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(71) Applicant: **Fujian Xihe Sanitary Ware Technology Co., Ltd.**
QuanZhou, Fujian (CN)

(72) Inventors:
- **LIN, Xiaofa**
  QuanZhou (CN)
- **LIN, Xiaoshan**
  QuanZhou (CN)
- **CHEN, Fumin**
  QuanZhou (CN)
- **LIN, Xiaocong**
  QuanZhou (CN)
- **ZENG, Zhenqing**
  QuanZhou (CN)
- **DENG, Xiaoqing**
  QuanZhou (CN)
- **LIU, Qiqiao**
  QuanZhou (CN)

(74) Representative: **Murgitroyd & Company**
165-169 Scotland Street
Glasgow G5 8PL (GB)

(54) BATH STORAGE DEVICE

(57) The present application discloses a bath storage device, which includes a vertical rod including a bottom end; a showerhead rack connected to the vertical rod and located at one side of the vertical rod, a side surface of the showerhead rack being provided with a clamping groove; and a storage shelf with an integrally formed structure connected to the bottom end of the vertical rod and provided with a plurality of clamping holes. Axes of the clamping holes are parallel to an extension direction of the vertical rod. Since the storage shelf is configured as an integrally formed structure with the plurality of holes, the storage shelf has a simple structure, low manufacturing cost, and is simple to assemble with the vertical rod. At the same time, after a bottle is fixed to the storage shelf, the bottle can be firmly fixed on the storage shelf, and the bottle will not move or topple.

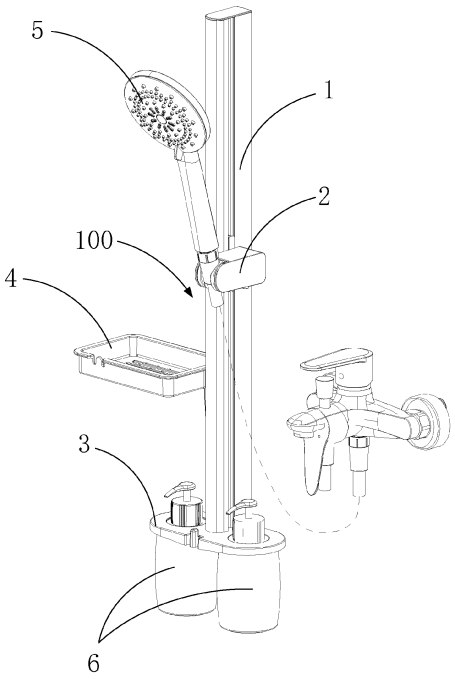

FIG. 1

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Description

TECHNICAL FIELD

[0001] The present application relates to the technical field of sanitary ware, more in particular to a bath storage device.

BACKGROUND

[0002] In the existing bathroom, a storage platform is usually provided, and the pressure pump bottles containing shower gel, shampoo and other bath products are usually directly placed on the storage platform. Due to the limited space of the bathroom, the size of the storage platform is small, and the pressure pump bottles are easy to topple and scratch hand when the pressure pump bottles are pressed.

SUMMARY

[0003] An embodiment of the present application provides a bath storage device, which includes: a vertical rod including a bottom end; and a storage shelf with an integrally formed structure, connected to the bottom end of the vertical rod, and provided with a plurality of clamping holes. Axes of the clamping holes are parallel to an extension direction of the vertical rod, and the clamping holes are configured for receiving bottles for containing toiletries.

[0004] In an exemplary embodiment, the storage shelf is of a flat plate structure; and the storage shelf is perpendicular to the vertical rod.

[0005] In an exemplary embodiment, the storage shelf is provided with two clamping holes; and the vertical rod is connected with a part of the storage shelf located between the two clamping holes.

[0006] In an exemplary embodiment, each of the bottles includes a bottle body provided with a threaded interface and a bottle cap screwed on the threaded interface. The threaded interface is configured to pass through the clamping hole, and the bottle cap is hung on the storage shelf.

[0007] In an exemplary embodiment, the storage shelf and the vertical rod are connected via screws.

[0008] In an exemplary embodiment, the bath storage device also includes a showerhead rack. The showerhead rack is connected with the vertical rod and is located at one side of the vertical rod, and a clamping groove for receiving a showerhead is provided on a side surface of the showerhead rack. The showerhead rack is slidably connected with the vertical rod and is capable of sliding along the extension direction of the vertical rod to adjust the position of the showerhead rack.

[0009] In an exemplary embodiment, a first chute is provided on one side of the vertical rod. The showerhead rack includes: a shell provided with an opening at one side of the shell close to the vertical rod, a first through hole being provided on a wall surface of the shell; a mounting bracket disposed at the opening of the shell, and provided with a mandrel extending into the first chute and a second through hole parallel to the mandrel and penetrating the mounting bracket, and an axis of the second through hole being perpendicular to an axis of the first through hole; a pulley sleeved on the mandrel and disposed in the first chute, a diameter of the pulley being larger than a width of the first chute; a slide bar configured to pass through the second through hole; a friction block disposed at one end of the slide bar facing away from the shell; a slide seat disposed in the shell and capable of sliding towards and away from the mounting bracket, and abutting against one end of the slide bar close to the shell; a first elastic member abutted against the slide seat to exert an elastic force on the slide seat in a direction close to the mounting bracket; an unlocking button configured to pass through the first through hole; and a second elastic member abutted against the unlocking button to exert an elastic force on the unlocking button in a direction towards the outside of the first through hole. The slide seat is provided with a first ramp at one side of the unlocking button facing away from the mounting bracket, and the unlocking button is provided with a second ramp abutting against the first ramp.

[0010] In an illustrative embodiment, the bath storage device further includes a storage disk; and the storage disk is connected with the vertical rod and is located at one side of the vertical rod facing away from the showerhead rack.

[0011] In an exemplary embodiment, the storage disk is slidably connected with the vertical rod, and the storage disk is capable of sliding along the extension direction of the vertical rod to adjust the position of the storage disk.

[0012] In an exemplary embodiment, a second chute is provided on the side of the vertical rod facing away from the showerhead rack, the storage disk includes a tray and a slider connected to the tray, the slider is disposed in the second chute, and a width of the slider is larger than an opening width of the second chute.

[0013] In an exemplary embodiment, the slider is provided with a shaft hole extending along a depth direction of the second chute, and the shaft hole is a through hole. The storage disk further includes: a knob including a rotating shaft configured to pass through the shaft hole and a handle disposed at one end of the rotating shaft facing away from the vertical rod; a locking member disposed between the slider and a bottom surface of the second chute and connected with the rotating shaft. Rotations of the rotating shaft can make the locking member squeeze the bottom surface of the second chute and release the locking member from squeezing the bottom surface of the second chute.

