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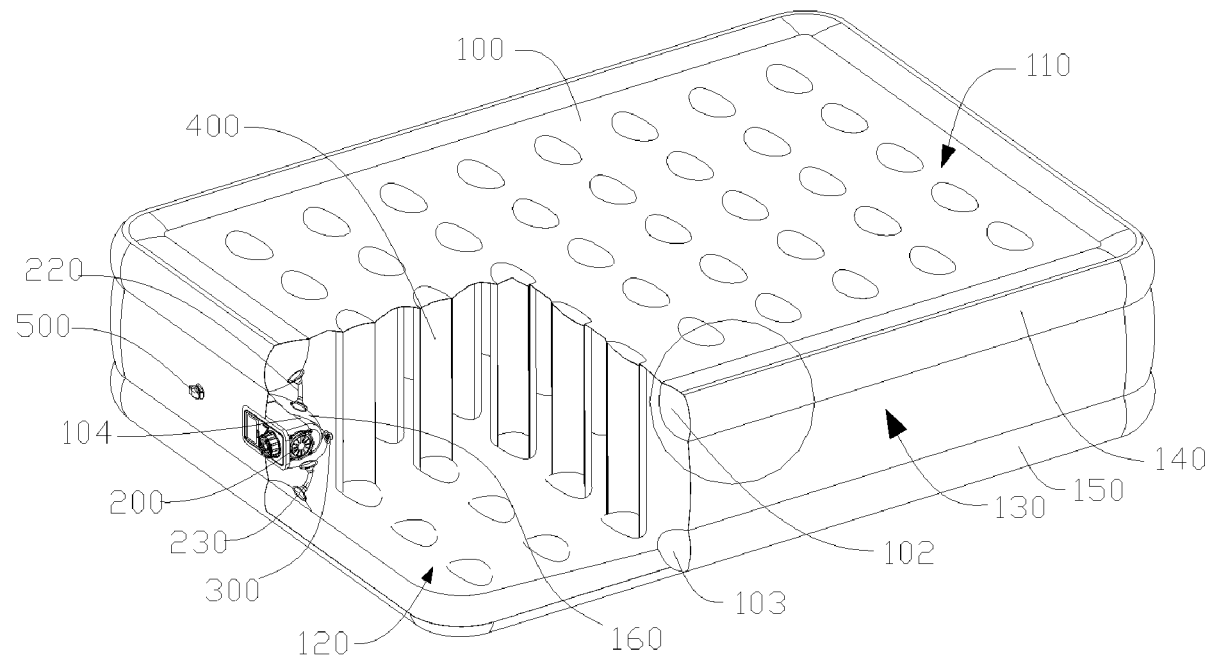
(19) **United States**(12) **Patent Application Publication**
SHI(10) **Pub. No.: US 2023/0098052 A1**(43) **Pub. Date: Mar. 30, 2023**(54) **INFLATABLE BED****Publication Classification**(71) Applicant: **DONGGUAN HONGYU PLASTIC CO., LTD**, Dongguan City (CN)(51) **Int. Cl.**
A47C 27/08 (2006.01)(72) Inventor: **Juying SHI**, Dongguan City (CN)(52) **U.S. Cl.**
CPC **A47C 27/082** (2013.01)(73) Assignee: **DONGGUAN HONGYU PLASTIC CO., LTD**, Dongguan City (CN)(57) **ABSTRACT**(21) Appl. No.: **17/578,087**

An inflatable bed includes a bed main body, an inflator pump, and a one-way valve. The bed main body is provided with a bed body chamber and at least one bed edge chamber independent from each other, and the at least one bed edge chamber is arranged around the bed body chamber. The inflator pump is connected to the bed main body, wherein the inflator pump is configured to inflate the bed body chamber and the at least one bed edge chamber. The one-way valve is provided on the inflator pump or the bed main body, wherein the one-way valve is configured to allow only a fluid to enter the bed body chamber.

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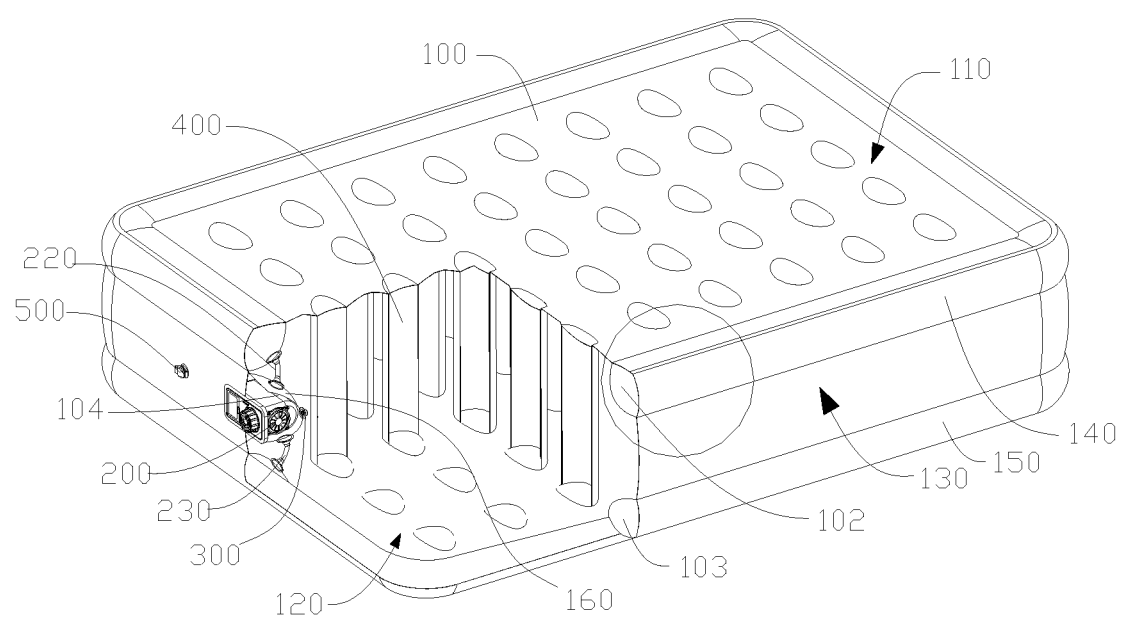


