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(54) Title: BEDCLOTHING

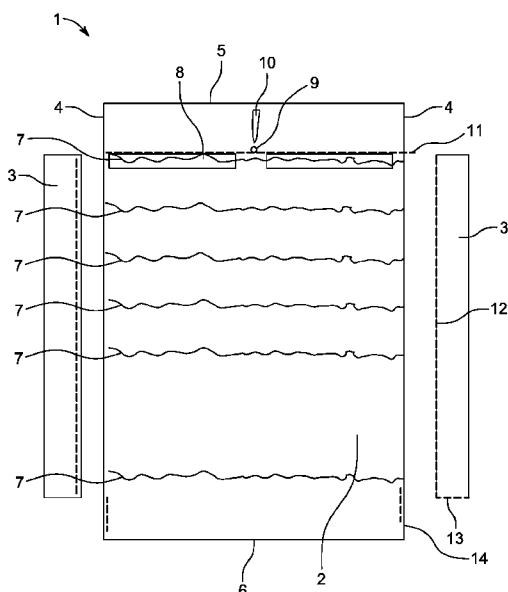


Figure 1

(57) Abstract: Provided is bedclothing comprising a sheet having parallel elasticated lines. In use the sheet is arranged as a topsheet and the elasticated lines maintain the positioning of the sheet relative to the user while forming cavities which assist in thermal regulation. The sheet may further have stay flaps which enable maintenance of the position of the sheet with regard to a mattress.



TITLE

Bedclothing

FIELD OF INVENTION

This invention relates to bedclothing, and in particular to positionally stabilized bedclothing.

BACKGROUND

It is known to cover a mattress with bedding for warmth, hygiene, protection, and comfort. However, much traditional bedclothing does not accommodate seasonal changes in temperature, can be easily disturbed (i.e. moved away from a well fitted position) and/or unnecessarily clings to user's skin when the person moves.

OBJECT OF THE INVENTION

It is an object of preferred embodiments of the invention to go at least some way towards addressing at least some of these shortcomings. While this applies to preferred embodiments, it should be understood that the object of the invention per se is simply to provide the public with a useful choice. Therefore, any objects applicable to preferred embodiments should not be taken as a limitation on the scope of any claim expressed more broadly.

DEFINITIONS

The term "comprises" or derivatives thereof should not be interpreted as limiting. For example, if used in relation to a combination of features it should be taken to indicate that optionally, but not necessarily, there may be additional features that have not been mentioned.

SUMMARY OF INVENTION

According to a first aspect of the invention there is provided bedclothing comprising a sheet of fabric, having a series of elasticated lines extending between sides of the sheet to create gathers therein, the bedclothing being formed such that when the sheet is against and covers the body of a human user the gathers take up lateral movement of the user and positionally stabilise the bedclothing.

Optionally the elasticated lines are at least generally parallel to one another.

Optionally the sheet comprises a head end and a foot end substantially perpendicular to

the sides of the sheet. An elasticated line may be arranged towards the head end in order to engage with the torso of the user. An elasticated line may be arranged towards the foot end in order to engage the feet of the user.

Optionally there are at least three, preferably at least four, still more preferably at least 5 elasticated lines that are spaced approximately 5 inches (12.7cm) to approximately 15 inches (38.1cm) apart. Preferably the elasticated lines are spaced approximately 7 inches (17.8 cm) – approximately 13 inches (33 cm) apart, still more preferably the elasticated lines are spaced approximately 10 inches (25.5cm) apart.

In certain embodiments the bedclothing comprises a stay flap at each side of the sheet adapted to tuck under a bed mattress. In one embodiment the stay flap is arranged to form a corner adapted to engage a corner of the mattress.

Optionally the sheet comprises a head end and a foot end, and the bedclothing comprises at least one buffer slip extending adjacent to and parallel with at least a portion of the head end of the sheet at a position that corresponds with the user's shoulders when in normal use. Optionally the bedclothing comprises two buffer slips each arranged parallel with at least a portion of the head end of the sheet with a space in between.

According to still further embodiments of the invention the bedclothing comprises a second sheet of fabric that overlays the first sheet; and fastening means that releasably engages the sheets.

Optionally there is a liner between the first and second sheets, the liner comprising at least one sheet of fabric releasably attached to the second sheet.

