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(54) **MATTRESS COVER**

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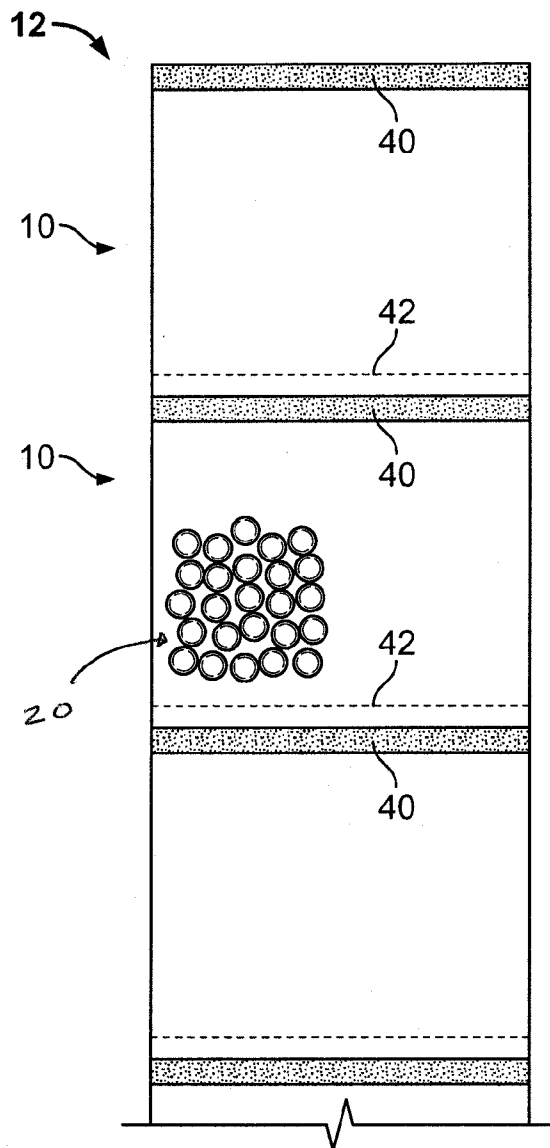
(57) **ABSTRACT**

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A mattress cover is provided having a surface that includes a plurality of peaks and valleys to distribute pressure and to allow for air circulation. A bubble wrap material can be utilized. The cover can have an adhesive to prevent slippage. It can be provided in a roll and sections can be separated along pre-defined cut lines or perforations. A section can be separated from the roll and adhered to the mattress. A sheet can be placed over the mattress and cover.

Related U.S. Application Data

(60) Provisional application No. 61/705,283, filed on Sep. 25, 2012.



