United States Patent

Weiss

[15] **3,638,251**

[45] **Feb. 1, 1972**

[54] COMBINATION BEDSHEET AND PILLOWCASE

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[22] Filed: **Jan. 2, 1970**

[21] Appl. No.: **190**

[52] **U.S. Cl.** ..... **5/334 C**, 5/354 C
[51] **Int. Cl.** **A47g 9/00**
[58] **Field of Search** ..... 5/334, 334 C, 335, 354, 354 C

[56] **References Cited**

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[57] **ABSTRACT**

The disclosure relates to a combination bedsheet and pillowcase. A fitted-contour bedsheet is provided adjacent its head end with a transverse gore, either integral or as a separate panel, providing a pocket bulge at the head portion of the sheet. One or more pillows, depending on the configuration of the sheet, may be received between the mattress and the bedsheet within this pocket bulge, and, in one advantageous form of the invention, the front of the pocket tucks under the front edge of the pillow, providing the appearance of a conventional separate sheet and pillow arrangement. The fitted-contour sheet is self-holding on the mattress, so that the pillow or pillows are totally enclosed and secured in place. To particular advantage, the new combination bedsheet is constructed of knitted fabric, mechanically preshrunk in the length direction; in this way, a "no iron" sheet may be constructed using ordinary knitted cotton fabrics, which are to be preferred over synthetic or resin-fixed fabrics for the same purposes.

