Dec. 8, 1931. DEL ROY F. FOWLER 1,835,212

REVERSIBLE SPRING CENTER MATTRESS

Filed Jan. 28, 1930

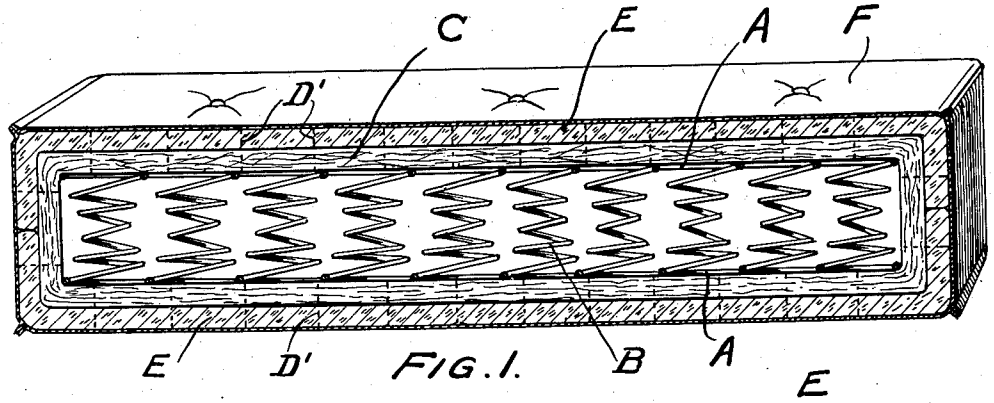


FIG. 1.

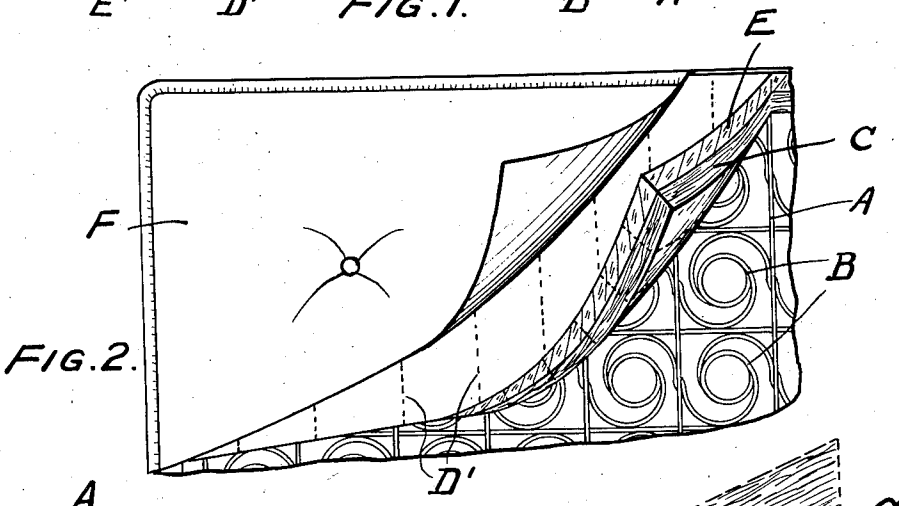


FIG. 2.

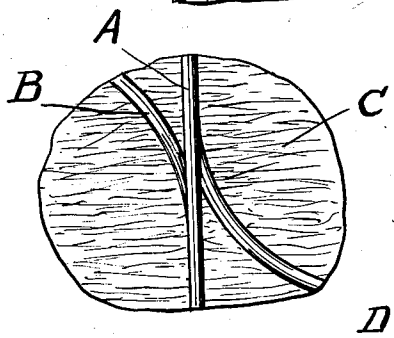


FIG. 3.



FIG. 5.

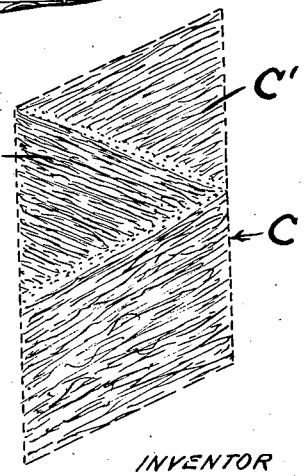


FIG. 4.

