Dec. 12, 1933. L. STAFINSKY 1,939,324

SANITARY MATTRESS

Filed March 1, 1930

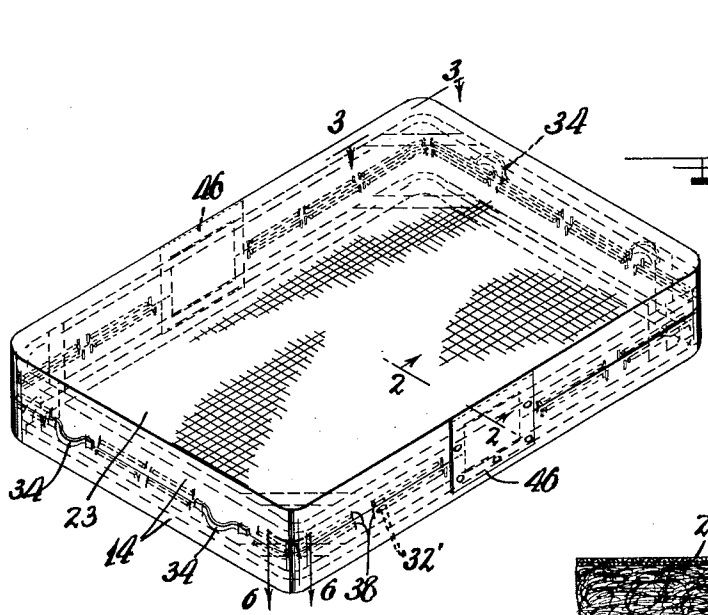


FIG 1

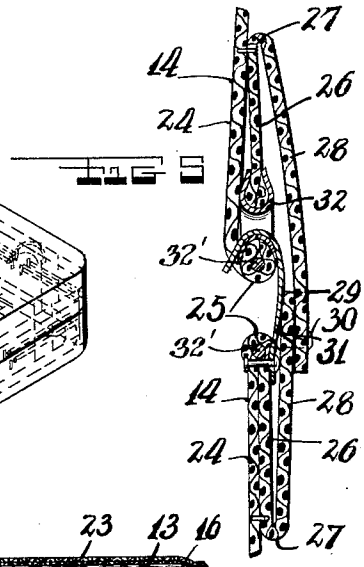


FIG 5

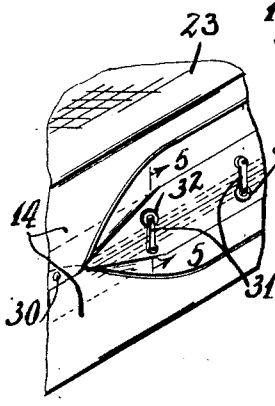


FIG 4

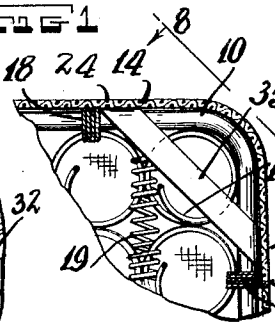


FIG 6

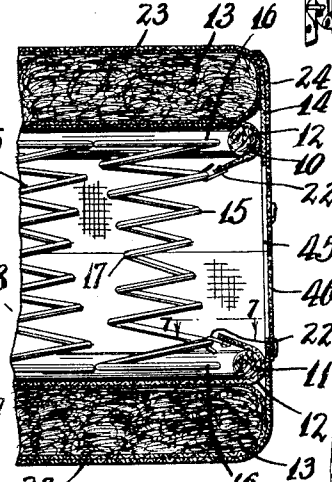


FIG 2

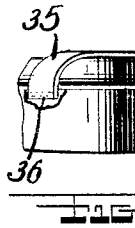


FIG 8

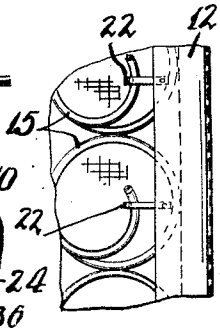


FIG 7

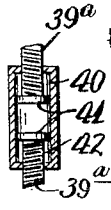


FIG 9

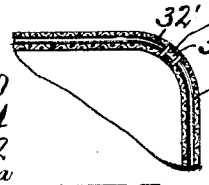


FIG 3

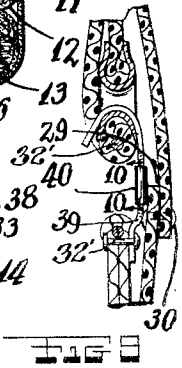


FIG 10

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SANITARY MATTRESS

Louis Stafinsky, Brooklyn, N. Y.