[0014] In the present application, the bottle can be hung on the storage shelf. In particular, the threaded interface on the bottle body of the bottle passes upward through the clamping hole of the storage shelf from the bottom of the storage shelf. The bottle cap is screwed on

the threaded interface from a position above the storage shelf. Since an outer diameter of the bottle cap is larger than the diameter of the clamping hole of the storage shelf, the bottle cap cannot pass through the clamping hole, so that the bottle can be hung on the storage shelf. A plurality of bottles can be respectively hung on the storage shelf through a plurality of clamping holes. Different bottles can contain different kinds of liquid toiletries. For example, one bottle can contain shower gel and another bottle can contain shampoo. Squeezing of the bottle cap can pump out the toiletries contained in the bottle body.

[0015] Since the storage shelf is configured as an integrally formed structure with the plurality of holes, the storage shelf has a simple structure, low manufacturing cost, and is simple to assemble with the vertical rod. At the same time, after the bottle is fixed on the storage shelf, the bottle can be firmly fixed on the storage shelf, and the bottle will not move or topple.

[0016] Other features and advantages of the present application will be set forth in the description which follows, and in part will be obvious from the description, or may be learned by practice of the present application. The objects and other advantages of the present application can be realized and obtained by the structures particularly indicated in the description and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] The accompanying drawings are used for providing a further understanding of technical solutions of the present application, and constitute a part of the description. They are used together with embodiments of the present application to explain the technical solutions of the present application, and do not constitute a restriction on the technical solutions of the present application.

FIG. 1 is a three-dimensional schematic diagram of a bath storage device according to the present application.

FIG. 2 is an exploded schematic diagram of a bath storage device according to the present application.

FIG. 3 is a fully cross-sectional schematic diagram of a bath storage device according to the present application.

FIG. 4 is an enlarged schematic diagram of part A in FIG. 3.

FIG. 5 is an enlarged schematic diagram of part B in FIG. 3.

FIG. 6 is an enlarged schematic diagram of part C in FIG. 3.

DETAILED DESCRIPTION

[0018] In order to make the purposes, technical schemes and advantages of the present application more explicit and clearer, embodiments of the present application will be described in detail below with reference to the drawings. It should be noted that the embodiments in the present application and the features in the embodiments can be arbitrarily combined with each other if there is no conflict.

[0019] A bath storage device 100 according to the present application is shown in FIGS. 1 and 2. The bath storage device 100 includes a vertical rod 1, a showerhead rack 2 and a storage shelf 3.

[0020] The vertical rod 1 is configured as a straight rod and is vertically arranged. The vertical rod 1 includes a top end and a bottom end opposite to the top end. The vertical rod 1 can be hung on a wall.

[0021] The showerhead rack 2 is connected to the vertical rod 1, and the showerhead rack 2 is located at one side of the vertical rod 1. A side surface of the showerhead rack 2 is provided with a clamping groove 21. The clamping groove 21 extends from the top of the showerhead rack 2 to the bottom of the showerhead rack 2. An inner wall of the clamping groove 21 may be configured as an arcuate surface. In a direction from the opening of the clamping groove 21 to the bottom of the clamping groove 21, the width of the clamping groove 21 is increased at first and then decreased. An opening of a showerhead 5 may face forward. A grip handle of the showerhead 5 can be clamped on the clamping groove 21 of the showerhead rack 2, so that the showerhead 5 is fixed on the showerhead rack 2.

[0022] As shown in FIG. 2, the storage shelf 3 is of an integrally formed structure. A plurality of clamping holes 31 are provided on the storage shelf 3, and the clamping holes 31 may be circular through holes. The storage shelf 3 is connected to a bottom end of the vertical rod 1. The storage shelf 3 may be connected to the vertical rod 1 by screws, welding, adhesive or buckles. The axes of the plurality of clamping holes 31 are parallel to each other and are all parallel to an extension direction of the vertical rod 1.

[0023] As shown in FIGS. 2 and 4, a bottle 6 includes a bottle body 61 and a bottle cap 63. The bottle body 61 is provided with a threaded interface 62, and an outer circumferential surface of the threaded interface 62 is provided with an external thread. An inner circumferential surface of the bottle cap 63 is provided with an internal thread matched with the external thread. An outer diameter of the threaded interface 62 is smaller than a diameter of the clamping hole 31 of the storage shelf 3. An outer diameter of the bottle cap 63 is larger than the diameter of the clamping hole 31 of the storage shelf 3. The bottle 6 may be a pressure pump bottle.

[0024] The bottle 6 may be hung on the storage shelf 3. In particular, the threaded interface 62 on the bottle body 61 of the bottle 6 passes upward through the clamp-

ing hole 31 of the storage shelf 3 from the bottom of the storage shelf 3. The bottle cap 63 is screwed on the threaded interface 62 from a position above the storage shelf 3. Since the outer diameter of the bottle cap 63 is larger than the diameter of the clamping hole 31 of the storage shelf 3, the bottle cap 63 cannot pass through the clamping hole 31, so that the bottle 6 can be hung on the storage shelf 3. A plurality of bottles 6 can be respectively hung on the storage shelf 3 through a plurality of clamping holes 31. Different bottles 6 can contain different kinds of liquid toiletries. For example, one bottle 6 can contain shower gel and another bottle 6 can contain shampoo.

[0025] Since the storage shelf 3 is configured as an integrally formed structure with the plurality of holes, the storage shelf 3 has a simple structure, low manufacturing cost, and is simple to assemble with the vertical rod 1. Meanwhile, after the bottle 6 is fixed to the storage shelf 3, the bottle 6 can be firmly fixed to the storage shelf 3 and the bottle 6 will not move or topple.

[0026] In an exemplary embodiment, the storage shelf 3 is configured as a flat plate structure, which may be an elongated flat plate. A plate surface of the storage shelf 3 is perpendicular to the extension direction of the vertical rod 1. The clamping hole 31 perpendicularly penetrates the plate surface of the storage shelf 3. The flat plate-like storage shelf 3 has a simpler structure and a lower manufacturing cost, and can be manufactured in large batch by, for example, a stamping process.

[0027] In an exemplary embodiment, the storage shelf 3 is provided with two clamping holes 31. The two clamping holes 31 are disposed at intervals. A third through hole 32 is provided between the two clamping holes 31. A plurality of third through holes 32, for example, two third through holes, can be provided. The bottom end of the vertical rod 1 is provided with a plurality of screw holes (not shown in the figures). The number of screw holes is the same as the number of third through holes 32. The plurality of screw holes are respectively aligned with the plurality of third through holes 32.

