

US 20160166091A1

(19) United States (12) Patent Application Publication CARLSON et al.

(10) Pub. No.: US 2016/0166091 A1 (43) Pub. Date: Jun. 16, 2016

(54) SPLIT TOP BED SHEETS FOR SLEEPING PARTNERS

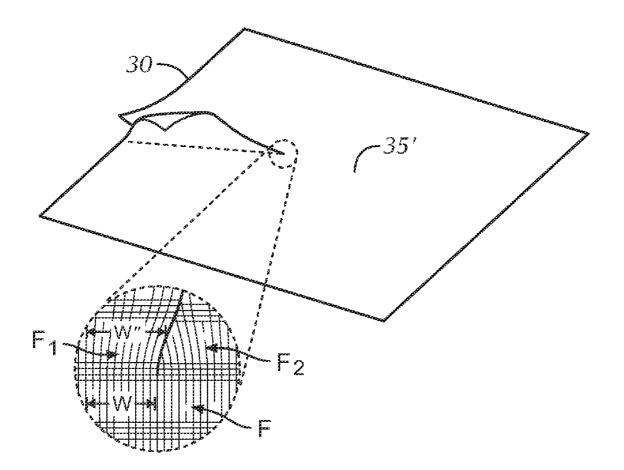
- (71) Applicants: Lori Krupa CARLSON, Montgomery, TX (US); Ky Hehl CARLSON, Montgomery, TX (US)
- (72) Inventors: Lori Krupa CARLSON, Montgomery, TX (US); Ky Hehl CARLSON, Montgomery, TX (US)
- (21) Appl. No.: 14/767,801
- (22) PCT Filed: Sep. 3, 2013
- (86) PCT No.: PCT/US13/57770
 § 371 (c)(1),
 (2) Date: Aug. 13, 2015

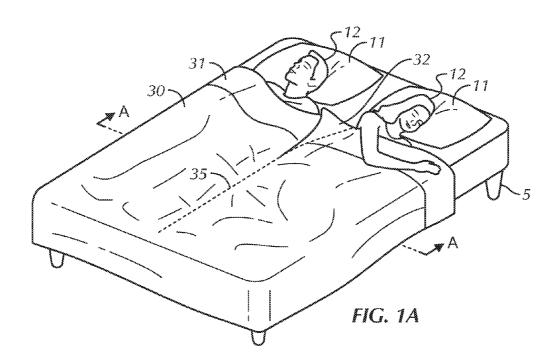
Publication Classification

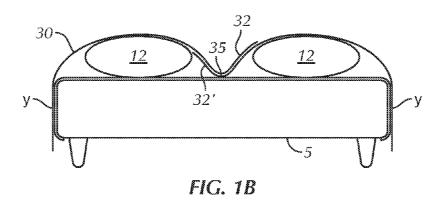
- (51) Int. Cl. *A47G 9/02* (2006.01)
- (52) U.S. Cl. CPC *A47G 9/023* (2013.01); *A47G 9/0223* (2013.01)

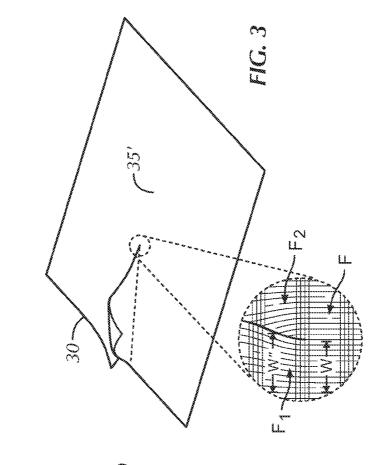
(57) ABSTRACT

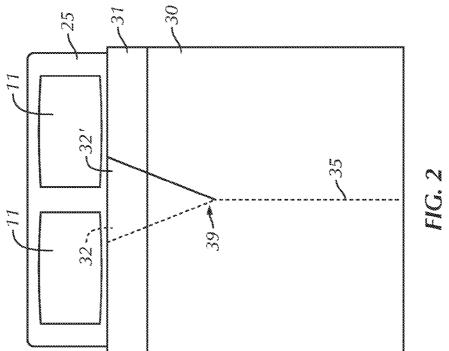
A split bed covering for providing individually adjustable sleeping configurations in a single bed, and extending across the split line to form overlapping flaps which prevent drafts and bridging between sleeping partners and disturbances when one partner moves his or her bed coverings.