FIG. 1

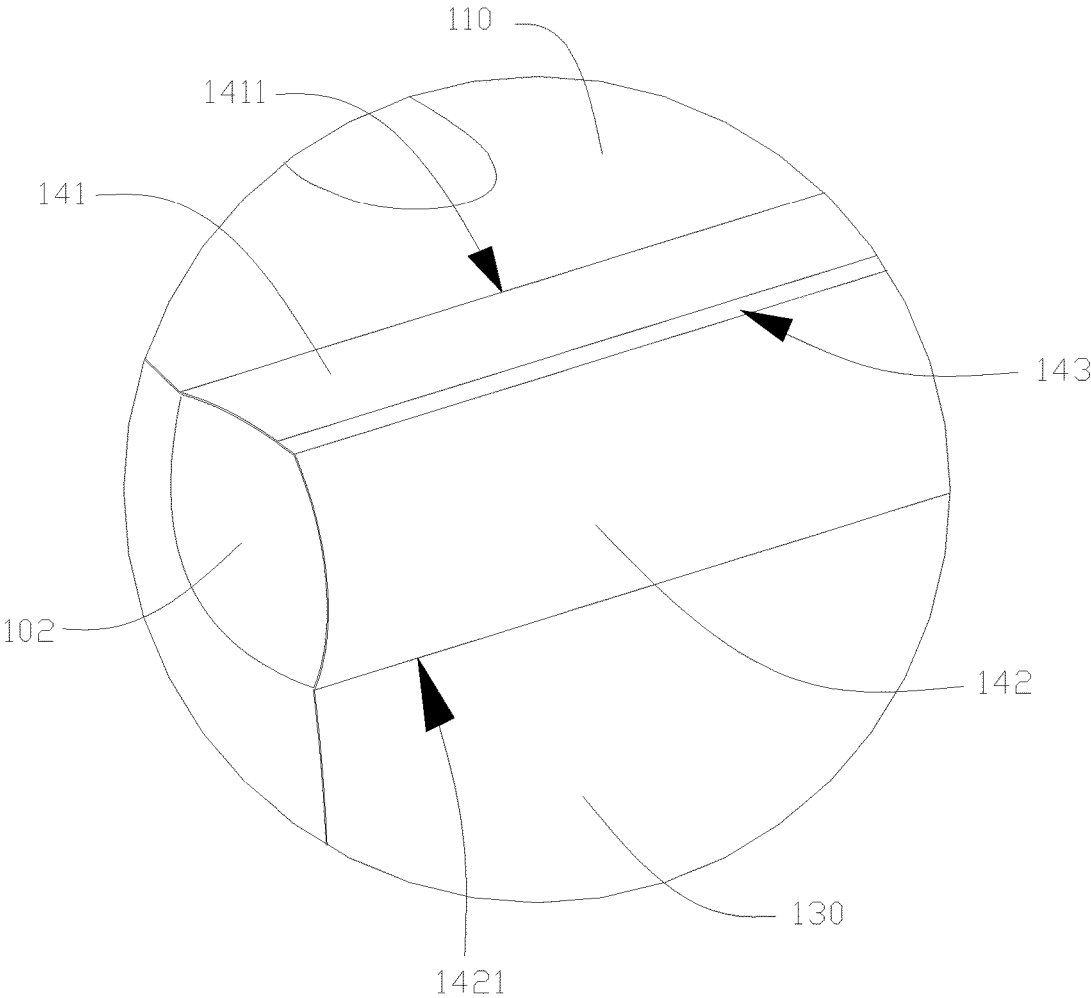


FIG. 2

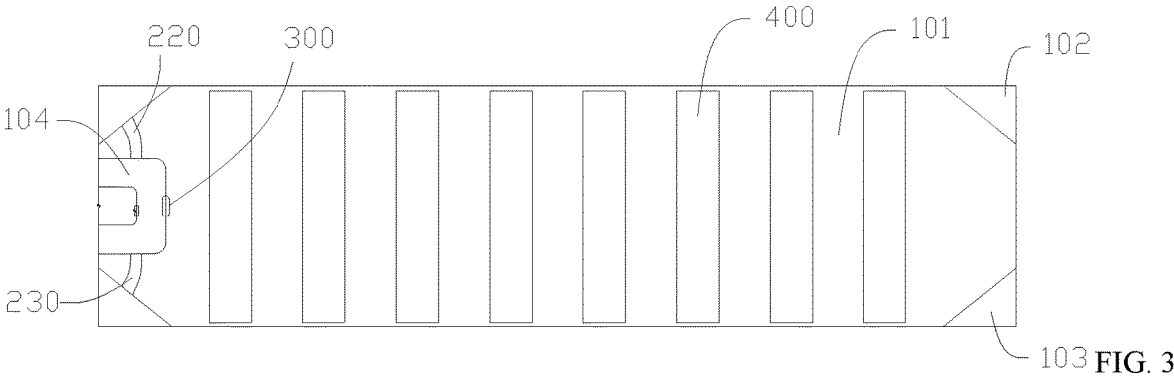


FIG. 3

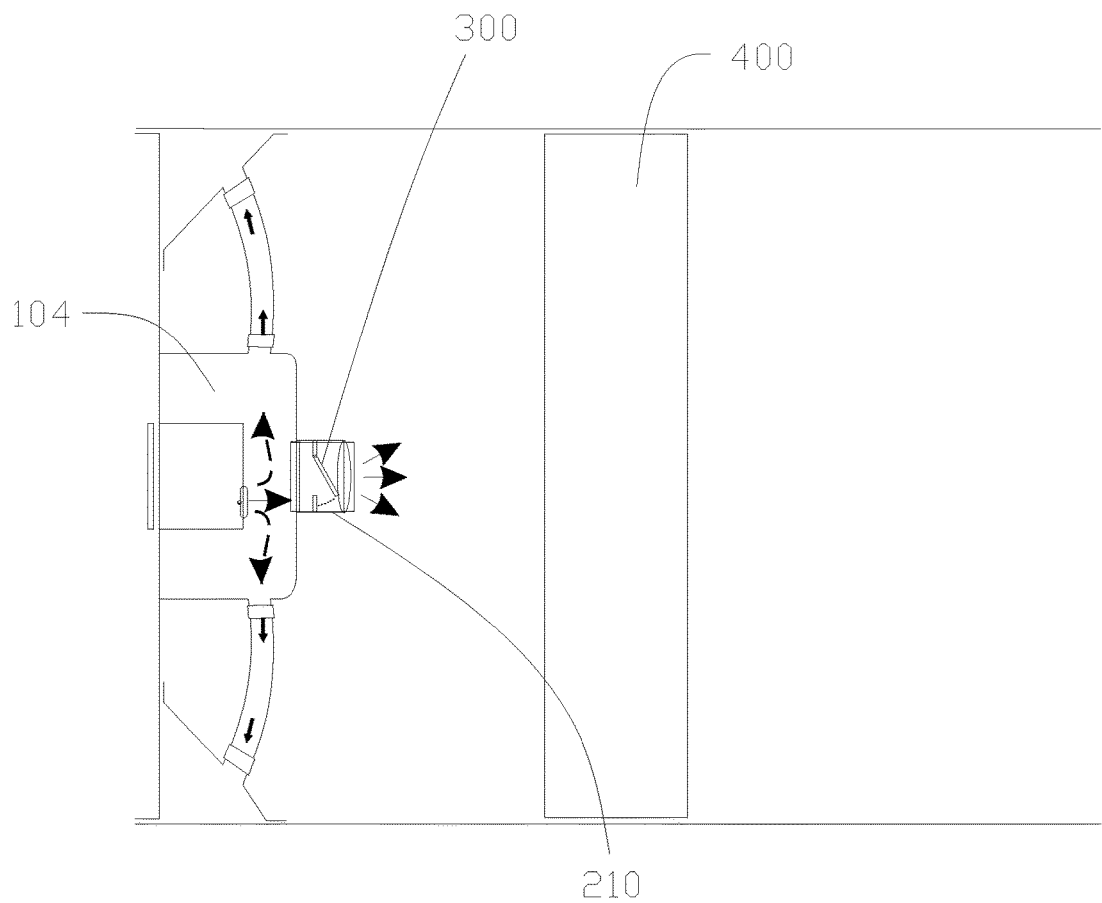


FIG. 4

INFLATABLE BED

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present application claims priority to Chinese Patent Application No. 202111119977.1, filed on Sep. 24, 2021 and entitled “Inflatable bed,” and Chinese Patent Application No. 202122325915.8, filed on Sep. 24, 2021 and entitled “Inflatable bed,” the contents of which are incorporated herein by reference in their entirety as a part of the present application.

TECHNICAL FIELD

[0002] The present disclosure relates to the field of daily necessities, and in particular, to an inflatable bed.

BACKGROUND

[0003] An inflatable bed on the market is generally formed by an inflatable chamber. The bed body of the inflatable bed with such a structure is very unstable, and the user may fall over after sitting on it. Because the inflatable bed tends to expand toward the middle, uneven gas pressure and strength may occur in the middle and edges, and the user may slip from the bed body. The existing inflatable bed has the following shortcomings: poor stability and inconvenient use.

SUMMARY

[0004] The present disclosure provides an inflatable bed, which can improve stability, is not prone to local collapse or tilt, and is convenient and reliable to use.

[0005] The present disclosure provides an inflatable bed, comprising a bed main body, an inflator pump and a one-way valve, wherein the bed main body is provided with a bed body chamber and at least one bed edge chamber independent from each other, and the at least one bed edge chamber is arranged around the bed body chamber. The inflator pump is connected to the bed main body, and the inflator pump is configured to inflate the bed body chamber and the at least one bed edge chamber. The one-way valve is provided on the inflator pump or the bed main body, and the one-way valve is configured to allow only a fluid to enter the bed body chamber.

[0006] In an optional embodiment, the bed main body is provided with an inflatable chamber, wherein the gas outlet of the inflator pump is in communication with the inflatable chamber, and wherein the inflatable chamber is in communication with both the bed body chamber and the at least one bed edge chamber.

[0007] In an optional embodiment, the inflatable chamber is communicated with the bed body chamber through a first gas delivery pipe, and wherein the one-way valve is provided in the first gas delivery pipe.