[0028] The storage shelf 3 also includes a plurality of screws 7. The number of screws 7 is the same as the number of third through holes 32. A plurality of screws 7 are respectively screwed into a plurality of screw holes in the vertical rod 1 through a plurality of third through holes 32 in the storage shelf 3, thereby connecting the storage shelf 3 and the vertical rod 1 by screws.

[0029] The vertical rod 1 is connected to a part of the storage shelf 3 located between two clamping holes 31. Two bottles 6 are respectively hung on the two clamping holes 31, and the two bottles 6 are respectively located at both sides of the vertical rod 1, so that the force exerted on both sides of the storage shelf 3 is more uniform.

[0030] In an exemplary embodiment, as shown in FIGS. 3 and 5, the vertical rod 1 is provided with a first chute 11. The first chute 11 is disposed on a side of the vertical rod 1. The first chute 11 extends from one end of the vertical rod 1 to the other end of the vertical rod 1. An opening of the first chute 11 is a constricted opening.

[0031] The showerhead rack 2 includes a shell 22, a mounting bracket 23, an unlocking button 26, a slide bar 24, a friction block 25, a slide seat 28, a spring seat 20, a first elastic member (not shown), a second elastic member 27, and a pulley 29. A side of the shell 22 close to the vertical rod 1 is provided with an opening. The mounting bracket 23 covers the opening of the shell 22 and is connected to the shell 22. A side of the mounting bracket 23 facing away from the shell 22 is provided with a mandrel 231, and the mandrel 231 extends into the first chute 11. The pulley 29 is disposed in the first chute 11, and the pulley 29 is sleeved on the mandrel 231 and can freely rotate about the mandrel 231. A diameter of the pulley 29 is larger than an opening width of the first chute 11. A plurality of mandrels 231 may be provided, and the plurality of mandrels 231 are parallel to each other and are all perpendicular to the vertical rod 1. A plurality of pulleys 29 may be provided, and the plurality of pulleys 29 may respectively be sleeved on the plurality of mandrels 231. A second through hole 232 is provided in the mounting bracket 23. The second through hole 232 extends from a side of the mounting bracket 23 close to the shell 22 to a side of the mounting bracket 23 facing away from the shell 22. The second through hole 232 is communicated with an inner cavity of the shell 22. An axis of the second through hole 232 is parallel to an axis of the mandrel 231.

[0032] The slide seat 28 is configured as a shell-like structure. The slide bar 24 is disposed in the second through hole 232 of the mounting bracket 23, and the slide bar 24 is in a clearance fit with the second through hole 232. The slide bar 24 can slide along the second through hole 232. A plurality of slide bars 24 and a plurality of second through holes 232 may be provided, and the plurality of slide bars 24 are respectively disposed in the plurality of second through holes 232. One end of the slide bar 24 facing away from the shell 22 extends into the first chute 11. The friction block 25 is disposed in the first chute 11 and fixed at an end of the slide bar 24 facing away from the shell 22.

[0033] The slide seat 28 is disposed in the shell 22 and can slide toward and away from the mounting bracket 23. The slide seat 28 may be configured as a substantially cylindrical structure. The slide seat 28 includes a first side wall 281 close to the mounting bracket 23 and a second side wall 282 facing away from the mounting bracket 23. The first side wall 281 can abut against the slide bar 24. One end of the first elastic member may abut against a side wall of the shell 22 facing away from the mounting bracket 23, and the other end of the first elastic member may abut against the second side wall 282. The first elastic member exerts an elastic force on the slide seat 28 in a direction close to the mounting bracket 23. The slide seat 28 squeezes the slide bar 24 in a direction towards the bottom of the first chute 11 under the action of the elastic force of the first elastic member, so that the friction block 25 squeezes the bottom

of the first chute 11, and there is a large friction force between the friction block 25 and the first chute 11, which makes it difficult for the showerhead rack 2 to slide along the vertical rod 1. An inner wall of the second side wall 282 of the slide seat 28 is provided with a first ramp 283.

[0034] A wall surface of the shell 22 is also provided with a first through hole 221. An axial direction of the first through hole 221 is perpendicular to an axial direction of the second through hole 232. The spring seat 20 is disposed in the shell 22 and fixed in the shell 22. The spring seat 20 includes a support portion 201. The support portion 201 may be configured as a plate-like structure and is disposed at a side of the shell 22 facing away from the first through hole 221.

[0035] The unlocking button 26 is configured as a column-like structure. The unlocking button 26 is configured to pass through the first through hole 221. The unlocking button 26 can slide along the first through hole 221. One end of the second elastic member 27 abuts against the unlocking button 26, and the other end of the second elastic member 27 abuts against the support portion 201 of the spring seat 20. The second elastic member 27 applies an elastic force on the unlocking button 26 in a direction away from the support portion 201, that is, it applies an elastic force on the unlocking button 26 in a direction towards the outside of the first through hole 221.

[0036] A side of the unlocking button 26 facing away from the mounting bracket 23 is also provided with a second ramp 261. The first ramp 283 of the slide seat 28 abuts against the second ramp 261 of the unlocking button 26. When the unlocking button 26 is pressed, the second elastic member 27 is compressed, and the first ramp 283 and the second ramp 261 are squeezed against each other so that the slide seat 28 can move away from the mounting bracket 23 against the elastic force exerted by the first elastic member. Since the slide seat 28 moves in a direction away from the mounting bracket 23, the slide seat 28 no longer squeezes the slide bar 24, so that the friction block 25 no longer squeezes the bottom of the first chute 11, and the friction force between the friction block 25 and the bottom of the first chute 11 is reduced or even eliminated. At this time, the showerhead rack 2 can slide along the extension direction of the vertical bar 1 to adjust the height of the showerhead rack 2. After the unlocking button 26 is released, the second elastic member 27 exerts an elastic force on the unlocking button 26 to reset the unlocking button 26. At the same time, the slide seat 28 squeezes the slide bar 24 in a direction toward the bottom of the first chute 11 under the action of the elastic force of the first elastic member, so that the friction block 25 squeezes the bottom of the first chute 11, and there is a large friction force between the friction block 25 and the first chute 11, so that the showerhead rack 2 is fixed.

[0037] In an exemplary embodiment, the bath storage device 100 further includes a storage disk 4. The storage disk 4 is used for containing objects, which may be soap or bottles containing toiletries. The storage disk 4 is connected to the vertical rod 1 and is located at the side of the vertical rod 1 facing away from the showerhead rack 2.