4 Claims, 8 Drawing Figures

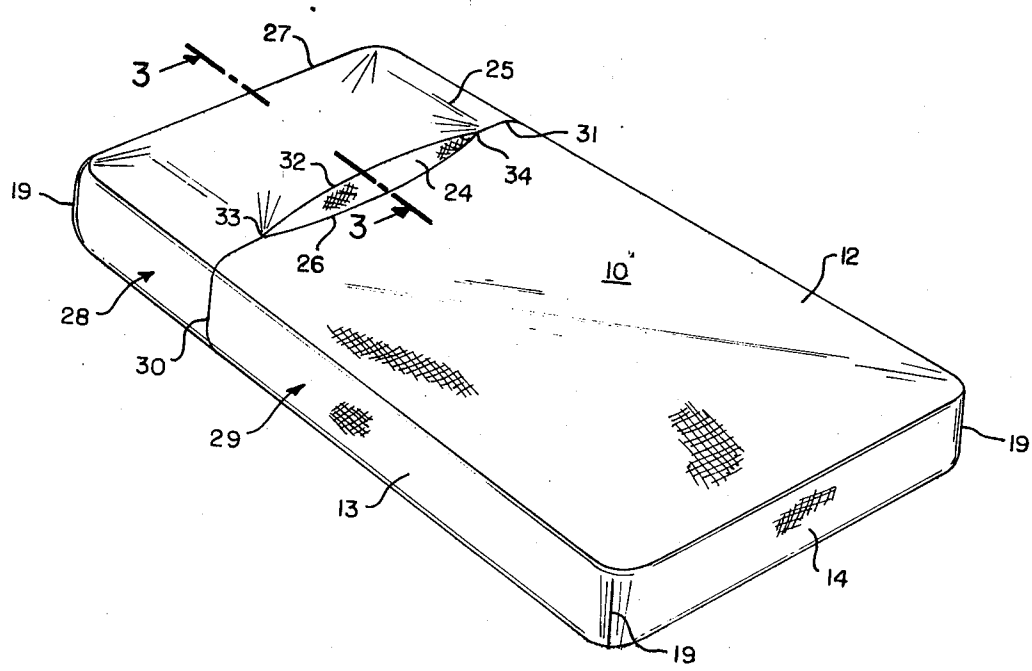


FIG. 1

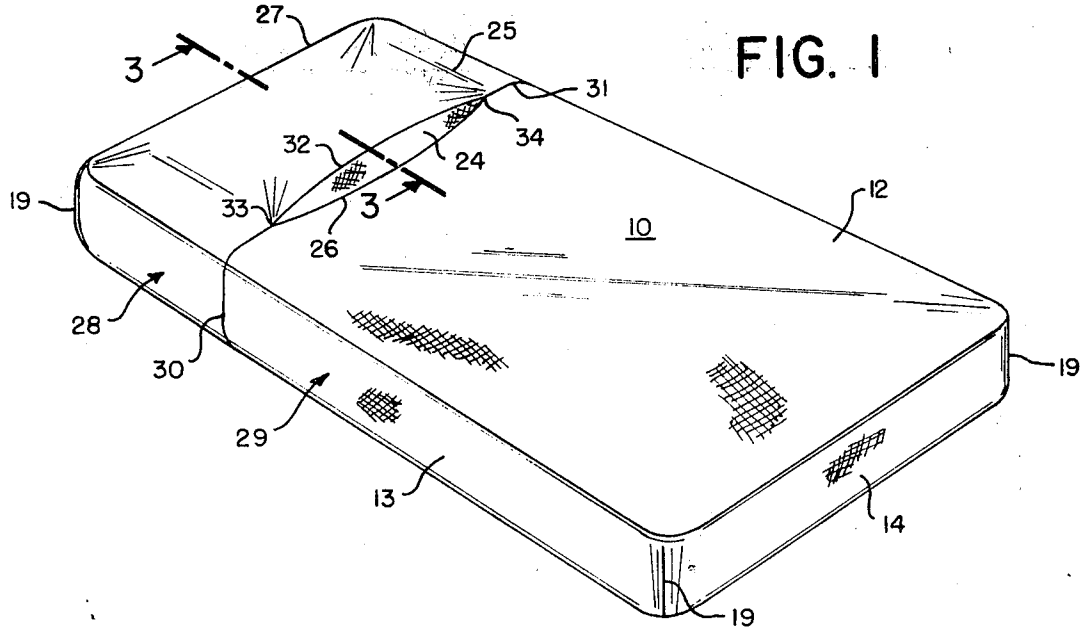