[0008] In an optional embodiment, the inflator pump is provided in the inflatable chamber, and wherein the gas inlet of the inflator pump is in communication with an outside.

[0009] In an optional embodiment, the inflatable chamber communicates with the at least one bed edge chamber through a second gas delivery pipe.

[0010] In an optional embodiment, the bed main body comprises two end walls, a peripheral wall, and at least one reinforcing wall. The peripheral wall has two open sides opposite to each other. The two end walls are respectively sealingly connected with the two open sides, jointly defining

the bed body chamber. The at least one reinforcing wall is simultaneously sealingly connected with the outer surface of the peripheral wall and the outer surface of one of the two end walls, jointly defining the bed edge chamber.

[0011] In an optional embodiment, the bed main body further comprises a dividing wall. The dividing wall is connected with the inner surface of the peripheral wall, and the dividing wall and the peripheral wall jointly define the inflatable chamber.

[0012] In an optional embodiment, the at least one reinforcing wall comprises a first connecting piece and a second connecting piece that are connected with each other. The first connecting piece and the second connecting piece have an included angle with a fold line formed at the joint thereof. One side of the first connecting piece away from the fold line is provided as a first connecting side, and one side of the second connecting piece away from the fold line is provided as a second connecting side. The first connecting side is connected to the end wall, and the second connecting side is connected to the peripheral wall. After the inflatable bed is inflated, the first connecting piece protrudes from the end wall in a thickness direction of the bed body chamber.

[0013] In an optional embodiment, two bed edge chambers are provided. The two bed edge chambers are both sleeved outside the bed body chamber, and two bed edge chambers are provided at an interval in the thickness direction of the bed body chamber.

[0014] In an optional embodiment, the inflatable bed further comprises at least one pull strap. The at least one pull strap is provided in the bed body chamber, and the at least one pull strap is used to restrain the bed body chamber from expanding under the action of the gas pressure.

[0015] By providing a bed body chamber and at least one bed edge chamber that are mutually independent, arranging the at least one bed edge chamber around the bed body chamber, and providing a one-way valve between the bed body chamber and the inflator pump, when the inflator pump is used to inflate the bed body chamber and the at least one bed edge chamber, the gas (e.g., air) can directly enter the at least one bed edge chamber. When the gas pressure reaches the set value, the one-way valve is opened, the bed body chamber is inflated, the at least one bed edge chamber, and the bed body chamber do not interfere with each other when being inflated, such that the inflation is convenient. After the inflation of the inflatable bed is completed, due to the function of the one-way valve, the bed body chamber and the at least one bed edge chamber do not communicate with each other, and both of them work independently such that during use, the gas in the bed body chamber does not leak into the at least one bed edge chamber, and the bed body chamber is not prone to sudden local pressure change, achieving enhanced stability. In addition, the at least one bed edge chamber is arranged around the bed body chamber to enhance the stability of the bed body chamber such that when an edge of the inflatable bed is stressed, the inflatable bed does not easily collapse or tilt locally, and the stability of the inflatable bed is high during use.

BRIEF DESCRIPTION OF DRAWINGS

[0016] In order to illustrate the technical solutions of the embodiments of the present disclosure more clearly, the drawings required to be used in the embodiments will be briefly introduced below. It should be understood that the following drawings show some embodiments of the present

disclosure and should not be regarded as a limitation of the scope, and for those ordinarily skilled in the art, other relevant drawings can also be obtained in light of these drawings, without using any inventive efforts.

[0017] FIG. 1 is a structural schematic view of an inflatable bed of an embodiment of the present disclosure;

[0018] FIG. 2 is a schematic view of a partial enlarged structure corresponding to an embodiment of the present disclosure;

[0019] FIG. 3 is a lateral structure schematic view of an inflatable bed of an embodiment of the present disclosure; and

[0020] FIG. 4 is a partial structural schematic view of an inflatable bed of an embodiment of the present disclosure.

DETAILED DESCRIPTION OF EMBODIMENTS

[0021] In order to make the objectives, technical solutions and advantages of the embodiments of the present disclosure clearer, the technical solutions in the embodiments of the present disclosure will be described clearly and completely below in conjunction with drawings in the embodiments of the present disclosure. Obviously, the described embodiments are some of the embodiments of the present disclosure, rather than all of the embodiments. The components of the embodiments of the present disclosure generally described and illustrated in the drawings herein may be arranged and designed in a variety of different configurations.

[0022] Therefore, the following detailed description of the embodiments of the present disclosure provided in the accompanying drawings is not intended to limit the claimed scope of the present disclosure, but merely represents selected embodiments of the present disclosure. Based on the embodiments of the present disclosure, all other embodiments, obtained by those ordinarily skilled in the art without making inventive effort, fall within the protection scope of the present disclosure.

[0023] It should be noted that similar reference numerals and letters indicate similar items in the following drawings, therefore, once a certain item is defined in one drawing, it does not need to be further defined and explained in the subsequent drawings.

[0024] In the description of the present disclosure, it should be noted orientation or positional relations indicated by terms such as “center”, “upper”, “lower”, “left”, “right”, “vertical”, “horizontal”, “inner”, and “outer” are based on orientation or positional relations as shown in the accompanying drawings, or an orientation or position that the product is usually placed in while in use. The orientation of positional relations terms are merely for facilitating the description of the present disclosure and simplifying the description, rather than for indicating or implying that related devices or elements have to be in the specific orientation, or configured and operated in a specific orientation. Therefore, they should not be construed as limitations on the present disclosure. The terms “first”, “second” and “third” are merely for descriptive purpose, and should not be construed as indicating or implying importance in relativity.

