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A Three dimensional Sewn Pillow and A Method of Manufacturing the Pillow

Field of the Invention

The present invention relates to a three dimensional sewn pillow and a method for manufacturing the pillow.

Prior Art

A pillow for preventing a core material such as feather from moving freely in the pillowcase in use by partitioning the pillowcase into a plural number of chambers and filling each chamber with a core material has been proposed. However, in pillowcases having the above structure, the upper surface and the under surface are directly sewn together by a sewing machine to form the plural number of chambers in a pillowcase.

In this manufacturing method, portions sewn by the sewing machines become depressed forming big depressed portions. And when a face or a head comes into such a big depressed portion, it is bad to touch, giving the pillow such shortcomings such as a disagreeable feeling and a discomfort to sleep with.

The invention has been made in association with the above findings. And even by forming plural number of chambers inside the pillowcase, pleasant feel, good sleep, and novel impressions for customers are possible by offering a three dimensional sewn pillow and a method for manufacturing the pillow.

Summary of the Invention

The invention provides a three dimensional sewn pillow characterized in that the pillow comprises a pillow case, a first surface cloth forming the pillowcase, a second surface cloth provided in confrontation with the first surface cloth forming said pillowcase, a marking side surface cloth forming said pillowcase along with the first surface cloth and the second and forming side surfaces of the pillowcase, a first partition cloth provided upright on an end of inside of the pillowcase forming a first side portion for sectionally forming the first portion provided on an end of the a first side portion, a first central partition for a first cervical vertebra for sectionally



forming a first cervical vertebra supporting chamber for supporting a first cervical vertebra supporting portion provided upright between said first partition cloth and a second partition cloth, a back-of-the-head supporting chamber for forming a back-of-the head supporting portion formed between said first Cervical vertebra supporting portion and said second cervical vertebra supporting portion by providing said first side partition cloth, said second side partition cloth and a second central partition portion, and a core material stuffed in said first side chamber, said second side chamber, said first cervical vertebra supporting chamber, said second cervical vertebra supporting chamber and said back-of-the-head supporting chamber.

The invention also provides a three dimensional sewn pillow characterized in that the said first central partition cloth and said central partition cloth have a plan view of a "<" shape.

The invention further provides a method of manufacturing a three dimensional sewn pillow characterized in that a first margin-to-sew-up of the first central partition cloth is sewn on to the first surface cloth by providing a first partition cloth along the width of the first surface cloth in the center of the reverse surface of the first surface cloth, the first-margin-to-sew-up is sewn on the first surface cloth by providing the first side partition cloth on an end of the reverse side of the first surface cloth so that said first partition cloth is set in a diagonal direction relative to said first central partition cloth and said second central partition cloth, the second partition cloth is provided on the other end of

the first surface cloth in confrontation with the first partition cloth and a first-margin-to-sew-up of the second partition cloth is sewn on the first surface cloth, a marking side cloth is provided on the hem of said first surface cloth and the first-margin-to-sew-up of the marking side cloth is sewn on the margin-to-sew-up provided on the hem of the first surface cloth, the second margin-to-sew-up of said first central partition is sewn on the central portion of the reverse side of the second surface cloth, the second margin-to-sew-up of said second central partition is sewn on the central portion of the reverse side of the second surface cloth, the second margin-to-sew-up of said first partition is sewn on an end of the reverse side of the second surface cloth, the second margin-to-sew-up of said second side partition cloth is sewn on the other end of the second surface cloth, a curved margin-to-sew-up of said first central partition cloth is sewn on the first side partition cloth and the second side partition cloth, a curved margin-to-sew-up of said second central partition cloth is sewn on the first side partition cloth and the second side partition cloth, margin-to-sew-ups provided on both ends of said first central partition cloth are sewn on the second marking surface portion and the fourth side marking surface portion of marking side cloth, margin-to-sew-ups provided on both ends of said second central partition cloth are sewn on the second marking surface portion and the fourth side marking surface portion of marking side cloth, margins provided on the hem of the first surface cloth and the first margin-to-sew-up is sewn at a position corresponding to the first side chamber so that opening for the first side chamber is provided, margins provided on the hem of the second surface cloth and the second margin-to-sew-up is sewn at a position corresponding to the second side chamber so that opening for the second side chamber is provided, a first side portion is formed by filling a core material through the opening for the back-of-the-head supporting chamber on either the first central partition cloth or the second central partition cloth, a core material is filled into the first central side chamber through said opening on the first central side chamber to form the first cervical vertebra supporting chamber to form the first cervical vertebra supporting portion, a core material is filled into the second side chamber through said opening for the second cervical vertebra supporting chamber to form the second

cervical vertebra supporting portion.

