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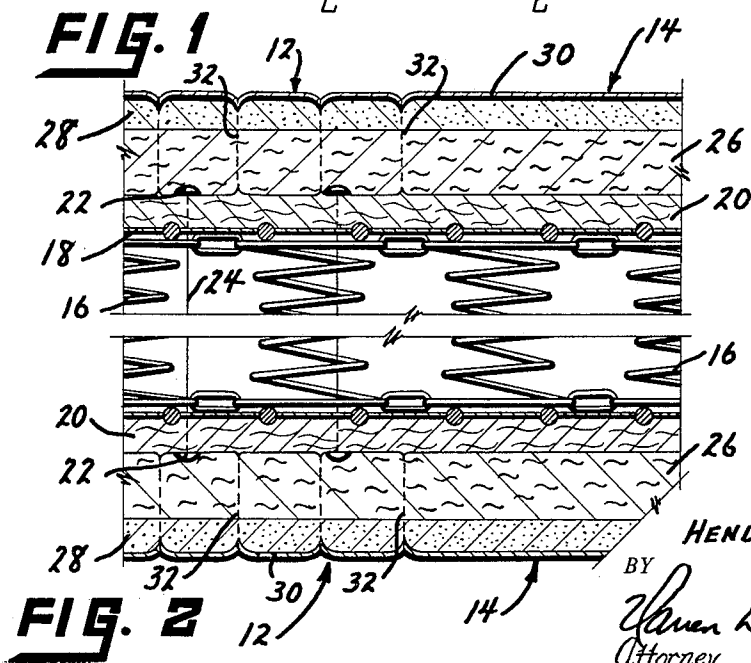
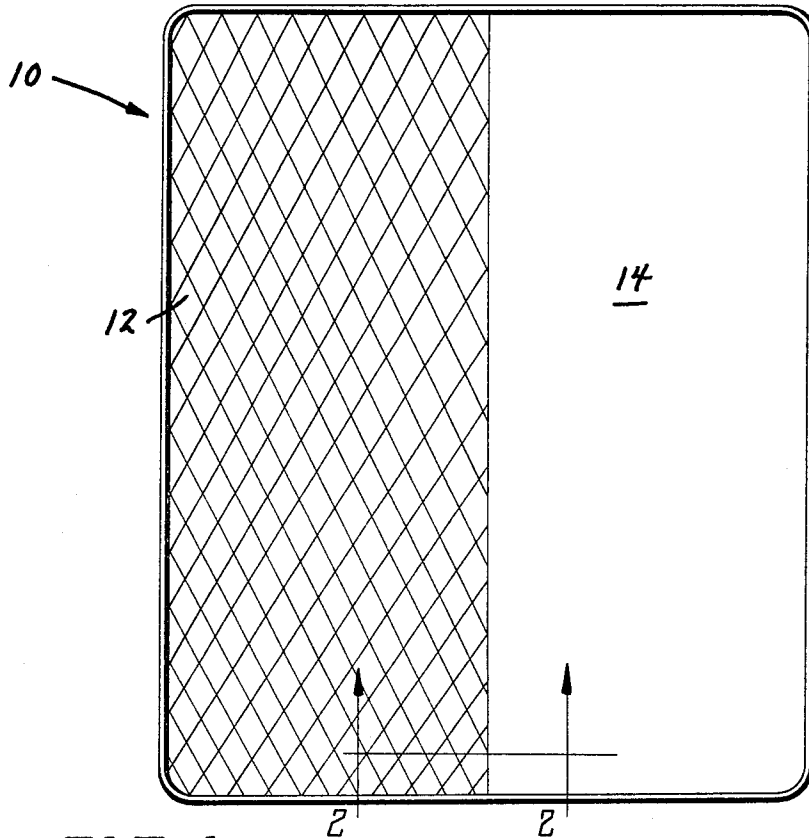
H. W. METZGER

3,274,625

MATTRESS

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2 Sheets-Sheet 1



INVENTOR.