[0025] In addition, the terms “horizontal”, “vertical” and other terms do not mean that the component is required to be absolutely horizontal or overhanging, but may be slightly inclined. For example, “horizontal” means that its direction

is more horizontal than “vertical.” “Horizontal” does not mean that the structure must be completely horizontal, but can be slightly inclined.

[0026] In the description of the present disclosure, it should be noted that, unless otherwise definitely specified and limited, the terms “arrange”, “mount”, “link” and “connect” should be understood in a broad sense. For example, they can be fixed connection, detachable connection or integrated connection, they can be mechanical connection or electrical connection, they can be direct connection or indirect connection by intermediate medium, or they may be internal communication between two components. For those ordinarily skilled in the art, the specific meaning of the above terms in the present disclosure can be understood according to the specific situation.

[0027] Inflatable bed in the prior art has an inflatable chamber, and when used after inflation, the inflatable bed has poor stability, and tends to incline or dent at a local position, resulting in poor experience.

[0028] In view of this, the disclosed inflatable bed having at least two mutually independent chambers, wherein one of the chambers is a main chamber and the other is an auxiliary chamber, and wherein the auxiliary chamber is arranged around the main chamber and can enhance the stability of the edges of the main chamber, so that the main chamber is not easily dented locally or tilted when being used, and has high stability, enabling an enhanced experience.

[0029] Referring to FIG. 1 and FIG. 3, in the present embodiment, an inflatable bed comprises a bed main body 100, an inflator pump 200, a one-way valve 300 and a pull strap 400. The bed main body 100 is provided with a bed body chamber 101, an upper bed edge chamber 102 and a lower bed edge chamber 103, which are independent from each other. The pull strap 400 is provided in the bed body chamber 101, and the pull strap 400 is used to provide tension, such that when the bed body chamber 101 is filled with gas, the expansion of the bed body chamber 101 is suppressed, and such that the bed body chamber 101 maintains the set shape, which is convenient for use. The upper bed edge chamber 102 and the lower bed edge chamber 103 are both arranged around the bed body chamber 101, and are respectively located at the top side and bottom side of the bed body chamber 101. The upper bed edge chamber 102 can enhance the stability of the upper bed edge of the bed body chamber 101. The lower bed edge chamber 103 can enhance the stability of the lower bed edge of the bed body chamber 101 and increase the grip of the inflatable bed. The inflator pump 200 is connected to the bed main body 100. The inflator pump 200 is configured to inflate the bed body chamber 101, the upper bed edge chamber 102 and the lower bed edge chamber 103. The one-way valve 300 is provided on the inflator pump 200 or the bed main body 100, and the one-way valve 300 is configured to allow only fluid to enter the bed body chamber 101.

[0030] By providing the bed body chamber 101, the upper bed edge chamber 102 and the lower bed edge chamber 103, which are independent from each other, arranging both the upper bed edge chamber 102 and the lower bed edge chamber 103 around the bed body chamber 101, and providing the one-way valve 300 between the bed body chamber 101 and the inflator pump 200, when the inflator pump 200 is used to inflate the bed body chamber 101 and bed edge chambers, gas can directly enter the upper bed edge chamber 102 and the lower bed edge chamber 103, and

when the gas pressure reaches the set value, the one-way valve 300 is opened, the bed body chamber 101 is inflated, and the upper bed edge chamber 102, the lower bed edge chamber 103 and the bed body chamber 101 do not interfere with each other when being inflated, such that the inflation is convenient. After the inflation of inflatable bed is completed, due to function of the one-way valve 300, the bed body chamber 101 and the upper bed edge chamber 102, and the bed body chamber 101 and the lower bed edge chamber 103 do not communicate with each other and work independently, such that during use, the gas in the bed body chamber 101 does not leak into the upper bed edge chamber 102 and the lower bed edge chamber 103, and the bed body chamber 101 does not easily have the situation of local pressure sudden change, and has high stability.

[0031] The upper bed edge chamber 102 and the lower bed edge chamber 103 are arranged around the bed body chamber 101 to enhance the stability of the bed body chamber 101, and the inflatable bed is not easily collapsed or tilted locally when the periphery of the top is stressed, and during the use of the inflatable bed, the stability is high and the experience is enhanced.

[0032] Referring to FIG. 1, in the present embodiment, optionally, the inflatable bed comprises a top end wall 110, a bottom end wall 120, a peripheral wall 130, reinforcing walls and a dividing wall 160. The top end wall 110 and the bottom end wall 120 are both in an approximately square shape, the peripheral wall 130 is in a shape of an approximate rectangular ring, the peripheral wall 130 has two open sides opposite to each other, the top end wall 110 and the bottom end wall 120 are both sealingly connected with the peripheral wall 130, and the top end wall 110 and the bottom end wall 120 seals the two opening sides of the peripheral wall 130 respectively. The top end wall 110, the bottom end wall 120 and the peripheral wall 130 jointly enclose the bed body chamber 101 that is in a cuboid shape after being inflated. Two reinforcing walls are provided, for ease of description. The two reinforcing walls are respectively a first reinforcing wall 140 and a second reinforcing wall 150, the two reinforcing walls are all in a shape of a roughly rectangular ring, and the first reinforcing wall 140 is simultaneously sealingly connected with the top end wall 110 and the peripheral wall 130, jointly forming the upper bed edge chamber 102 surrounding the upper edge of the bed body chamber 101. The upper bed edge chamber 102 is in a rectangular ring shape after being inflated. The second reinforcing wall 150 is simultaneously sealingly connected with the top wall and the peripheral wall 130, jointly forming the lower bed edge chamber 103 surrounding the lower edge of the bed body chamber 101, and the lower bed edge chamber 103 is in a rectangular ring shape after being inflated. When in use, the second reinforcing wall 150 and the bottom end wall 120 are both in contact with the ground, which plays a supporting role. In addition, the lower bed edge chamber 103 jointly formed by the second reinforcing wall 150, the peripheral wall 130 and the bottom end wall 120 increases the contact area between the inflatable bed and the ground, thereby increasing the friction between the bottom side of the inflatable bed and the ground, so that the grip of the inflatable bed is greater, and the grip is more stable, which has a non-slip effect. In addition, due to the arrangement of the lower bed edge chamber 103, the struc-

