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(54) **Tent**

(57) An inflatable tent (100) includes an inflatable main body (1) having a tent floor (11), an inner tent wall (122), an outer tent wall (121), and a tent roof (13), the inner and outer tent walls (122, 121) together defining an inflatable space (123) therebetween and constituting a tent wall, and the tent floor (11), the inner tent wall (122), and the tent roof (13) together enclosing a interior space. An inflation valve (2) is provided on the outer tent wall

(121), so that air is supplied into the inflatable space (123) via the inflation valve (2). The inflatable tent (100) also includes at least one entrance (3) formed on the tent wall, a bathroom (4) arranged in the interior space at a selected position, and a utility cabinet (6) located outside the inflatable main body (1) and including at least one water tank (612), which communicates with the bathroom (4) via an inlet pipeline (61) and a drain pipeline (62).

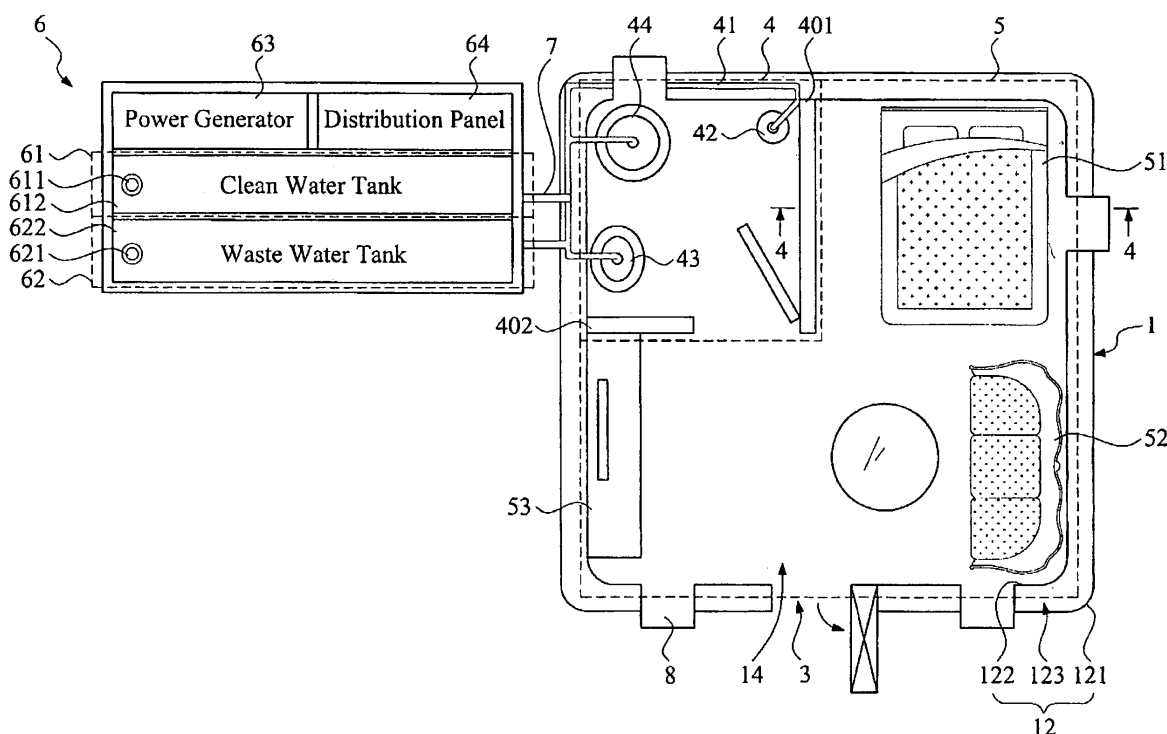


FIG.3

Description

[0001] The present invention relates to a tent.

[0002] Generally, a traveller would stay over in a hotel. However, for some special sightseeing places, such as high on mountains or far away from cities, it is possible that the traveller fails to find a hotel. As a solution to this problem, a camping tent has been developed, so that a traveller is not necessarily bound to a fixed place for staying.

