March 28, 1939. M. BECHIK 2,152,237

MATTRESS AND METHOD OF MANUFACTURE

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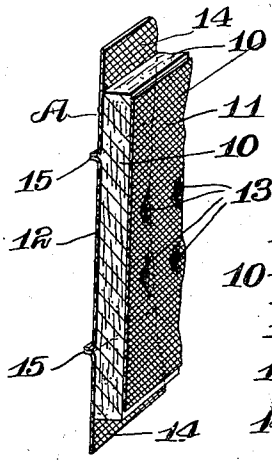


Fig. 1

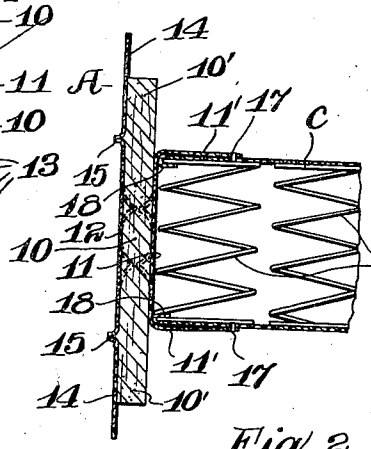


Fig. 2

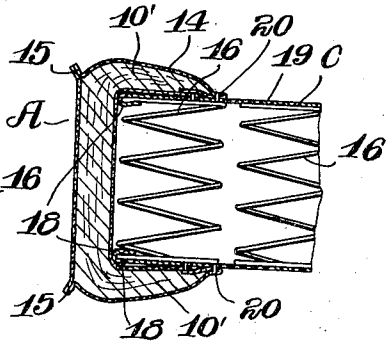


Fig. 3

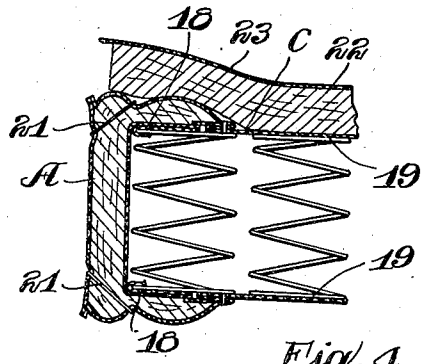


Fig. 4

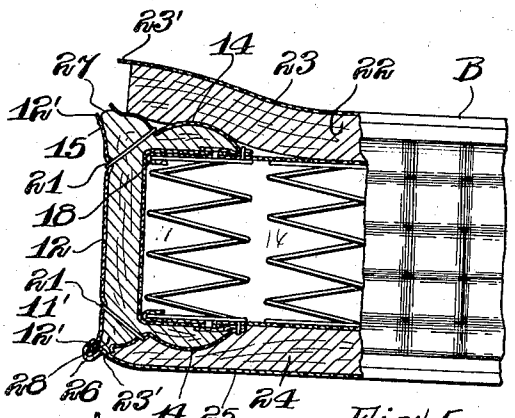


Fig. 5

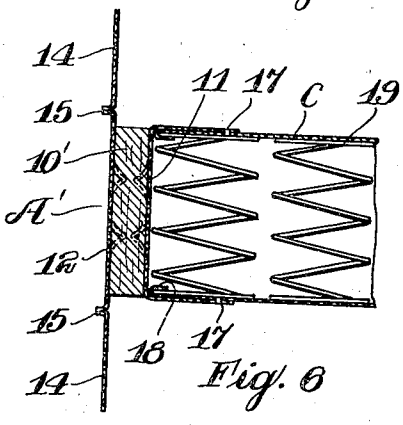


Fig. 6

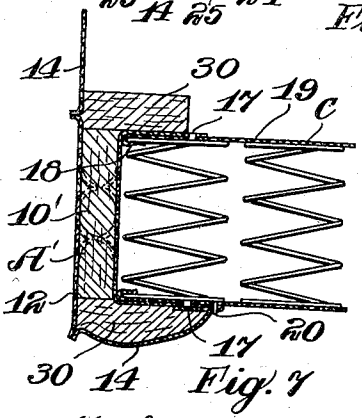


Fig. 7

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MATTRESS AND METHOD OF MANUFACTURE

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Application April 7, 1934, Serial No. 719,505

6 Claims. (Cl. 5—351)

In the manufacture of mattresses of the type where a filling is employed consisting of a spring structure and padding material of cotton, hair or similar padding, it is desirable to encase the spring structure with the padding on the top and bottom and about the border. My method includes the manufacture of the mattress so that the cover of the same is properly padded at the juncture between the border and the top and bottom so that a comparatively square or full corner may be maintained throughout the use of the mattress. I have accomplished this in a manner which I believe is more desirable and of a simpler nature than has been done heretofore.

