March 8, 1960 M. KOENIGSBERG 2,927,330

MATTRESS STRUCTURE

Filed Dec. 24, 1956

Fig. 1.

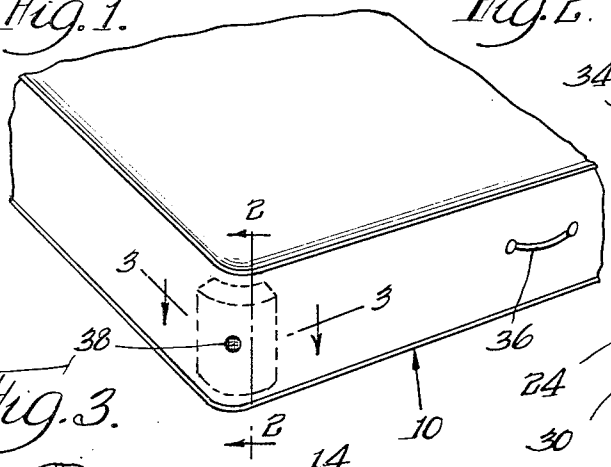


Fig. 2.

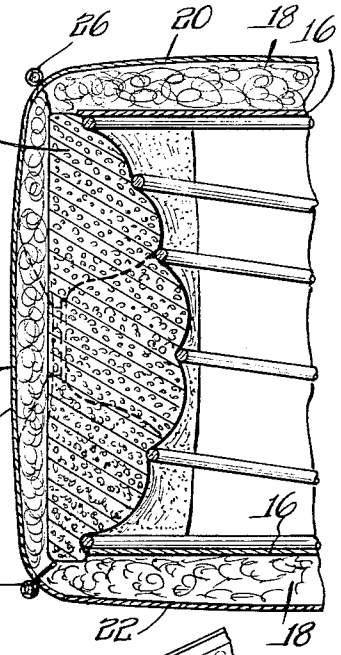


Fig. 3.

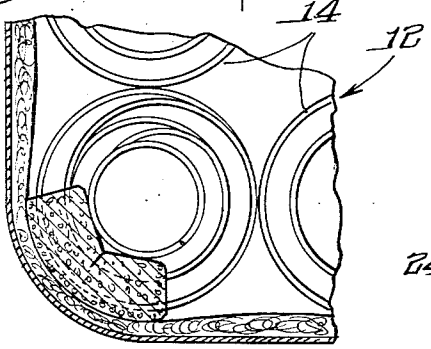


Fig. 4.

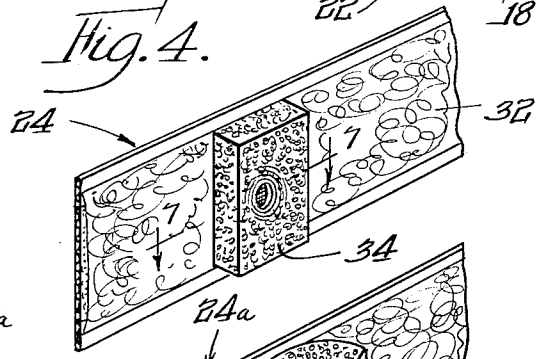
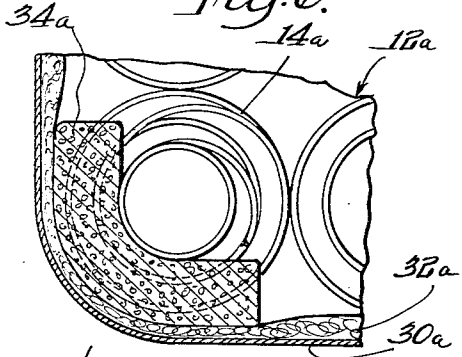


Fig. 6.



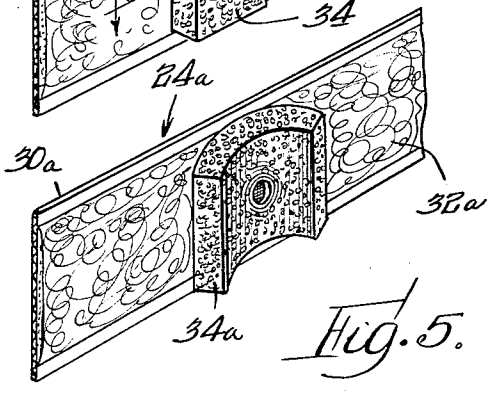
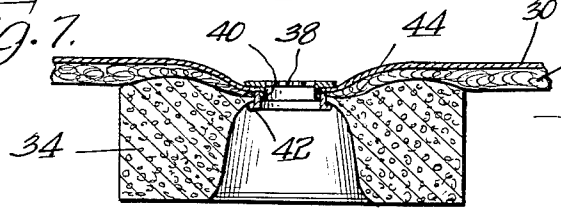


Fig. 5.

