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(54) CAMP SLEEP SYSTEM COMPRISING COMPONENT WITH ANTI-SLIP ZONE

(57) A camp sleep system is provided. The camp sleep system includes one or more sleeping components. The sleeping component has an outer surface that includes at least partially an anti-slip zone. The anti-slip zone is formed using a material having a relatively high surface friction so as to reduce sliding movement of other materials when in contact with the anti-slip zone.

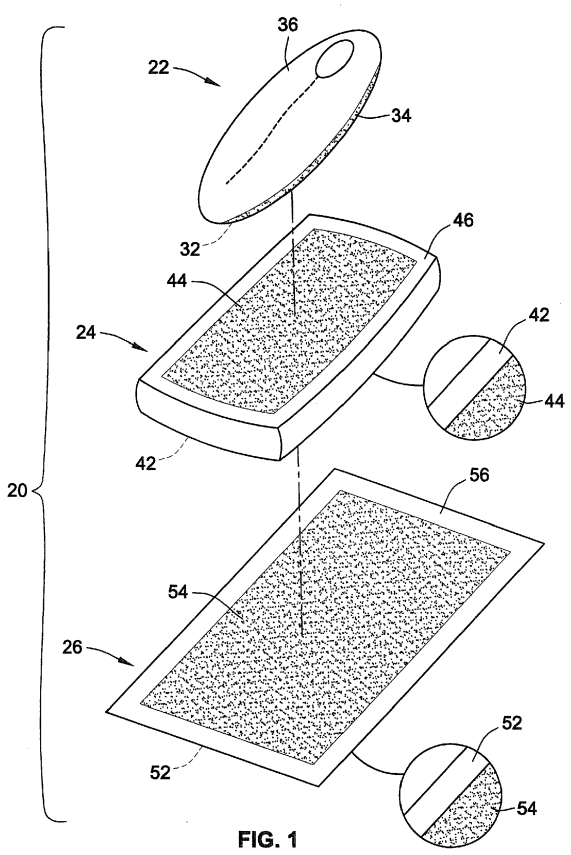

FIG. 1

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Description

FIELD OF THE INVENTION

[0001] This invention generally relates to recreational equipment, and more particularly to camping equipment.

BACKGROUND OF THE INVENTION

[0002] Recreational camping continues to grow in popularity. While many enthusiasts employ RV's and other similar configurations having permanent sleeping quarters therein, there is still a large demand for tents and their associated sleeping equipment such as sleeping pads, air mattresses, sleeping bags, etc.

[0003] The Applicants have found, however, that due to the materials used in such tents and sleeping equipment, there can be an undesirable shift in one's sleeping position. More specifically, the outer surfaces of contemporary tent floors, air mattresses, sleeping pads, and sleeping bags tend to have a low surface friction and thus permit a high degree of slip relative to one another when in contact.

[0004] For example, it is known to fabricate tent materials, including their flooring, out of materials such as, but not limited to, 75D/210T polyester taffeta, 150D polyester oxford, as well as 70D/190T nylon ripstop. It is also known to fabricate intermediary members such as air mattresses and sleeping pads out of materials such as, but not limited to, 20D/380T nylon ripstop as well as 75D/210T polyester. It is also know to fabricate the outer shells of sleeping bags of out materials such as, but not limited to, 75D polyester ripstop, 50D/300T polyester taffeta, as well as 40D nylon.

[0005] A common thread of all of the above materials is that they have a high degree of slip, i.e. a low amount of friction. Unfortunately, this causes an undesirable shifting of one's position when sleeping. For example, when using an air mattress, the same may partially deflate during usage due to normal deflation losses. As this occurs, the outer shape of the air mattress changes. Due to the high degree of slip between the sleeping bag and the air mattress, one can slide to an outer edge of the air mattress, or even find themselves trapped between the outer side edge of the air mattress and the sidewall of the tent, having slid completely off the air mattress. As another example, it is not uncommon for campers to select a camping area that is on an incline or uneven ground. This also leads to one sliding while in their sleeping bag relative to their air mattress or sleeping pad. Accordingly, there is a need in the art for a camp sleep system that minimizes or entirely eliminates the above undesirable shifting.