Brief Description of the Drawings

Fig.1 is a plane view of the three dimensional sewn pillow of the preferred embodiments.

Fig.2 is an overall diagonal view of the three dimensional sewn pillow of preferred embodiments.

Fig.3 is a front view of the three dimensional sewn pillow of preferred embodiments.

Fig.4 is a front view of the first central partition employed in the three dimensional sewn pillow of preferred embodiments.

Fig.5 is a diagonal perspective view of the pillowcase of the three dimensional sewn pillow of the preferred embodiments.

Fig.6 is a cross-sectional view of the pillowcase of the three dimensional sewn pillow of the preferred embodiments.

Fig.7 is cross-sectional view of the pillowcase of the three dimensional sewn pillow of the preferred embodiments.

Detailed Description of the Invention

A preferred embodiment of the present invention is illustrated in Fig.1 through Fig.7. As shown in Fig.1, the pillowcase 12 of the three dimensional sewn pillow is made of an appropriate close material and formed in a "<" shape. In addition, as illustrate in Fig.2, when the three dimensional sewn pillow of this embodiment is used, the upper surface cloth 14 locates on the upper surface and the lower cloth of the second surface close locates on the lower side.

Between the upper cloth 14 and the lower cloth 16 both in square shapes is the tape-like shape marking side cloth 18 forming the side surface of the pillowcase 12. As shown in Fig.6, an upper margin-to-sew-up 18A as a first margin-to-sew-up of the marking surface cloth 18 is sewn on the margin-to-sew-up of the hem on the upper surface cloth 14A and a lower margin-to-sew-up 18B as a second margin-to-sew-up of the marking surface cloth 18 is sewn on the margin-to-sew-up of the hem on the lower surface cloth 16A.

As shown in Fig.1 and Fig 2, the marking side surface cloth 18 is folded at four locations, thus forming the first marking side portion 20, the second marking side portion 22, the third marking side portion 24 and the fourth marking side portion.

As shown in Fig.1, a first side partition cloth is provided upright in a direction diagonal relative to the width direction of the pillowcase on an end of the width direction of the pillowcase.

As shown in Fig.6, an upper margin-to-sew-up 30A as a first margin-to-sew-up of the first side partition cloth 30 is sewn on the upper surface cloth 14, a lower margin-to-sew-up 30B as a second margin-to-sew-up of the first side partition cloth 30 is sewn on the lower surface cloth 16. In addition, as a curved margin-to-sew-up 30C of the first side partition cloth 30 is sewn on the fourth marking side portion 26 of the marking side surface cloth 18.

As shown in Fig.1, the second partition cloth 32 is provided upright on another end of the direction along the width of the pillowcase 12 in a diagonal

direction relative to the depth direction of the pillowcase 12. As shown in Fig.6, the upper margin-to-sew-up 32A as the first margin-to-sew-up of the second partition cloth is sewn on the upper surface cloth 14, and the under margin-to-sew-up as the second margin-to-sew-up as the second margin-to-sew-up of the second of the second side partition cloth 32 is sewn on the lower surface cloth 16. In addition, as shown in Fig.7m a curbing margin-to-sew-up 32C of the second partition cloth 32 is sewn on the second side surface portion 22 of the marking side surface cloth 18, and a curving margin-to-sew-up 32D of the second partition cloth 32 is sewn on the fourth marking side surface portion 26 of the marking side surface close 18.

As shown in Fig.1, by providing the first side partition cloth 30 and the side portion partition cloth 32 upright inside of the pillowcase 12, the first side chamber 34A is sectionally formed on an end of the pillow case 12 which forms the first side portion 34 on an end of the pillow case, and the second side chamber 36A which forms the second side portion 36 is sectionally formed on another end of the pillowcase 12.