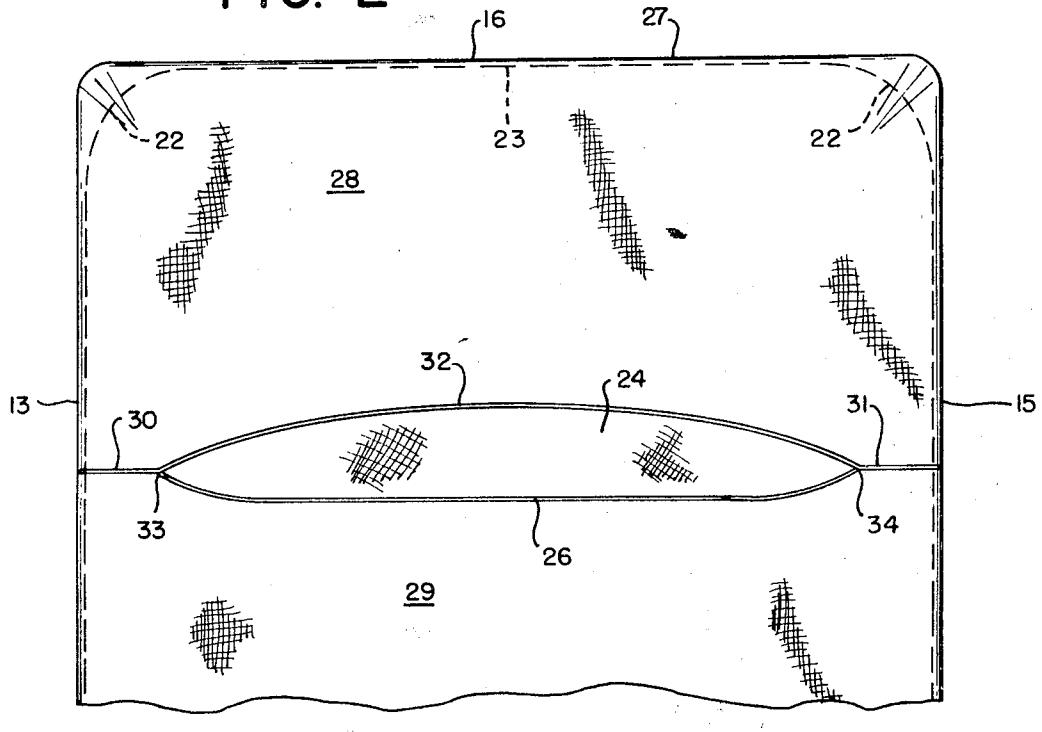
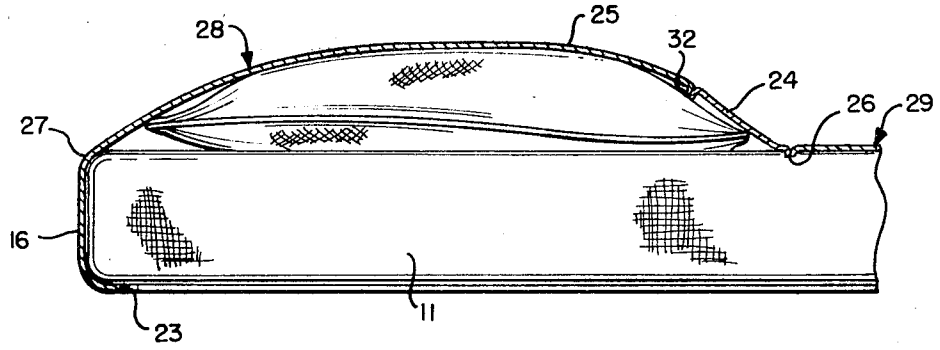