[0003] Taiwan Utility Model No. M255884 discloses a leisure tent, which includes a supporting frame consisting of four flexible spring strips, and a tent cover externally covered on the supporting frame. The four spring strips together define a space therein, which is enclosed in the tent cover, so that the leisure tent has substantially rectangular roof, front and rear walls connected at upper edges to the front and rear edges of the roof, and left and right walls connected at upper edges to the left and right edges of the roof. The tent cover is sewed at joints of the left, right, front, and rear walls and the roof to form two sleeve-like pockets each, so that the spring strips are extended through these sleeve-like pockets and thereby connected to one another. A door is provided on the front wall of the tent cover. With the flexibility of the spring strips, the leisure tent can be conveniently bent and folded into a predetermined shape for storage. Similarly, with the spring force of the spring strips, the leisure tent can be easily extended for use.

[0004] While the above-structured leisure tent can be conveniently folded for storage and extended for use, a user has to assemble the supporting frame consisting of the four spring strips and the tent cover by following the predetermined procedures. Therefore, the leisure tent is not in readiness for use and does not meet the demands of people in the modern society. Moreover, when any part of the leisure tent is damaged, the user has to replace the damaged part before the supporting frame can be assembled for use. This would also bring confusions to the user. Further, the spring strips, the tent cover, and the door of the tent are quite heavy and are a burden to the user for carrying out.

[0005] An object of the present invention is to provide a more convenient tent.

[0006] In accordance with the present invention, there is provided an inflatable tent as defined in the claims.

[0007] A user may easily inflate the tent into shape via the inflation valve using an inflator.

[0008] Preferably, the inflatable tent is equipped with a utility cabinet in which inlet and drain pipelines, a power generator and a distribution panel are provided to enable water and power supply to and water draining from the inflatable tent.

[0009] Preferably, the inflatable tent also includes a bathroom arranged in the interior space at a selected position, and a utility cabinet located outside the inflatable main body and including at least one water tank, which communicates with the bathroom via an inlet pipeline and

a drain pipeline.

[0010] The inflatable tent of the present invention is superior to the conventional tents in that it can be easily inflated into shape for use to eliminate the trouble of carrying a heavy supporting frame and simplify the complicated assembling procedures.

[0011] Moreover, to enhance the comfort of the inflatable tent, a bathroom as well as a bed and sofa set is preferably arranged in an interior space of the inflatable tent, and the bathroom is connected to the water inlet and the drain pipeline in the utility cabinet to ensure good water supply and draining from the inflatable tent.

[0012] The structure and the technical means adopted by the present invention to achieve the above and other objects can be best understood by referring to the following detailed description of the preferred embodiments and the accompanying drawings, in which:

Fig. 1 is an elevation view of an inflatable tent according to an embodiment of the present invention in a deflated state;

Fig. 2 is an elevation view of the inflatable tent of Fig. 1 in an inflated state;

Fig. 3 is a top plan view showing an interior space of the inflatable tent of Fig. 1; and

Fig. 4 is a sectional view taken along line 4-4 of Fig. 3.

[0013] Please refer to Figs. 1 and 2 that are elevation views of an inflatable tent 100 according to an embodiment of the present invention in a deflated and an inflated state, respectively; and to Fig. 3 that is a top plan view showing an interior space of the inflatable tent 100. As shown, to enable convenient use by users, the inflatable tent 100 is integrally formed to include an inflatable main body 1, an inflation valve 2, at least one entrance 3, a bathroom 4, a bed and sofa set 5, and a utility cabinet 6.

[0014] The inflatable main body 1 includes a tent floor 11, a tent wall 12 consisting of an outer tent wall 121 and an inner tent wall 122, and a tent roof 13. The tent floor 11 may be fixed to the ground using a plurality of floor fixing elements 111, such as pegs, so that the inflatable tent 100 may more stably stand on the ground. The outer and the inner tent wall 121, 122 of the tent wall 12 together define an inflatable space 123 between them. The inflation valve 2 is mounted on the outer tent wall 121 at a suitable position, so that air may be supplied into the inflatable space 123 via the inflation valve 2 to inflate the inflatable tent 100. The entrance 3 is provided at the tent wall 12. To use the inflatable tent 100, a selected inflating tool, such as a manual inflator or a powered inflator, is used to pump air to the inflatable space 123 via the inflation valve 2 to transform the inflatable tent 100 into a predetermined shape, as shown in Figs. 2 and 3.