Application March 1, 1930. Serial No. 432,377

1 Claim. (Cl. 5—354)

This invention relates to new and useful improvements in a mattress.

The invention has for an object the provision of a device of the class mentioned which is of simple durable construction, dependable in use and efficient in action, and which can be manufactured and sold at a reasonable cost.

The invention proposes an upper and lower frame, means for resiliently supporting said frames in spaced positions, upper and lower sheets stretched tightly over said upper and lower frames, upper and lower cushions adjacent the outer sides of said sheets, and upper and lower casing members covering said cushions and attached to each other along adjacent edges.

The invention also proposes a means for changing the resiliency of the means for supporting the frames in spaced positions so as to change the cushioning effect of the mattress.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claim in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:—

Fig. 1 is a perspective view of a mattress constructed according to this invention.

Fig. 2 is a fragmentary enlarged transverse sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a fragmentary enlarged horizontal sectional view of one corner of the mattress taken on the line 3—3 of Fig. 1.

Fig. 4 is a fragmentary perspective view of one of the sides of the mattress.

Fig. 5 is a fragmentary enlarged detailed sectional view taken on the line 5—5 of Fig. 4.

Fig. 6 is a fragmentary horizontal sectional view taken on the line 6—6 of Fig. 1.

Fig. 7 is a fragmentary horizontal sectional view taken on the line 7—7 of Fig. 2.

Fig. 8 is a fragmentary elevational view looking in the direction of the line 8—8 of Fig. 3.

Fig. 9 is a similar view to Fig. 5 showing a modified form of a hook.

Fig. 10 is an enlarged vertical sectional detailed view taken on the line 10—10 of Fig. 9.

The mattress consists of an upper frame 10, a lower frame 11, means for resiliently supporting these frames in spaced positions, upper and lower sheets 12 stretched tightly over said upper and lower frames, upper and lower cushions 13 adjacent the outer sides of said sheets 12, and upper and lower casings 14 covering said cushions 13 and attached to each other along adjacent edges.

The frames 10 and 11 consist of side forming rods connected with each other so as to produce a rectangular structure when viewed from the top and joined at the corners with curved portions. The means for resiliently supporting said frames in spaced positions is shown to consist of a plurality of spiral helical springs 15 formed with large ends 16 and with small central turns 17. The springs 15 adjacent the side forming arms of the frames are stationarily held by strings 18 wound around the rods and around the end turns of the springs.

The other springs 15 not adjacent the side forming members of the frames are attached to each other by a plurality of springs 19. The various parts should be firmly secured to each other so as to form a resilient mass. Great care should be taken that the strings 18 be very tight and that the springs 19 join all the other springs to the outer springs in a very firm manner so that the resilient structure does not act against the sheets 12 spread over the frames.

This is clearly illustrated in Fig. 2 in which the ends of the springs are shown slightly spaced from the sheets. The sheets 12 are extended completely across the frames and the edges of the sheets are turned around the side forming members of the frames. A plurality of hooks 22 are attached along these edges and engage upon turns of the springs 15 for maintaining the stretched positions of the sheets. The springs also add resiliency to the stretched sheets in addition to their function of holding them in place. The cushions 13 may be of any type, but preferably should be of the type having an outer casing and soft filling material. The upper and lower casing members 14 serve to hold the cushions 13 in place.

Each of the casing members 14 consists of a transverse portion 23 connected with inturned ends 24 terminating between the upper and lower cushions. The edges of these ends are indicated in Fig. 5 by reference numeral 25. The casing material is bent outward along these edges 25 so as to form strip portions 26 which terminate in outer bends 27 connected with inwardly directed strip portions 28. These strip portions overlap one another as at 29 and are held together by snap fasteners 30 or the like.