HENDRIX W. METZGER

BY

Charles D. Hackbert
Attorney

3,274,625

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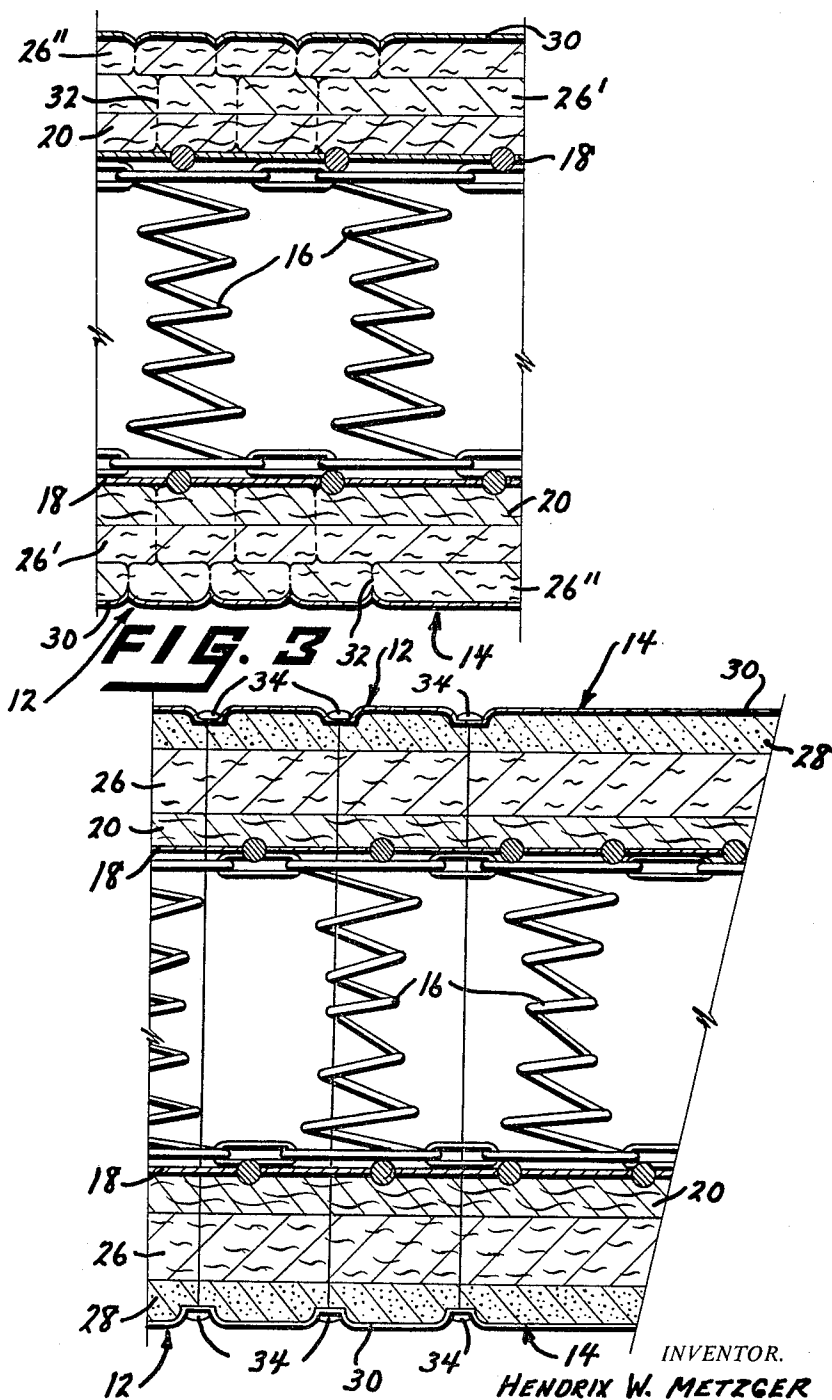


FIG. 4

14 INVENTOR.
HENDRIX W. METZGER
BY
Lawrence D. Hackbert
Attorney

1

3,274,625

MATTRESS

Hendrix W. Metzger, R.R. 2, Boonville, Ind.