FIG. 2



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FIG. 3



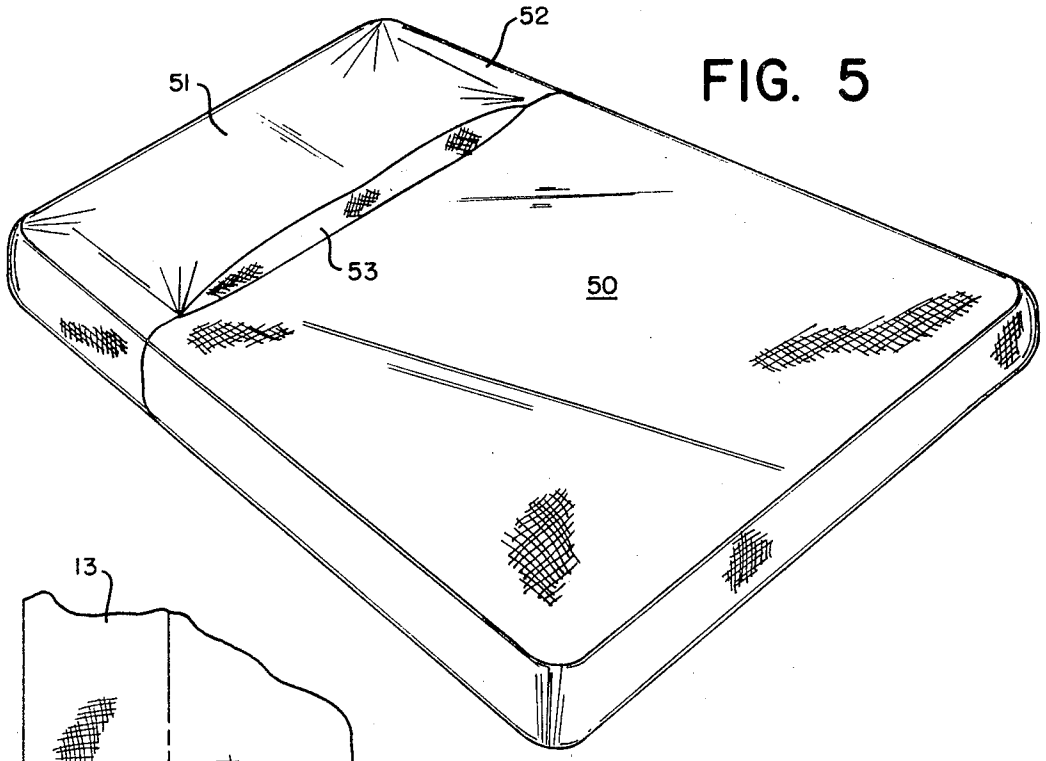


FIG. 5

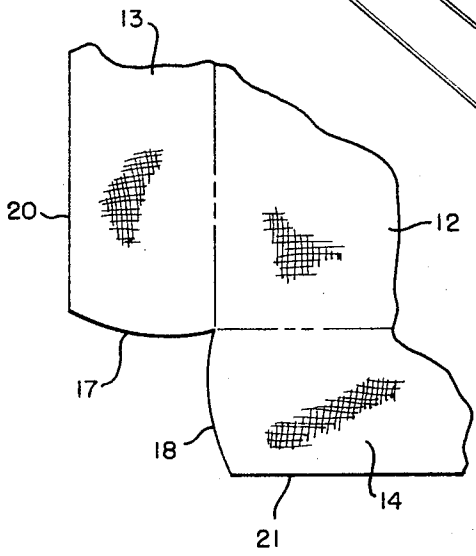


FIG. 4

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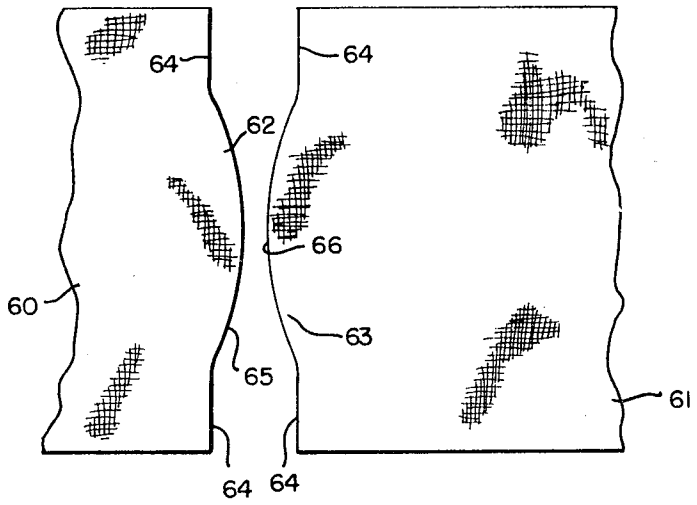


FIG. 6

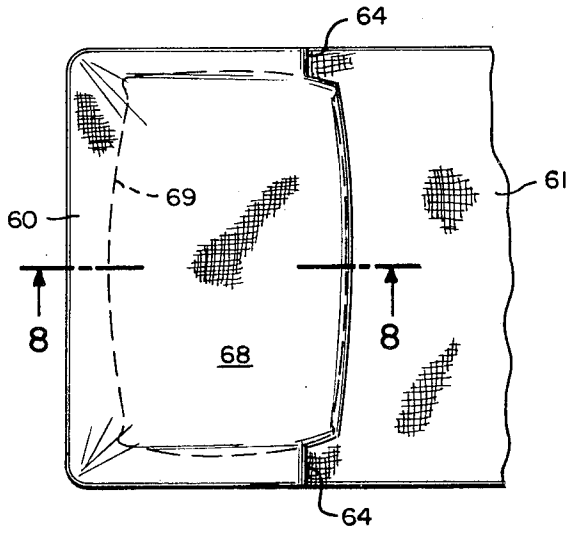
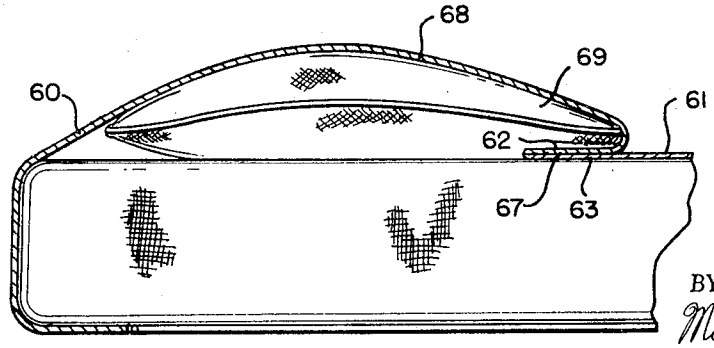


