

[54] RESILIENT PLATFORMS FOR SEATING

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[58] Field of Search..... 297/452, 457, 385; 5/354

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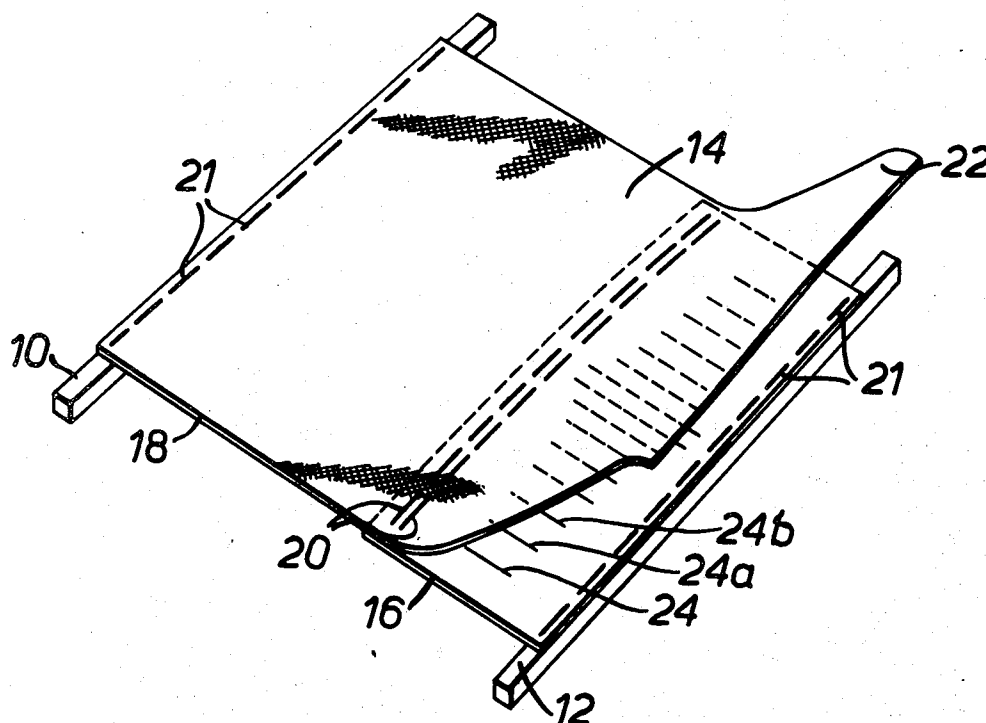
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ABSTRACT

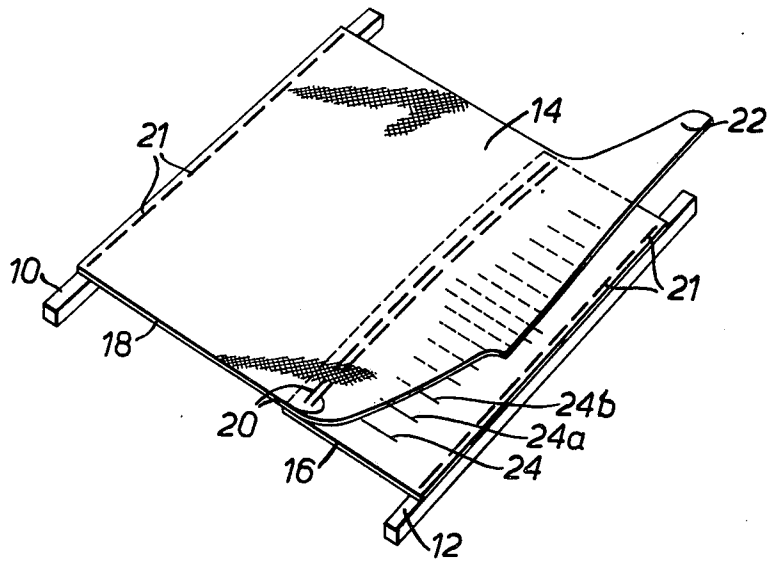
A resilient seating platform comprises a sheet of elastic material having one edge for securing to one edge of a seat frame and a sheet of non-elastic material secured along an opposite edge of the elastic sheet, the non-elastic sheet having an edge, generally parallel to said opposite edge of the elastic sheet, for securing to an opposite edge of the seat frame, to place the elastic sheet under tension. The non-elastic sheet is secured to said opposite edge of the elastic sheet along a line intermediate its own opposite edges and the portion of the non-elastic sheet remote from said one edge thereof covers the elastic sheet and is attached to said one edge of the seat frame whilst permitting elastic extension of the elastic sheet in use.

