June 3, 1958 M. HELLER 2,837,144

FURNITURE BACK WITH CUSHION UPHOLSTERY

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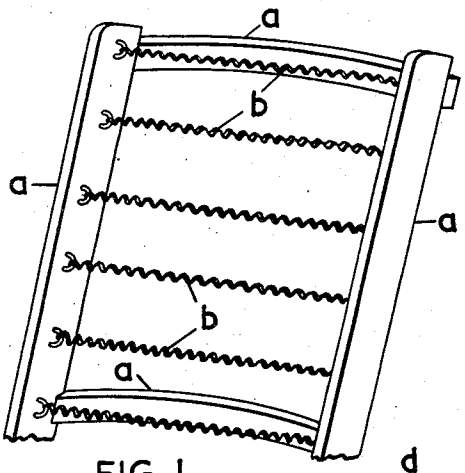


FIG. 1.

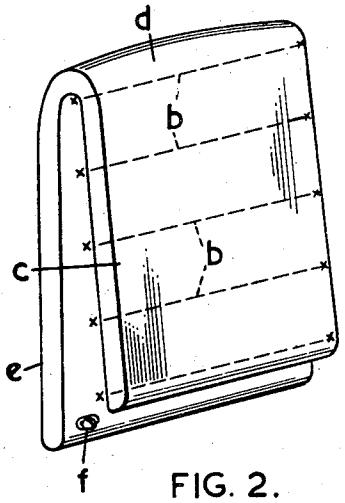


FIG. 2.

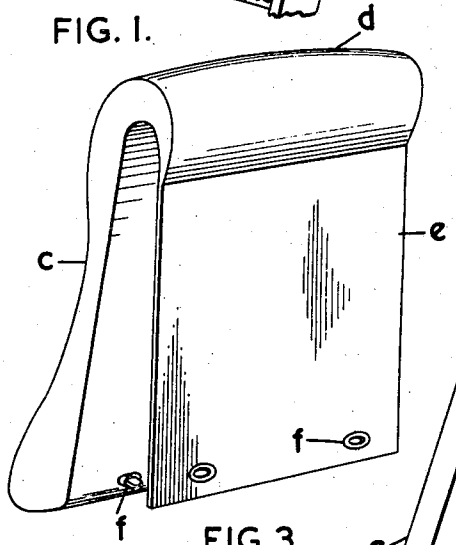


FIG. 3.

FIG. 4.

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FURNITURE BACK WITH CUSHION UPHOLSTERY

Maximilian Heller, London, England

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2 Claims. (Cl. 155—181)

The present invention relates to improvements in chairs, more particularly to improvements to the back of chairs, settees, vehicle seats or like articles provided with cushion upholstery hereinafter referred to as "chair back."

One object of this invention is the provision of an improved chair back comprising a frame having tensile springs and a cushion upholstery, said chair back being very comfortable in use and of a simple structure which lends itself to mass production.

According to the present invention a chair back comprises a frame having a resilient surface or upholstery support composed of a number of tensile springs, said springs forming the base for the front part of a cushion upholstery, the latter extending further in a continuous stretch to cover the rear of the spring surface, the arrangement being such that the cushion upholstery is doubled upon itself so as to rest straddling on the top edge of the spring surface, said frame being constructed to ensure free oscillating movement of said top edge on application of pressure.

The features involved in the present invention are particularly suitable for fireside chairs in which the top rail of the back rest is either omitted or said rail is horizontally recessed relative to the upper part of the spring surface. All the disadvantages of back cushions as hitherto known are eliminated with cushions made according to the present invention since the latter are adequately supported from top to bottom. Furthermore, since these cushions are held in position by being loosely wrapped or straddled round the uppermost spring or part of the spring surface or upholstery support, their filling material extending over the top is not liable to drifting and dropping.

The invention is illustrated by way of example in the accompanying drawing, in which:

Figure 1 is a perspective view of a spring back frame,

Figure 2 is a perspective view of a cushion upholstery for a chair back,

Figure 3 is a perspective view of a modification of the upholstery of Figure 2, and

Figure 4 is a perspective view of a cushion upholstery adapted to extend over a seat and a back area in an article of furniture.