FIG. 7

FIG. 8



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COMBINATION BEDSHEET AND PILLOWCASE

BACKGROUND AND SUMMARY OF INVENTION

In a conventional bed makeup, the mattress typically is covered by a bedsheet, and one or more pillows, separately covered by individual pillowcases, are merely placed at the head end of the mattress, on top of the sheet. This conventional arrangement has certain attendant disadvantages, in that the bedsheet and pillowcases are separate items of purchase and require separate handling, laundering, etc. There have been several proposals made in the past for combining the bedsheet and pillowcase functions, but none has achieved significant commercial acceptance because the shortcomings of the proposed improvements have been as great as, or greater than, those of the more conventional arrangements. For example, some of the prior proposals for combining bedsheet and pillowcase functions have required relatively complicated fabric structures, thus adding materially to the overall cost. In addition, many of the prior proposals have been mechanically complicated, so as to have many of the handling disadvantageous characteristics of the more conventional arrangements.

In accordance with the present invention, a novel, improved and extremely simplified combination bedsheet and pillowcase arrangement is provided which not only greatly simplifies and expedites the bedmaking operation, but also enables significant economies to be achieved in the purchase of "bed linen." In the arrangement according to the invention, a bedsheet of largely conventional construction is modified in a unique and advantageous way to provide a pocket bulge at the head end of the sheet. When the bed is made up, a pillow or pillows may be inserted between the mattress and the sheet, in the region of the pocket bulge in the sheet. The arrangement is neat and attractive, and greatly simplifies and expedites the bedmaking operation.

Significantly, while the modification of the bed sheet involves a modest additional manufacturing expense, the arrangement eliminates entirely the need for utilizing separate covers for the pillows. Accordingly, overall, important savings may be realized.

In one particularly advantageous form of the invention, the pocket bulge in the sheet is formed by a pair of pocket-forming flaps, provided in the head and foot portions of the sheet and having a generally convex edge contour. The head and foot portions are joined along an arcuate seam, defined by the convex edge contours, forming a deep pocket. Depth and configuration of the pocket are such that it may be tucked well underneath the front edge of the pillow. This is desirable in some cases to provide a more conventional appearance and to facilitate the tucking-in of a covering bedspread.

In any of its principal forms, the combination bedsheet may advantageously be constructed of plain cotton knitted fabric, while at the same time providing "no iron" characteristics. In this respect, synthetic fibers, such as polyesters, and also natural fibers impregnated with so-called permanent press resins, have come into widespread use for bedsheets, because such materials do not require ironing after laundering. The bedsheet construction of the present invention is significantly advantageous over such conventional "no iron" sheets, in that the "no iron" characteristic is achieved while utilizing ordinary cotton knitted fabric. The cotton knitted fabric has been found to be a substantially more "comfortable" material for this purpose, than synthetic fabrics or fabrics treated with significant amounts of permanent press resins.

For a more complete understanding of the invention, reference should be made to the following description and to the accompanying drawing.

DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of a "twin" size bed mattress having installed thereon the combination bedsheet and pillowcase of the invention.

FIG. 2 is an enlarged fragmentary top plan view of the combination of FIG. 1.

FIG. 3 is an enlarged fragmentary cross-sectional view taken generally along line 3—3 of FIG. 1.

FIG. 4 is an enlarged fragmentary plan view illustrating construction details of a typical bedsheet according to the invention.

FIG. 5 is a perspective view, similar to FIG. 1, illustrating the invention as applied to a "double" size bed mattress.

FIG. 6 is an enlarged fragmentary plan view illustrating the principal components of an advantageously modified form of the invention.

FIG. 7 is a fragmentary plan view of a modified form of combination bedsheet and pillowcase constructed with the components of FIG. 6.

FIG. 8 is an enlarged fragmentary cross-sectional view taken generally along line 8—8 of FIG. 7.