5 Claims, 1 Drawing Figure



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RESILIENT PLATFORMS FOR SEATING

BACKGROUND OF THE INVENTION

The present invention relates to a resilient platform for use in seating, particularly domestic furniture.

It is known to provide resilient platforms both in the seat panels and in the back panels of domestic seats, the platforms being attached to a framework which is generally of wood. The attachment of each platform is made, for example, along a pair of opposite edges of the platform. The platforms usually provide bases for respective seat and back cushions of the furniture. Known platforms include combinations of elastic and non-elastic sheets arranged so that the elastic sheet is stretched under tension when applied to the seat frame. All of these have various drawbacks in that they comprise a plurality of sheets and other elements and are time consuming to manufacture and apply to the seat frames. Again, some such platforms require skilled labour and complicated apparatus to manufacture or to apply to the seat frame.

It is an object of this invention to provide a resilient seating platform which comprises a minimum of components, which uses inexpensive components, which is simple and quick to manufacture and to apply to the seat frame and which does not require skilled labour or complicated apparatus to manufacture and install.

SUMMARY OF THE INVENTION

As seen from one aspect, this invention provides a resilient seating platform comprising a sheet of elastic material having a free edge for securing directly to one edge of a seat frame and a sheet of non-elastic material secured along an opposite edge of the elastic sheet, the non-elastic sheet having one edge, generally parallel to but spaced from said opposite edge of the elastic sheet, for securing directly or indirectly to an opposite edge of the sheet frame to place the elastic sheet under tension.

Preferably the non-elastic sheet, for example of canvas, is secured to said opposite edge of the elastic sheet along a line intermediate its own opposite edges. This is so that the platform may be attached to the seat frame with the portion of canvas remote from said opposite edge of the seat frame covering the elastic sheet and attached to said one edge of the frame, although that portion of canvas must be of surplus width to allow elastic extension of the elastic sheet in use. The canvas sheet thus provides a full cover for the seat panel or back panel of the seat.

Preferably also, the sheet of elastic material is slit along a number of parallel lines perpendicular to the opposite edges thereof, and the length of the slits and/or the spacing between adjacent slits varies across the elastic sheet so as to impart a controlled degree of resilience from side-to-side. For example, it is desirable to achieve a greater degree of elasticity towards the centre of the platform than towards the sides.

As seen from a second aspect, the invention provides a resilient seating platform comprising a sheet of elastic material having one edge for securing directly or indirectly to one edge of a seat frame and a sheet of non-elastic material secured along a line, generally parallel to but intermediate its own opposite edges, to an opposite edge of said elastic sheet, the non-elastic sheet having one edge for securing directly or indirectly to an opposite edge of the seat frame to place the elastic sheet

under tension, the portion of said non-elastic sheet remote from said one edge thereof being dimensioned to cover the seat frame whilst permitting elastic extension of the elastic sheet in use.

BRIEF DESCRIPTION OF THE DRAWINGS

An embodiment of the invention will now be described, by way of example only, with reference to the accompanying drawing, which is a perspective view of a resilient platform at an intermediate stage in its attachment to a seat frame.