The first central partition cloth 40 is provided between the first side partition cloth 30 and the second side partition cloth on the side of view (under side in Fig.1) along the width direction of the pillow case. As shown in Fig.4, the first central partition cloth is formed by sewing the both sides of the margin-to-sew-up 42A of the partition-forming upper forming portion 42 with the both sides of the margin-to-sew-up 42A of the partition-forming lower forming portion together. In this structure, an opening for the back-of-the head supporting chamber 46 is formed on the middle portion of the first central partition cloth 40. (Further more, an opening for the back-of-the-head supporting chamber 46 sewn by a string and closed is illustrated in Fig.4.) Accordingly, a core material can be filled through the opening for back-of-the-head supporting chamber 46 into the back-of-the-head supporting chamber (illustrated later).

As shown in Fig.5, the upper margin-to-sew-up 40A as a first margin-to-sew up of the first central partition cloth 40 is sewn on the upper surface cloth 14, and the lower margin-to-sew up 40B as the second

margin-to-sew-up is sewn on the lower cloth 16. The curving margin-to-sew-up 40C of the first central partition cloth 40 is sewn on the first side partition close 30, and the curving margin-to-sew-up 40D is sewn on the second side partition cloth 32.

As shown in Fig.1, the second central partition cloth 48 having a “<” shape is provided upright in confrontation with the first central partition cloth 40 between the first side partition cloth 30 and the second side partition cloth 32 on the opposite side of the view-point along the width direction (upper side of Fig.1). As shown in Fig.5, the upper margin-to-sew up 48A as the first margin-to-sew-up of the second partition cloth 48 is sewn on the upper cloth 14, and the lower side as a second margin-to-sew-up is sewn on the lower surface cloth 16. In addition, the curving margin-to-sew-up 48C of the second central partition cloth 48 is sewn on the first side partition cloth 30, and the curbing margin-to-sew-up 48D is sewn on the second side partition cloth 32.

As shown in Fig.1, by providing the central partition cloth 40 and the second central partition cloth 48 upright between the first side partition cloth 30 and the second side partition cloth, the first cervical vertebra supporting chamber 50A comprising the first Cervical vertebra is sectionally formed between the first side partition 34 and the second side 36 portion on a far side along the width of the pillowcase 12, and the second Cervical vertebra supporting chamber 52A comprising the second cervical vertebra supporting portion is sectionally provided on the away point along the width direction of the pillow case.

In addition, the back-of-the head supporting chamber 54A comprising 54 having a hexagonal plan shape is sectionally formed between the first cervical vertebra supporting chamber and the second Cervical vertebra-supporting chamber.

As shown in Fig.2, feather 56 as a filling material is filled into the first side chamber 34A, the second side chamber 36A, the first Cervical vertebra supporting chamber, the second cervical vertebra chamber and the back-of-the head supporting chamber, giving the three dimensional sewn pillow 10 a

three-dimensional shape. Further more, as shown in Fig.3, the feather 56 is filled so that the first side portion 34 and second side portion 36 are highest, followed by, the first Cervical vertebra supporting the first side portion 34 and the second side portion, and further followed by the first Cervical vertebra supporting portion 50 and the second Cervical vertebra supporting portion 52, with the back-of-the-head supporting portion 54 is formed the lowest in height.

Now, the function of the above three dimensional sewn pillow 10 is illustrated.

When a user uses the three dimensional sewn pillow, user rests his/her head on the three dimensional sewn pillow, with his/her neck resting on the first Cervical vertebra supporting portion 50 or the second Cervical vertebra supporting portion 52, his/her back-of-the head resting on the back-of-the-head supporting portion and rests his/her back of the head resting on the three dimensional sewn pillow.

Because the first side chamber 34A, the second side chamber 36A, the first cervical vertebra supporting chamber 50A and the second Cervical vertebra supporting chamber and the back-of-the head supporting chamber are sectionally formed inside of the pillow case 12 of the three dimensional sewn pillow 10, feather 56 dose not move in the three dimensional sewn pillow 12, the three dimensional sewn pillow dose not get out of the shape for a long period of usage.