tural strength of the lower bed edge of the bed body chamber 101 is enhanced, the stability is improved, and the comfort of use is improved.

[0033] Referring to FIG. 1 and FIG. 2, further, the first reinforcing wall 140 comprises a first connecting piece 141 and a second connecting piece 142 that are connected with each other, the first connecting piece 141 and the second connecting piece 142 have an included angle and a fold line 143 formed at the joint thereof, one side of the first connecting piece 141 away from the fold line 143 is provided as an annular first connecting side 1411, and one side of the second connecting piece 142 away from the fold line 143 is provided as an annular second connecting side 1421, the annular first connecting side 1411 is connected to the top end wall 110, and the annular second connecting side 1421 is connected to the peripheral wall 130, and after the inflatable bed is inflated, the first connecting piece 141 protrudes from the top end wall 110 in the thickness direction of the bed body chamber 101. In this way, after the inflation of the upper bed edge chamber 102 is completed, the first reinforcing wall 140 is stretched, the first connecting piece 141 and the second connecting piece 142 are both expanded, and the outer surface of first connecting piece 141 and the outer surface of the top end wall 110 form an obtuse angle. Generally, when the inflatable bed is in normal use, the top end wall 110 is approximately a horizontal plane, and the outer surface of the top end wall 110 is a surface that supports the human body, the first connecting piece 141 has an upward angle relative to the top end wall 110, and the height of the first connecting piece 141 in the direction away from the top end wall 110 gradually increases, forming an uphill or upward structure, thereby serving to limit, contain, or capture items located on top of the inflatable bed. In this manner, the top end wall 110 can effectively prevent the quilt on the top end wall 110 from slipping off, and can also effectively prevent the user from slipping off the inflatable bed while sleeping, and has enhanced safety.

[0034] Optionally, the peripheral edges of the dividing wall 160 are all sealingly connected with the inner surface of the peripheral wall 130, the dividing wall 160 and the peripheral wall 130 jointly define an inflatable chamber 104, the inflator pump 200 is provided in the inflatable chamber 104, and the gas inlet of the inflator pump 200 communicates with the through hole of the peripheral wall 130, so that the gas inlet of the inflator pump 200 communicates with the outside. The inflatable chamber 104 communicates with the bed body chamber 101 through a first gas delivery pipe 210, the one-way valve 300 is provided in the first gas delivery pipe 210, and the one-way valve 300 can be opened when gas pressure is greater than a preset value, thereby inflating the bed body chamber 101 through the inflator pump 200. The inflatable chamber 104 communicates with the upper bed edge chamber 102 through a second gas delivery pipe 220 and communicates with the lower bed edge chamber 103 through a third gas delivery pipe 230. Due to the structural design of the inflatable chamber 104, it is convenient to provide the inflator pump 200, and the inflator pump 200 is located in the inflatable chamber 104 without being exposed to the external environment, and the inflator pump 200 is not easy to be contaminated and has a long service life, and the inflator pump 200 is provided not to protrude the peripheral wall 130, such that the inflatable bed occupies a small space, which is convenient for arrangement.

[0035] Referring to FIG. 4, due to the arrangement of the inflatable chamber 104, when the inflator pump 200 is used to inflate the bed body chamber 101, the upper bed edge chamber 102 and the lower bed edge chamber 103, the gas is first delivered to the inflatable chamber 104, and then the gas is distributed to the bed body chamber 101, the upper bed edge chamber 102 and the lower bed edge chamber 103 through the inflatable chamber 104. The inflator pump 200 is provided to complete inflation of multiple chambers, which simplifies the structure and reduces the cost. In addition, when inflating, since the one-way valve 300 is provided in the first gas delivery pipe 210, in the initial stage of inflation, the gas pressure is low, and the one-way valve 300 is in a closed state, and the upper bed edge chamber 102 and the lower bed edge chamber 103 are inflated first, and after the inflated gas reaches the set amount, the one-way valve 300 is opened to inflate the three chambers synchronously. Since the upper bed edge chamber 102 and the lower bed edge chamber 103 are inflated first, the upper bed edge chamber 102 and the lower bed edge chamber 103 are preliminarily inflated and shaped, wherein in the shaping process, the bed body chamber 101 can be spread out, so as to facilitate the subsequent inflation of the bed body chamber 101, and the folding and inflation of the bed body chamber 101 are not easily blocked, and the inflation is smoother.

