full alinement as in Figure 3, as far as the upholstery is concerned.

The back section receives its principal support in two links 11 which are pivoted, at their lower ends, to the side pieces 3 and at their upper ends to the back section intermediate its height. When the back section is in upright position, as in Fig. 1 the two links are also substantially upright and lean against the rear member 4 of the main frame. From this position they are able to move into a forward slanting position.

For guiding the lower portion of the back frame I provide another pair of links 12 which are pivoted to the side pieces as at 13 and to slotted brackets 14 disposed on the back frame near the hinged connection. These links are capable of swinging from the slightly inclined position of Fig. 1 into substantially vertical position, and when in the latter position, form a prop for the center portion of the extended bed near the hinge.

The seat section is guided by a pair of links 15 which are pivoted, at one end, to the side pieces 3 near the front member 5, as at 16, and at their other end to a substantially central portion of the seat frame as shown at 17. These links are movable from the slightly inclined position of Fig. 1 to a substantially vertical position.

The upholstery used for the combination seat and back is illustrated in Figs. 2 and 3. It includes conventional springs 25 superimposed on the frame sections, 8 and 9, padding 26 on the springs and a single cover 27 for the cover. The springs may be interconnected by cross-ties or pig-tails 28 of conventional construction. The specific novel feature of my construction is the manner in which the cover 27 is secured so as to remain taut during bending operations. The two inner sets of springs, in the hinge region, are placed so as to be on opposite sides of the vertical plane of the hinge. Spaced from the said plane by a few inches each way I attach strong strips of tape 28 to the underside of the cover and secure a number of strong cords 29 to the strips. These cords, during the manufacture of the mattress are passed through the padding and

are secured to the frame sections, adjacent the hinge connection, preferably in such a manner that the cords diagonally cross the vertical plane of the hinge. In the latter position the intermediate part of the cover will usually fold into the shape of a W as shown.

Thus the strips 28, which might be considered the front edge of the back and the rear edge of the seat respectively are firmly and independently anchored to the frame sections and cooperate with the conventional fastening means along the front and rear edges of the mattress, indicated at 30, in stretching and tightening the cover material upon the back and seat sections independently, regardless of whether the intermediate cover piece 31 is stretched as in Fig. 4 or is folded as it would be in the position of Fig. 1.

To convert the device from the position of Fig. 1 into a bed only a slight backward pressure on the top of the back or a slight upward pull on the front edge is required. In response to either movement the back and seat will easily glide into a position of horizontal alinement with one another. The back, as a whole, will be slightly lower due to the downward travel of the links 11 and the seat will be raised so as to bring both back and seat to the elevation desirable for a bed.

When the back and seat are thus brought into a position of horizontal alinement, the surface of the upholstery or mattress is perfectly smooth as shown in Fig. 2. When the back and seat are then returned to a position of angularity, the central or intermediate portion 31 of the cover normally would have a tendency to bulge outwardly, due to the action of the springs, but this tendency is opposed by the anchoring cords 28 which have a tendency to pull the central portion of the cover inwardly. The latter will usually fold itself into the W-shape indicated in Figure 3 which causes the surplus material to be accommodated within the angle formed by the back and the seat.

I claim:

1. A folding mattress of the character described, comprising front and rear frame sections having hinged connection for movement between positions of angularity and of relative alinement, uniform upholstery for the two frame sections extending throughout the lengths thereof and including rows of springs mounted on opposite sides of the hinged connection and an overlying

cover secured to the free front and rear edges of the frame sections respectively, spaced reinforcing strips attached to the cover on opposite sides of the vertical plane of the hinged connection and cords connecting the reinforcing strips to the frame sections adjacent the hinged connection and with a pulling effect toward one another for maintaining the cover stretched taut over the two sections during bending operations.

2. A folding mattress of the character described, comprising front and rear frame sections having hinged connection for movement between positions of angularity and of relative alinement, uniform upholstery for the two frame sections extending throughout the lengths thereof and including rows of springs mounted on opposite sides of the hinged connection and an overlying cover secured to the free front and rear edges of the frame sections respectively, spaced reinforcing strips attached to the cover on opposite sides of the vertical plane of the hinged connection and cords connecting the reinforcing strips to the frame sections adjacent the hinged connection for maintaining the cover stretched taut over the two sections during bending operations, the cords being arranged to diagonally cross the vertical plane of the hinge connection.

3. A mattress comprising two frame sections, hinges connecting the sections together and arranged substantially in the plane thereof, springs arranged in rows on opposite sides of the hinges and having upper edges contacting along the vertical plane of the hinges, a cross-tie interconnecting the said contacting upper edges, means securing the springs to the sections, the latter being swingable into angular and alined relation with respect to each other, the adjacent rows of springs on opposite sides of the hinges being free to flex inwardly of the mattress when the frame sections are swung into angular relation, a padded cover for the springs to provide a sleeping surface, and flexible stay means connected to the sections adjacent said hinges, and connected to the cover on opposite sides of the hinges, a portion of the padding being adapted to be forced into the space between the rows of springs when the sections are moved into angular relation, said portion of padding and the flexed springs cooperating in urging the members into realinement by their tendency to expand.

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