Optionally the liner comprises two sheets of fabric, arranged side by side, and each being releasably attached to the second sheet.

Optionally the second sheet has a series of medially positioned fasteners arranged to engage with fastening means forming part of the liner.

Optionally there are complimentary parts of the fastening means attached to the first and second sheets.

Optionally the first sheet has a hole, the hole being adapted such that the fastening means can pass through it.

Optionally the liner releasably attaches to a spine comprising a strip of fabric which extends medially between two opposing edges of the second sheet.

DRAWINGS

Some preferred embodiments of the invention will now be described by way of example and with reference to the accompanying drawings, of which:

Figure 1 is a top plan view of a first layer of bedclothing; and

Figure 2 is a bottom plan view of second and liner layers of the bedclothing.

DETAILED DESCRIPTION

Referring to figure 1, the bedclothing has a first layer 1 formed from a puffed sheet 2 and two stays 3. In use the first layer 1 is immediately above and in contact with a person sleeping in a bed.

The puffed sheet 2 is a size and shape corresponding to the bed being used. In the embodiment shown it is rectangular, with two opposing sides 4 and two opposing short ends, a head end 5 and foot end 6, the head end 5 being the end nearest to where the user would place his or her head, and the foot end 6 being the end nearest to where the user would place his or her feet. The distance between the two sides 4 is about the width of the bed and the distance between the ends 5, 6 is at least the same, or is longer than, the length the bed. Preferably the distance between the ends 5, 6 is long enough that the foot end 6 of the sheet can be tucked under the mattress. Some examples of common bed sizes include: 92 cm x 188 cm, 92 cm x 203 cm, 107 cm x 203 cm, 135 cm x 188 cm, 150 cm x 203 cm, 165 cm x 203 cm, 183 cm x 203 cm and 203 cm x 203 cm.

The puffed sheet 2 has a number of puff lines 7, formed from lengths of elasticated material that extend between the sides 4 and cause at least some of the puffed sheet 2 to gather. The puff lines 7 are sewn in with a double straight stitch or with a zigzag straight stitch or in any other way that causes gathering. The fabric and elastic type may vary and thus the elastic tension may also vary, in general a tension of between approximately 40% and approximately 70% is suitable. The gathers provide wave-like folds in the puffed sheet 2. The number of puff lines 7 and their distance apart may vary, provided there are sufficient puff lines 7 at a sufficient distance apart to cause gathering. Figure 1 depicts five parallel puff lines 7 spaced 10 inches (25.5cm) apart toward the head end 5 of the puffed sheet 2 and a sixth line 7 toward the foot end 6. However there could be upwards of 8 parallel puff lines spaced between 16cm and 71 cm apart. It is preferable that the elastic tension for each puff line should be the same.

The folds caused by the gathered puffed sheet 2 create space cavities. A space cavity is the empty space that the folds create under the puffed sheet 2. The space cavities help insulate the user to assist with regulating body temperature. The gathers and elasticated puff lines 7 can also move with the user to keep the bedclothing positionally stable (for example the bedclothing remains in a substantially well fitted position even when the user turns or moves across or along the bed). When the bedclothing is positionally stable the impact of the user's movement is limited by reducing the disturbance of the layers of bedsheets, when compared to a situation without the gathers.

There are two buffer slips 8 attached to the puffed sheet 2 at the head end, at about the level where the sleeper's neck and shoulders would be. The buffer slips 8 are preferably formed from soft stretch cotton fabric, which drape over the sleeper's neck and shoulders for warmth and comfort. The buffer slips can be approximately 8 inches (approx. 17cm) x 34 inches (approx. 86 cm). It will be apparent that the number and arrangement of the buffer slips will depend on the size of the sheet and preferences of the intended users, for example a single size bedsheets will preferably have one buffer slip, while a double size sheet may use two buffer slips.

The stays 3 are rectangular flaps that are about the length of the sheet, from the buffer slips 8 to a position proximal to the foot end of the sheet 6 and are at each side of the puffed sheet 2. They can be attached to or integrally formed with the puffed sheet 2 and are wide enough to be tucked under the bed mattress. In certain embodiments the stay flap 3 is wide enough to cover a user as a flat sheet, should they choose not to use the puffed sheet 2.

