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HANDLE FOR MATTRESSES

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Fig-1

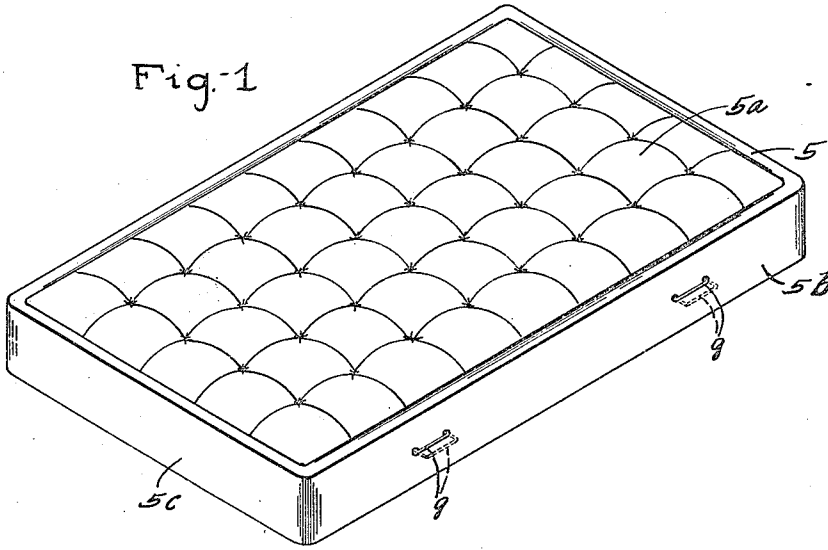


Fig-2

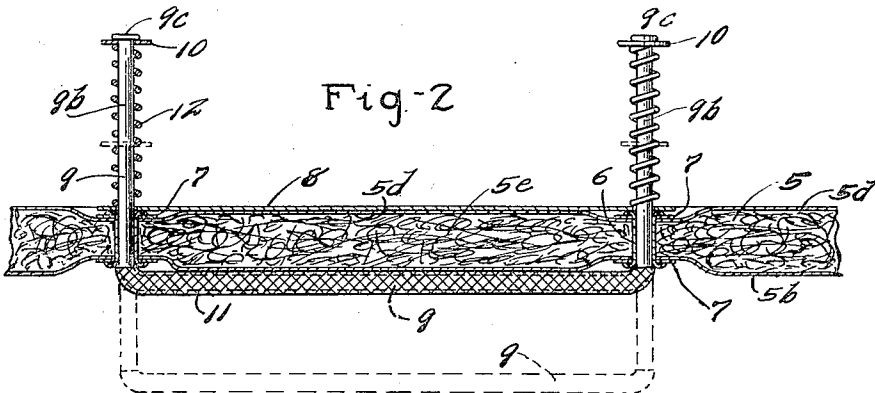


Fig-3

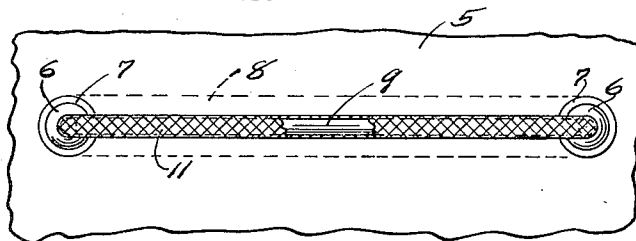
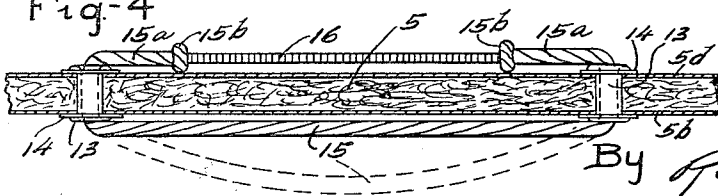


Fig-4



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UNITED STATES PATENT OFFICE

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HANDLE FOR MATTRESSES

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This invention relates to a mattress such as commonly used on a bed or similar article, and particularly to a handle for such a mattress. As is well known, mattresses are used of rather large dimensions, and it is desirable at times to turn the mattress and to otherwise handle it. A mattress is rather hard to manipulate, owing to its bulk, and it is desirable to have handles thereon. While handles have been proposed formed of fabric stitched at the sides of the mattress, these have not been entirely successful, due to the fact that they tear loose in the handling of the mattress.

It is desirable that any handles secured to the mattress be normally disposed closely along the side of the mattress so that there is no objectionable projection.