In carrying out the manufacture of my mattress the border padding is first formed with the desired stitching to anchor the padding between the outer border covering of the mattress and the inner lining, and a projecting strip of liner material is connected along either side of the edges of the outer border material. In one form of my mattress the border padding extends wider than the width of the border covering of the mattress to provide an overlapping corner padding which is adapted to extend over the inner spring structure.

In attaching the border padding to the inner spring structure the border liner is first attached to the spring structure sheathing, after which the free edge of the strip of the liner on either side of the border is tacked to the spring structure sheathing. Then the portion which is to form the corner of the padding about the corner of the inner spring structure is roll stitched to provide a roll in the padding along the corner of the inner spring structure. Then the cotton sheathing which covers the top and bottom, together with the outer covering of the mattress, are laid in place and after the connection between the edge of the border and the liner which is attached thereto is disconnected, the freed edge of the mattress border covering is attached to the free edge of the top and bottom covering with a binder extending over these edges which forms the corner of the mattress. This forms a fully-filled corner in a simple and practical manner.

A slightly modified form of my method also includes the forming of the mattress corner over the inner spring structure by using a strip of filler or padding approximately of the desired width as the outer border covering with the same liner strips attached to the free edges of the border covering and the free edge of the liner of the border being first attached to the inner spring structure. Then laying a strip of padding of a pre-determined width over the corner of the inner spring structure, then attaching the free edge of the outer liner strips to the sheathing of the inner spring structure extending over the strip of filler, after which the corner of the border is roll stitched and then the top padding and outer mattress sheathing is laid in place and the edge of the liner attached to the edge of the border is separated so that the edge of the top and bottom covering may be attached to the edge of the border covering. The breaking of the connection between the liner strips which is connected to the edges of the border permits the cotton or filler to extend or pack tightly into the corner of the mattress covering between the border covering and the top and bottom outer sheathing of the mattress so as to form a full tightly packed cover in the casing of the mattress.

It is a feature to provide a mattress formed in a simple manner wherein an inner spring structure made up of a series of coil springs which are held together in a box-like form and covered with a suitable sheathing of a textile nature is fully padded over the sides and corners of the same, to form a mattress of a padded square cornered construction. In my mattress the spring boxing is first covered by the border padding which has the outer border covering of the mattress secured to the padding by tacking. The padding is preferably formed wider than the covering of the border so that it can be lapped over the corner of the spring boxing or inner filler. This corner overlapping portion of the padding is held by a liner strip until the corner padding is roll stitched about the mattress boxing, and then the cover padding for top and bottom together with the outer sheathing for the mattress is put in place and the free edge of the same is attached to the edge of the border sheathing, freed from the liner strip, leaving the filler padding free to extend and pack tightly into the corner of the mattress. This provides a simple means of forming a mattress with a fully padded corner between the border and upper and lower sides of the mattress. A mattress constructed in this manner will keep its square cornered shape which is very desirable.

Figure 1 illustrates the unitary padded border structure in perspective and section, showing the connecting parts in the first step of making the same in carrying out my method.

Figure 2 illustrates a section of the border and

a portion of the inner spring structure, showing the next step of carrying out my method.

Figure 3 is a section of the border and a detail of the inner spring structure, showing the next step of operation.

Figure 4 illustrates a section of the border and boxing, together with a portion of the top padding and outer sheathing, showing the following step of my method.

Figure 5 illustrates the succeeding step and illustrates the border in section together with a portion of the top and bottom illustrated in section, showing the lower sheathing attached to the border sheathing and the top sheathing just before it is attached to the border sheathing in the final step of operation in carrying out my method.

Figure 6 illustrates the first step of a modified method of attaching the border padding and outer border sheathing, showing the padding and border liners and sheathing in section and illustrating a portion of the inner spring structure.

Figure 7 illustrates the next step of the operation, showing the padding in section with the strips of padding laid in at the corners and illustrated in section, and showing a portion of the inner spring structure, Figures 6 and 7 being similar to the steps of operation of Figures 2 and 3, and from this stage of the manufacture of the mattress as illustrated in Figures 6 and 7 the operation continues as is shown in Figures 4 and 5.