DESCRIPTION OF PREFERRED EMBODIMENTS

Referring now to the drawing and initially to FIGS. 1—4 thereof, the reference numeral **10** designates generally a combination bedsheet and pillowcase according to the invention, which is applied over a standard bed mattress **11** (FIG. 3). In accordance with one aspect of the invention, the bedsheet **10** is of a fitted-contour construction, in itself well known. To this end, the sheet includes a large, generally rectangular surface cover area **12**, corresponding generally in size and shape to the top surface of the mattress, and head, side, and foot edge cover areas **13–16**, of a size and shape generally corresponding to the dimensions of the edges of the mattress.

As shown in FIG. 4, the edge cover areas typically may be provided with arcuately cut end edges **17**, **18** which, when joined together by a corner seam **19** will tend to draw the lower edge extremities **20**, **21** of the edge cover areas inward under the bottom of the mattress. This is particularly true at the corners of the mattress, as reflected at **22** in FIG. 2, and, depending on the particular geometry of the sheet and the materials of its construction, will be true to a lesser extent between the corners, as reflected at **23** in FIG. 3. This configuration causes the sheet to be "self-holding" on the mattress. The specific techniques for constructing a fitted-contour, self-holding sheet are well known and do not form part of the present invention. However, it is a significant aspect of the invention that the sheet be of the fitted-contour, self-holding type.

In the simplest and most advantageous form of the invention, the sheet **10** may be constructed substantially throughout in the same manner and according to the same dimensions, etc., as a conventional fitted-contour sheet. However, in accordance with one aspect of the invention, there is incorporated in the otherwise conventional sheet a gore panel **24** which extends transversely in the surface cover area **12** of the sheet. The gore panel **24** is of a narrow, elongated form, tapered at both ends, and forms a pocket bulge **25** in the head portion of the sheet. The location and disposition of the gore panel **24** is such that the width of the pocket bulge **25** (measured in the lengthwise direction of the sheet as a whole) is sufficient to readily accommodate one or more pillows of conventional proportions. For example, the pocket bulge typically may have a width of 20 to 24 inches, measured approximately from the lower edge **26** of the gore panel to the head end edge **27** of the mattress.

As reflected in FIG. 1, the length and width of the gore panel **24**, bear a general relationship to the configuration of a pillow. It will be understood, however, that the relationship need not be a precise one in view of the substantial distortability of the pillow and the conforming ability and, desirably, elasticity of the sheet fabric itself. In a combination bedsheet for a typical twin size bed, the gore panel may be on the other of 28 to 30 inches in length (measured in the widthwise direction of the bedsheet as a whole) and a width on the order of 4 to 5 inches. The mattress to which a sheet of this size is applied may be on the order of 36 inches in width, in which case the gore panel will be somewhat narrower than the mattress, as reflected in FIGS. 1 and 2.

In the form of the invention illustrated in FIG. 2, the bedsheet is either constructed in two principal parts, or is initially constructed as a conventional fitted-contour sheet and then severed transversely; in either case separate head and foot parts **28, 29** are provided. The head and foot parts **28, 29** of the sheet advantageously will abut substantially along a straight line. The sections thus may be secured together along straight seams **30, 31** at the sides. In the center portion of the sheet, the two sections are joined by means of the interposed gore panel **24** along arcuate upper and lower seams **32, 26**, to provide the desired pocket bulge **25** in the head portion **28** of the sheet.

If desired, of course, the sheet may be constructed by simply slitting the surface cover area **12** of the sheet between the points **33, 34**, and inserting the gore panel **24** in place. This would eliminate the side seams **30, 31**.

Referring now to FIG. **5**, there is illustrated a combination bedsheet and pillowcase according to the invention, of a construction suitable for a larger mattress, such as for a double bed. In its essentials, the mattress cover **50** of FIG. **5** may correspond to the construction of the smaller sheet of FIGS. **1–4**. However, the sheet **50** is constructed to form a pocket bulge **51**, in the head end section **52**, which has sufficiently large dimensions to easily accommodate two to four pillows. For this purpose, an elongated gore panel **53** may be provided. For a typical double bed size sheet, the gore panel **53** may have a length on the order of 60 inches or so (measured widthwise of the sheet as a whole). The width of the gore panel may remain on the order of 4 to 5 inches, as in the case of the smaller sheet.