Referring to Figure 1, the frame *a* is by way of example provided with parallel-arranged tensile springs *b* transversely extending across said frame, thus forming a resilient surface or upholstery support.

In order to provide a freely oscillating top edge, the top rail of the frame *a* may be recessed or otherwise spaced relative to the springs *b*, or said top rail may be concavely shaped or it may be omitted altogether.

The tensile springs *b* may consist of any suitable elements for example coil springs, rubber cables, elastic bands or the like.

The back cushion upholstery illustrated in Figure 2 is at first made in one straight piece but is doubled upon itself (as shown in this figure) to form the front *c*, the top *d*, and the rear portion *e* of the back cushion upholstery for a chair or the like. The positions of the springs *b* of Figure 1 when the upholstery is applied to the back frame are indicated in broken lines, and the top *d* of the cushion is shown to be resting straddling on the uppermost spring or part of the tensile surface formed by said springs. If desired, the cushion upholstery may be provided with press studs *f*, turn buckles or like fastening means in order to readily releasably secure said upholstery to the frame or to interconnect different parts of the cushion upholstery with each other.

Figure 3 depicts a cushion upholstery in which the front *c* and the top part *d* are of varying thickness so as to provide curves and shapes conforming with stylish or anatomically advantageous requirements. One part of the rear portion *e* of the cushion upholstery is shown to be constituted by a flap or skirt without filling material therein.

Figure 4 shows a back cushion provided with an elongation *g* for covering the seat area proper of a chair or the like. A cushion of this type extending in a continuous stretch over the seat, the back and the rear of a chair or the like requires a minimum of time in cutting, stitching and filling and lends itself most favourably to mass production.

I claim:

1. In an article of furniture such as a chair, comprising in combination a frame including two upwardly extending side members and a least one cross-rail interconnecting said two side members, a plurality of tension springs extending between and secured to said side members and together constituting a resilient upholstery support, and a cushion upholstery doubled upon itself over the top portion of said resilient upholstery support to form two parts of which one covers said tension springs at the front and the other covers said tension springs at the rear, the arrangement of that part of said cushion upholstery which covers said tension springs at the rear being closely adjacent to said tension springs and between said cross-rail and said tension springs, and the provision of readily-releasable fastening means fastening that part of said cushion upholstery which covers said tension springs at the rear to said frame whereby said cushion upholstery rests straddling on and wrapped over the top of said resilient upholstery support and the said cushion upholstery closely encloses said resilient upholstery support alone and forms therewith a deflectable upholstered back support, said cross-rail interconnecting said two side members being spaced externally and rearwardly from the rear part of said cushion upholstery whereby said upholstered back support formed by said cushion upholstery and said tension spring is free to deflect rearwardly resiliently and as a whole under load.

2. In an article of furniture such as a chair, comprising in combination a back frame consisting of two upwardly extending side members and at least one cross-rail interconnecting said two side members, a plurality of tension springs extending between and secured to said side members and together constituting a resilient upholstery support, and a cushion upholstery doubled upon itself over the top portion of said resilient upholstery support to form two parts of which one covers said tension springs at the front and the other covers said tension springs at the rear, the arrangement of that part of said cushion upholstery which covers said tension springs at the rear being closely adjacent to said tension springs and between said cross-rail and said tension springs, and the provision of readily-releasable fastening means fastening that part of said cushion upholstery which covers said tension springs at the rear to that part of said cushion upholstery which covers said tension springs at the

front, whereby said cushion upholstery rests straddling on and wrapped over the top of said resilient upholstery support and the said cushion upholstery closely encloses said resilient upholstery support alone and forms therewith a deflectable upholstered back support, said cross-rail interconnecting said two side members being spaced externally and rearwardly from the rear part of said cushion upholstery whereby said upholstered back support formed by said cushion upholstery and said tension springs is free to deflect rearwardly resiliently and as a whole under load.

References Cited in the file of this patent

UNITED STATES PATENTS

1,908,902	Knoll	May 16, 1933
2,105,319	Hedden et al.	Jan. 11, 1938
2,304,700	Manville	Dec. 8, 1942
2,644,508	Weill	July 7, 1953

FOREIGN PATENTS

106,651	Australia	Mar. 2, 1939