Fig. 7.



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MATTRESS STRUCTURE

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Application December 24, 1956, Serial No. 630,268

4 Claims. (Cl. 5—351)

The present invention relates to a novel spring assembly, and more particularly to a novel mattress structure or the like.

Heretofore a conventional procedure of making mattresses or the like has included the steps of placing a sisal padding over a spring unit, then placing a cotton felt pad over the sisal and enveloping the assembled parts with ticking which includes top and bottom panels and a border strip. In order to provide increased stiffness or support at the corners of the mattress, it has been the practice for a workman to grasp a wad or handful of cotton felt and push it into a corner of the mattress and into engagement with the side of a corner spring prior to the assembly of the border strip of the ticking. The results obtained have not always been satisfactory since the workman frequently is not careful to obtain a correct and uniform amount of cotton for each wad. Furthermore, the cotton wad may not be properly placed in the first instance, and after the mattress has been in use, the cotton wad may become dislodged and displaced even if it was originally properly located by the workmen.

As will be understood, it is the conventional practice to preassemble handle members to the ticking border strip. Thus, unless the workman is careful to position initially the border strip in a proper manner when sewing the strip to the top and bottom ticking panels, the handles at one side of the mattress will not be properly aligned with the handles at the opposite side of the mattress.

An important object of the present invention is to provide a novel mattress structure wherein all of the corners may be more uniformly and quickly formed in a manner which improves the support and appearance of the corner portions of the mattress and enables the mattress to be more economically produced.

A more specific object of the present invention is to provide a novel mattress structure wherein corner pads or blocks of resilient material may be precut or uniformly shaped and may be preassembled with the border strip of ticking material so that when the border strip is applied to the mattress structure, the blocks or pads will be properly positioned at the corners and permanently retained at the corners, which arrangement also facilitates proper location of the handles carried by the border strip.

Other objects and advantages of the present invention will become apparent from the following description and the accompanying drawings wherein:

Fig. 1 is a fragmentary perspective view of a mattress structure incorporating the features of the present invention;

Fig. 2 is an enlarged fragmentary sectional view taken along line 2—2 in Fig. 1;

Fig. 3 is an enlarged fragmentary sectional view taken along line 3—3 in Fig. 1;

Fig. 4 is a fragmentary perspective view showing a portion of the border strip having a corner block or pad preassembled therewith in accordance with the present invention;

Fig. 5 is a fragmentary perspective view similar to Fig. 4 but showing a modified form of the present invention;

Fig. 6 is a fragmentary sectional view similar to Fig. 3 but showing a structure utilizing the embodiment of Fig. 5; and

Fig. 7 is an enlarged fragmentary sectional view taken along line 7—7 in Fig. 4.

Referring now more specifically to the drawings wherein like parts are designated by the same numerals throughout the various figures, a mattress structure 10 incorporating the features of the present invention is shown in Figs. 1 through 4. The mattress structure comprises a spring unit 12 made up from a plurality of coiled wire springs 14 arranged and retained in predetermined relationship in any known manner. Sisal pads 16 or other suitable insulator means cover opposite sides of the spring unit, and cotton felt pads 18 or the like cover the sisal pads. Top and bottom sheets of covering materials or ticking panels 20 and 22 are positioned over the felt pads 18, and a preassembled border strip assembly 24 described more in detail below has its upper and lower margins sewn or otherwise connected to the margins of the top and bottom panels 20 and 22 as indicated at 26 and 28.

The border strip assembly 24 includes an elongated strip 30 of ticking material or the like which is precut and sewn to provide it with the proper width and a predetermined length which is sufficient to enable the strip to extend completely around the rectangular mattress structure only part of which is shown. A relatively light strip 32 of padding material which is substantially coextensive with the strip 30 is sewn or otherwise secured to the strip 30 so as to provide the fabric strip 30 with sufficient body to enhance the appearance of the finished mattress structure. In the embodiment of Figs. 1 through 4, four blocks 34 of resilient material, preferably foam rubber-like material, are secured to the strip 30 at predetermined intervals. While only one of the blocks 34 is shown, it will be understood that these blocks are spaced in accordance with the predetermined width and predetermined length of the spring unit 12 so that when the border strip assembly is applied to the mattress structure, each of the blocks 34 will be located at a corner of the mattress structure as shown in Figs. 1 and 3. Each block 34 is formed or cut to a predetermined height, width and thickness to provide the desired uniform resilient support and padding at the corners of the mattress structure. It is to be noted that with the border strip assembly 24 of the present invention, separate handling of the blocks 34 is eliminated during the mattress assembly process, and the blocks will be automatically properly positioned initially and retained in the proper positions during use of the mattress as a result of being permanently connected with the border strip 30. Another advantage arising from the ease and accuracy of locating the blocks 34 is that less material is required for the blocks since excess material need not be provided to compensate for improper positioning of the blocks or dislodgement of the blocks from their proper positions during use of the mattress.