[0038] The storage disk 4 can be used for placing objects, such as soap and the like, which users need to take conveniently when taking a bath, so as to make the use of these objects more convenient. The storage disk 4 is disposed at the side of the vertical rod 1 facing away from the showerhead rack 2, and the storage disk 4 does not affect the sliding of the showerhead rack 2 on the vertical rod 1.

[0039] In an exemplary embodiment, as shown in FIGS. 3 and 6, a second chute 12 is provided on the side of the vertical rod 1 facing away from the showerhead rack 2. An opening of the second chute 12 is a constricted opening.

[0040] The storage disk 4 includes a tray 41 and a slider 42. The tray 41 may be configured in a rectangular shape. A plurality of drain holes 411 may be provided at the bottom of the tray 41. The drain hole 411 may be configured in a strip shape, and extension directions of the plurality of drain holes 411 are the same. The drain holes 411 can guide the accumulated water in the tray 41 out of the tray 41, thereby preventing the objects in the tray 41 from soaking in the accumulated water.

[0041] The slider 42 is disposed at a side of the tray 41 close to the vertical rod 1 and is connected to the tray 41. The slider 42 and the tray 41 may be connected via a screw. The slider 42 is disposed in the second chute 12. A width of the slider 42 is larger than an opening width of the second chute 12 of the vertical rod 1. The slider 42 is difficult to escape from the opening of the second chute 12.

[0042] In this way, the slider 42 can only slide along the second chute 12 of the vertical rod 1, so that a sliding connection is formed between the storage disk 4 and the vertical rod 1, whereby the height of the storage disk 4 can be adjusted.

[0043] In an exemplary embodiment, the slider 42 is further provided with a shaft hole 421, which is a circular through hole. The shaft hole 421 extends in the same direction as the depth direction of the second chute 12 of the vertical rod 1. The storage disk 4 also includes a knob 43 and a locking member 44. The knob 43 includes a rotating shaft 431 and a handle 432.

[0044] The rotating shaft 431 is configured in a cylindrical shape. The rotating shaft 431 is configured to pass through the shaft hole 421 of the slider 42. One end of the rotating shaft 431 faces the vertical rod 1, and the other end of the rotating shaft 431 faces away from the vertical rod 1. The handle 432 is disposed at one end of the rotating shaft 431 facing away from the vertical rod 1. The handle 432 extends radially outward from the end of the rotating shaft 431.

[0045] The locking member 44 is disposed between the slider 42 and a bottom surface of the second chute 12. The locking member 44 is connected to one end of the rotating shaft 431 close to the vertical rod 1. The

locking member 44 may be configured as a circular disc. A first helicoid surface (not shown) is provided at a side of the locking member 44 close to the slider 42, and a second helicoid surface (not shown) is provided at a side of the slider 42 close to the locking member 44, and the first helicoid surface is able to abut against the second helicoid surface.

[0046] The user can rotate the rotating shaft 431 by rotating the handle 432. When the rotating shaft 431 rotates in a first direction, the first helicoid surface and the second helicoid surface squeeze against each other, so that the locking member 44 is squeezed in a direction towards the bottom surface of the second chute 12 until the locking member 44 squeezes against the bottom surface of the second chute 12. The squeezing of the locking member 44 against the bottom surface of the second chute 12 will increase the friction between the locking member 44 and the bottom surface of the second chute 12, so that the storage disk 4 is locked and cannot slide along the vertical rod 1. When the rotating shaft 431 rotates in the direction opposite to the first direction, the first helicoid surface and the second helicoid surface no longer squeeze against each other, so that the locking member 44 no longer squeezes against the bottom surface of the second chute 12, and the friction between the locking member 44 and the bottom surface of the second chute 12 is reduced, so that the storage disk 4 can slide along the vertical rod 1 to adjust the height of the storage disk 4.

[0047] In the description of the present application, it should be noted that the orientations or positional relationships indicated by the terms "upper", "lower", "one side", "the other side", "one end", "the other end", "edge", "opposite", "four corners", "periphery", "square structure" or the like are based on the orientations or positional relationships shown in the drawings, which are only for the convenience of describing the present application and simplifying the description, and do not indicate or imply that the referred structure has a specific orientation, is configured and operated in a specific orientation, and therefore cannot be understood as a restriction on the present application.

[0048] In the description of the embodiments of the present application, unless otherwise expressly specified and defined, the terms "connection", "direct connection", "indirect connection", "fixed connection", "mounting" and "assembly" or the like should be understood in a broad sense. For example, they may be fixed connection, detachable connection or integrated connection. The terms "mounting", "connection" and "fixed connection" may be direct connection, or indirect connection through an intermediary, or may be an internal communication between two elements. For those of ordinary skill in the art, the specific meaning of the above-mentioned terms in the present application can be understood in specific circumstances.

[0049] Although the disclosed implementations of the present application are described as above, the described contents are only implementations employed for the convenience of understanding the present application, and are not used to limit the present application. Any person skilled in the art to which the present application pertains may make any modifications and changes in the form and details of implementation, but the scope of patent protection of the present application shall still be defined by the appended claims.

Claims

1. A bath storage device (100) comprising:

   a vertical rod (1) comprising a bottom end; and a storage shelf (3) with an integrally formed structure, connected to the bottom end of the vertical rod (1), and provided with a plurality of clamping holes (31);
   wherein axes of the clamping holes (31) are parallel to an extension direction of the vertical rod (1), and the clamping holes (31) are configured for receiving bottles (6) for containing toiletries.

2. The bath storage device (100) according to claim 1, wherein the storage shelf (3) is of a flat plate structure;
   the storage shelf (3) is perpendicular to the vertical rod (1).

3. The bath storage device (100) according to claim 2, wherein the storage shelf (3) is provided with two clamping holes (31);
   the vertical rod (1) is connected with a part of the storage shelf (3) located between the two clamping holes (31).

4. The bath storage device (100) according to claim 1, wherein each of the bottles (6) comprises a bottle body (61) provided with a threaded interface (62) and a bottle cap (63) screwed on the threaded interface (62);
   wherein the threaded interface (62) is configured to pass through the clamping hole (31), and the bottle cap (63) is hung on the storage shelf (3).

5. The bath storage device (100) according to claim 1, wherein the storage shelf (3) and the vertical rod (1) are connected by screws.

6. The bath storage device (100) according to claim 1, further comprising a showerhead rack (2) connected with the vertical rod (1) and located at one side of the vertical rod (1), wherein a clamping groove (21) for receiving a showerhead (5) is provided on a side surface of the showerhead rack (2);
   the showerhead rack (2) is slidably connected with the vertical rod (1) and is capable of sliding along

the extension direction of the vertical rod (1) to adjust the position of the showerhead rack (2).