In the double bedsheet illustrated in FIG. **5**, the gore panel **53** is shown to have a relatively uniform width over its entire length, except at each end where the gore panel tapers to a point. However, if desired, the gore panel for a double bedsheet may be necked-down in the center area to provide, in effect, a separate pocket bulge for each of the pillows.

Referring now to the form of the invention shown in FIGS. **6–8**, the reference numerals **60, 61** designate head and foot portions, respectively, of a combination bedsheet and pillowcase. Most typically, these sections will be formed of plain cotton knitted fabric, but woven and other fabric constructions may also be utilized. As shown in FIG. **6**, the head and foot portions **60, 61** are provided along their confronting edges with pocket-forming flaps **62, 63**. The flaps are centrally located in the sheet sections and may have a length on the order of 28 to 30 inches, for example, for a twin bed size sheet. The free length of the flaps may be on the order of 4 to 5 inches at their maximum.

As in the case of the modifications of FIGS. **1–5**, the head and body sheet sections **60, 61** are provided with straight transverse edges **64** at each side, which merge with edges **65, 66** of the respective pocket-forming flaps **62, 63**. Advantageously, the flap edges **65, 66** are generally of convex contour, as shown.

In the construction of the modified sheet of FIGS. **6–8**, the confronting edges of the head and foot portions **60, 61** are sewn together across the entire width of the sheet. The two sheet sections thus are joined essentially along a transverse line determined by the straight edge portions **64**. The convex flap sections **62, 63** form a deep pocket **67** in the assembled sheet.

The depth of the pocket **67** which is a function of the free length of the flaps **62, 63** provides a pillow positioning pocket bulge **68** in the head portion of the pillow, as in the case of the modifications of FIGS. **1–5**. In addition, the material of the flaps **62, 63** may be tucked under the front edge of a pillow **69**, as reflected in FIG. **8**. The ability to tuck the deep pocket **67** under the pillow edge is advantageous where a covering bedspread is utilized, as it permits the bedspread to be tucked in under the front edge of the pillow in the conventional manner. The tucked-in pocket also lends a more conventional appearance to the bedsheet and pillowcase combination, which may be desirable for some applications.

Unique advantages are realized where the combination bedsheet and pillowcase of the invention is constructed to a knitted fabric, and where the fabric is constituted of cotton or a material based substantially on cotton fibers. Such a material has an especially high degree of elasticity and conformability, as will be understood. These characteristics are highly desirable for a fitted-contour sheet and are even more important for a fitted-contour sheet according to the invention, incorporating an integral pocket bulge serving as a pillowcase. The knitted construction enables the sheet to be applied over a mattress and one or more pillows in a manner to provide a substantially smooth and wrinkle-free appearance.

One of the important advantages of the new bedsheet is that it is made possible to provide a so-called "no iron" bedsheet utilizing plain cotton fabric, rather than the conventional synthetic or resin-treated fabric. The latter, while providing the advantages of not requiring ironing after laundering, is less desirable than plain cotton fabric from a standpoint of personal comfort. In accordance with the present invention, a bedsheet may be constructed to great advantage utilizing knitted cotton fabric. The knitted cotton fabric inherently possesses substantial stretchability. When a contour-fitted bedsheet of such construction is applied over a mattress, it is stretched and placed under a slight tension, which serves to remove wrinkles and provide a made-up bed of a desired, smooth appearance.

In the construction of a bed sheet of knitted cotton fabric, the factor of potential shrinkage must be dealt with effectively, because typical cotton knitted fabrics are subject to a very high percentage of shrinkage, e.g., 20 percent or more in length, after processing by the knit goods finisher. The amount of inherent residual shrinkage may, of course, be reduced through the use of certain synthetic fibers. However, the use of a sufficient percentage of such fibers to effectively counteract severe shrinkage is considered disadvantageous for a bedsheet application, because of the undesirable "feel" of many such materials.