The border strip assembly 24 also includes one or more handle members 36, only one of which is shown, secured to the strip 30. As will be understood, pairs of the handle members 36 may be secured to the strip 30 in accordance with known practices so that when the border strip assembly is applied to the mattress a pair of the handle members will be located at opposite sides or edges of the mattress. Heretofore, difficulty has been encountered in obtaining proper alignment of the handle members at one side of the mattress with the handle members at the opposite side of the mattress. However, with the border strip assembly 24 of the present invention such alignment of the handle members is accom-

plished easily and automatically when the blocks **34** are properly positioned against the corner springs since the handle members are located at predetermined intervals between the blocks.

Fig. 7 shows in detail a preferred means for securing the blocks **34** to the strip **30**. More specifically, this means includes a perforated ventilator cap **38** overlying the strip **30** and having a flange **40** connected with a tubular rivet-like member **42** which extends through and is peened over a tightly compressed or pinched portion **44** of the block **34**. However, it is to be understood that the blocks **34** may be secured to the border strip in various ways such as by sewing, clipping, gluing or the like.

While in the structure described above, only a single block **34** has been disclosed for each corner of the mattress, it is to be understood that, if desired, a plurality of adjacent disposed blocks may be provided for each corner of the mattress. Furthermore, Figs. 5 and 6 show a modified form of the present invention which is similar to the above described structure as indicated by the application of identical reference numerals with the suffix "*a*" added to corresponding elements, and wherein the blocks **34***a* are preformed or curved. This structure further facilitates proper location of the blocks with respect to the corner springs of the mattress and further insures the provision of properly supported and shaped corners of the mattress.

While the preferred embodiments of the present invention have been shown and described herein, it is obvious that many structural details may be changed without departing from the spirit and scope of the appended claims.

The invention is claimed as follows:

1. A mattress structure comprising a plurality of coil springs arranged in a generally rectangular pattern, top and bottom cover panels respectively at opposite sides of said springs, a border strip encircling said spring pattern and having upper and lower margins respectively interconnected with said top and bottom panels, resilient foam rubber-like material blocks of predetermined size preassembled with said strip at corners of the spring pattern for supporting and filling out the corners of the mattress structure, and tubular rivet-like means extending through and securing each of said blocks to said strip, said rivet-like means including perforated head portions for providing vents for the mattress structure.

2. A mattress structure or the like comprising a plurality of coil springs arranged in a general rectangular pattern, padding means over said springs, top and bottom cover panels respectively at opposite sides of said springs, a border strip encircling said spring pattern and having upper and lower margins respectively secured to said top and bottom panels, resilient foam rubber-like blocks of predetermined size and generally uniform resilience preassembled with said strip at corners of the spring pattern and engaging a side of cornermost springs for supporting and filling out the corners of the mattress structure, and fastening devices respectively interconnected with central portions only of said blocks and securing the blocks to said strip, marginal portions of the blocks being free of the strip.

3. A mattress structure, as defined in claim 2, wherein said fastening devices include passageway means therethrough for providing vents for the mattress structure.

4. In a mattress structure of predetermined length and width, a preassembled border strip assembly comprising an elongated sheet material border strip for encircling a mattress, and at least four resilient foam rubber-like material blocks of predetermined size and generally uniform resilience spaced along said strip at intervals in accordance with the length and width of the mattress so that the blocks will be positioned at the corners of the mattress when the border strip assembly is applied to the mattress, and fastening devices interconnected with central portions only of said blocks and securing the blocks to the strip, marginal portions of the blocks being free of the strip.

References Cited in the file of this patent

UNITED STATES PATENTS

1,859,340	Marsack	May 24, 1932
1,865,043	Pittoni	June 28, 1932
2,425,728	Cobb	Aug. 19, 1947
2,826,769	Drew	Mar. 18, 1958

FOREIGN PATENTS

334,870	Great Britain	Sept. 8, 1930
336,236	Great Britain	Oct. 8, 1930
639,765	Great Britain	July 5, 1950
703,026	Germany	Feb. 27, 1941