7. The bath storage device (100) according to claim 6, wherein a first chute (11) is provided on one side of the vertical rod (1);
the showerhead rack (2) comprises:

a shell (22), provided with an opening at one side of the shell (22) close to the vertical rod (1), wherein a first through hole (221) is provided on a wall surface of the shell (22);
a mounting bracket (23), disposed at the opening of the shell (22), wherein the mounting bracket (23) is provided with a mandrel (231) extending into the first chute (11) and a second through hole (232) parallel to the mandrel (231) and penetrating the mounting bracket (23), and an axis of the second through hole (232) is perpendicular to an axis of the first through hole (221);
a pulley (29), sleeved on the mandrel (231) and disposed in the first chute (11), wherein a diameter of the pulley (29) is larger than a width of the first chute (11);
a slide bar (24), configured to pass through the second through hole (232);
a friction block (25), disposed at one end of the slide bar (24) facing away from the shell (22);
a slide seat (28), disposed in the shell (22) and capable of sliding towards and away from the mounting bracket (23), and abutting against one end of the slide bar (24) close to the shell (22);
a first elastic member, abutted against the slide seat (28) to exert an elastic force on the slide seat (28) in a direction close to the mounting bracket (23);
an unlocking button (26), configured to pass through the first through hole (221); and
a second elastic member (27), abutted against the unlocking button (26) to exert an elastic force on the unlocking button (26) in a direction towards the outside of the first through hole (221);
wherein the slide seat (28) is provided with a first ramp (283) at one side of the unlocking button (26) facing away from the mounting bracket (23), and the unlocking button (26) is provided with a second ramp (261) abutting against the first ramp (283).

8. The bath storage device (100) according to claim 6, wherein the bath storage device (100) further comprises a storage disk (4);
the storage disk (4) is connected with the vertical rod (1) and is located at one side of the vertical rod (1) facing away from the showerhead rack (2).

9. The bath storage device (100) according to claim 8, wherein the storage disk (4) is slidably connected with the vertical rod (1), and the storage disk (4) is capable of sliding along the extension direction of the vertical rod (1) to adjust the position of the storage disk (4).

10. The bath storage device (100) according to claim 9, wherein a second chute (12) is provided on a side of the vertical rod (1) facing away from the showerhead rack (2);

the storage disk (4) comprises a tray (41) and a slider (42) connected to the tray (41);
the slider (42) is disposed in the second chute (12), and a width of the slider (42) is larger than an opening width of the second chute (12).

11. The bath storage device (100) according to claim 10, wherein the slider (42) is provided with a shaft hole (421) extending along a depth direction of the second chute (12), and the shaft hole (421) is a through hole;
the storage disk (4) further comprises:

a knob (43), comprising a rotating shaft (431) configured to pass through the shaft hole (421) and a handle (432) disposed at one end of the rotating shaft (431) facing away from the vertical rod (1);
a locking member (44), disposed between the slider (42) and a bottom surface of the second chute (12) and connected with the rotating shaft (431);
wherein rotations of the rotating shaft (431) are capable of making the locking member (44) squeeze the bottom surface of the second chute (12) and releasing the locking member (44) from squeezing the bottom surface of the second chute (12).