[0006] The invention provides such a camp sleep system. These and other advantages of the invention, as well as additional inventive features, will be apparent from the description of the invention provided herein.

BRIEF SUMMARY OF THE INVENTION

[0007] In one aspect, a camp sleep system is provided. An embodiment of such a system includes at least one sleeping component. The sleeping component has an anti-slip zone on an outer surface thereof. In certain embodiments, the anti-slip zone is formed of a material adapted to minimize movement of materials in contact with the anti-slip zone relative to the anti-slip zone.

[0008] In certain embodiments, the anti-slip zone is formed with a 75D X 150D peach brushed polyester material.

[0009] In certain embodiments, the sleeping component is a sleeping bag. The anti-slip zone is provided at least partially on a back surface of the sleeping bag.

[0010] In certain embodiments, the sleeping component is one of an inflatable or non-inflatable component. The inflatable or non-inflatable component has a top surface and a bottom surface. The anti-slip zone is provided at least partially on a top surface of the component. In a subsidiary embodiment, the bottom surface of the inflatable or non-inflatable component is also provided at least partially with said anti-slip zone.

[0011] In certain embodiments, the sleeping component is a floor member that is one of an existing floor of a tent or an insert configured for positioning on a top surface of an existing floor of a tent. The anti-slip zone is provided at least partially on a top surface of said floor member. In a subsidiary embodiment, the floor member is an insert configured for positioning on top of an existing floor of a tent, and the floor member includes a plurality of fastening members thereon. Each of the plurality fastening members are adjustable to vary a distance taken from a terminal end of said fastening member to an outer peripheral edge of said floor member. In certain embodiments, the floor member may be rectangular in shape, and one of the plurality of fastening members is positioned at each corner. Each one of the plurality of fastening members includes a hook at the terminal end thereof, the hook configured for attachment to an interior component of a tent.

[0012] In another subsidiary embodiment, a bottom surface of the floor member is also provided in at least partially with said anti-slip zone.

[0013] In another aspect, a camp sleep system is provided. An embodiment of such a camp sleep system includes a sleeping bag having a top surface and a bottom surface. At least one of the top surface and bottom surfaces is provided at least partially with an anti-slip zone. The camp sleep system also includes an intermediary member having a top surface and a bottom surface. At least one of the top surface and bottom surface of the intermediary member is provided at least partially with an anti-slip zone. The camp sleep system also includes a floor member having a top surface and a bottom surface. At least one of the top surface and bottom surface is provided at least partially with an anti-slip zone. The anti-slip zone of the sleeping bag, intermediary member,

and floor member is formed of a first material that is different than a second material outside of the anti-slip zone.

[0014] In certain embodiments, the anti-slip zone is formed with a 75D X 150D peach brushed polyester material.

[0015] In certain embodiments, both the top and bottom surfaces of the sleeping bag are provided at least partially with the anti-slip zone. In certain embodiments, both the top and bottom surfaces of the intermediary member are provided at least partially with the anti-slip zone. The intermediary member may be one of an inflatable or non-inflatable component.

[0016] In certain embodiments, both the top and bottom surfaces of the floor member are provided at least partially with the anti-slip zone. The floor member may be an insert configured for positioning on top of an existing floor of a tent. The floor member includes a plurality of fastening members thereon.

[0017] In another aspect, a method for producing a camp sleep system is provided. An embodiment of such a method includes providing at least one sleeping component having an outer surface. The method also includes arranging an anti-slip zone at least partially on said outer surface of said sleeping component. The method also includes forming said anti-slip zone using with a material adapted to minimize movement of materials in contact with the anti-slip zone.

[0018] In certain embodiments, the step of providing the at least one sleeping component includes providing at least one of a sleeping bag, an intermediary member that is one of inflatable or non-inflatable, and a floor member.

[0019] In certain embodiments, the step of forming the anti-slip zone includes forming the anti-slip zone with a 75D X 150D peach brushed polyester material.