[0036] In the present embodiment, it should be noted that the top end wall 110, the bottom end wall 120, and the peripheral wall 130 may all be sealingly connected by a heat-sealing process. The first reinforcing wall 140, the top end wall 110 and the peripheral wall 130 may be sealingly connected by the heat-sealing process, and the first reinforcing wall 140 may be obtained by connecting four strip-shaped pieces by heat sealing to form a rectangular ring, and then be sealingly connected with the top end wall 110 and the peripheral wall 130. In the same way, the second reinforcing wall 150, the bottom end wall 120 and the peripheral wall 130 may be sealingly connected by the heat-sealing process, and the second reinforcing wall 150 may be obtained by connecting four strip-shaped pieces by heat sealing to form a rectangular ring, and be sealingly connected with the bottom end wall 120 and the peripheral wall 130. The dividing wall 160 may be sealingly connected with the peripheral wall 130 by the heat-sealing process.

[0037] In the present embodiment, optionally, the stretchability of the top end wall 110 is less than the stretchability of the bottom end wall 120. In the above, the greater the stretchability, the lower the polyvinyl chloride (PVC) hardness value, and the lower the PVC hardness value, the greater the expansion coefficient, and the greater the stretchability, the easier it is to deform, that is, the bottom end wall 120 is easier to deform than the top end wall 110. The parameter parts per hundred resin (PHR) means that the number of parts of rubber or resin added to every 100 parts by mass of PVC material, and the number of parts of the rubber or resin added indirectly indicates the PVC hardness of PVC. In the above, in the inflatable bed of the present embodiment, the PVC hardness of the top end wall 110 is 50-52 PHR, and the PVC hardness of the bottom end wall 120 is 48-50 PHR, which not only can keep the flatness and enhanced performance of the inflatable bed and avoid the formation of bread-shaped protrusions on the surface of the inflatable bed, but also achieve better matching and adaptation with the hardness and stretchability of the bed body.

With this design, since the deformation of the bottom end wall 120 is greater than the deformation of the top end wall 110, after the inflation is completed, the expanded area of the bottom end wall 120 is larger than the expanded area of the top end wall 110, the overall shape of the inflatable bed is roughly a trapezoidal platform, that is, the cross-sectional outline of the inflatable bed is roughly an isosceles trapezoid, such that the stability of the inflatable bed is high, and the use is safer and more comfortable.

[0038] Further, the top end wall 110 comprises a PVC flocking layer and a PVC/thermoplastic polyurethane (TPU) adhered cloth layer, which are laminated, and the bottom end wall 120 and the peripheral wall 130 each comprise a PVC cloth adhered layer and a PVC/TPU layer or a PVC/TPU flocking layer, which are laminated. In the above, the flocking layer of the top end wall 110 is provided on the outside of the PVC/TPU layer, that is, on the side away from the bottom end wall 120, the cloth layers of the bottom end wall 120 and the peripheral wall 130 are provided on the outside of the PVC/TPU layer, that is, the cloth layer of the bottom end wall 120 is provided on the side of the PVC/TPU layer away from the top end wall 110, and the cloth layer of the peripheral wall 130 are provided on the side of the PVC/TPU layer away from the bed body chamber 101. The PVC/TPU layers between the top end wall 110 and the peripheral wall 130 and between the bottom end wall 120 and the peripheral wall 130 are welded to each other to jointly define the inflatable chamber 104. The first reinforcing wall 140 and the second reinforcing wall 150 may both be made of the PVC/TPU material.

[0039] In the present embodiment, by providing the flocking layer on the top end wall 110 of the inflatable bed, the inflatable bed can be made more delicate and breathable, giving people a more comfortable feeling when in contact with human skin and improving the comfort of use. The cloth layer can reduce the noise generated when the inflatable bed is touched, avoid breakage, and prolong the service life of the inflatable bed. In addition, after the prior art inflatable bed is inflated, the prior art inflatable bed expands more toward the arc-shaped shape, such that the mattress body presents a bread-like protrusion, and the prior art inflatable bed is not flat enough and not beautiful enough, which affects the service life. By contrast, the arrangement of the cloth layer of the present disclosure limits the expansion of the PVC/TPU layer, which makes the overall stretch of the inflatable bed smoother/flat and more beautiful, realizes the technical effects that the entire inflatable bed is not easily deformed, the hardness of inflatable bed is improved, and the inflatable bed is enabled to be more comfortable and has longer service life.

[0040] In the present embodiment, it should be noted that a gas escape valve 500 is provided on the peripheral wall 130, and the gas escape valve 500 can discharge the gas in the bed body chamber 101 after being opened. In addition, due to the arrangement of the one-way valve 300, when the gas in the upper bed edge chamber 102 and the lower bed edge chamber 103 is discharged, the gas pressure of the bed body chamber 101 is not affected, and the hardness and comfort of the bed body chamber 101 are not affected. It should be understood that the upper bed edge chamber 102 and the lower bed edge chamber 103 may be exhausted by the inflator pump 200.

[0041] In the present embodiment, optionally, the pull strap 400 is provided as a flexible strap (e.g., a belt, a band),

the pull strap **400** may be made of a cloth layer, and the pull strap **400** may be in a hollow structure. Obviously, in other embodiments, the pull strap **400** may also be in a sheet shape or a gourd shape or the like. One end of the pull strap **400** is sealingly connected with the top end wall **110**, and the other end is sealingly connected with the bottom end wall **120**. In addition, there may be multiple pull straps **400**, and the multiple pull straps **400** are arranged in the bed body chamber **101** at intervals. It should be understood that each pull strap **400** has an included angle with each of the top end wall **110** and the bottom end wall **120**, and the position relationship between the pull strap **400** and the bottom end wall **120** is used for description. The angle between the bottom end wall **120** and the pull strap **400** near the middle of the bed body chamber **101** is 90° , and one end of the pull strap **400** connected to the top end wall **110** is inclined close to the middle of the bed body chamber **101**, so that the pull strap is angled away from the middle of the bed body chamber **101**, and in this way, the stability of the inflatable bed is high. For example, an angle between the pull strap **400** and the bottom end wall **120** is between 75° and 90° . For example, the angle between the pull strap **400** and the bottom end wall **120** is 75° , 80° , 90° , or the like.