As depicted, each stay is secured to a respective long edge 4 by an attaching edge 12. The stays 3 are positioned along the long edge 4 such that a portion of the long edge 14 is available to fix to the corner edge 13 of the stay. When the long edge 4 and corner edge 13 are attached they can form a corner in the first layer 1 that can be tucked around the corner of and under the mattress.

The puffed sheet may be folded over on itself at the fold line 11, such that a portion of the sheet can be folded out of the way by the user as they desire. Alternatively the sheet may be folded at line 11 and stitched at or above the second puff line 7, creating a double layer below the user's chin line, and leaving the two buffer slips free to fall or be flipped over at will by the user.

In one use the bottom end 6 and stays 3 are secured under the mattress, thus

positionally stabilizing the bedclothing 1 with regard to the bed. The elastic of the puff lines 7 should be on the outside of the sheet. The user can slip under the bedclothing through the head end 5. The first five puff lines 7 serve to stabilize the sheet with regard to the users torso as well as creating space cavities to aid in thermal regulation, while the 6th puff line 7 serves to do the same with the feet of the user.

In an alternative use, where a user does not wish to be covered by the puffed sheet of the sheet, the stay 3 can be removed from under the mattress and used as a flat sheet allowing for a second user to still be covered by the puffed sheet.

The bed clothing according to the invention may consist solely of the first layer 1 formed from the puffed sheet 2 and thus may be used in the same manner as a traditional top sheet, either as the sole covering of the user, or with a duvet, blanket or other covering.

However in other aspects, the first layer 1 forms part of a bedclothing that combines the first elasticated layer 1, with further layers for warmth. In these aspects the first layer may be adapted for attachment to the further layers.

Thus as shown in figure 1, there is a connector 9 attached to the puffed sheet 2 centrally and at the head end 5. The connector 9 can be a button or a snap button or any other suitable fastener, although preferably, it is hooks or loops from a hook and loop fastener (e.g. Velcro). The connector 9 is used to connect the first layer 1 with other layers of bedclothing.

There is a mid-cut 10 located adjacent to the connector 9 but nearer the head end, which is a slotted opening in the puffed sheet 2. The mid-cut 10 allows the connector 9 to remain engageable with other layers, even when the puffed sheet 2 is folded over on itself. The section of the puffed sheet that is folded is folded to between the first 1 and second layers when such layers are connected.

Referring to figure 2, there is a second layer 15 and two attachable-liners 16. The second layer 15 overlays and is releasably connectable to the first layer 1. The second layer has a connector 17 which is complimentary to and engages with the connector 9 of the first layer 1. There are also two clamps 18 which fasten the edges of the first 1 and second 15 layers at the head end. The connectors 9, 17 and clamps 18, collectively allow the two layers to be releasably connected and holds the layers in place with respect to one another.

As shown in figure 2, the second layer 15 has a spine 20 which extends medially

between the head and feet ends of that layer. The spine has a number of attachment points 20 placed along it at 7-inch intervals, including buttons, slots for buttons to engage with, and loops. In a preferred embodiment there is 21 slots for buttons to engage, 9 on each side of the spine to accommodate respective liners on either side of the spine. The attachment points can be used to fasten the liners 16 or other bedding accessories to the second layer 15.

The liners 16 have buttons and button slots 21 along a long edge, placed to correspond with the buttons and button slots of the spine 19. In a preferred embodiment the liners will have 9 buttons to attach to the button slots of the spine. The liners 13 sit between the first 1 and second 15 layers of the bedclothing when arranged on a bed. The liners 16 are used to retain additional warmth under the bedclothing and be releasably attached by the user according to their warmth needs. Where there are two users sharing the bedclothing, each user can add or removed respective liners 16 according to their own preferences.

The sheets 1, 15 and liners 16 can be made from any suitable bedding material however they are preferably made from natural breathable fibres, such as cotton, wool or other natural fibres or blends

While some preferred forms of the invention have been described by way of example, it should be understood that modifications and improvements can occur without departing from the scope of the following claims.