[0020] Other aspects, objectives and advantages of the invention will become more apparent from the following detailed description when taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0021] The accompanying drawings incorporated in and forming a part of the specification illustrate several aspects of the present invention and, together with the description, serve to explain the principles of the invention. In the drawings:

FIG. 1 is a perspective exploded view of an exemplary embodiment of a camp sleep system according to the teachings of the present invention;

FIG. 2 is a top view of a floor covering of the camp sleep system; and

FIG. 3 is a partial view of the floor covering of FIG. 2.

[0022] While the invention will be described in connection with certain preferred embodiments, there is no intent to limit it to those embodiments. On the contrary, the intent is to cover all alternatives, modifications and equivalents as included within the spirit and scope of the invention as defined by the appended claims.

DETAILED DESCRIPTION OF THE INVENTION

[0023] Turning now to the drawings, FIG. 1 illustrates an exemplary embodiment of a camp sleep system (hereinafter "sleep system") 20 according to the teachings of the present invention. Sleep system 20 includes a plurality of sleeping components shown as a sleeping bag 22, an intermediary element 24, and a floor member 26. Although the aforementioned sleeping components are shown and described, sleep system 20 is not limited to only these components, and may also include blankets, pillows, pillow cases, etc. As will be described in greater detail below, each of these components includes at least a partial anti-slip zone on its outer surface such that the above-discussed undesirable slippage of prior designs is reduced or entirely eliminated.

[0024] Turning first to sleeping bag 22, the same includes a bottom surface 32 which partially or entirely includes an anti-slip zone 34 that will be described in greater detail below. The top surface 36 of sleeping bag 22 is free of this anti-slip zone, but may include an anti-slip zone thereon as well. Indeed, as will be understood from the teachings herein, the entirety of the outer surface of any of the above-introduced sleeping components may be represented by an anti-slip zone in certain embodiments.

[0025] To achieve the above-introduced anti-slip zone, the anti-slip zone is adapted to minimize relative movement of materials in contact with the anti-slip zone. The anti-slip zone is adapted to provide this functionality by using a material that has a surface that presents a relatively high amount of surface friction relative to conventional materials used in conventional sleep systems such as those discussed above. In one particular embodiment, the anti-slip zone is adapted to minimize relative movement by using a material having a peached brushed or textured surface as an outer surface.

[0026] In one particular exemplary embodiment, the area of the anti-slip zone is made with a 75D X 150D peached brushed polyester material. As is understood in the art, such a material is a fabric where the fibers in the warp direction are 75 Denier and the fibers in the perpendicular weft direction are 150 Denier. The Applicant has found that this material performs particularly well when in contact with like and unlike materials in regard to preventing slip and relative movement. Other materials are contemplated, however. Indeed, any material may be utilized for the anti-slip zone which presents a higher degree of surface friction, e.g. a higher coefficient of friction, than the material outside of the anti-slip zone than those materials typically utilized in conventional sleeping systems described above. As will be explained in greater

detail below, sleep system 20 is configured such that corresponding outer contact surfaces of the sleeping components are provided with the anti-slip zone so as to reduce or eliminate relative movement between these components.

[0027] To situate anti-slip zone 34 on sleeping bag 22, the back panel of the outer shell of sleeping bag 22 may be entirely provided by the above-referenced anti-slip zone. Alternatively, the anti-slip zone may be sewn on as an overlay on an existing back panel of an outer shell of sleeping bag 22.

[0028] Turning now to intermediary element 24, the same may be embodied as a non-inflatable sleeping pad, or alternatively, an inflatable sleeping pad or air mattress. Intermediary element 24 includes a bottom surface 42 as well as a top surface 46. As illustrated, at least a portion of top surface 46 is provided as an anti-slip zone. As was the case with sleeping bag 22, the anti-slip zone 44 may be provided by manufacturing the top panel or surface of intermediary element 24 with an anti-slip zone material. Alternatively, it may be provided as an overlay on an existing material by sewing or attaching the anti-slip zone thereto. Also, while illustrated as encompassing a portion of top surface 46, anti-slip zone 44 may encompass the entirety of top surface 46.