[0042] It should be noted that the multiple pull strap **400** may be arranged in a rectangular array. Obviously, in other embodiments, the multiple pull strap **400** may also be arranged in a ring shape or the like.

[0043] For the inflatable bed provided by the present embodiment, by providing three independent chambers, and distributing annular chambers at the upper bed edge and the lower bed edge of the bed body chamber **101**, the overall stability of the inflatable bed is high, and it is not prone to partial dent or tilt when in use, such that the items and the user on the bed are all not easy to slip off the inflatable bed, and the use comfort is enhanced. In addition, the three chambers are inflated by the cooperation of the inflator pump **200** and the inflatable chamber **104**, enabling simple structure and low cost. The gas in the bed body chamber **101** is blocked by the one-way valve **300** and does not overflow, and adjusting the gas pressures of the upper bed edge chamber **102** and the lower bed edge chamber **103** does not affect the hardness and comfort of the bed body chamber **101**.

[0044] The above are exemplary embodiments of the present disclosure and are not intended to limit the present disclosure. For those skilled in the art, the present disclosure can have various modifications and changes. Any modifications, equivalent replacements, improvements, and the like made within the spirit and principle of the present disclosure shall be included in the protection scope of the present disclosure.

1. An inflatable bed, comprising:

a bed main body;
an inflator pump; and
a one-way valve; and

wherein the bed main body is provided with a bed body chamber and at least one bed edge chamber which are independent from each other, and the at least one bed edge chamber is arranged around the bed body chamber;

wherein the inflator pump is connected to the bed main body, and the inflator pump is configured to inflate the bed body chamber and the at least one bed edge chamber; and

wherein the one-way valve is provided on the inflator pump or the bed main body, and the one-way valve is configured to allow only a fluid to enter the bed body chamber;

wherein the bed main body is provided with an inflatable chamber, the bed main body comprises two end walls, a peripheral wall and a dividing wall, wherein peripheral edges of the dividing wall are sealingly connected with an inner surface of the peripheral wall, and the dividing wall and the peripheral wall jointly define the inflatable chamber;

the inflator pump is provided in the inflatable chamber, wherein a gas outlet of the inflator pump is in communication with the inflatable chamber, and the inflatable chamber is in communication with both the bed body chamber and the at least one bed edge chamber; and

the inflatable chamber is in communication with the bed body chamber through a first gas delivery pipe, and the one-way valve is provided in the first gas delivery pipe.

2. (canceled)

3. (canceled)

4. The inflatable bed according to claim 1, wherein a gas inlet of the inflator pump is in communication with an outside.

5. The inflatable bed according to claim 1, wherein the inflatable chamber communicates with the at least one bed edge chamber through a second gas delivery pipe.

6. The inflatable bed according to claim 1, wherein the bed main body further comprises at least one reinforcing wall; wherein the peripheral wall has two open sides opposite to each other; wherein the two end walls are respectively sealingly connected with the two open sides, jointly defining the bed body chamber; and

wherein the at least one reinforcing wall is simultaneously sealingly connected with an outer surface of the peripheral wall and an outer surface of one of the two end walls, jointly defining the bed edge chamber.

7. (canceled)

8. The inflatable bed according to claim 6, wherein the at least one reinforcing wall comprises a first connecting piece and a second connecting piece that are connected with each other; wherein the first connecting piece and the second connecting piece have an included angle with a fold line formed at a joint thereof; wherein one side of the first connecting piece away from the fold line is provided as a first connecting side, and one side of the second connecting piece away from the fold line is provided as a second connecting side; wherein the first connecting side is connected to the end wall, and the second connecting side is connected to the peripheral wall; and wherein the first connecting piece is configured to protrude from the end wall in a thickness direction of the bed body chamber after the inflatable bed is inflated.

9. The inflatable bed according to claim 1, wherein two bed edge chambers are provided; wherein the two bed edge chambers are both sleeved outside the bed body chamber; and wherein the two bed edge chambers are provided at an interval in a thickness direction of the bed body chamber.

10. The inflatable bed according to claim 1, wherein the inflatable bed further comprises at least one pull strap; wherein the at least one pull strap is provided in the bed body chamber; and wherein the at least one pull strap is configured to restrain the bed body chamber from expanding under an action of a gas pressure.

11. (canceled)

12. The inflatable bed according to claim 4, wherein the bed main body further comprises at least one reinforcing wall; wherein the peripheral wall has two open sides opposite to each other; wherein the two end walls are respectively sealingly connected with the two open sides, jointly defining the bed body chamber; and wherein the at least one reinforcing wall is simultaneously sealingly connected with an outer surface of the peripheral wall and an outer surface of one of the two end walls, jointly defining the bed edge chamber.

13. The inflatable bed according to claim 5, wherein the bed main body further comprises at least one reinforcing wall; wherein the peripheral wall has two open sides opposite to each other; wherein the two end walls are respectively sealingly connected with the two open sides, jointly defining the bed body chamber; and wherein the at least one reinforcing wall is simultaneously sealingly connected with an outer surface of the peripheral wall and an outer surface of one of the two end walls, jointly defining the bed edge chamber.

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