CLAIMS

1. Bedclothing comprising a sheet of fabric, having a series of elasticated lines extending between sides of the sheet to create gathers therein, the bedclothing being formed such that when the sheet is against and covers the body of a human user the gathers take up lateral movement of the user and positionally stabilise the bedclothing.
2. Bedclothing according to claim 1, wherein the elasticated lines are at least generally parallel to one another.
3. Bedclothing according to claim 1 or 2, wherein the sheet comprises a head end and a foot end substantially perpendicular to the sides of the sheet.
4. Bedclothing according to claim 3, wherein an elasticated line is arranged towards the head end in order to engage with the torso of the user.
5. The bedclothing according to claims 3 or 4, comprising an elasticated line arranged towards the foot end in order to engage the feet of the user.
6. Bedclothing according to any one of the preceding claims, wherein there are at least three elasticated lines that are spaced approximately 12.7cm – approximately 38.1cm apart.
7. Bedclothing according to any one of the preceding claims, wherein there are at least four elasticated lines that are spaced approximately 12.7cm – approximately 38.1 cm apart.
8. Bedclothing according to any one of the preceding claims, wherein there are at least five elasticated lines that are spaced approximately 12.7cm - approximately 38.1 cm apart.
9. Bedclothing according to any one of claims 6 – 8, wherein the elasticated lines are spaced approximately 17.8 cm – approximately 33 cm apart.
10. Bedclothing according to claim 9, wherein the elasticated lines are spaced approximately 25.5 cm apart.
11. Bedclothing according to any of the preceding claims, wherein the sheet comprises a stay flap at each side adapted to tuck under a bed mattress.
12. Bedclothing according to claim 8, wherein the stay flap is arranged to form a corner adapted to engage a corner of the mattress.
13. Bedclothing according to any the preceding claims, comprising at least one buffer slip extending longitudinally adjacent to one end of the first mentioned sheet at

a position that corresponds with the user's shoulders when in normal use.

14. Bedclothing according to claim 10, wherein there is a second buffer slip arranged as per the first except that each is at a different side portion of the first sheet.
15. Bedclothing substantially as herein described and with reference to the drawings.

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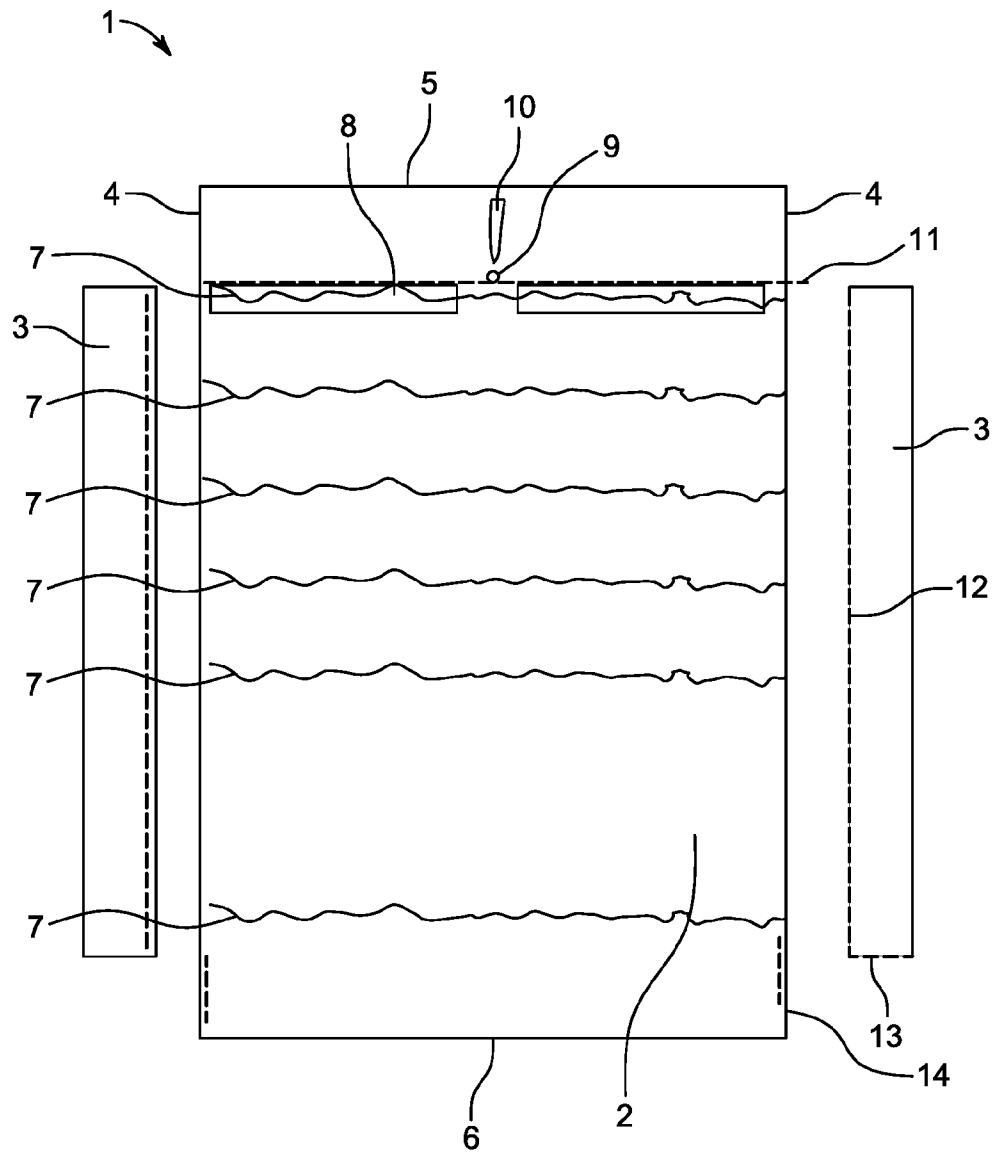