[0029] Additionally, bottom surface 42 may also include an anti-slip zone 44 at least partially thereon and formed by the above-referenced anti-slip zone material. As was the case with top surface 46 and its associated anti-slip zone 44, the anti-slip zone 44 on bottom surface 42 may be provided during the manufacture of intermediary element 24 by manufacturing the bottom surface or panel of intermediary element 24 with an anti-slip zone material. Alternatively, the anti-slip zone 44 may be achieved by overlaying the anti-slip zone on an existing bottom panel of intermediary element 24 and sewing or attaching the same thereto. Also, while illustrated as encompassing a portion of bottom surface 42, anti-slip zone 44 may encompass the entirety of bottom surface 42.

[0030] Turning now to floor member 26, the same may be embodied as an existing tent floor, or alternatively, may be a blanket type insert for a tent which would be positioned on top of an existing tent floor as described below. Floor member 26 includes a bottom surface 52 and a top surface 56. Top surface 56 is provided with an anti-slip zone 54 using an anti-slip zone material at least partially thereon. To achieve such a configuration, the anti-slip zone may form all or part of the top panel of floor member 26. Alternatively, the anti-slip zone may be sewn on to or otherwise attached to an existing top panel. Also, while illustrated as encompassing a portion of top surface 56, anti-slip zone 54 may encompass the entirety of top surface 56.

[0031] Further, when embodied as an insert for an existing tent floor, bottom surface 52 may also include an anti-slip zone 54 using the anti-slip zone at least partially thereon. As was the case with anti-slip zone 54, such a configuration may be achieved by manufacturing the bottom panel of floor member 26 using an anti-slip zone material. Alternatively, the anti-slip zone may be attached to an existing back panel by sewing or other means of attachment. Also, while illustrated as encompassing a portion of bottom surface 52, anti-slip zone 54 may encompass the entirety of bottom surface 52.

[0032] As can readily be seen from inspection in FIG. 1, the respective contact surfaces of each of the sleeping components are provided with anti-slip zones 34, 44, 54 such that relative movement between these components is greatly reduced or eliminated entirely. This advantageously assists in maintaining a user's desired position while sleeping or otherwise resting in the camp sleep system.

[0033] Turning now to FIG. 2, a more detailed embodiment of floor member 26 is illustrated. In particular, floor member 26 is embodied as the above-introduced insert that is configured for positioning on an existing tent floor within the interior of a tent. As can be seen therein, anti-slip zone 54 is provided along the entirety of top surface 56 except for a marginal border area 60 that surrounds anti-slip zone 54. This marginal border area 60 may be omitted, however, in other embodiments. Fastening elements 62 are attached at the corners 64 of floor member 26. Each fastening element 62 permits the attachment of floor member 26 to a tent, for example, interior sewn in loops adjacent an existing tent floor. It should be noted that the rectangular shape illustrated is exemplary only, and any desired shape may be produced within the scope of the invention herein.

[0034] Turning now to FIG. 3, one of the fastening elements 62 is illustrated in greater detail. Fastening element 62 includes a tab 70 at corner 64. A ring 72 is retained by tab 70 as shown. A cord 74 passes through ring 72. Cord 74 is folded with a hook element 76 positioned at the fold as shown. The terminal ends of cord 74 are then passed through cord lock 78 and tied to one another thereafter. The cord locks 78 are slidable along cord 74 to adjust a distance between cord lock 78 and hook element 76. This allows for the tensioning and/or adjustment of the position of floor member 26 within the interior of a tent. Indeed, cord lock 78 is too large to pass through ring 72. As a result, the distance between the position of cord lock 78 and the position of hook 76 along cord 74 is approximately the distance the terminal end of fastening element 62 may be spaced away from an outer peripheral edge of floor member 26. When fastened, such a configuration allows for the retention of a position of floor member 26 relative to an existing tent floor.

[0035] As described herein, embodiments of the present invention overcome existing problems of relative movement between sleeping component in camp sleep systems by providing one or more sleeping components with an anti-slip zone at least partially thereon.

[0036] All references, including publications, patent applications, and patents cited herein are hereby incorporated by reference to the same extent as if each ref-

erence were individually and specifically indicated to be incorporated by reference and were set forth in its entirety herein.

