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E. L. BRONSTIEN, SR
MATTRESS HOLDING MEANS

3,261,036

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FIG. 1

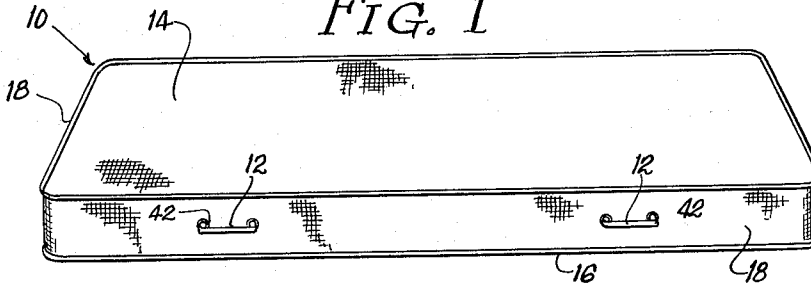


FIG. 2

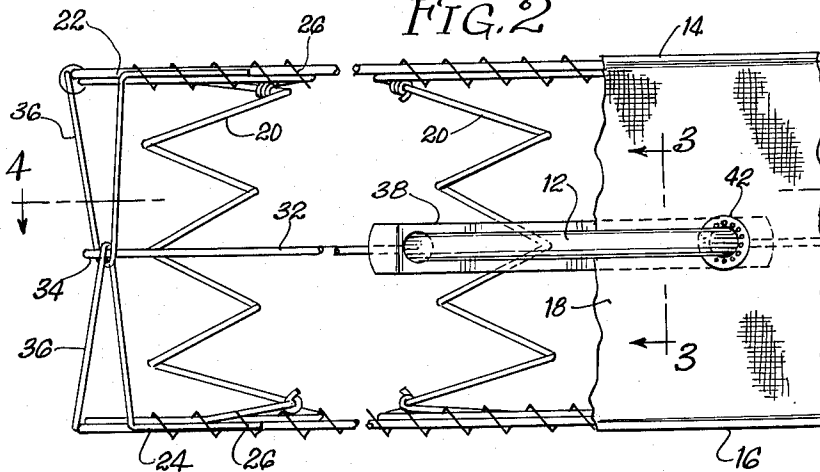


FIG. 3

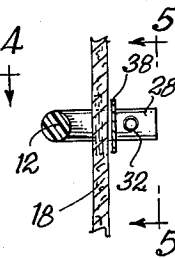


FIG. 4

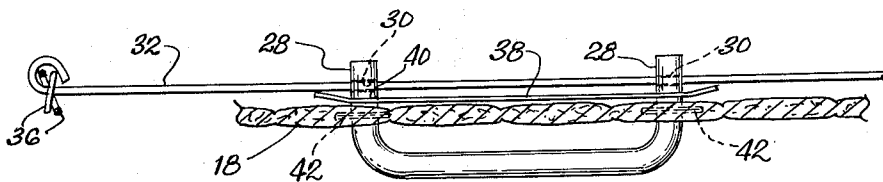
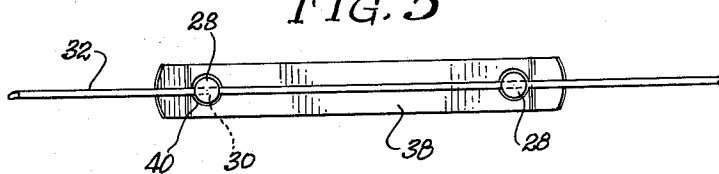


FIG. 5



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3,261,036

MATTRESS HOLDING MEANS

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1 Claim. (Cl. 5—345)

This invention relates to mattress constructions and in particular, the invention is directed to the provision of improved handle means for such constructions.

It is well-known that the carrying of large mattresses from place to place or other handling thereof has resulted in many difficulties. Such constructions are heavy and quite awkward since there is no easy way to get a good grip on the construction as such. In order to overcome these difficulties, handles have been formed in the side walls of mattresses whereby carrying and other handling thereof could be facilitated.

Conventional handle constructions in many cases present certain difficulties. Where the constructions are tied to the side wall of the mattress, there is a great tendency toward tearing of the fabric. Thus, the weight of the mattress is too great for the fabric to stand. In order to overcome this difficulty, handle constructions have been tied directly to the springs within the mattress. In some cases, this did not provide an adequate solution since the springs were subjected to great force which displaced them from their intended positions and which also resulted in tearing of internal fabric coverings. Furthermore, difficulties have been encountered with respect to assembly of the mattresses since in many cases, the handle design greatly complicated such assembly operations.

It is an object of this invention to provide a handle means for a mattress construction which is strong enough for use without the danger of destroying portions of the mattress.

