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(54) **BOTTLE EASY TO CARRY AND CLEAN**

(57) A bottle that is easy to carry and clean includes a bottle body (1) and a bottle cap (2). The bottle body (1) includes an upper section (3) and a lower section (4). The lower section (4) has a lower chamber (41) therein and an opening (42) at a top end thereof. The upper section (3) has an upper chamber (31) therein and a bottle mouth (32) at a top end thereof. The upper section (3) is detachably coupled to the lower section (4) through a coupling portion and closes the opening (42). The upper chamber (31) communicates with the lower chamber (41). The bottle body (1) has a flat configuration with a width greater than twice a thickness after the upper section (3) and the lower section (4) are combined together. The bottle cap (2) is configured to cover the bottle mouth (32).

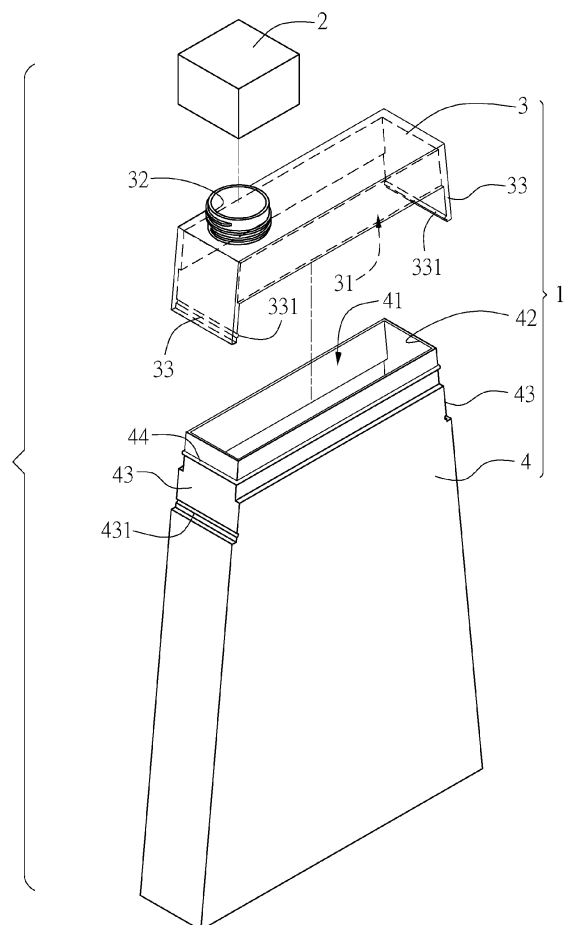


FIG. 2

Description

FIELD OF THE INVENTION

[0001] The present invention relates to a container structure, and more particularly to a bottle for containing water or beverages.

BACKGROUND OF THE INVENTION

[0002] Most water bottles or beverage bottles are cylindrical in shape. When a water bottle is placed in a carry-on bag, it will not be easily positioned relative to other items in the bag due to its cylindrical shape, resulting in the problem that the water bottle rolls randomly to affect the neatness of the items in the bag. On the premise that the cylindrical water bottle has a proper volume, the diameter of the bottle is about the size of the part of the hand between the thumb and the index finger. This size is not suitable for children to hold the water bottle stably. The water bottle may slip off the hand of an adult due to the cylindrical shape of the water bottle.

[0003] Furthermore, a conventional water bottle has an opening at its top. The opening is provided with a lid. When the bottle is to be cleaned, the user needs to extend his/her hand from the opening into the bottle for cleaning the bottle. Because the opening is arranged at one end of the elongate bottle, the user's hand needs to be fully extended to reach the bottom of the bottle. However, after fully reaching into the bottle, the user's hand will be restricted and difficult to move, so the bottle cannot be thoroughly cleaned. If the user's hand is large, it is impossible for the hand to reach into the bottle.

SUMMARY OF THE INVENTION

[0004] The primary object of the present invention is to provide a bottle that is easy to carry and clean. The bottle has a flat prism shape and is easy to take stably. The bottle body can be separated for cleaning with ease and can be used conveniently.