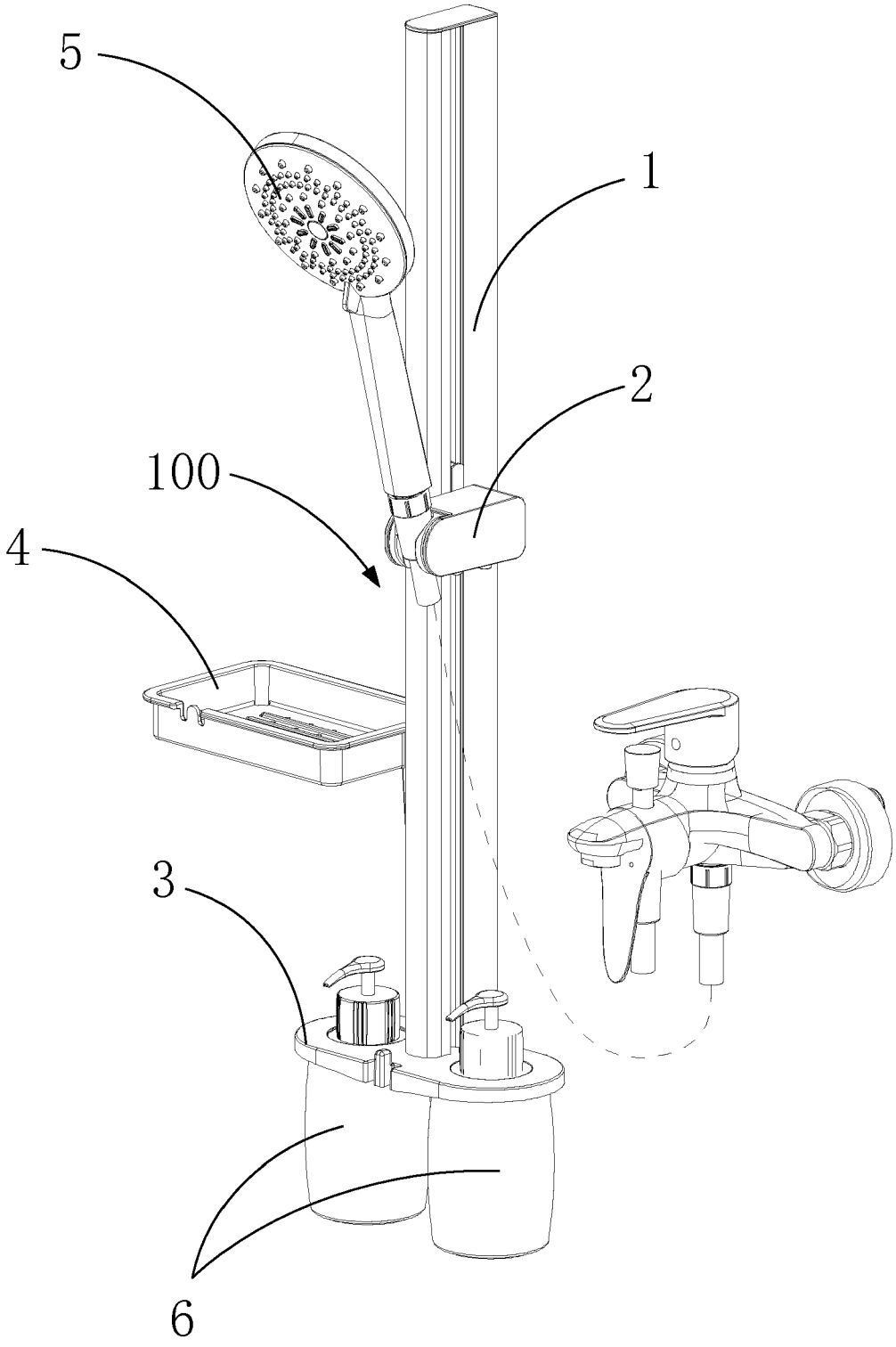

FIG. 1

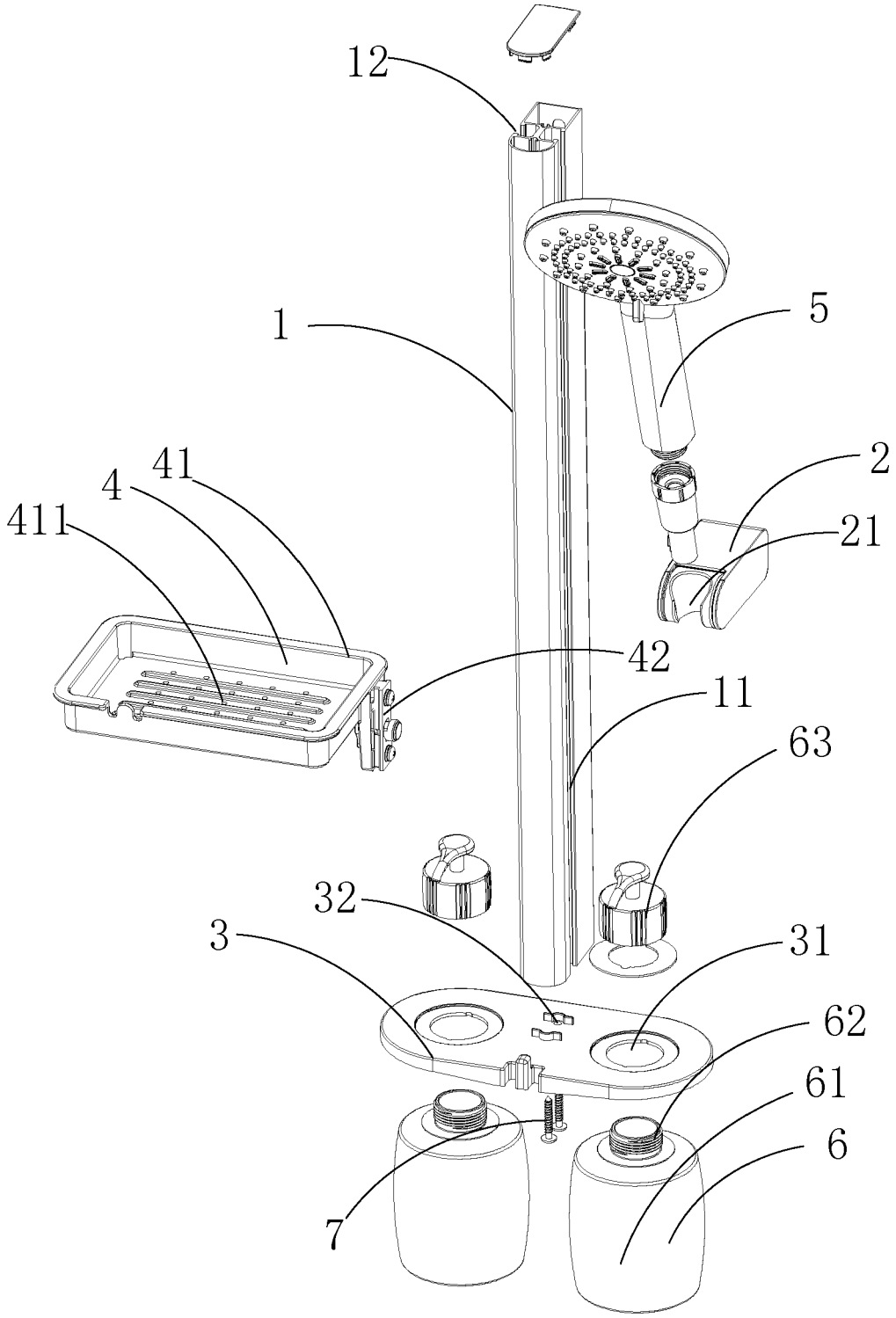

FIG. 2

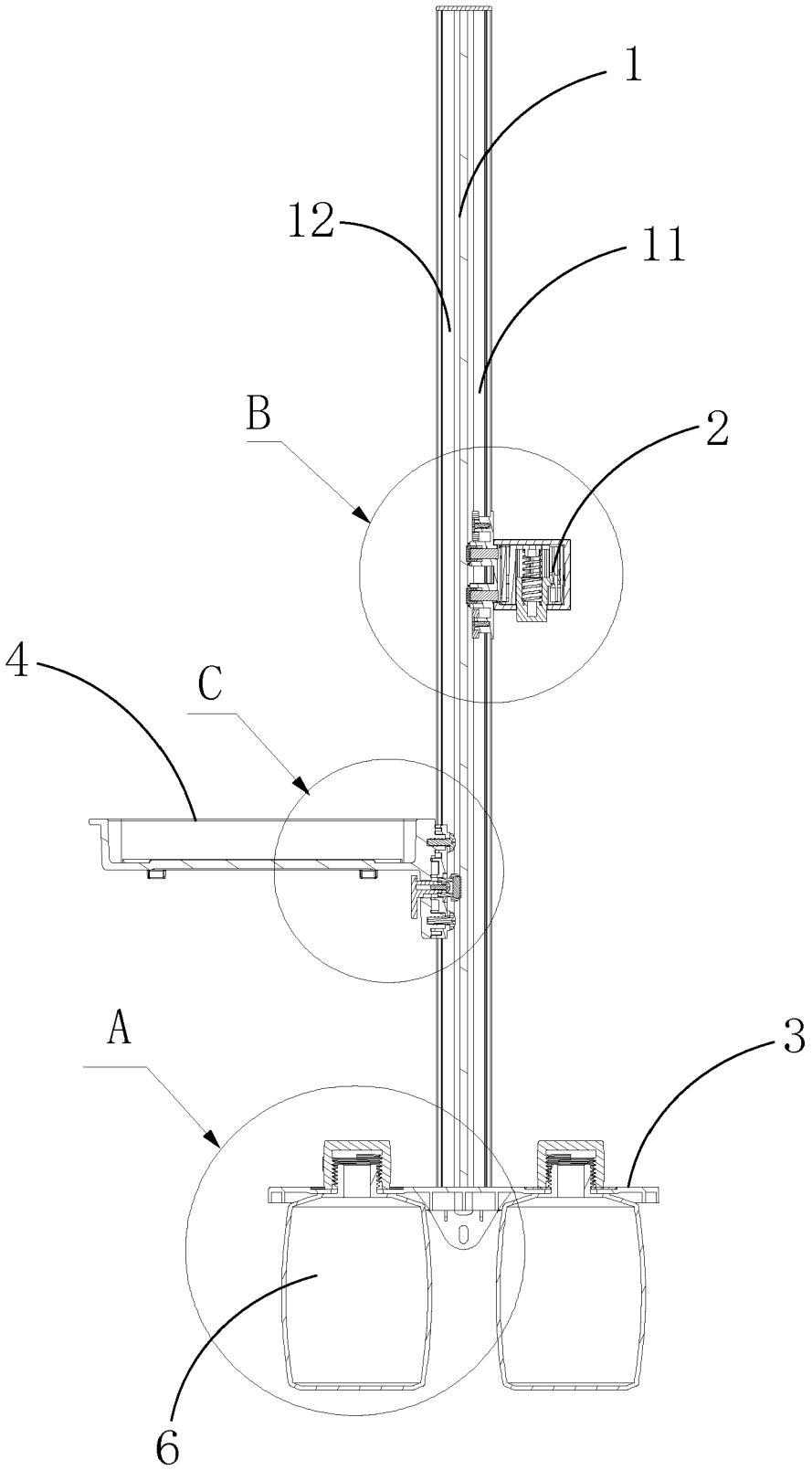

FIG. 3

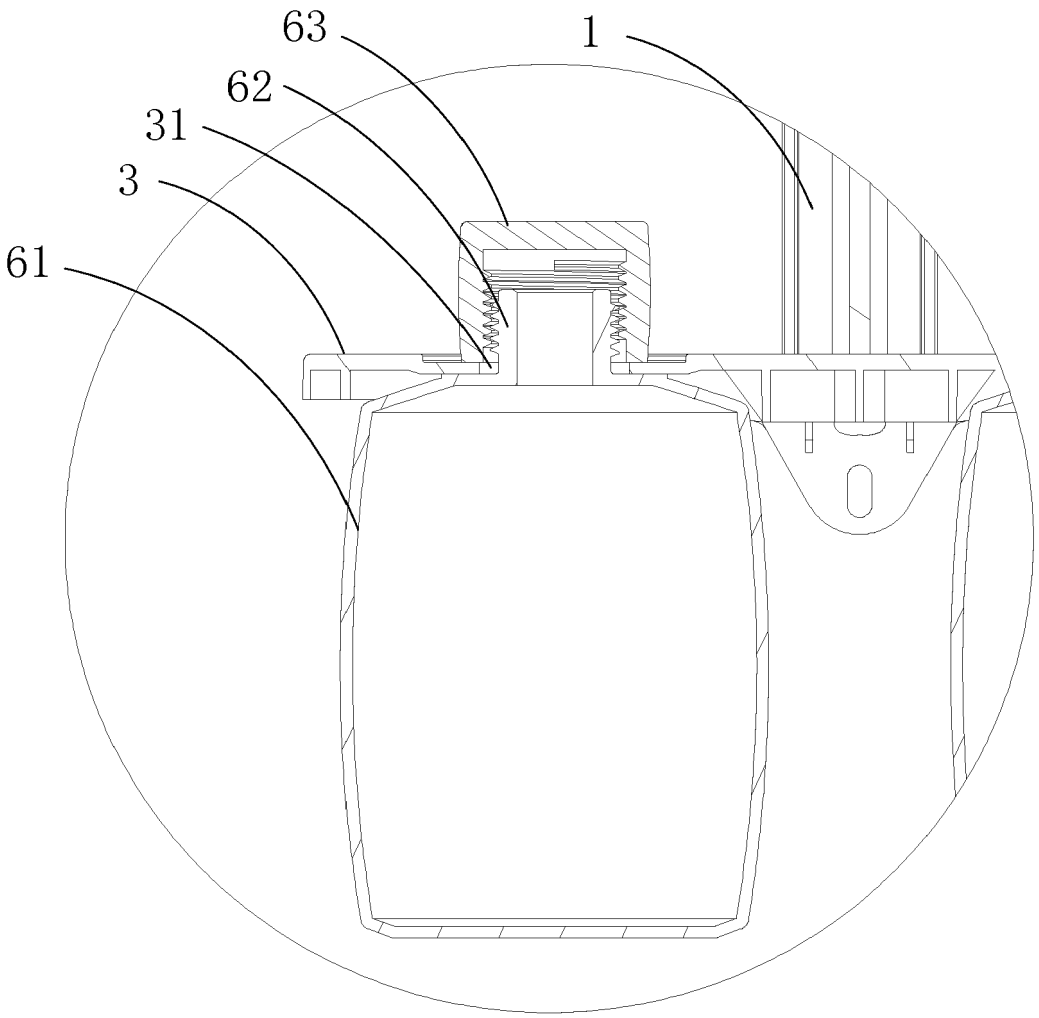

FIG. 4