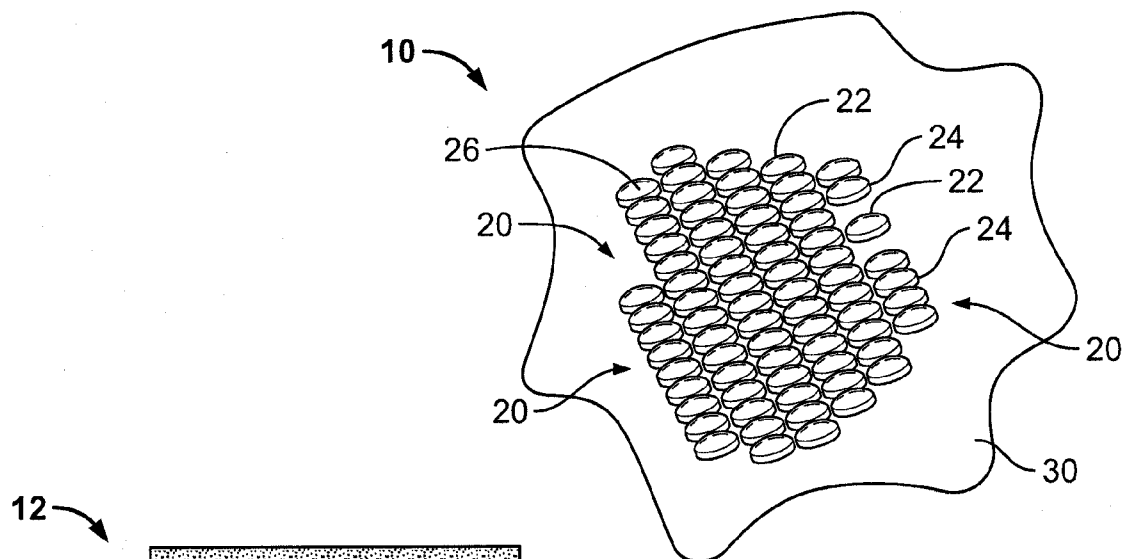


FIG. 1

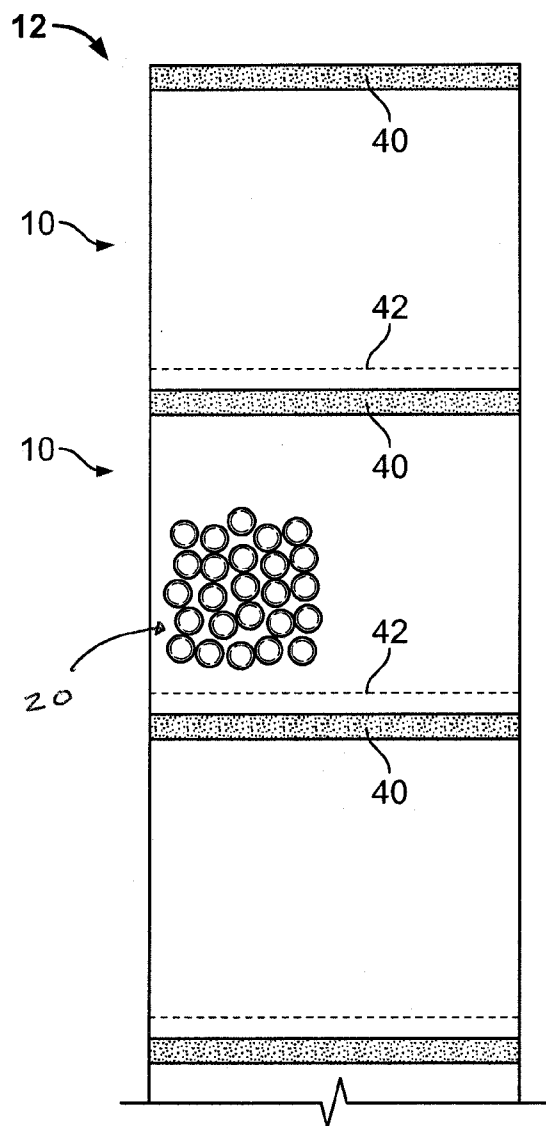


FIG. 2

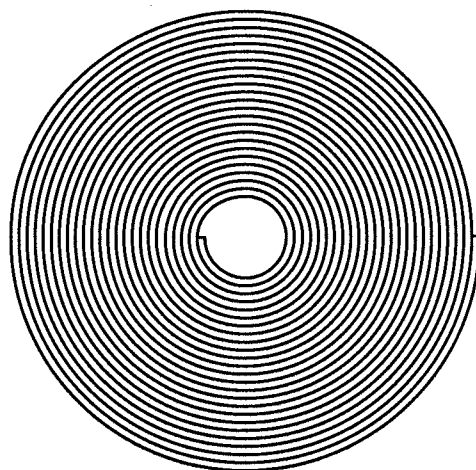
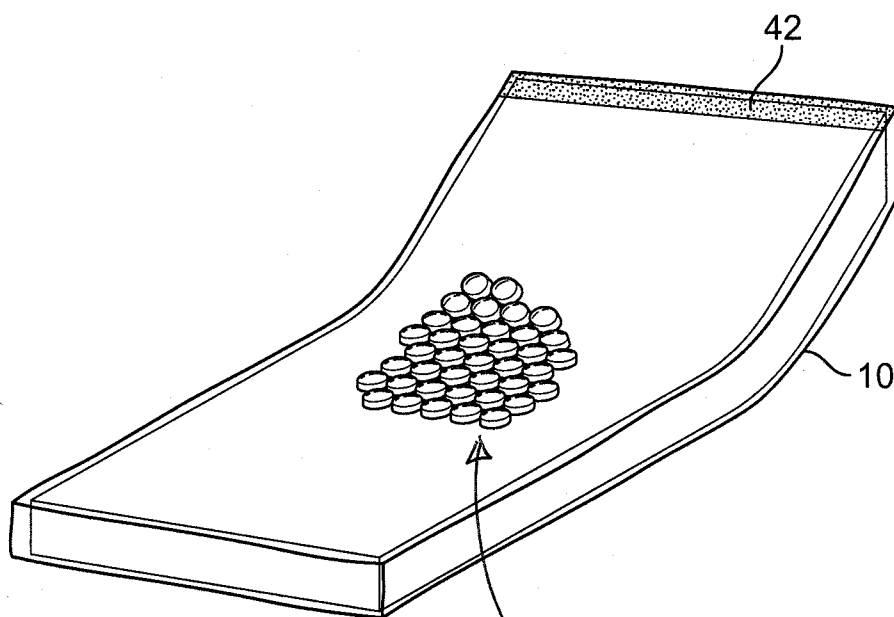


FIG. 3



20
FIG. 4

MATTRESS COVER

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Application Ser. No. 61/705,283 filed on Sep. 25, 2012, the entire disclosure of which is expressly incorporated herein by reference.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention relates to a mattress cover for increasing comfort and facilitating air flow.