[0005] In order to achieve the foregoing object, the present invention provides a bottle that is easy to carry and clean. The bottle comprises a bottle body and a bottle cap. The bottle body includes an upper section and a lower section. The lower section has a lower chamber therein and an opening at a top end thereof. The upper section has an upper chamber therein and a bottle mouth at a top end thereof. The upper section is detachably coupled to the lower section through a coupling portion and closes the opening. The upper chamber communicates with the lower chamber. The bottle body has a flat configuration with a width greater than twice a thickness after the upper section and the lower section are combined together. The bottle cap is configured to cover the bottle mouth.

[0006] Preferably, after the upper section and the lower section are combined together, the bottle body has a trap-

ezoidal prism shape. The bottle body has a top end and a bottom end. The top end has a width less than that of the bottom end. The bottle body has an average width at a position half a height of the bottle body. The thickness from the top end to the bottom end of the bottle body is uniform. The average width is greater than twice the thickness.

[0007] The coupling portion is a pair of side coupling pieces extending downward from two sides of the upper section. The side coupling pieces are pressed and secured to an outer wall surface of the lower section. Preferably, the side coupling pieces extend downward from the two sides, parallel to the direction of the thickness, of the upper section.

[0008] The outer wall surface of the lower section is recessed with a pair of stepped portions for accommodating the side coupling pieces, so that the upper section is flush with the lower section after being combined with the lower section.

[0009] Each side coupling piece has a protrusion protruding toward the outer wall surface of the lower section. The outer wall surface of the lower section has a groove for the protrusion to be inserted and positioned therein.

[0010] Preferably, the upper section and the lower section are sealed with a water stop ring.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011]

FIG. 1 is a perspective view of the present invention;

FIG. 2 is an exploded view of the present invention; and

FIG. 3 is a partially enlarged view of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0012] Embodiments of the present invention will now be described, by way of example only, with reference to the accompanying drawings.

[0013] Referring to FIG. 1 through FIG. 3, the present invention discloses a bottle that is easy to carry and clean. The bottle comprises a bottle body 1 and a bottle cap 2. The bottle body 1 is composed of an upper section 3 and a lower section 4 that are combined together.

[0014] After the upper section 3 and the lower section 4 are combined together, the bottle body 1 has a trapezoidal prism shape. The bottle body 1 has a top end and a bottom end. The top end has a width less than that of the bottom end. The bottle body 1 has an overall uniform thickness T. The bottle body 1 has an average width W at a position half the height of the bottle body 1. The average width W is greater than twice the thickness T. Accordingly, the bottle body 1 forms a flat configuration

as a whole.

[0015] The upper section 3 and the lower section 4 can be joined to each other to form the bottle body 1, or can be detached from each other for cleaning. The lower section 4 has a lower chamber 41 therein and a square opening 42 at a top end thereof. The upper section 3 has an upper chamber 31 therein with an open bottom end and a bottle mouth 32 at a top end thereof. The bottle mouth 32 can be covered and sealed by the bottle cap 2. After the upper section 3 and the lower section 4 are joined to each other, the upper chamber 31 communicates with the lower chamber 41 to constitute a space for the bottle body 1 to contain water.

[0016] The upper section 3 has a coupling portion to be secured to the lower section 4 so that the upper section 3 and the lower section 4 are combined together. In this embodiment, the upper section 3 has a pair of side coupling pieces 33 extending downward from two sides parallel to the direction of the thickness T. The outer wall surface of the lower section 4 is recessed with a pair of stepped portions 43. As shown in FIG. 3, each side coupling piece 33 extends outwardly and obliquely at an angle θ_1 relative to the vertical direction, and each stepped portion 43 extends inwardly and obliquely at an angle θ_2 relative to the vertical direction. θ_1 is less than θ_2 . When the upper section 3 and the lower section 4 are joined to each other, the two side coupling pieces 33 of the upper section 3 extend into the stepped portions 43 to be pressed inwardly and fastened to the stepped portions 43, so that the upper section 3 is firmly joined to the lower section 4.