A plurality of hooks 31 spaced at regular distances from each other are attached upon the outwardly directed strip portions 26 of one of the casings 14 and are engageable with eye elements

32 attached upon the outward directed strip portions of the other casing. These hooks are pivotally arranged so that they may swing into and out of engagement with the eye elements 32. A plurality of short length rods 32' are closely spaced to each other and are sewed into the bends 25. Since they are short and spaced they do not prevent folding of the casing member 14 for cleaning the same. The rods 32' are held from side slipping by stitches 38.

These rods do not detract from the flexibility of the mattress and at the same time add strength to the portions where stresses are encountered. Particular reference is had to the portions at which the hooks 31 engage the eyelets 32. If the strains were not distributed along lengths at these points, soon the casings would be completely out of shape in that strains occur only at periodic points. In Fig. 6 a detail has been shown for one of the corners of the mattress to particularly point out that the short length rods 32' may be bent to maintain the bends of the corners. A space 33 is shown between the rods illustrated in this figure.

A plurality of handles 34 are attached upon the ends of the mattress so as to provide for convenient handling. These handles may be attached upon the casings 14. The corners of the cushions are reinforced with diagonal strips 35. These strips are attached at their ends 36 upon the inner portions of the casing members 14 and are adapted to extend over the corners of the frames 10 and 11. The main function of these strips are to hold the cushion against slippage so that the corners of the cushion maintain their position against the corners of the frames.

The casing members are also formed with cut-out portions 45 on opposite sides, closure members 46 normally close these openings. They are attached in place with snap fasteners arranged along the edges and engageable with complementary elements arranged around the openings. The interior of the mattress may be inspected thru the openings 45.

In the modified form of the device illustrated in Figs. 9 and 10, a means has been shown for changing the resiliency of the supporting means of the frames. This means consists in hook sections 39^a forming each of the hooks 39 and at adjacent ends being formed with opposite hand threads. Couplers 40 threadedly engage upon these adjacent ends so that when turned in one direction to draw the hook sections together and when turned in the opposite directions to seperate them. The inner ends 41 of the hook sections are formed with enlarged portions engaging in recesses 42 in the couplers 40 so as to prevent complete displacement of the hook sections from the coupler. The tension of the springs 15 may be varied by changing the distances between the bends 25. If these distances are changed, different compressions will be had in that the frames 10 and 11 will be at different spaced positions. This distance may be controlled by adjustments of the length of the hooks 39.

In operation of the mattress, it is used in a conventional fashion. For cleaning or for repair, it is merely necessary to open the snap fasteners 30. This allows the strip portions 28 to be raised so that access may be had to the hooks 31. The hooks may then be disengaged from the eyelets and the casing members 14 removed. The cushions may next be aired, repaired or changed for cushions of different qualities. If desired, the hook elements 22 may be disengaged from the springs 15 for removing the sheets 12. This permits the sheets to be washed. The mattress may be assembled in a very short period of time so that its use is practical.

While I have shown and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claim.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:—

A cover for a spring mattress comprising an upper and a lower sheet for covering the top and bottom of the mattress, an upper side piece secured to and depending from the edges of said upper sheet, a lower side piece secured to and extending upward from the edges of said lower sheet, said side pieces extending over and covering the sides of the mattress, and means for detachably securing the upper side piece to the lower side piece, said securing means comprising a portion of each side piece folded outwardly from the mattress and away from the opposite side piece, a plurality of stiffening rods disposed within the fold and extending along the length of the fold at slightly spaced intervals, stitches securing said folded portion to said side piece along a line remote from the folded edge to hold said portion in its folded condition, fastening elements secured to the folded edge and the stiffening rods of one side piece, cooperating fastening elements secured to the folded edge and the stiffening rods of the other side piece for detachably fastening the folded edge of one side piece to the folded edge of the other side piece, a covering flap portion on each side piece extending from said line of stitches and reversely folded to cover said folded edge, fastening elements and first folded portion, and means for detachably securing each cover flap to the opposite cover flap.

LOUIS STAFINSKY.