In addition, the first side chamber 34A, the second chamber 36A, the first cervical vertebra supporting chamber 50A, the second cervical vertebra supporting chamber 52A, the back-of the-head supporting chamber 54A are sectionally formed by the first side partition cloth 30, the second Cervical vertebra cloth 32, the first partition cloth 40, the second partition cloth 48. As a result, there are not big depressed portions on the upper surface 14 and lower surface 16, even if the first side chamber 34A, the second side chamber 36A, the first Cervical vertebra supporting chamber 50A, the second Cervical vertebra

supporting chamber 54A and the back-of-the-head supporting chamber 54A are sectionally provided inside of the pillowcase 12, users can enjoy good touch of the pillow and comfortable sleep.

Further more, as shown in Fig.2 and Fig.3, because the marking side portions 20, 22, 24, and 26 extend upright, the outer shape gives customers smooth and novel impressions, making the three dimensional sewn pillow 10 attractive to customers.

Now, a preferred embodiment of the manufacturing method of the above three dimensional sewn pillow is discussed.

When manufacturing a three dimensional sewn pillow 10, the first central partition close 40 is arranged in a plan view of a "<" shape and is provided on the central portion of the reverse side of on the upper surface cloth 14, and the upper margin-to-sew-up 40A of the first central partition cloth 40 is sewn on the upper surface cloth 14. In a similar way, the second central partition cloth 48 is arranged in a plan view of a "<" shape and provided on the central portion of the reverse side upper surface cloth 14 in confrontation with the central partition cloth 40m and the upper margin-to-sew-up 48A of the second central partition cloth is sewn on the upper surface cloth 14.

Then, the first side partition cloth 30 is provided on an end of the reverse surface of the upper surface cloth 14, and the upper margin-to-sew-up 30A of the first side partition portion is sewn on the upper surface 14. The second side partition cloth 32 is provided on the other side of the upper surface cloth, and the upper margin-to-sew-up 3A of the second partition cloth 32 is sewn on the upper surface cloth 14.

In the next step, a marking side surface cloth 18 is provided on the hem of the upper surface cloth 14, and the upper margin to sew-up 18A of the marking side surface 18 is sewn on the margin-to-sew-up 14A provided on the hem of the upper surface cloth 14.

Then, the first central partition cloth 40 is provided on the central portion

of the reverse surface of the under surface cloth, and the lower margin-to-sew-up 40B of the first central partition cloth 40 is sewn on the under surface cloth 16. In a similar way, the under-margin-to-sew-up 48B of the second partition cloth 48 is sewn on the central portion of the reverse side of under surface cloth 16, with the second central partition cloth 48 confronting the first central partition 40.

In the next step, the first side partition cloth 30 is provided on an end of the reverse side of the under surface cloth 16, and the lower margin-to-sew-up 30B of the first side partition cloth 30 is sewn on the under surface cloth 16. then, the second side partition cloth 32 is provided on the other end of the under surface cloth 16, and the lower margin-to-sew-up 32B of the second side partition cloth 32 sewn on the under surface 16.

Then, the curving margin-to-sew-up of the first central partition 40 is sewn on the first partition cloth 30, and curving margin-to-sew-up 40D is sewn on the second partition cloth 32. In a similar way, the curving margin-to-sew-up 48C of the second central partition cloth is sewn on the first side partition cloth 30, and the curving 48D is sewn to the second partition cloth 32.

In the next step, the curving margin-to-sew-up 30C of the first side partition cloth 30 is sewn on the second marking side surface portion 22 of the marking side surface cloth 18, and the curving margin-to-sew-up 30D is sewn on the fourth marking side surface portion 26. In a similar way, the curving margin-to-sew-up 32C of the second side partition cloth 32 is sewn on the second marking side portion 22 is sewn on the marking side cloth 18, and the marking margin-to-sew-up 32D is sewn on the fourth marking side surface portion 26 of the marking of the marking side 18.