[0017] Each side coupling piece 33 has a protrusion 331 protruding toward the corresponding stepped portion 43. Each stepped portion 43 has a groove 431 for the protrusion 331 to be inserted and positioned therein. When the side coupling piece 33 is pressed against the stepped portion 43, the protrusion 331 is engaged in the recess 431 to be positioned. The depth of the stepped portion 43 corresponds to the thickness T of the side coupling piece 33, so that the upper section 3 is flush with the lower section 4 after being combined with the lower section 4.

[0018] In addition, in this embodiment, the top end of the lower section 4 is provided with a water stop ring 44. When the upper section 3 and the lower section 4 are combined together, the water stop ring 44 is configured to seal the gap between the two to prevent water leakage.

[0019] With the above structure, after the upper section 3 and the lower section 4 are joined to each other, the upper chamber 31 communicates with the lower chamber 41 to form a complete water storage space. Water will not leak because of the water stop ring 44 configured to seal the gap between the upper section 3 and the lower section 4. When the user wants to drink water, the bottle cap 2 is opened so that water can flow out from the bottle mouth 32. On the other hand, when the water bottle is to be cleaned, the upper section 3 and the lower section 4 of the bottle body 1 can be detached from each other.

Because the respective heights of the upper section 3 and the lower section 4 are less than that of the entire bottle body 1, the user can easily extend his/her hand or use a cleaning tool into the upper section 3 and the lower section 4 for cleaning, and the corners of the bottle can be cleaned, thereby meeting the hygienic requirements for thorough cleaning.

[0020] Furthermore, the water bottle of the present invention is formed into a flat trapezoidal prism in structure, which is easy for the user's palm to hold and take the bottle. Due to the edges and corners of the bottle, the water bottle will not easily slip off from the user's hand and will not roll around randomly when placed in a bag, so it is easy to carry.

Claims

1. A bottle, **characterized in** comprising:

a bottle body (1), including an upper section (3) and a lower section (4), the lower section (4) having a lower chamber (41) therein and an opening (42) at a top end thereof, the upper section (3) having an upper chamber (31) therein and a bottle mouth (32) at a top end thereof; the upper section (3) being detachably coupled to the lower section (4) through a coupling portion and closing the opening (42), the upper chamber (31) communicating with the lower chamber (41); the bottle body (1) having a flat configuration with a width greater than twice a thickness after the upper section (3) and the lower section (4) are combined together; and a bottle cap (2), configured to cover the bottle mouth (32).

2. The bottle as claimed in claim 1, wherein the coupling portion is a pair of side coupling pieces (33) extending downward from two sides of the upper section (3), and the side coupling pieces (33) are pressed and secured to an outer wall surface of the lower section (4).

3. The bottle as claimed in claim 2, wherein the side coupling pieces (33) extend downward from the two sides, parallel to the direction of the thickness, of the upper section (3).

4. The bottle as claimed in claim 3, wherein the outer wall surface of the lower section (4) is recessed with a pair of stepped portions (43) for accommodating the side coupling pieces (33), so that the upper section (3) is flush with the lower section (4) after being combined with the lower section (4).

5. The bottle as claimed in claim 4, wherein each side coupling piece has a protrusion (331) protruding to-

ward the outer wall surface of the lower section (4), and the outer wall surface of the lower section (4) has a groove (431) for the protrusion (331) to be inserted and positioned therein.

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6. The bottle as claimed in claim 4, wherein the upper section (3) and the lower section (4) are sealed with a water stop ring (44).

7. The bottle as claimed in claim 1, wherein after the upper section (3) and the lower section (4) are combined together, the bottle body (1) has a trapezoidal prism shape, the bottle body (1) has a top end and a bottom end, the top end has a width less than that of the bottom end, the bottle body (1) has an average width at a position half a height of the bottle body (1), the thickness from the top end to the bottom end of the bottle body (1) is uniform, and the average width is greater than twice the thickness.