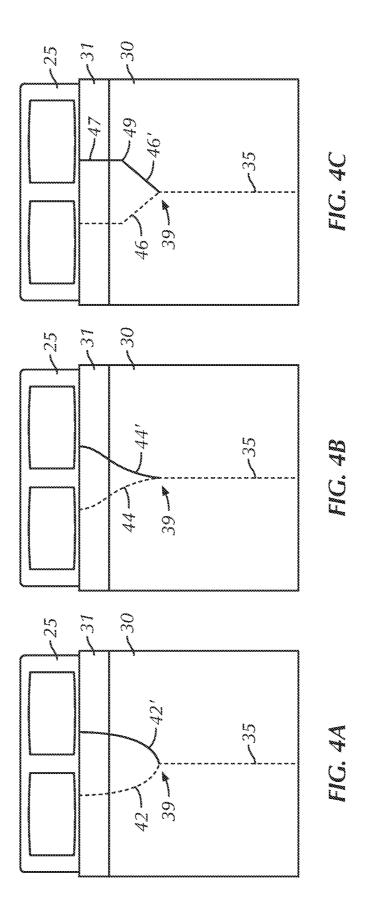












SPLIT TOP BED SHEETS FOR SLEEPING PARTNERS

BACKGROUND OF THE INVENTION

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] Not Applicable.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not Applicable.

BACKGROUND OF THE INVENTION

[0003] Couples sharing a bed sometimes find that the preferences of one may cause discomfort or irritation to others. In particular, movement of a blanket or top sheet by one partner can awaken or disturb the other. Some people prefer coverings pulled to the chin, or over the head, while others may prefer them down to the chest or waist.

[0004] Cold breezes caused by a partner adjusting the covers have caused annoyance and provoke many thoughts and accusations of inconsideration. When two people lie together, they often find the covers "bridge" between them leaving an opening for drafts which may be unwelcomed on a cold night. Placing enough covers between two bodies to prevent the bridging results in a shortage of covers on the outer sides.

[0005] It is desirable for each bed partner to have control of their top sheet and/or blankets (covers). Having two complete sets of covers over each half of the bed is difficult in practice. The two covers can interfere with each other; prevent connecting and touching under the sheets, which prompted couples to share a bed to begin with.

[0006] Previous attempts to solve the dilemma involved dual materials joined along a central seam. In some instances, the materials may be separable along the seams. These attempts result in a seam down the middle of the bed which can be unsightly, irritating to sleepers, and leaves gaps in which appendages can become entangled during sleep. This can be uncomfortable, and possibly hazardous.

[0007] Bedding refers to the materials laid above the mattress of a bed for warmth, sanitary proposes, and decorative effect. Bedding sizes are usually made with the dimensions of the bed and mattress for which it is to be used being a large consideration. Bed sizes vary considerably around the world, with most countries having their own standards and terminology. Furthermore, mattresses within a particular area may be of different thicknesses and bedding may be sized for the different thicknesses. Different areas also have different climates, and bedding may again vary to accommodate such climate variations. For instance, some environments may require only a light upper sheet while other environments may require a heavier upper sheet, a duvet, and/or a comforter.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. **1**A illustrates a perspective view of a bed sheeted with a bed sheet set constructed in accordance with an exemplary embodiment of the invention.

[0009] FIG. 1B illustrates a cross-sectional view of the bed in FIG. 1A in accordance with an exemplary embodiment of the invention.

[0010] FIG. **2** illustrates a top view of a bed sheeted with a bed sheet set constructed in accordance with an exemplary embodiment of the invention.

[0011] FIG. **3** illustrates details of fabric construction for an embodiment in accordance with an exemplary embodiment of the invention.

[0012] FIG. **4**A-C illustrates details of overlaps in accordance with an exemplary embodiment of the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0013] The term bedding can consist of many different parts, from sheets and blankets, to pillows and dust ruffles. The description that follows is concerned primarily with an overlay or upper sheet. The principles apply equally to covers, duvets, blankets, etc. which lie above a bed's occupant. These are collectively and individually referred to as covers in the following description, the features of which may apply to one or more individual elements applied in layers.

[0014] The description that follows is prefaced on two occupants sharing the bed, one on the left and one on the right. Each lies with their head on the pillow at the top of the bed with their body aligned parallel to a centerline which bisects the bed between them from the head of the bed to the foot of the bed. The upper sheet is positioned such that the top of the sheet terminates at the head of the bed, but several inches are folded back such that the fold falls just below the pillows. Standard sheet sets are comprised of a lower sheet which may be a flat sheet or a fitted sheet and an upper sheet which is usually a flat sheet.

[0015] It is the desire of the applicant to provide for bed partners to individually adjust the covers for optimal sleep arrangements without inconveniencing one another. Optimally, a person should be able to change position, adjust or billow the covers, or even enter and exit the bed without disturbing their partner. Additionally, the covers should not easily entangle extremities; have gaps/openings which allow "uncovered" regions; or have seams, ridges, or joinery which can irritate a sleeper.