It is a further object of this invention to provide a handle means which is tied in the mattress in a manner such that disruption of the coil springs or internal fabrics will not result when the mattress handle is in use.

It is a further object of this invention to provide a mattress handle which is simple in design and which can be assembled in the construction without disrupting, to any great extent, the normal assembly operations.

These and other objects of this invention will appear hereinafter, and for purposes of illustration but not of limitation, specific embodiments of this invention are shown in the accompanying drawings in which:

FIGURE 1 is a perspective view of a mattress construction provided with the handle means of this invention;

FIGURE 2 is an enlarged detail view, partly cut away, illustrating the components of the handle means;

FIGURE 3 is a fragmentary cross-sectional view taken about the line 3—3 of FIGURE 2;

FIGURE 4 is a horizontal sectional view taken about the line 4—4 of FIGURE 2; and,

FIGURE 5 is a side elevation taken about the line 5—5 of FIGURE 3.

The handle means of this invention is adapted to be associated with a mattress of conventional design wherein a plurality of coil springs are arranged in side-by-side relationship with their respective axes disposed vertically. A covering is conventionally provided for such constructions whereby the outer top, bottom and side walls of the construction will be defined. The coil springs within the mattress may be secured together by means of tie wires and border wires; however, it will be understood that other known means for maintaining the assembly of coil springs can also be employed in combination with the handle means of this invention.

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The handle construction comprises a portion exposed on the exterior surface of the side walls of the mattress and end portions for the handle extend through the side walls into the interior of the mattress. A horizontally disposed wire is provided adjacent the interior surfaces of the side walls, and this wire is connected to the end portions of the handle means. With this arrangement, pulling on the handle means will result in the application of force to this wire rather than to the side wall coverings or to the coil springs within the construction.

The accompanying drawings illustrate a mattress 10 which includes handle means 12 of the type contemplated by this invention. The mattress is of conventional rectangular shape and includes a top wall 14, bottom wall 16, and sidewalls 18. The handle means are associated with the longer side walls; however, it will be understood that the principles of this invention could be applied in other areas of the mattress.

FIGURE 2 illustrates an interior portion of the construction including coil springs 20 which are secured to border wires 22 and 24 by means of tie wires 26. Additional tie wires are provided for interconnecting the interior coil springs.

The handle means 12 includes end portions 28 which extend through the side wall 18 into the interior of the construction. In the embodiment illustrated, these end portions define openings 30 which are dimensioned to receive a wire 32. This wire extends along the interior surface of the side walls and is preferably tied at its ends 34 to the border wires by means of wires 36. At least one of these wires 36 should be provided for holding the ends of the wire 32.

The handle means is completed through the use of a flexible plate 38. This plate defines openings 40 through which the end portions 28 can pass. The plate is disposed between the wire 32 and the side wall 18. Any pulling on the handle will cause the plate to be pressed against the side wall. This plate thus cooperates in preventing any undue pressure on the side wall since any force will be distributed over the area of the plate. It will be appreciated, however, that the major portion of any force applied during the use of the handle is carried by the wire 32.

Grommets 42 are fastened to the side wall 18 and these grommets define passages for the end portions 28. It will be appreciated that the provision of the grommets will permit smooth movement of the portions 28 relative to the fabric, and they will further minimize the danger of tearing of the fabric in the area of the openings for the end portions 28.

It will be appreciated that the described arrangement eliminates the direct application of force on the side wall covering and on the coil springs. It has been found that the described arrangement is most effective from the standpoint of durability and, furthermore, the minimum number of parts included in the combination and the simplicity thereof makes the combination ideal from an efficiency standpoint.

It will be understood that various changes and modifications may be made in the above described construction which provide the characteristics of this invention without departing from the spirit thereof particularly as defined in the following claim.

That which is claimed is:

In a mattress construction wherein a plurality of coil springs are arranged in side-by-side relationship with their respective axes disposed vertically and wherein a covering is provided for the top, bottom and side walls of said construction, and including upper and lower border wires defining the outer edges of said construction, the improvement comprising generally U-shaped handle means disposed on said side walls, said handle means including in-

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tegrally formed portions extending through said covering and into the interior of said construction, each of said end portions defining openings comprising bores extending through the end portions near the extremities thereof, an intermediate wire running adjacent the interior surface of said side walls, said wire being positioned between said upper and lower border wires and extending in parallel relationship therewith, means at the corners of said construction for connecting the ends of said intermediate wire to said border wires, said intermediate wire passing through said openings in said end portions to thereby provide support for said handle, a flat flexible plate defining openings for receiving said end portions, said plate being located intermediate said wire and side walls, and including grom-

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mets defining openings in said side walls through which said end portions extend.

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