[0004] 2. Related Art

[0005] Mattresses can often be uncomfortable for people. This is especially true for patients in institutions such as hospitals and the like who are often required to stay in bed for extended periods of time. Mattresses used by patients in institutions often provide uneven support for a patient and inhibit air flow to the patient, leading to discomfort and bed sores. Mattress covers sometimes used in such institutions are generally unsuited to address these issues and can further add to the problem because they can slip with respect to the mattress and bunch up in ways that increase discomfort.

SUMMARY OF THE INVENTION

[0006] A mattress cover is provided having a surface that includes a plurality of peaks and valleys to distribute pressure and to allow for air circulation. The mattress cover could be made of a cellular cushioning packaging material which contains entrapped bubbles of air or other gases. The cover can have an adhesive to prevent slippage. It can be provided in a roll and sections (e.g., mattress covers) can be separated along pre-defined cut lines or perforations. A section can be separated from the roll and adhered to the mattress. A bed sheet can be placed over the mattress and cover.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] The foregoing features of the invention will be apparent from the following Detailed Description of the Invention, taken in connection with the accompanying drawings, in which:

[0008] FIG. 1 is a partial sectional view of a mattress cover;

[0009] FIG. 2 is a partial view of a sheet with a plurality of mattress covers with adhesive and tear lines placed at intervals along the sheet;

[0010] FIG. 3 is side view of a roll of a sheet of mattress covers; and

[0011] FIG. 4 is perspective view of a section of the mattress cover shown in FIG. 2 positioned on and attached to a mattress.

DETAILED DESCRIPTION OF THE INVENTION

[0012] The present disclosure relates to a mattress cover. The mattress cover could be made in whole or in part from a cellular cushioning packaging material which contains entrapped bubbles of air or other gases. One such cushioning packaging material is sold under the trademark Bubble Wrap by Sealed Air Corporation in Elmwood Park, New Jersey.

[0013] As shown in FIG. 1, the mattress cover 10 is made of a material having a plurality of raised cells 20 (e.g., a substrate having a plurality of raised cells 20 extending from a surface

therefrom). The raised cells 20 cover the material/substrate (only a portion of the cells 20 are shown in the FIGS.). The cells could be configured as desired (e.g., of any particular three-dimensional shape), but in one embodiment each cell could be domed (e.g., semi-spherical) or have a domed top 22 and/or a generally cylindrical sidewall 24 extending from a base layer 30 (e.g., substrate) and holding a quantity of air 26 or other gas or liquid. The raised cells could take on any other shape, such as cylindrical (e.g., with a generally flat top). As such, the mattress cover 10 is textured and has a plurality of peaks and valleys (formed by and between the plurality of cells) to distribute pressure and provide air flow (e.g., between the peaks and through the valleys). The size, shape, and distribution of the cells (e.g., spacing between the cells, number of cells provided, etc.) could vary to provide for a number of different levels of pressure distribution and air flow. This could provide a variety of options for comfort and/or treatment considerations.

[0014] FIG. 2 shows a sheet 12 of a plurality of mattress covers 10 (e.g., sections) with adhesive 40 and tear lines 42 placed at intervals along the sheet 12. The sheet 12 is generally covered with a plurality of raised cells 20, as each of the mattress covers themselves are generally covered with a plurality of raised cells. The adhesive 40 could be any suitable adhesive for temporarily securing the mattress cover 10 to a mattress such that the mattress cover 10 (or at least a portion thereof) remains in place and does not slide with respect to the mattress when in use. Other types of attachment can be utilized, for example, hook-and-loop fasteners. However, after use, the adhesive 40 should permit the mattress cover 10 to be readily removed from the mattress. The adhesive 40 is shown to be in a strip located at one end of the mattress cover 10 on the underside of base 30 of the mattress cover 10. However, the adhesive could be positioned on other areas of the mattress cover and in other configurations (e.g., at both ends of the mattress cover, along the border of the mattress cover, as a plurality of horizontal strips, etc.). A protective tear off cover (e.g., liner) may be provided over the adhesive 40 (e.g., to cover the adhesive prior to use). It is anticipated that the mattress covers 10 could comprise any other suitable option that secures the mattress cover 10 to the mattress to prevent slippage.

[0015] The tear lines 42 in the sheet of the plurality of mattress covers 10 could be provided in any suitable way. For example, a series of perforations could be formed by adjacent mattress covers 10 to allow for separation of mattress covers 10 from the sheet 12, or the mattress covers could be adhesively linked together. Alternatively, the mattress covers 10 could be separated by cutting each cover 12 from the sheet 20 with a knife, such as for example, a hinged blade.