Then, the margin-to-sew-up 16A formed on the hem of under surface cloth 16 is sewn on the lower margin of 18B. In this step, a precaution must be taken not to sew the middle portion of the first marking side surface portion corresponding to the first side chamber 34A, the middle portion of the second marking side surface portion corresponding to the first Cervical vertebra supporting chamber 50A, the middle portion of the third marking side surface 24 corresponding to the second side chamber 36A and middle portion of the fourth marking side surface portion corresponding to the second Cervical vertebra

supporting chamber 54A to the margin-to-sew-up 16A, and form an opening for the first side chamber 20A, an opening for the first Cervical vertebra 22A, an opening for the second side chamber 24A and an opening for the second Cervical vertebra for the second Cervical vertebra supporting chamber 26A must be prepared.

In addition, the feather 56 is filled from the opening 46 for the back-of-the-head supporting chamber which is provided on the central partition cloth 40 through the first cervical vertebra supporting chamber 50A, and the opening of the back-of-the-head supporting chamber 54A is sewn and enclosed, forming the back-of-the head supporting portion 54.

In the next step, the feather 56 is filled into the first side chamber 34A from the opening 20A formed on the first marking side chamber 20, and the opening 20A of the first side chamber is sewn and enclosed, forming the first side portion 34, and the feather is filled into the first cervical vertebra supporting chamber 504A from the opening 22A for the first cervical vertebra supporting chamber formed on the second marking side surface portion 22, and the opening 24A for the first cervical vertebra is sewn and enclosed to form the first cervical vertebra supporting portion 54. The feather 56 is filled into the second side chamber 36A from an opening 24A provided on the third marking side surface, and the opening 24A for the second side chamber is sewn and enclosed to form the second side portion 36. The feather 56 is filled into the second cervical vertebra supporting chamber from the opening 26A for the second cervical vertebra formed on the fourth marking side portion 26, and the opening 26A for the second cervical vertebra is sewn and enclosed to form the second cervical vertebra supporting portion 52.

In this step, the amount of the feather 56 is so decided that the first side portion 34 and the second side portion 36 are the highest, followed by the first cervical vertebra supporting portion 50 and the second cervical vertebra 52, and the back-of-the-head supporting portion 54 is the lowest.

With the method described above, three dimensional sewn pillows can be manufactured.

Although, by the manufacturing method described above, the upper surface cloth 14 was sewn first, it is obvious that the pillow can be manufactured by sewing the lower surface cloth 16 first

Although, the back-of-the-head supporting chamber 54A of the three dimensional sewn pillow 10 is formed in a hexagonal shape in the above embodiment, the plan view of the back-of the head-supporting chamber is not limited to the hexagonal shape. For example, it is obvious the plan view of the back-of-the-head 54A can be in an oblong shape by extending the first partition 40 and the second central partition cloth 48 upright so that they represent an oblong view.

In addition, an opening for back-of the-head supporting chamber 46 is formed on the first central partition cloth 40 in the above embodiment, it is obvious that the opening 46 for the back-of-the-head supporting portion can be formed on the second partition cloth 48 rather than on the second central partition cloth 40,

Although, the feather 56 was used to fill in the pillowcase in the above embodiment 10, the core material is not limited to feather 56 and it is obvious that such materials including buckwheat husks or cotton may be used.

Because the pillows of the present invention are divided into a plural number of sections by providing the first central partition cloth, the second partition cloth, the first central partition and the second central partition cloth upright inside of the pillowcase, the first and second cloths of the pillowcase are not deeply depressed, the pillow has excellent effect of being agreeable to touch and being comfortable to sleep with.

In addition, the three dimensional sewn pillow of this invention, there will not be deeply depressed portion on the first surface cloth and the second surface cloth. In addition, because the side surface are extending upright, users

can feel a smooth and a novel impressions that are not felt with conventional pillows, and the pillow has an excellent effect of drawing attentions from prospective consumers.

The method of manufacturing three dimensional sewn pillows has an excellent effect of enabling manufacturing of the above three dimensional sewn pillow having the above effects.