[0037] The use of the terms "a" and "an" and "the" and similar referents in the context of describing the invention (especially in the context of the following claims) is to be construed to cover both the singular and the plural, unless otherwise indicated herein or clearly contradicted by context. The terms "comprising," "having," "including," and "containing" are to be construed as open-ended terms (i.e., meaning "including, but not limited to,") unless otherwise noted. Recitation of ranges of values herein are merely intended to serve as a shorthand method of referring individually to each separate value falling within the range, unless otherwise indicated herein, and each separate value is incorporated into the specification as if it were individually recited herein. All methods described herein can be performed in any suitable order unless otherwise indicated herein or otherwise clearly contradicted by context. The use of any and all examples, or exemplary language (e.g., "such as") provided herein, is intended merely to better illuminate the invention and does not pose a limitation on the scope of the invention unless otherwise claimed. No language in the specification should be construed as indicating any non-claimed member as essential to the practice of the invention.

[0038] Preferred embodiments of this invention are described herein, including the best mode known to the inventors for carrying out the invention. Variations of those preferred embodiments may become apparent to those of ordinary skill in the art upon reading the foregoing description. The inventors expect skilled artisans to employ such variations as appropriate, and the inventors intend for the invention to be practiced otherwise than as specifically described herein. Accordingly, this invention includes all modifications and equivalents of the subject matter recited in the claims appended hereto as permitted by applicable law. Moreover, any combination of the above-described members in all possible variations thereof is encompassed by the invention unless otherwise indicated herein or otherwise clearly contradicted by context.

Claims

1. A camp sleep system comprising at least one sleeping component having an anti-slip zone on an outer surface of said sleeping component, wherein said anti-slip zone is formed of a material adapted to minimize movement of materials in contact with the anti-slip zone relative to the anti-slip zone.

2. The camp sleep system of claim 1, wherein the anti-slip zone is formed with a 75D X 150D peached brushed polyester material.

3. The camp sleep system of claim 1, wherein the at least one sleeping component is a sleeping bag, wherein the anti-slip zone is provided at least partially on a back surface of the sleeping bag.

4. The camp sleep system of claim 1, wherein the at least one sleeping component is one of an inflatable or non-inflatable component, wherein the one of the inflatable or non-inflatable component has a top and bottom surface, and wherein the anti-slip zone is provided at least partially on a top surface of the inflatable or non-inflatable component.

5. The camp sleep system of claim 4, wherein the bottom surface of the inflatable or non-inflatable component is also provided at least partially with said anti-slip zone.

6. The camp sleep system of claim 1, wherein the at least one sleeping component is a floor member that is one of an existing floor of a tent or an insert configured for positioning on top of an existing floor of a tent, and wherein the anti-slip zone is provided at least partially on a top surface of said floor member.

7. The camp sleep system of claim 6, wherein the floor member is an insert configured for positioning on top of an existing floor of a tent, said floor member including a plurality of fastening members thereon.

8. The camp sleep system of claim 7, wherein a bottom surface of the floor member is also provided at least partially with said anti-slip zone.

9. The camp sleep system of claim 7, wherein each one of the plurality of fastening members are adjustable to vary a distance between a terminal end of said fastening member and a peripheral edge of said floor member.

10. The camp sleep system of claim 8, wherein the floor member is rectangular in shape, and one of the plurality of fastening members is positioned at each corner.

11. A camp sleep system comprising:

a sleeping bag having a top surface and a bottom surface, wherein at least one of the top surface and bottom surface is provided with an anti-slip zone;

an intermediary member having a top surface and a bottom surface, wherein at least one of the top surface and bottom surface of the intermediary member is provided with an anti-slip zone;

a floor member having a top surface and a bottom surface, wherein at least one of the top surface and bottom surface is provided with an anti-

slip zone; and
wherein the anti-slip zone of the sleeping bag, intermediary member, and floor member are formed of a first material that is different than a second material outside of the anti-slip zone.

12. The camp sleep system of claim 11, wherein both the top and bottom surfaces of the sleeping bag are provided at least partially with the anti-slip zone.

13. The camp sleep system of claim 11, wherein both the top and bottom surfaces of the intermediary member are provided at least partially with the anti-slip zone.