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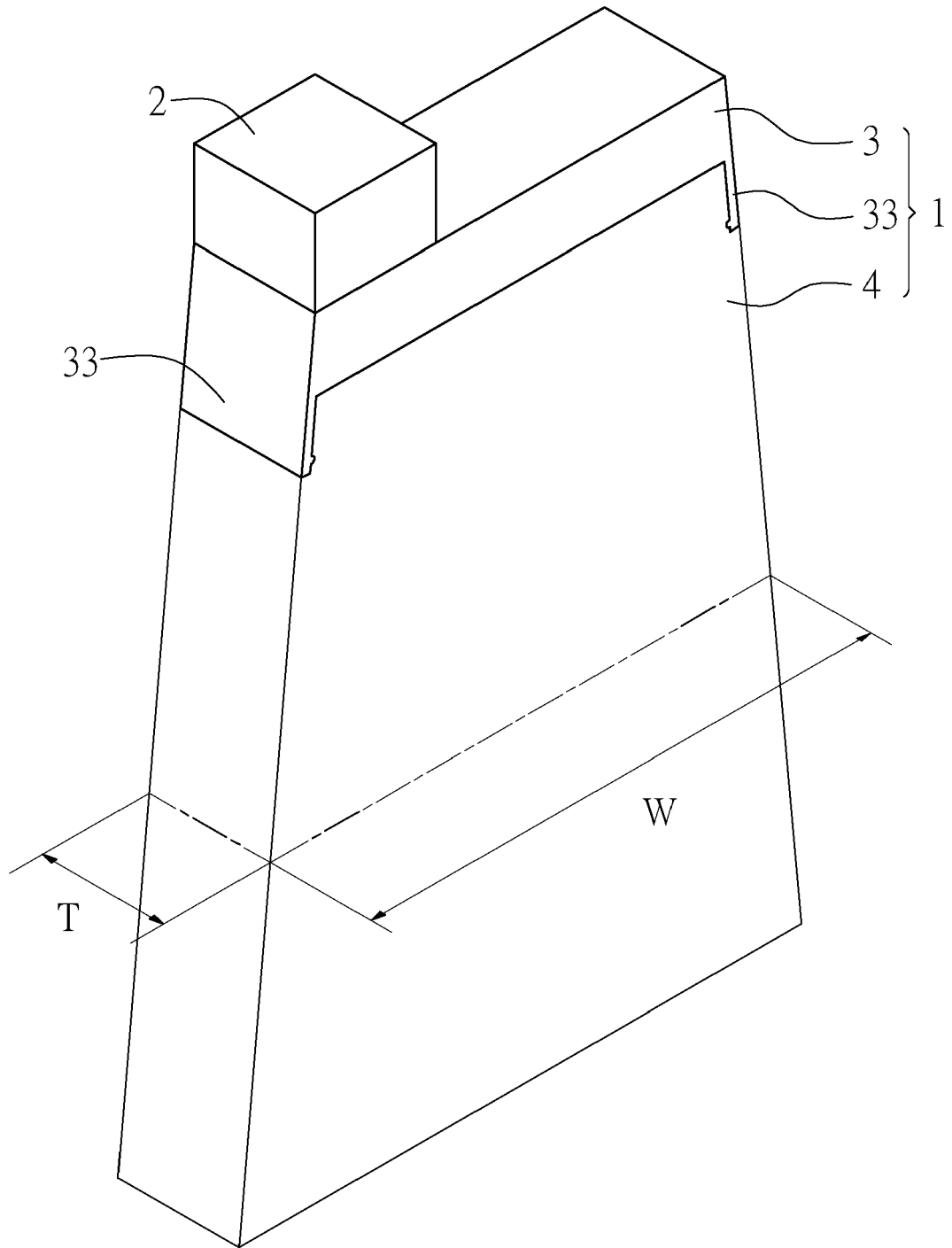