Description of Symbols

10 Three dimensional Sewn Pillow

12 Pillowcases

14 The First Surface Cloth

16 The Second Surface Cloth

18 Marking Side Surface Cloth

20 The First Marking Side Surface Portion

22 The Second Marking Side Surface Portion

24 The Third Marking Side Surface Portion

26 The Fourth Marking Side Surface Portion

30 The First Side Partition Cloth

32 The Second Side Partition Cloth

34 The First Side Portion

34A The First Side Chamber

36 The Second Side Portion

36A The Second Side Chamber

40 The First Central Partition Cloth

48 The Second Central Partition Cloth

50 The First Central Cervical vertebra Supporting Portion

50A The First Central Cervical vertebra Supporting Chamber

52 The Second Cervical vertebra Supporting Portion

52A The Second Cervical vertebra Supporting Chamber

54 Back-Of-the-Head Supporting Portion

54 A Back-Of-the-Head Supporting Chamber

56 Feathers

Claims:

1. A three dimensional sewn pillow characterized in that the pillow comprises a pillow case, a first surface cloth forming the pillowcase, a second surface cloth provided in confrontation with the first surface cloth forming said pillowcase, a marking side surface cloth forming said pillowcase along with the first surface cloth and the second and forming side surfaces of the pillowcase, a first partition cloth provided upright on an end of inside of the pillowcase forming a first side portion for sectionally forming the first portion provided on an end of the first side portion, a first central partition for a first cervical vertebra for sectionally forming a first cervical vertebra supporting chamber for supporting a first cervical vertebra supporting portion provided upright between said first partition cloth and a second partition cloth, a back-of-the-head supporting chamber for forming a back-of-the head supporting portion formed between said first cervical vertebra supporting portion and said second cervical vertebra supporting portion by providing said first side partition cloth, said second side partition cloth and a second central partition portion, and a core material stuffed in said first side chamber, said second side chamber, said first cervical vertebra supporting chamber, said second cervical vertebra supporting chamber and said back-of-the-head supporting chamber.

2. A three dimensional sewn pillow of Claim 1 characterized in that the said first central partition cloth and said central partition cloth have a plan view of a "<" shape.

3. A method of manufacturing a pillow of Claim 1 and Claim 2 characterized in that a first margin-to-sew-up of the first central partition cloth is sewn on to the first surface cloth by providing a first partition cloth along the width of the first surface cloth in the center of the reverse surface of the first

surface cloth, the first-margin-to-sew-up is sewn on the first surface cloth by providing the first side partition cloth on an end of the reverse side of the first surface cloth so that said first partition cloth is set in a diagonal direction relative to said first central partition cloth and said second central partition cloth, the second partition cloth is provided on the other end of the first surface cloth in confrontation with the first partition cloth and a first-margin-to-sew-up of the second partition cloth is sewn on the first surface cloth, a marking side cloth is provided on the hem of said first surface cloth and the first-margin-to-sew-up of the marking side cloth is sewn on the margin-to-sew-up provided on the hem of the first surface cloth, the second margin-to-sew -up of said first central partition is sewn on the central portion of the reverse side of the second surface cloth, the second margin-to-sew -up of said second central partition is sewn on the central portion of the reverse side of the second surface cloth, the second margin-to-sew-up of said first partition is sewn on an end of the reverse side of the second surface cloth, the second margin-to-sew-up of said second side partition cloth is sewn on the other end of the second surface cloth, a curved margin-to-sew-up of said first central partition cloth is sewn on the first side partition cloth and the second side partition cloth, a curved margin-to-sew-up of said second central partition cloth is sewn on the first side partition cloth and the second side partition cloth, margin-to-sew-ups provided on both ends of said first central partition cloth are sewn on the second marking surface portion and the fourth side marking surface portion of marking side cloth, margin-to-sew-ups provided on both ends of said second central partition cloth are sewn on the second marking surface portion and the fourth side marking surface portion of marking side cloth, margins provided on the hem of the first surface cloth and the first margin-to-sew-up is sewn at a position corresponding to the first side chamber so that opening for the first side chamber is provided, margins provided on the hem of the second surface cloth and the second margin-to-sew-up is sewn at a position corresponding to the second side chamber so that opening for the second side chamber is provided, a first side portion is formed by filling a core material through the opening for the back-of-the-head supporting chamber on either the first central partition cloth or the second central partition cloth, a core

material is filled into the first central side chamber through said opening on the first central side chamber to form the first cervical vertebra supporting chamber to form the first cervical vertebra supporting portion, a core material is filled into the second side chamber through said opening for the second cervical vertebra supporting chamber to form the second cervical vertebra supporting portion.