In the manufacture of my mattress with my method the border padding **10** is secured between the liner member **11** and the outer border mattress covering or sheathing **12** by the tufting **13**. The padding **10** and liner **11** are wider than the width of the outer mattress border covering **12**. In this construction outer liner strips **14** are connected at **15** to the edges of the border **12** by suitable basting stitching which can be readily broken without tearing the covering **12** or the lining **14**, when it is desired. This is the first step of my method and provides a unitary border for the mattress B, a portion of which is illustrated in Figure 5.

The next step of manufacture of the mattress B is in the attaching of the unitary border A to the inner spring construction C. The inner spring structure C may be made in any suitable form wherein a series of coil springs **16** make up the spring boxing of the structure C and which structure acts as the inner spring filler of the mattress B. This step of manufacture is carried out by first attaching the ends **11'** of the inner liner **11** by the stitching **17**. This operation attaches the ends **11'** of the liner over the corners **18** of the inner spring structure C as illustrated in Figure 2.

The next step of the method of manufacture of my mattress is illustrated in Figure 3, showing the attachment of the free ends of the outer liner strips **14** to the textile covering **19** which extends over the spring C by the stitching **20**. This construction causes the ends **10'** of the padding **10** to overlap the corners **18** of the inner spring C.

The next step of the method of manufacture of my mattress B is carried out by the roll stitching **21** of the padding **10** which extends over the corners **18** as illustrated by the stitching **21** in Figure 4. The roll stitching **21** reinforces the padding **10** extending over the corners **18** in a manner to hold the same in place over the corners of the inner spring C. After this operation, the top padding **22** is laid over the inner spring structure C as illustrated in Figure 4, and the outer mattress covering **23** is laid over the outside of the padding **22**.

In the next step of manufacture of my mattress B the basting stitches are broken at **15** to free the edge **12'** of the outer mattress covering **12**, as illustrated in Figure 5. After the edge **12'** has been freed as illustrated in Figure 5, it is ready to be attached to the free edge **23'** of the covering **23**.

In Figure 5 the lower padding **24** is illustrated covered by the outer mattress sheathing or covering **25**. This illustrates the finished form of the mattress and which is accomplished by the last step of the manufacture in the binding of the edges **12'** and **23'** together by the binding tape **26** and the stitching which holds the same together.

It will be apparent by my method of manufacture, I am able to make my mattress B with a simple, inexpensive structure, yet having a strong and durable nature wherein the padding **10** is extended or lapped over the corners **18** of the inner spring C. The portion **27** of the padding which is freed by the breaking of the basting stitching at **15** from its compressed state caused by the roll stitching **21**, permits the padding to extend into the corner **28** of the mattress covering formed by the border covering portion **12** and the top and bottom coverings **23** and **25**. This form of construction of my mattress B and the method of making the same causes the felting or padding **10** to be tucked firmly into the corner **28** by the portion **27** so as to build a comparatively square corner **28** to the mattress B and maintain the same under use, thereby providing a mattress B which will keep its shape better than has been accomplished heretofore.

My method of manufacture may be carried out to make up the mattress in the form illustrated in Figures 6 and 7 by attaching to the inner spring structure C a unitary border A' wherein the cotton **10''** is bound tufted together between the outer mattress border covering **12** and the inner lining member and where the padding **10''** is of a width approximately that of the border **12** or slightly less. In this construction the unitary border A' is provided with the outer liner strips **14** stitched at **15** in the foregoing manner. The first step of the operation of the method illustrated by Figures 6 and 7 is illustrated in Figure 6 wherein the liner **11** is attached by the stitching **17** to the textile covering sheathing **19** of the inner spring C. The next step of this method of manufacture resides in placing a strip of cotton felt padding **30** as illustrated in Figure 7 over the corners **18** of the inner spring C. Then the next step resides in attaching the free edge of the strips **14** by the stitching **20** to the covering **19** of the inner spring C as illustrated on the bottom of Figure 7.

After the foregoing steps in the method of manufacture illustrated in Figures 6 and 7, the next operation is carried on as illustrated in Figure 4, and the final operation of the method as illustrated in Figure 5 excepting the unitary border A' is used with the narrow felting **10** and the felting strips **30** in place of the unitary border A which uses a wider felting **10**.