It is an object of this invention, therefore, to provide a strong and durable handle for a mattress, one which cannot be torn loose from the mattress, and one which does not project at the sides of the mattress.

It is a further object of the invention to provide a handle having portions projecting through apertures in the side of the mattress to the inner side of the same, with resilient means acting on said portions to hold the handle against the side of the mattress, said portions having means thereon so that they are not withdrawable through the said apertures, the outer portion of the handle thus being movable away from the side of the mattress when it is desired to use it.

It is another object of the invention to provide a mattress having spaced apertures therethrough, guide members such as eyelets secured in said apertures, a handle having parallel portions extending through said guide members, and having means adjacent their ends for preventing their withdrawal through said guide members, together with resilient means preferably in the form of springs, for holding the outer side of said handle against the outer side of the mattress.

It is more specifically an object of the invention to provide a mattress having spaced apertures through the side thereof, tubular guide members secured in said apertures, a handle such as a bar having its end portions bent at right angles and extending in parallel relation to said guide members, a plate at the inner side of said members through which said portions extend, washers secured at the ends of said portions, and compression springs disposed on said portions between said plate and washers, the portion of the rod at the outer side of the mattress preferably being covered.

These and other objects and advantages of the invention will be fully set forth in the following description made in connection with the accompanying drawing, in which like reference characters refer to similar parts throughout the several views and in which:—

Fig. 1 is a perspective view of the mattress showing the handles at the side thereof;

Fig. 2 is a horizontal section through the handle taken in a plane parallel to the top of the mattress;

Fig. 3 is a view in side elevation of the handle structure, a portion being broken away; and

Fig. 4 is a view similar to Fig. 2 showing a modified structure, Figs. 2, 3 and 4 being shown on an enlarged scale.

Referring to the drawing, a mattress 5 is shown, having the usual tufted top surface 5a and vertical sides 5b and 5c constituting the side and end walls. While the invention is applicable to any type of mattress, in the embodiment of the invention illustrated the mattress is of the spring type in which the mattress has an interior chamber in which are secured a plurality of vertically compressible springs. The side portions of the mattress are of some thickness, as shown in Fig. 2, and provided with an inner layer of fabric 5d as well as the outer layer of fabric

5b. The housing material 5c of the mattress is disposed between the layers 5b and 5d. Apertures are provided through the wall of the mattress and through the layers 5b and 5d, and metallic guide members are disposed in these apertures. While different types of guide members might be used, in the embodiment of the invention illustrated the same are shown as comprising eyelets 6 having their ends upset against washers 7 which are disposed at the outer sides of the layers 5b and 5d. A plate 8 is provided, and extends between the eyelets 6 and slightly therebeyond, the same being in engagement with the inner side of the mattress. Plate 8 has apertures therethrough alining with the apertures or passages in the eyelets 6. A handle is provided, and while this handle could be made in various forms, in the embodiment of the invention illustrated the same is shown as formed of a rod 9 having a portion disposed at the outer side of the mattress and extending along said outer side and having its end portions 9b bent at right angles to thus extend in parallel relation, said portions extending through the eyelets 6 and through the apertures in plate 8 and having disposed thereon adjacent their inner ends washers 10. Washers 10 are held on the rods by slightly flattened or upsetting the ends of the rods as shown at 9c. The portion 9a of the rod preferably is provided with a cover 11 which may be made of suitable fabric or other thin material. The fabric or cloth used in making the material is of various colors and designs, and the covering 11 on the handle can be made to harmonize with the color or pattern of the goods covering the material. Compression coiled springs 12 surround the portions 9b and bear at one end against washers 10 and at the other end against plate 8.

In operation the handle is normally in the position shown in Fig. 2, the springs 12 acting on the washers 10 and movable portions 9b inwardly until the portion 9a engages the side of the mattress. The mattress can be used in the ordinary way and there is thus no objectionable projection at the side of the mattress. When it is desired to use the handle for turning or otherwise manipulating the mattress, the operator will take hold of the portion 9a and move it outward against the tension of springs 12, portions 9b moving through the eyelets 6 so that the handle can take the position shown in dotted lines in Fig. 2. The washers 10 and the spring 6 will prevent withdrawal of the portions 9a through the mattress or through plate 8 and plate 8 engages over a comparatively large area of the mattress at the inner side thereof. The handle thus forms a very convenient bail handle and the mattress can be turned and manipulated as desired. When the handle is released, the springs 12 will again move the

portion 9a against the outer side of the mattress as shown in Fig. 2. It will be seen that there are no stitches holding the handle which can be torn, and due to the large area of mattress engaged at the inner side, there is no danger of the handle being torn loose in any manner. When not being used, the handle is retained in close contact with the side of the mattress and forms a very neat structure.