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5 Claims. (Cl. 5—345)

The present invention relates to a mattress, and more particularly to a new and novel mattress having portions thereof which afford a different degree of firmness.

As is known, a typical mattress structure utilizes the same over-all cover assembly to define its supporting surfaces. Unless, of course, different strength springs are employed in various portions of the mattress, which is quite costly, the amount of firmness is fairly standardized over the opposite supporting surfaces of the mattress, notwithstanding any weight differential on the part of the sleepers or, in the alternative, in the desirability of having a firmer portion of the mattress for a heavier person, and conversely.

Accordingly, by virtue of the instant invention, the applicant herein has invented a new and novel mattress wherein the cover assembly thereof defines various areas of firmness, accomplished, by way of example, through quilting, in any desired pattern, and/or through tufting. Moreover, the quilting or tufted portion of the mattress, representing the portion having greater firmness, may also employ inner tufting, for reasons of increased tension. The broad principle underlying the invention at hand is the utilization and provision of portions of a mattress wherein one area is firmer than another because of the use of quilting in contrast to non-quilting, or, for example, the use of tufting in contrast to non-tufting.

The instant invention not only effectively provides such difference in firmness, but achieves same through a relatively simple manufacturing operation, not requiring costly element replacement or complex manufacturing procedures. In other words, effective practice of the invention can be achieved through equipment normally available in a mattress production plant.

Accordingly, the principal object of the present invention is to provide a new and novel mattress defining areas of different firmness on opposite sides thereof.

Another object of the present invention is to provide a new and novel mattress wherein portions of the outer surfaces thereof are quilted or tufted, while the remaining portions are not quilted or tufted to effect a differential in firmness.

A further and more general object of the present invention is to provide a new and novel mattress having portions thereof which are firmer than other portions thereof through the use of quilting, tufting or the like, which is readily manufactured with existing equipment, and which obviates the necessity of utilizing any different individual elements and hence, increased production costs.

Other objects and a better understanding of the present invention will become more apparent from the following description, taken in conjunction with the accompanying drawings, wherein

FIG. 1 is a top plan view of a mattress in accordance with the principles of the present invention;

FIG. 2 is a greatly enlarged view in vertical section, taken at line 2—2 of FIG. 1 and looking in the direction of the arrows, showing further details of the instant mattress invention;

FIG. 3 is a fragmentary view in vertical section, similar to that of FIG. 2, showing another embodiment of the applicant's new and novel mattress invention; and,

FIG. 4 is a fragmentary view in vertical section, also similar to that of FIGS. 2 and 3, showing still a further embodiment of the instant invention.

For the purposes of promoting an understanding of the

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principles of the invention, reference will now be made to the embodiments illustrated in the drawings and specific language will be used to describe the same. It will nevertheless be understood that no limitation of the scope of the invention is thereby intended, such alterations and further modifications in the illustrated devices, and such further applications of the principles of the invention as illustrated therein being contemplated as would normally occur to one skilled in the art to which the invention relates.

Referring now to the drawing, FIGS. 1 and 2 are representative of the applicant's new and novel mattress invention, showing a typical mattress 10 defined by a cover assembly having a quilted portion 12 and a smooth portion 14 to provide a different degree of firmness. As should be understood, the quilting pattern of portion 12 may assume any desired configuration where, obviously, more quilting would result in a more firm supporting area.

More specifically in this regard, FIG. 2 shows a typical mattress arrangement, in cross section, wherein conventional springs 16 support a known "Perm-a-lator" 18, where a layer of sisal 20 is disposed on the latter. As should be evident from the drawing, and the remaining discussion, the cover assembly above and below the springs 16 are each the same and the individual components bear like reference numerals.