[0016] By splitting the covers down the approximate center of the bed from the head end until approximately just above the waist area, and providing a seamless flap to extend from each "half" across the center line, the desired outcome can be accomplished. The flap overlaps rather than forming a buttjoint as found in previous innovation for shared sleeping paraphernalia. The overlap prevents gaps between the overlapping sides, and provides sufficient material to prevent bridging between sleep partners without causing a covering deficit on the outer sides of the bed.

[0017] To accomplish a seamless overlapping portion, the overlap must be created at the time of the base material's creation. One method is to use a knitted material where increases can be used to create the overlaps without seams. Another method is to use felting to create seamless overlaps. If knitted material is utilized, then the warp knitted fabric is desired for its dimensional stability due to the insertion of weft during the process

[0018] The preferred method to produce the seamless overlap is through the use of woven fabrics. To accomplish overlaps in woven fabrics requires special techniques where the warp and the weft is of a high thread count in the start of the cover's weaving process, and at the split, the warp of each half is reduced by spreading a plurality of the threads across the split and weaving each half individually with the high thread count weft. In another embodiment, the weft thread count is increased in at least the area of the lower warp thread count to maintain the overall thread count of the fabric and avoid a perceptible altering of the material weight.

[0019] In another embodiment, the warp is supplemented with additional threads to produce the overlap. To maintain the integrity of the fabric at the overlap point, the additional threads are inserted between a plurality of existing warp threads by weaving a central portion of the additional warp thread as weft for a short portion to anchor the central portion to the fabric, then the ends are turned approximately ninety degrees so the weft threads then become warp threads for the remainder of the weaving process.

[0020] In one embodiment, the overlaps may include closures to allow the overlaps to be fastened together. Examples of closures include, but are not limited to: hook and loop fasteners, buttons, snaps, hooks and eyelets.

[0021] In the preferred embodiment, the split extends from the head of the sheet to approximately the waist level of standard bed occupants to prevent lower extremities from becoming entangled during the night. Individual designs have differing fold back amounts and covers designed for different sized beds and occupants may have differing actual lengths of split. An example includes cold weather comforters which may not be designed to fold back at the top due to thickness, would have a shorter split length than a light weight top sheet with visually contrasting patterns on reverse sides, which may have longer split length to allow for greater fold.

[0022] The width of the overlap in the preferred embodiment is approximately one third of the distance from the center of the sheet to the outside edge of the bed for a standard queen sized bed. Different embodiment may have different overlap widths. For example, larger beds, like California King, may have the same dimensional overlap as smaller beds such as doubles; however the percentages of each overlap are different due to the overall bed width differences. Factors which must be considered in determining the overlap width is type of material, thickness of material, environment in which it is to be utilized, and personal preference.

[0023] The shape of the overlap may vary between embodiments. In the preferred embodiment the shape of the overlap is a modified triangle which begins at the bottom of the split and uniformly widens toward a maximum overlap width at the point of fold back, and maintains the maximum width from the point of fold back to the head of the cover.

[0024] In another embodiment the overlap may extend from the bottom of the split and uniformly widens toward a maximum overlap width at the head of the sheet thus forming a triangular shaped overlap. In another embodiment the widening of the overlap may produce a convex or concave shape which may extend to the fold back point or to the head of the sheet.

[0025] In the preferred embodiment the split is down the approximate center of the bed to provide a couple approximately equal halves of the bed. Other embodiments may position the split more toward one side or the other.

[0026] Additional benefits of the split sheet set are that one partner may turn back the covers to enter or exit the bed without disturbing the other bed occupants. It is easier to make the bed after use because the covers may be individually aligned by each person. One can make or unmake a half of the bed with only minimal disturbance of the other half or of the other occupant. Sheets are less likely to shift to one side or the other during the night because there is no "battle for the

covers" during the night. The split makes it easy to identify the proper orientation of the sheets when making the bed.

[0027] FIG. 1A illustrates a perspective view of a bed sheeted with a bed sheet set constructed in accordance with an exemplary embodiment of the invention. The bed (5), used by the two occupants (12), has a cover, or upper sheet (30) which is folded back (31) at the head end, just below the pillows (11). A center line (35) is positioned along the center of the bed where the cover (30) is split and extended across the center line (35) to form overlaps (32).

[0028] FIG. 1B illustrates a cross-sectional view of the bed in FIG. 1A along the plane indicated as AA. From the crosssectional view, the occupants (12) of the bed (5) are shown to be lying below the upper sheet (30). The occupants' position dictates position so that their head is at the head of the bed and their feet are at the foot of the bed. One overlap (32) is on top while the other overlap (32') extends under. The overlaps (32 & 32') are shown to align at the center line (35) and sag to eliminate bridging at the approximate center line while not resulting in a deficit on the outer sides (y) of the bed (5).