FIG. 1

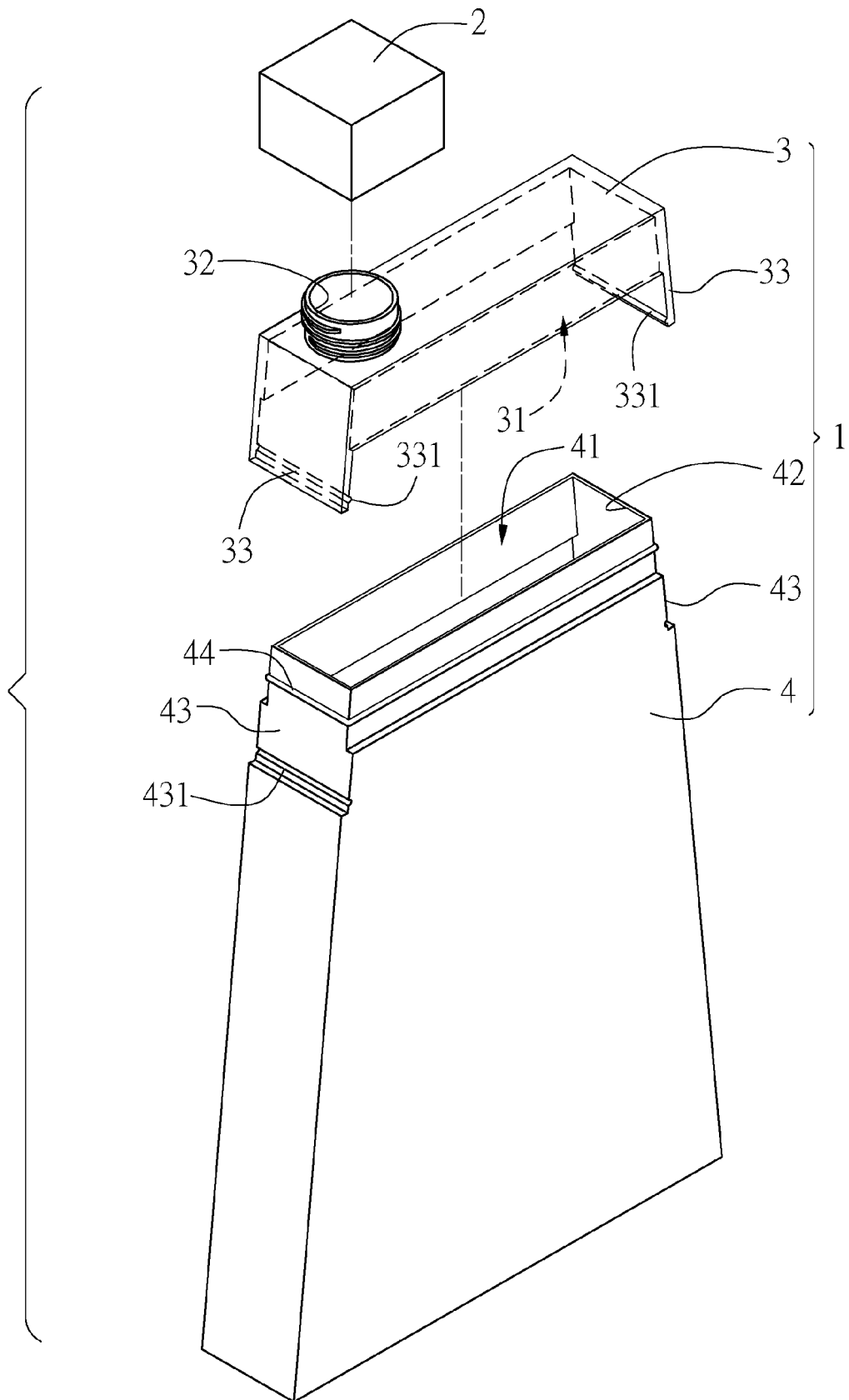


FIG. 2

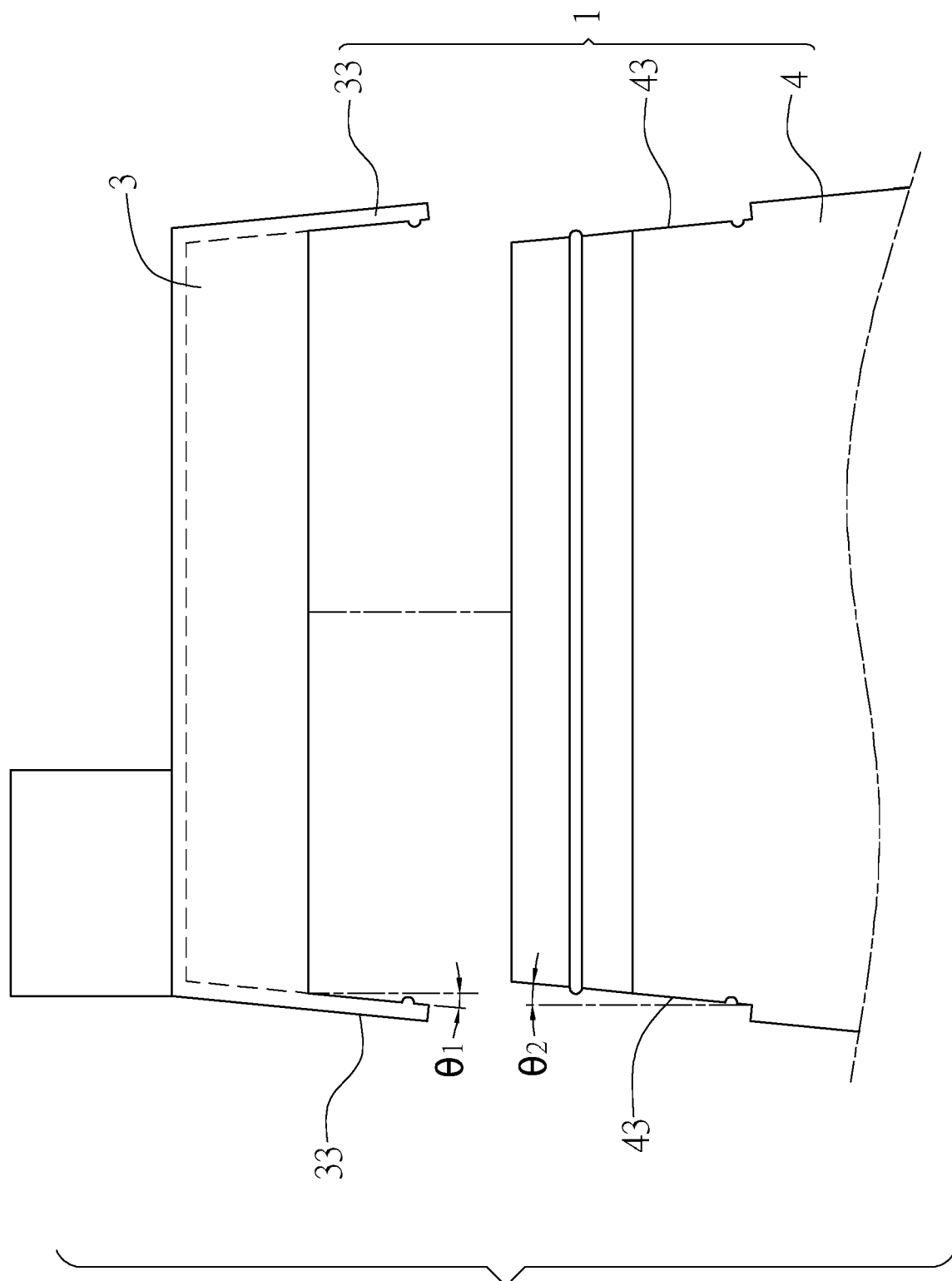


FIG. 3



EUROPEAN SEARCH REPORT

Application Number

EP 21 18 6358

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A	* figure 8 *	2-7	

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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 21 December 2021	Examiner Sacepe, Nicolas
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 21 18 6358

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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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