Figure 1

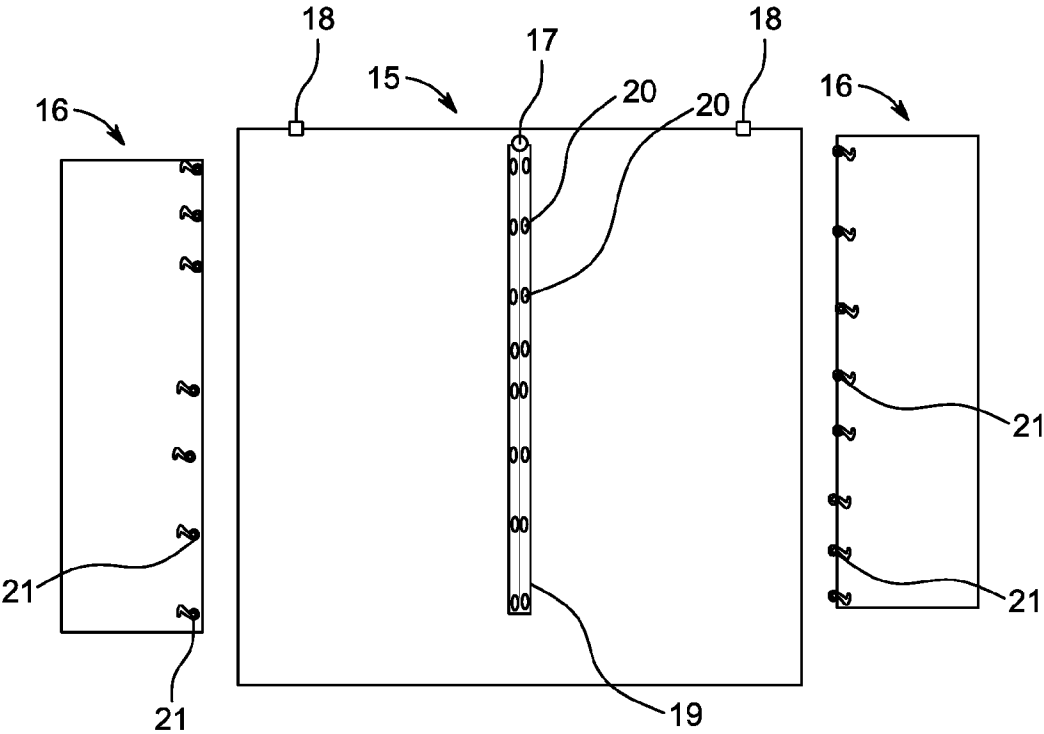


Figure 2