[0029] FIG. 2 illustrates a top view of a bed sheeted with a bed sheet set constructed in accordance with an exemplary embodiment of the invention. The pillows (11) are at the head of the bed (5, not labeled) which is covered with a fitted sheet (25) and an upper sheet (30) which is folded back (31) at the top edge. A center line (35) is located at approximately the center of the bed, extending from the bottom to the beginning of a split point (39) and extending toward the head of the bed. The sheet on either side of the split is extended across the centerline to form overlaps (32 & 32').

[0030] FIG. 3 illustrates details of fabric construction for an embodiment in accordance with an exemplary embodiment of the invention. The cover (30) is constructed without a central seam (35'). The close up illustrates how the fabric is woven to have the split integrated into the fabric. The solid portion of the fabric (F) has a warp thread count of W threads per inch.

[0031] At a desired point, the fabric is divided into two fabric halves (F1 & F2) which are extended across the split line by extending the warp thread count to W". Weft thread count may remain constant, or may be increased to compensate for the lowered thread count of the warp threads and maintain a specific fabric weight.

[0032] FIG. 4A-C illustrates details of overlaps in accordance with an exemplary embodiment of the invention. In each figure, the bed (5 not labeled) is dressed with a fitted sheet (25) and a cover (30) with the top folded back (31). The center line (35) is split at a point (39) to the head end of the sheet forming a left and right overlapped portion. In FIG. 4A, the overlaps (42 & 42') are circular in shape and are convex at the lower end. In FIG. 4B, the overlaps (44 & 44') have a complex curve or re-curved shape. In FIG. 4C, the overlaps (46 & 46') have an angular portion extending to a maximum overlap width at one point (49) and continuing with the same maximum overlap width to the head end as indicated by the edge (47).

[0033] The diagrams in accordance with exemplary embodiments of the present invention are provided as examples and should not be construed to limit other embodiments within the scope of the invention. For instance, heights, widths, and thicknesses may not be to scale and should not be construed to limit the invention to the particular proportions illustrated. Additionally, some elements illustrated in the singularity may actually be implemented in a plurality. Further, 3

some element illustrated in the plurality could actually vary in count. Further, some elements illustrated in one form could actually vary in detail. Further yet, specific numerical data values (such as specific quantities, numbers, categories, etc.) or other specific information, should be interpreted as illustrative for discussing exemplary embodiments. Such specific information is not provided to limit the invention.

[0034] The above discussion is meant to be illustrative of the principles and various embodiments of the present invention. Numerous variations and modifications will become apparent to those skilled in the art once the above disclosure is fully appreciated. It is intended that the following claims be interpreted to embrace all such variations and modifications.

What is claimed is:

1. A split bed covering comprising;

- a sheet having a split along a line extending from a head end toward a bottom end forming two upper portions of the sheet and a single lower portion;
- wherein the two upper portions extend across the split to form flaps wherein the flaps significantly overlap while lying in a substantially planer configuration.

2. A split bed covering, as described in claim **1** wherein each upper portion and the overlapping flap extending therefrom are a single non-seamed piece of fabric.

3. A split bed covering, as described in claim **1** wherein each upper potion and the single common lower portion are a single contiguous non-seamed piece of fabric.

Jun. 16, 2016

4. A split bed covering, as described in claim **1** wherein the overlapping flaps extending across the center line further comprise fasteners for joining the overlapping flaps together along a common plane.

5. A split bed covering, as described in claim **1** wherein fabric is a felted fabric.

6. A split bed covering, as described in claim **1** wherein fabric is a knitted fabric.

7. A split bed covering, as described in claim 1 wherein fabric is a woven fabric.

8. A split bed covering, as described in claim **7** wherein the flaps have a lower warp thread count than the lower portion.

9. A split bed covering, as described in claim **8** wherein the flaps have a higher weft thread count than the lower portion.

10. A split bed covering, as described in claim 7 wherein the flaps are formed by inserting additional warp threads to maintain a consistent warp thread count throughout the covering.

11. A split bed covering, as described in claim **1** wherein the overlapping flaps are triangular.

12. A split bed covering, as described in claim **1** wherein the overlapping flaps have a triangular lower region and a rectangular upper region.

13. A split bed covering, as described in claim **1** wherein the overlapping flaps have convex outer edges.

14. A split bed covering, as described in claim **1** wherein the overlapping flaps have a concave outer edge.

* * * *