My method accomplishes a desired result in economically providing a mattress construction having doubly padded edges which does not require an inner lining sheathing for holding the cotton padding or felting such as has been used

heretofore. Further, by doing away with the lining sheathing which was used previously in this type of mattress construction, I bring the soft cotton felting or other felting of any suitable nature directly into contact with the outer mattress covering to provide a softer and more pliable mattress than other mattresses of this general type. A mattress made by my method as defined and of the construction set forth, has more life in responding to the touch and permits the expansion of the cotton felting against the outer sheathing 12, 23 and 25, than where a lining is used. Further, the construction of my mattress without the lining permits the aerating of the cotton felting or padding material in the sun, which is very desirable, which has a tendency to fluff up the cotton felting and keep it in good condition.

I claim:

1. The method of manufacturing a mattress comprising connecting the outer border covering and an inner lining with a padding therebetween, connecting lining strips to the edges of the outer covering of the border, the border padding being wider than the outer covering, then attaching the inner lining of the border to an inner spring structure, then folding the border padding over the upper and lower corners of the spring structure, then attaching the free edge of the liner strips to the spring structure, then roll stitching the padding at the corners, the stitches extending through the outer border covering and the lining strips, then laying the padding with the outer mattress covering on the top and bottom sides of the spring structure, then freeing the strip lining from the edges of the border covering, and then stitching the border covering to the edges of the top and bottom mattress covering.

2. A mattress including, an inner spring structure having a textile covering, a border having a padding between an outer border covering with lining strips attached by roll stitching along lines spaced from the longitudinal edges thereof, and an inner lining along said border padding, means attaching said inner lining to said covering of said inner spring structure, means attaching the free edges of said lining strips secured to said border covering to said inner spring structure covering to overlap the ends of said border padding over the corners of said inner spring structure, a top and bottom padding extending over said inner spring structure, an outer mattress sheathing extending over said top and bottom padding, and means binding the edges of said top and bottom coverings with the edges of said border covering.

3. A mattress including, an inner spring structure, a boxing including a border covering, lining and padding interposed therebetween, with the padding overlying the corners of said inner spring structure, a lining strip attached to the inner spring structure, roll stitching connecting said lining strip and said border covering extending through the corner padding about said inner spring structure, a padding and covering over the top and bottom of said inner spring structure, and binding means securing the edges of said border covering and said top and bottom covering together providing a padded filled corner around the periphery of the two sides of said mattress.

4. A mattress comprising, an inner spring structure, border padding extending over the corners of said spring structure, liner means attached to said inner spring structure overlying said padding, top and bottom padding extending over said spring structure, an outer mattress covering extending over said top and bottom padding, a border mattress covering tacked to said border padding, roll corner stitching through said border covering, the edge of said padding, and said liner means, means binding the edges of said top and bottom covering to the edges of said border covering, said border padding at the corners completely filling the corners of said mattress covering to provide a comparatively square cornered mattress.

5. The method of manufacturing a mattress consisting in extending about an inner spring filler a boxing having an outer covering member and padding attached thereto, the boxing being wider than the thickness of the spring filler, folding the edges of the padding over the corners of the spring filler, securing lining strips, which have been previously marginally attached to the covering member of the boxing, over the folded edges of the padding to the spring filler, roll stitching the lining strips through the folded corners of the padding to the outer boxing covering, placing padding over the top and bottom surfaces of the spring filler, disconnecting the marginal edges of the outer covering of the boxing from the edge of the lining strips, and marginally connecting a top and bottom mattress covering to the marginal edges of the outer boxing covering.

6. The method of manufacturing a mattress comprising, making a unitary border including border padding, outer sheathing, liner strips basted to the edge of the outer sheathing, a lining on the inside of the padding, tack stitching the padding between and to the outer sheathing and inner lining, then attaching the free edges of the inner lining to an inner spring construction which forms the inner filler of the mattress, then attaching the free edges of the liner strips to the inner spring construction in a manner to cause the ends of the padding to be compressed and lapped over the corner of the inner spring construction, then roll edge stitching said outer sheathing, padding, and liner strips together, then padding the top and bottom of the inner spring construction and laying a covering over the same, then releasing the basting stitching of the liner strips and attaching the edges of the outer sheathing with the edges of the top and bottom covering to completely inclose with padding and covering the inner spring structure.

MICHAEL BECHIK.