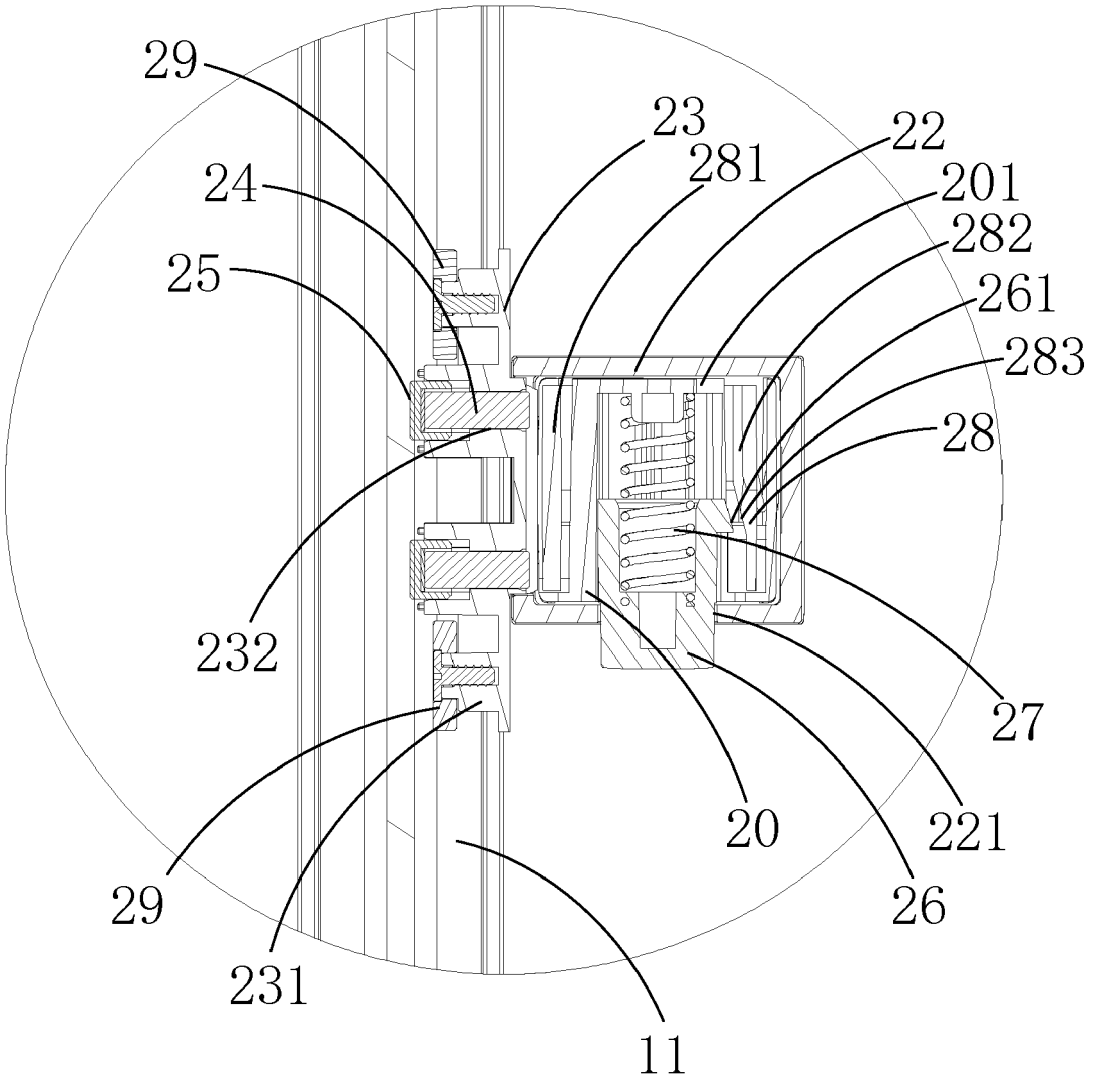

FIG. 5

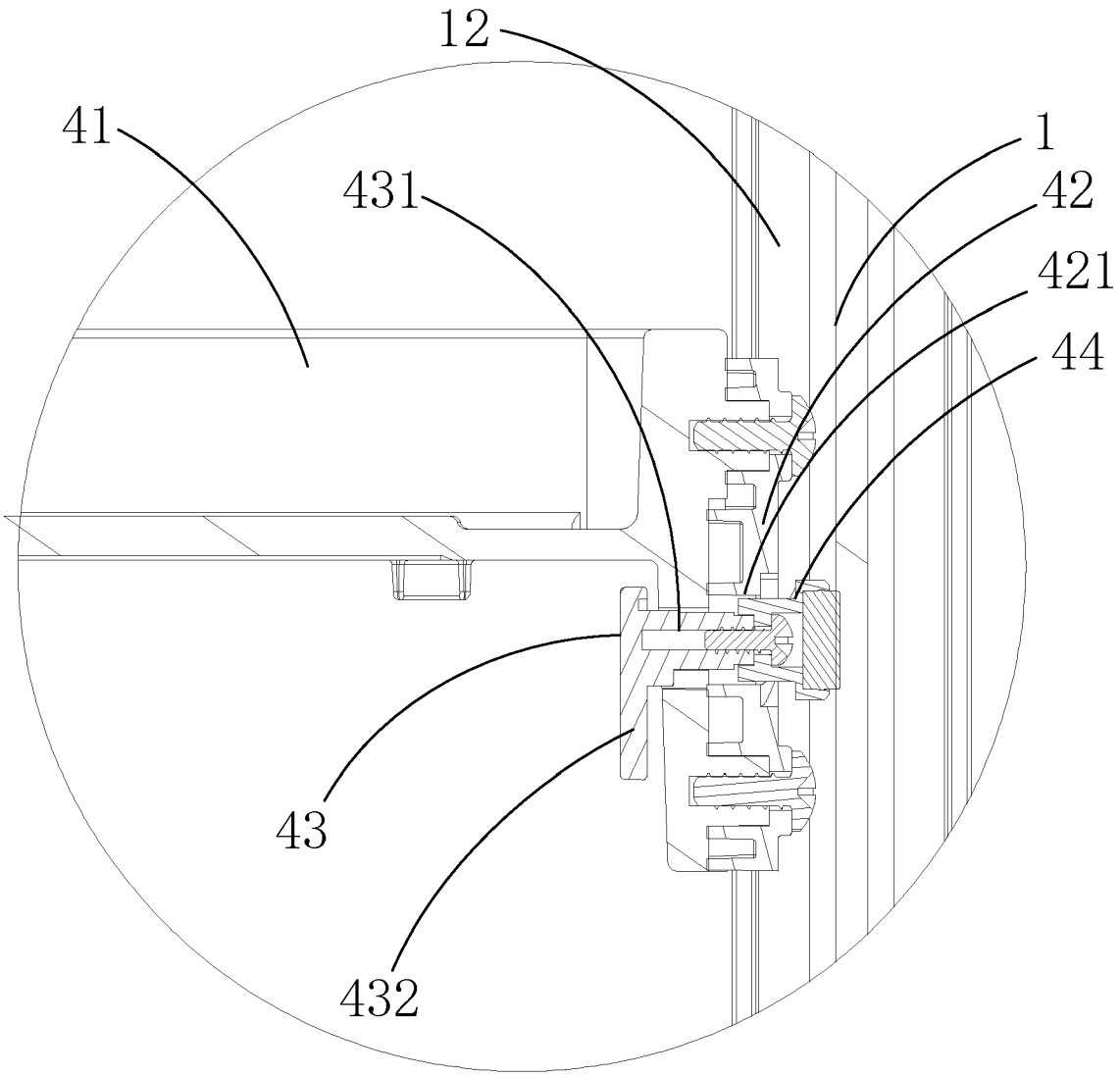

FIG. 6

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EUROPEAN SEARCH REPORT

Application Number
EP 23 19 3067

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A47K
E03C

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	31 January 2024	Van Bost, Sonia

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