In any event, and particularly in the area of increased firmness, inner tufting is provided for tension, being defined by a series of tuft buttons 22, in any desired pattern, drawn together by a cord-like member 24, where the buttons 22 engage the sisal layer 20. In other words, a single tuft "linkage" would comprise, layer-wise, a tuft button 22 having the cord-like member 24 secured thereto, the latter extending through a layer of sisal 20, the "Perm-a-lator" 18, the spring 16, or the area between such springs, the other "Perm-a-lator" 18, the other layer of sisal 20 and to an oppositely disposed tuft button 22.

Typically positioned above the sisal layer 20 is a layer of felt 26, a layer of resilient material 28, such as polyfoam, for example, and a cover 30, the latter generally being ornamental for a pleasing outward appearance. In a preferred embodiment of the invention, the layer of felt 26, the layer of polyfoam 28 and the cover 30, on the firm part of the mattress 12, are quilted together, where the stitch lines 32 in FIG. 2 show such assembled relationship.

As discussed, in view of the aforesaid quilting in the portion 12, the unquilted portion 14 has lesser firmness than the quilted portion 12, and provides a different supporting characteristic to the finished product.

In another embodiment of the invention, as shown in FIG. 3, and where no layer of resilient material 28 is employed, the same end effect can be achieved by quilting, in one assembly, the cover 30 and approximately one-half of the layer of felt 26', and separately quilting the remaining portion of the layer of felt 26" and the sisal layer 20. In this instance, however, the inner tufting may or may not be used.

In the form of invention of FIG. 4, a variation in firmness can be achieved through tufting instead of quilting. In such arrangement, and whether or not inner tufting is employed, the over-all tufting goes through the entire mattress assembly, i.e. the tufting buttons 34 can be seen resting on the cover 30, instead of the stitching line employed in the quilting embodiment of FIGS. 1 and 2.

Actually, the invention is susceptible to various modifications including, by way of example, where the firmer portion 12 and the less firm portion 14 may both be quilted but the firmer portion quilted to a higher and more tight degree. Similarly, a highly quilted portion 12 may be employed, but the less firm portion typified by loose tufting, i.e. generally sparse tufting over the over-all surface thereof.

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From the preceding, it should be apparent that the applicant herein has provided a new and novel mattress which affords end results not achievable heretofore without considerable expenditure on the part of the producer. The invention readily affords different degrees of firmness on a mattress, conveniently available through the use of regular machinery and manufacturing processes, but yet providing a need not readily satisfied in existing structures. Obviously, and as stated, the mattress described herein is susceptible to various changes within the spirit of the invention, bearing in mind, however, the provision of a mattress having surface portions of different firmness. Thus, the preceding description should be considered illustrative and not as limiting the scope of the following claims:

I claim:

1. A mattress defining a body supporting surface comprising a cover assembly having one portion thereof quilted to present one firmness and another portion thereof unquilted to present a different firmness.

2. A mattress defining a body supporting surface comprising a cover assembly having one portion thereof quilted to present one firmness and another portion thereof quilted to a lesser degree than said quilted one portion to present a different firmness.

3. A cover assembly for a mattress comprising a pre-assembled layer of felt, resilient material, and a cover material, quilted together over one body supporting area

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thereof and unquilted in another body supporting area thereof.

4. A cover assembly for a mattress comprising a pre-assembled layer of sisal and felt quilted together over one body supporting area thereof and unquilted in another body supporting area thereof, and a preassembled layer of felt and sisal, also quilted together at said one area and unquilted in said another area.

5. A cover assembly for a mattress comprising a cover material, a layer of resilient material, a layer of felt, and a layer of sisal tufted together at one body supporting area thereof and non-tufted in another body supporting area thereof.

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FRANK B. SHERRY, *Primary Examiner.*

CASMIR A. NUNBERG, *Examiner.*