Referring to the drawing, there is shown front and rear members 10 and 12 of a wooden seat frame together with a resilient platform 14. The platform comprises a sheet of elastic material 16 having one edge, in the example shown a free edge, secured to the rear member 12 of the frame and a non-elastic sheet 18, for example canvas, attached to an opposite edge of the elastic sheet, for example by a double row of stitching 20. The canvas sheet is secured along one edge thereof to the front member 10 of the frame such that the platform is placed under tension. The canvas sheet and elastic sheet may be secured to the members 10 and 12 of the frame by any convenient means for example by tacking or, as shown, by driving staples 21 directly into the wooden frame.

In the embodiment shown, the canvas sheet 18 is secured to the elastic sheet 16 along lines intermediate the two opposite edges of the canvas sheet. A portion 22 remote from the member 10 of the frame is intended to cover the elastic sheet 16 and be attached to the member 12 of the frame, leaving surplus canvas between member 12 and the lines of stitching 20 to accommodate elastic extension of the elastic sheet 16. In this way the canvas sheet provides full cover for the seat panel.

The elastic sheet 16 preferably comprises an integral sheet having two plies of rubberised cord fabric, in which the two plies are vulcanised together with the cord fabric cut on the bias and at inclined angles in the respective plies. Such a sheet is described in British patent specification No. 661,487. This imparts to the sheet a limitation on the degree of extension under tension.

Preferably also, as shown in the drawing, the elastic sheet is slit along a number of parallel lines 24, 24a, 24b . . . perpendicular to the frame members 10 and 12. The distance between adjacent slits varies across the elastic sheet so as to impart a controlled degree of resilience from side-to-side. In the example shown, a greater degree of elasticity is achieved towards the centre of the platform than towards the sides in that the slits immediately adjacent the sides are spaced further from the sides than the spacing between adjacent pairs of slits. Variations in resilience across the elastic sheet may also or alternatively be achieved by selecting the lengths of the slits.

It will be appreciated that in some cases the appropriate edge of the canvas sheet and/or of the elastic sheet could be secured to the frame indirectly, that is to say through a further sheet of material, that further sheet being secured along one edge thereof to the appropriate edge of the canvas or elastic sheet and secured along an opposite edge thereof to the frame: in the embodiment shown in the drawing, the appropriate edges of the canvas and elastic sheets are secured directly to the seat frame, that is to say without provision of any

such further sheets. It will also be appreciated that the platform could be used for a back panel instead of a seat panel.

I claim:

1. A unitary, resilient seating platform comprising:
 - a. a seat frame having two parallel frame members,
 - b. a single sheet of elastic material having a first edge secured directly to one of said frame members, and an opposite edge; and
 - c. a single sheet of non-elastic material having first and second opposite edges;
 in which said sheet of non-elastic material is secured, along an attachment line generally parallel to but intermediate its said first and second opposite edges, to said opposite edge of said elastic sheet, said sheet of non-elastic material has its said first opposite edge secured directly to the other frame member to place the elastic sheet under tension and its said second opposite edge attached to said one frame member, in which the distance between said second edge of said non-elastic sheet and said attachment line to said elastic sheet is greater than

the distance between said first edge of said elastic sheet and said attachment line when said elastic sheet is unstretched, so as to permit elastic stretching of said elastic sheet in use, and the width of said sheets transversely of said edges is equal to at least the greater part of the length of said frame members.

2. A resilient seating platform as claimed in claim 1, in which the sheet of elastic material is slit along a number of lines generally in the direction transverse to said opposite edges thereof.

3. A resilient seating platform as claimed in claim 2, in which the length of the slits varies from side to side of the elastic sheet.

4. A resilient seating platform as claimed in claim 2, in which the spacing between adjacent slits varies from side to side of the elastic sheet.

5. A resilient seating platform as claimed in claim 2, in which the slits are arranged to provide a greater degree of elasticity towards the centre of the platform than towards the opposite sides.

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