Thus, in accordance with one aspect of the invention, cotton knitted fabric used in the construction of the new combination bedsheet and pillowcase is first subjected to mechanical compressive shrinkage in the lengthwise direction, sufficient to substantially eliminate potential residual shrinkage in the finished product. For this purpose, it has been found to be particularly advantageous to utilize the method and apparatus of the Eugene Cohn, et al. U.S. Pat. Nos. 3,015,145, 3,015,146 and 3,083,435. The teachings of the before-mentioned patents are particularly advantageous where the fabric is processed in the tubular form, as is conventional in many finishing mills. By this means, it is readily possible to achieve a finished article with a residual shrinkage which can be guaranteed to be less than 1 percent.

It will be understood, of course, that the combination bedsheet and pillowcase of the invention is not required to be constructed of knitted fabric, even though unique advantages are realized therefrom. It is possible to construct the sheet from conventional woven bedsheet materials. It is also contemplated that the sheet may be constructed of other materials, either woven or knitted, which have been processed to impart a degree of elasticity. In this connection, at least some degree of elasticity in the fabric is to be preferred, as it tends to provide a sheet of smoother and more wrinkle-free appearance, as will be understood.

One of the advantages of the invention is that it provides a practical way to eliminate the need for separate pillowcases for each of the pillows. Not only does this simplify bedmaking operations, but it also enables significant savings to be realized in the purchase of bedding materials.

It should be understood, of course, that the specific forms of the invention herein illustrated and described are intended to be representative only, as certain changes may be made therein without departing from the clear teachings of the disclosure. Accordingly, reference should be made to the following appended claims in determining the full scope of the invention.

I claim:

1. A three-dimensional combination bedsheet formed of fabric of stretchable construction which comprises

a. a pair of initially separate fabric sections forming head area and body area portions, respectively, of the sheet,

b. said sheet including a surface cover area and head, side and foot edge cover areas constituted for application over the top surface and the head, side and foot edges of a bed mattress,

c. mattress corner engaging means formed by the edge cover areas at the corners of the bedsheet for engaging the corners of a mattress and holding said sheet firmly thereagainst,

d. at least portions of the bedsheet, adjacent the head areas thereof, being engageable along and underneath side margins of a mattress, whereby the edge cover areas of the sheet, at least across the head area of the sheet and along the sides in the region of the head area, are drawn snugly about the head edge and side edges of a mattress,

e. the fabric sections forming said head area and body area portions having confronting arcuate edges extending generally transversely of the sheet substantially throughout the width of said surface cover area and forming a panel area,

f. said panel area forming a pillow positioning pocket bulge in the head area of said sheet,

g. said sheet including a line of stitching extending transversely from one side edge of the sheet to the other and serving to join said head area and body area,

h. said panel area being spaced a predetermined distance from the head edge of the sheet,

i. said panel area, the edge cover area at the head, the edge cover area of the sheet at the sides in the region of the head end, and the surface cover portions of the sheet bounded by said edge cover areas and said panel area, constituting a stretchable pillow positioning pocket,

j. said pillow pocket being adapted to fully cover, and position a pillow interposed between said pocket and the head end portion of a mattress when said mattress corner engaging means are joined to an underlying mattress.

2. The combination bedsheet of claim 1, further characterized by

a. said sheet being constructed of knitted fabric, and

b. said fabric being mechanically compressively preshrunk in the length direction.

3. The combination bedsheet of claim 1, further characterized by

a. said sheet comprising head and foot portions of generally similar construction but of different length,

b. said head and foot portions being permanently joined together,

c. said panel area comprising a separate gore panel interposed between and serving to join said head and foot portions in the region of said surface cover area.

4. The combination bedsheet of claim 1, further characterized by

a. said panel area comprises pocket-forming flaps of convex edge contour formed on said head area and body area portions,

b. said flaps forming a deep pocket adapted to be tucked under the front edge of a pillow.

* * * * *