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UNITED STATES PATENT OFFICE

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REVERSIBLE SPRING CENTER MATTRESS

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My invention relates to mattresses of the type known as reversible spring center mattresses. Mattresses of this kind are made up of a multiplicity of coiled springs spaced and secured together to form the inner element of a mattress, pads applied to the upper and lower surfaces of the spring element and an outer covering of fabric. Quite generally layers of fabric are interposed between the spring element and the pads. Sometimes this fabric layer is attached to the pad as by stitching. Prior to my invention the pads employed were largely made up of cotton batting in which the cotton fibres are loosely felted together and whether a layer of fabric was used between such pads and the spring element or not the cotton bats had a marked tendency to become more or less disrupted and lumpy so that portions of the pads projected down through the center of the springs leaving of course corresponding inequalities on the upper and lower surfaces; when this occurred the mattress became uncomfortable both by reason of the inequalities in the padding and because the edges of the springs could be felt by the users. The object of my invention is to provide a mattress of the general type described which shall be free from the defects noted and also of cheap construction and I accomplish this by applying to the top and bottom surfaces of the spring element pads made up of long and wavy sisal fibre carded into thin sheets or veils, which veils are so disposed upon each other that the fibres of superposed veils cross each other at an angle. These pads are placed upon the spring elements in such manner that the sisal fibre comes in direct contact with the spring element without an intervening layer of fabric either attached to the pads or to the spring element or placed loosely between the same. On the outer faces of the sisal pads I apply layers or pads of cotton or like material which may or may not be sewed to the sisal pads and the mattress is completed by a fabric cover in the usual manner. In the structure formed as described the layers of sisal fibre are in no wise felted together and consequently the fibres can move upon each other with great freedom. I have found that the sisal fibres in direct contact with the spring elements have a certain freedom of movement over the spring element and that the sisal pads have but little tendency to become embedded in the springs and retain their form and elasticity after very protracted use. I have also found that the greater part of the movement occurring in the sisal pads occurs in the center of the pad so that the outer layer has but little tendency to move with respect to the cotton layer superimposed upon it. This avoids any tendency to disrupt the cotton bat and cause it to become lumpy.

In consequence of the comparative freedom of the sisal pads to become deformed in use it is practical to use comparatively thin layers of cotton batting and to use cotton batting made up of shorter fibres than have heretofore been considered necessary. Reference being had to the drawings, which illustrate a mattress constructed in accordance with my invention,

Figure 1 is a cross sectional view of a mattress embodying my novel construction.

Figure 2 a plan view of a portion of such a mattress with the upper padding and cover layers partly laid back to show the mode of construction.

Figure 3 is a detail, practically an enlargement, of a portion of the showing in Fig. 2 showing the disposition of the sisal fibre component of the sisal pads with respect to the spring element.

Figure 4 is a view showing a mode of forming the sisal pads with overlaying thin veils of carded sisal fibre so disposed that the fibres will cross each other in adjacent veils, and

Figure 5 is a sectional view of a portion of a sisal pad.

A indicates the framing forming the top and bottom elements to which the springs indicated at B are attached so as to properly space the springs. C indicates the sisal pad made up of overlapping veils C^1 and C^2, as indicated in Fig. 4, and lying upon the spring element with its fibres in direct contact with the spring elements without any intervening fabric. It is usual in the construction of such sisal pads to secure the overlaying layers

together by lines of stitching, as indicated at D, D in Fig. 5. E is a layer of cotton batting placed upon the sisal pads and is indicated stitched to the sisal pads as by lines of stitching D^1, and F is the outer cover of the mattress by which all of its component parts are held securely together.

Having now described my invention, what I claim as new and desire to secure by Letters Patent, is:

A reversible inner spring mattress consisting of a spring element made up of a multiplicity of coiled springs spaced and secured together in combination with pads of sisal fibre formed of a multiplicity of thin veils of carded sisal disposed upon each other in such manner that the fibres of superposed veils will cross each other, said veils of each pad being held together by stitching, and said pads being in direct contact with the top and bottom of the spring center without intervening layers of fabric, layers of cotton batting applied to the outer surfaces of the sisal pads and an outer cover and envelope of fabric material.

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