In Fig. 4 a modified form of the invention is shown, in which the mattress 5 has the inner and outer layers 5d and 5b as already described. The mattress has spaced apertures in which are disposed the eyelets 13, being upset on the washers 14. A cord 15 extends through the eyelets 6 having end portions 15a disposed at the inner side of the mattress and provided with knots or enlargements 15b so that the portions 15a cannot be withdrawn through the eyelets 13. A section of elastic or resilient material 16 connects the portions 15b.

In the structure shown in Fig. 4, the elastic material 16 is normally under tension and draws the portions 15a together, thus maintaining the portion of member 15 at the outer side of the mattress drawn taut between the eyelets 13 and thus disposed closely along the outer side of the mattress. When the handle is to be used, the operator will take hold of the portion at the outer side of the mattress and when it is pulled outwardly, it will take the position substantially shown in dotted lines in Fig. 4. There is thus plenty of room for the convenience to grasp the handle between the same and the outer side of the mattress, and the mattress can be handled and manipulated as desired by means of the handle. The eyelets 13 are disposed quite a distance apart so that there is no danger of the handle being torn loose or the material being torn.

From the above description it is seen that applicant has provided a very simple and yet very efficient handle for a mattress. When not being used, the handle is held closely in engagement with the outer side of the mattress, so that it is practically unnoticeable and there is no projection on which anything may catch. The handle is easily pulled out to operative position and the mattress can be handled in a strenuous manner without any danger of the handle being torn loose or breaking. The handle is very neat in appearance, and as stated, can be made to harmonize with the color and pattern of the material. The device has been amply demonstrated in actual practice and found to be very successful and efficient.

It will, of course, be understood that various changes may be made in the form, details, arrangement and proportions of the parts, without departing from the scope of applicant's invention, which generally stated,

consists in a device capable of carrying out the objects above set forth, in the parts and combinations of parts disclosed and defined in the appended claims.

5 What is claimed is:—

1. A mattress having apertures through the side thereof, eyelets secured in said apertures, a handle having parallel portions extending through said eyelets and slidable therein, means on the ends of said portions preventing their withdrawal through said eyelets, compression springs surrounding said portions and disposed between said means and said eyelets holding said handle against the outer side of said mattress but permitting outward movement of the same and said portions.

2. A mattress having spaced apertures through the side thereof, a handle having portions extending through said apertures, a plate at the inner side of said mattress having apertures through which said portions extend, means adjacent the ends of said portions preventing their withdrawal through said plate, coiled compression springs surrounding said portions and bearing against said means and plate and holding the portion of said handle at the outer side of said mattress against the side of said mattress.

3. A mattress having spaced apertures through the side thereof, tubular guide means secured in said apertures, a rod having its end portions bent at right angles and extending in parallel relation through said guide means, washers secured at the terminals of said portions, a plate at the inner side of said mattress having apertures through which said portions extend, compression coil springs surrounding said portions and disposed between said plate and said washers, whereby said springs hold said rod against the outer side of said mattress to permit its outward movement.

4. A mattress having a flexible wall and an aperture therethrough, a handle having a portion disposed at the outer side of said wall and a portion extending through said aperture to the inner side of said wall, means engaging the inner side of said wall over a considerable area thereof through which said latter portion extends, resilient means disposed at the inner side of said mattress and acting on said last mentioned portion of said handle to move the same inwardly and draw the first mentioned portion of said handle against the outer side of said wall, said handle being movable outwardly against the tension of said resilient means to manipulate said mattress, said first mentioned means acting to protect said wall and prevent tearing thereof when said handle is moved outwardly.

5. A mattress having a flexible wall with an aperture therethrough, a handle having a portion disposed at the outer side of said

wall and normally disposed substantially parallel thereto, said handle also having a portion extending through said aperture, means engaging the inner side of said mattress through which said last mentioned portion passes, resilient means at the inner side of said mattress acting on said last mentioned portion and normally holding said first mentioned portion against the outer side of said mattress, said second mentioned portion having means thereon preventing the withdrawal of the same through said aperture, said first mentioned portion being movable outwardly against the tension of said resilient means to manipulate said mattress.

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