[0016] FIG. 3 is side view of a roll of a sheet 12 of mattress covers 10. The roll provides a convenient way to store and dispense mattress covers 10. A mattress cover dispenser could be provided to facilitate the separation of a mattress cover 10 from the sheet 12 of mattress covers 10, although such a dispenser could simply comprise the sheet or roll of mattress covers. The roll can be mounted to allow for the roll to rotate about a central axis so that mattress covers 10 can be pulled away from the sheet 12, detached from the sheet 12 and applied to a bed. There are many ways of mounting the roll, for example, by wrapping the sheet 12 about a tube (e.g., a cardboard tube). A spindle mounted at each end, can be placed within the tube and the tube can rotate about the spindle as the covers 10 are withdrawn. Any of a variety of

mountings could be used to mount and/or rotatably mount the roll of mattress covers (e.g., inserting mounting caps at each end of the cardboard tube).

[0017] Once a mattress cover 10 is unrolled from the sheet, it can be separated from the sheet by tearing along line 42 (e.g., perforated line 42) or it could be cut, where the cut line could be indicated on the sheet, such as by indicia. In one embodiment, the roll could be provided in a storage container and a cutting edge (e.g., serrated cutting edge) could be provided at the exit of the container to facilitate separation of a mattress cover 10 from the sheet 12.

[0018] FIG. 4 shows a mattress cover 10 on a mattress. The head end is adhered to the mattress by adhesive 42. The mattress cover 10 substantially covers the mattress. A bed sheet can be placed over the mattress cover 10 and mattress. The mattress cover 10 provides for the distribution of pressure and allows for air circulation. The mattress cover 10 is substantially covered with raised cells 20.

[0019] In another embodiment, the mattress cover can be formed in the shape of a fitted sheet. In such an embodiment, and in the other embodiments discussed herein, the covers could be packaged individually or folded in boxes or containers. The mattress cover can be removed from the packaging and placed on the mattress. Because of the fitted nature of the mattress cover, no adhesive is needed to retain the cover in position on a mattress (although such an adhesive could still be provided).

[0020] In use, the mattress cover is placed on a mattress and a sheet is applied there over. The plurality of peaks and valleys formed by the plurality of raised cells provides support and helps to distribute pressure. The raised cells provide for areas of contact and non-contact with a user and allows for air to travel between the cells to contact a user, and as a user moves, to provide such contact in varying areas. Providing varying areas of contact helps prevent bedsores, among other benefits.

[0021] From the foregoing, it will be observed that numerous variations and modifications may be effected without departing from the spirit and scope of the invention. It is to be understood that no limitation with respect to the specific apparatus illustrated herein is intended or should be inferred. It is, of course, intended to cover by the appended claims all such modifications as fall within the scope of the claims.

What is claimed is:

- 1. A mattress cover comprising:
 - a substrate dimensioned to substantially cover a mattress;
 - and

a plurality of cells extending from the substrate and forming a plurality of peaks and valleys.

2. The mattress cover of claim 1, wherein each of the plurality of cells is gas-filled and comprises a dome shape.

3. The mattress cover of claim 1, wherein the mattress cover is at least partially made from cellular cushioning packaging material.

4. The mattress cover of claim 1, wherein the substrate is in a shape of a fitted sheet for a mattress.

5. The mattress cover of claim 1, further comprising an adhesive at an end of the substrate for attaching the mattress cover to the mattress.

6. The mattress cover of claim 5, wherein the adhesive is a strip on an underside of the substrate.

7. The mattress cover of claim 5, further comprising a liner covering the adhesive.

- 8. A mattress cover and dispenser comprising:
 - a sheet of a plurality of mattress covers, the plurality of mattress covers interconnected and separable, each of the plurality of mattress covers comprising:
 - a substrate dimensioned to substantially cover a mattress; and
 - a plurality of gas-filled cells extending from the substrate and forming a plurality of peaks and valleys.

9. The mattress cover and dispenser of claim 8, wherein each of the plurality of mattress covers is separable along a tear line.

10. The mattress cover and dispenser of claim 8, wherein the sheet of the plurality of mattress covers is in a roll about a tube.

11. The mattress cover and dispenser of claim 10, wherein the tube is rotatably mounted.

12. The mattress cover and dispenser of claim 11, further comprising a storage container housing the sheet of the plurality of mattress covers and comprising a cutting edge at an exit of the storage container to facilitate separation of a mattress cover from the sheet of the plurality of mattress covers.

13. A method of providing airflow for a mattress comprising:

- obtaining a mattress cover dimensioned to substantially cover a mattress, the mattress cover comprising a plurality of cells forming a plurality of peaks and valleys;
- placing the mattress cover on a mattress;
- securing the mattress cover to the mattress; and
- covering the mattress cover with a mattress sheet.

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