14. The camp sleep system of claim 11, wherein the intermediary member is one of an inflatable or non-inflatable component.

15. The camp sleep system of claim 11, wherein both of the top and bottom surfaces of the floor member are provided at least partially with the anti-slip zone.

16. The camp sleep system of claim 11, wherein the floor member is an insert configured for positioning on top of an existing floor of a tent, said floor member including a plurality of fastening members thereon.

17. The camp sleep system of claim 11, wherein the anti-slip zone is formed with a 75D X 150D peached brushed polyester material.

18. A method for producing a camp sleep system comprising the following steps:

providing at least one sleeping component having an outer surface; and
arranging an anti-slip zone on said outer surface of said at least one sleeping component; and
forming said anti-slip zone with a material adapted to minimize relative movement of materials in contact with the anti-slip zone.

19. The method of claim 18, wherein the step of providing the at least one sleeping component includes providing at least one of a sleeping bag, an intermediary member that is one of inflatable or non-inflatable, and a floor member.

20. The method of claim 18, wherein the step of forming the anti-slip zone includes forming the anti-slip zone with a 75D X 150D peached brushed polyester material.

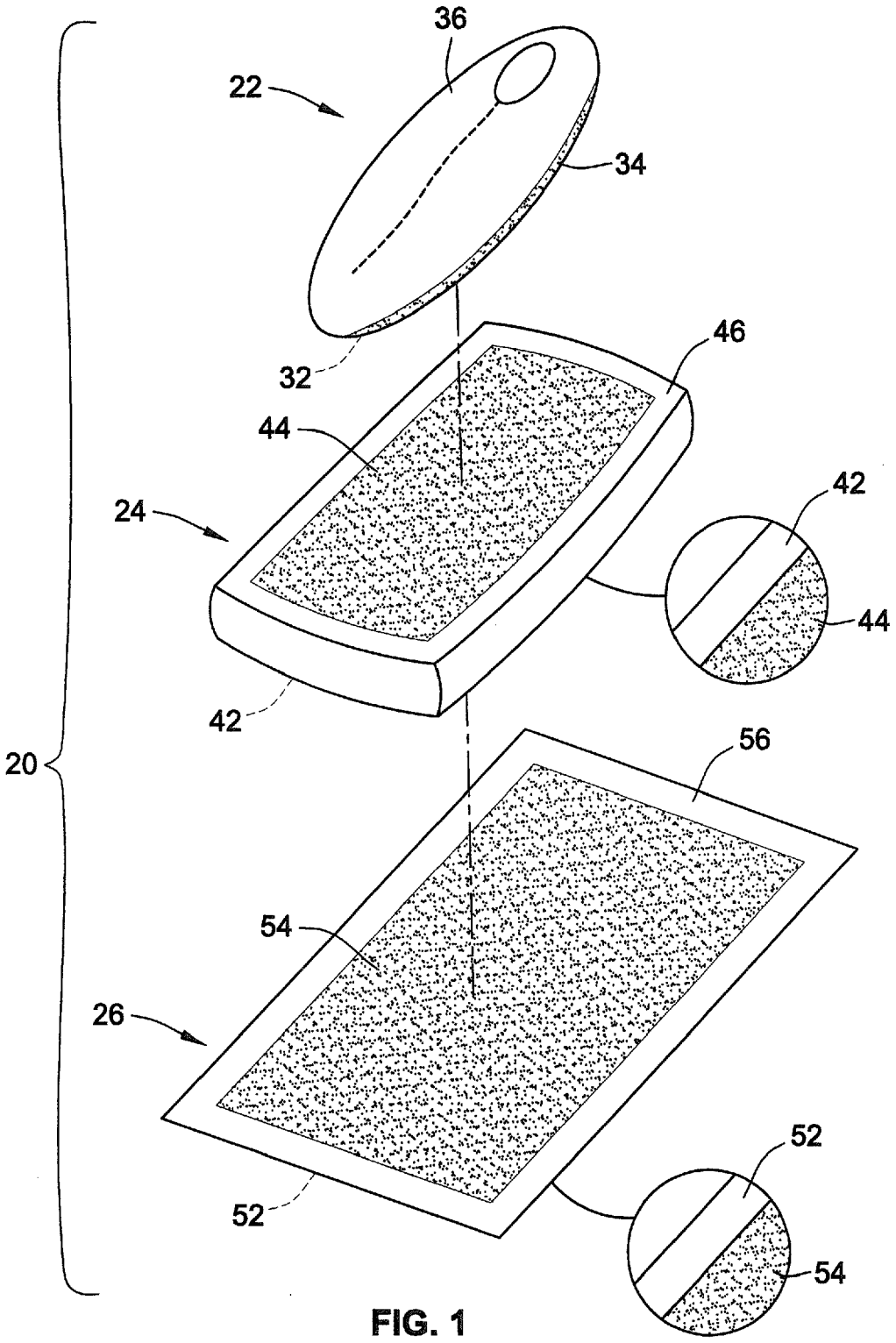

FIG. 1

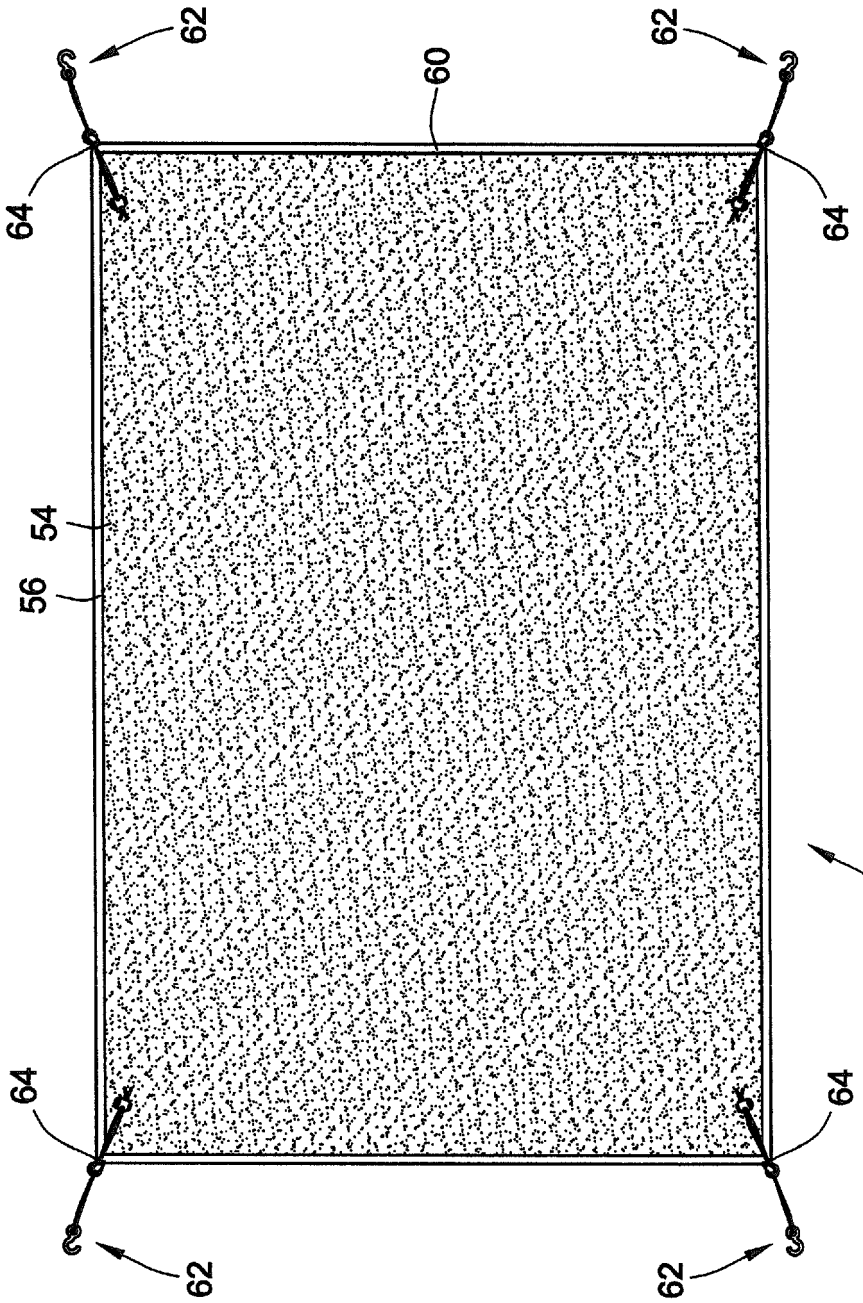

FIG. 2

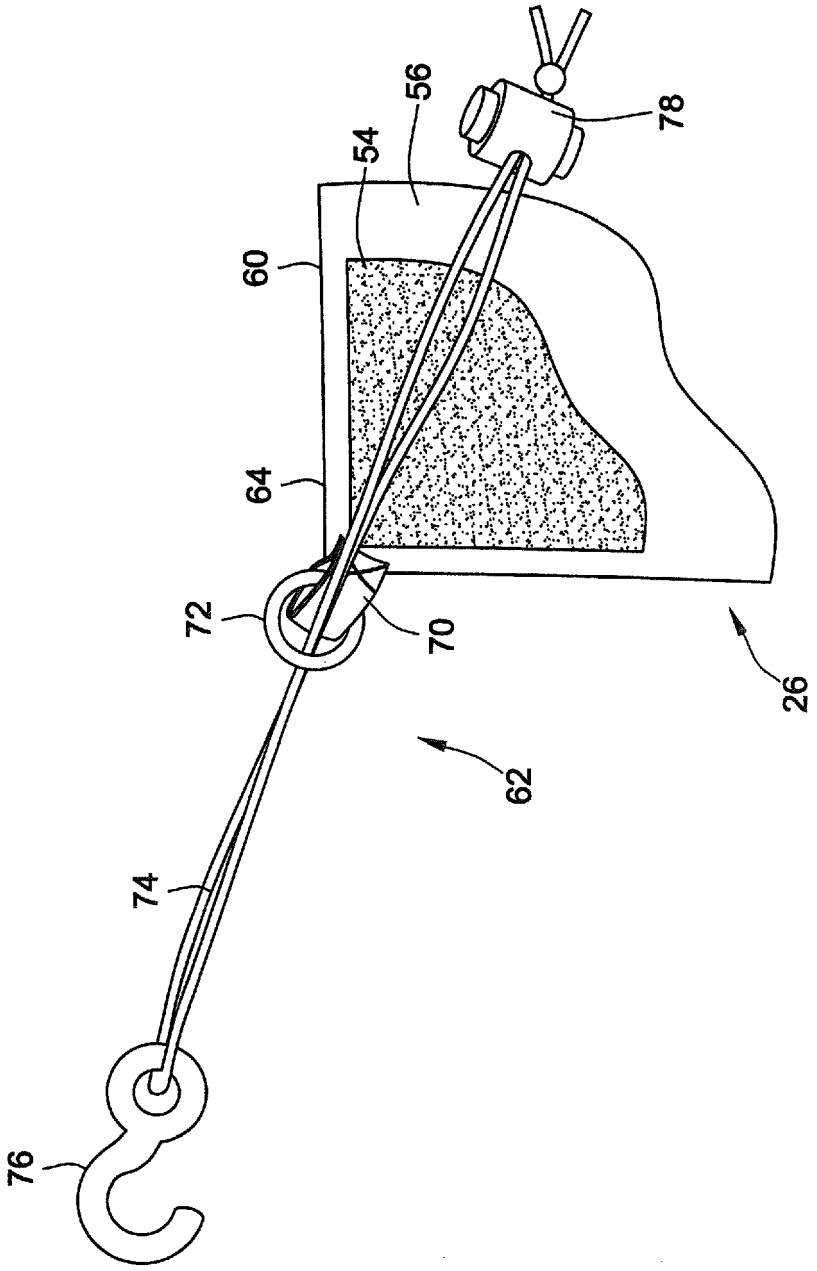

FIG. 3

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EUROPEAN SEARCH REPORT

Application Number
EP 16 16 2667

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	12 August 2016	van Overbeek, Kajsa

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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