[0015] The bathroom 4 and the bed and sofa set 5 are provided inside the inflatable tent 100. Two partitions

401, 402 are provided between the bathroom 4 and the bed and sofa set 5. The bathroom 4, the bed and sofa set 5, and the two partitions 401, 402 are communicable with the inflatable space 123, as shown in Fig. 4. The bathroom 4 internally includes a bathroom pipeline 41, a shower head 42, a sink 43, and a flush toilet 44. The shower head 42, the sink 43, and the flush toilet 44 are communicable with the bathroom pipeline 41.

[0016] The bed and sofa set 5 includes a bed 51, a sofa 52, and a TV set table 53. When the inflatable tent 100 is inflated, the bathroom 4 and the bed and sofa set 5 are also inflated into shape for use. Fig. 4 is a fragmentary sectional view taken on line 4-4 of Fig. 3 showing the inflatable tent 100 in an inflated state. The tent floor 11, the inner tent wall 122, and the tent roof 13 together enclose an interior space 14, which is accessible via the entrance 3. With these arrangements, the inflatable tent 100 may be easily inflated and various facilities therein are readily for use as soon as the tent 100 is inflated.

[0017] The utility cabinet 6 is externally connected to the main body 1 of the inflatable tent 100, and equipped with an inlet pipeline 61 and a drain pipeline 62. The inlet pipeline 61 includes a water inlet 611 and a clean water tank 612 communicable with the water inlet 611. The drain pipeline 62 includes a drain port 621 and a wastewater tank 622 communicable with the drain port 621. The inlet pipeline 61 and the drain pipeline 62 are separately led to the bathroom pipeline 41 of the bathroom 4 via an external pipeline 7, so that clean water is supplied to the bathroom 4 from the inlet pipeline 61 and used water is discharged from the bathroom 4 via the drain pipeline 62.

[0018] The utility cabinet 6 may further include a power generator 63 and a distribution panel 64 to supply sufficient electric power needed for normal water and power supply to the inflatable tent 100, making the inflatable tent 100 more convenient for use.

[0019] To ensure good ventilation in the interior space 14, a plurality of windows 8 may be opened on the tent wall 12 of the inflatable main body 1 to communicate the interior space 14 with external environment and ambient air.

Claims

1. An inflatable tent (100), comprising:

an inflatable main body (1) including a tent floor (11), an inner tent wall (122), an outer tent wall (121), and a tent roof (13); the inner and the outer tent wall (122, 121) together defining an inflatable space (123) therebetween and constituting a tent wall; whereby when the inflatable main body (1) is fully inflated, the tent floor (11), the inner tent wall (122), and the tent roof (13) together enclose an interior space; an inflation valve (2) mounted on the outer tent

wall (121), so that air is supplied into the inflatable space (123) between the inner and the outer tent wall (122, 121) via the inflation valve (2); at least one entrance (3) formed on the tent wall of the inflatable main body (1), so that the interior space is accessible via the entrance (3); a bathroom (4) arranged in the interior space at a selected position, and communicable with the inflatable space (123) between the inner and the outer tent wall (122, 121); and a utility cabinet (6) located outside the inflatable main body (1), and including at least one water tank (612), which is communicable with the bathroom (4) via an inlet pipeline (61) and a drain pipeline (62).

2. The inflatable tent (100) as claimed in claim 1, **characterized in that** the bathroom (4) includes partitions (401, 402) communicable with the inflatable space (123).

3. The inflatable tent (100) as claimed in claim 1, **characterized in that** the inlet pipeline (61) includes a water inlet (611) and a clean water tank (612) communicating with the water inlet (611); and the drain pipeline (62) includes a drain port (621) and a wastewater tank (622) communicating with the drain port (621).

4. The inflatable tent (100) as claimed in claim 1, **characterized in that** the bathroom (4) is equipped with a bathroom pipeline (41), via which water is supplied to and drained from the bathroom (4).

5. The inflatable tent (100) as claimed in claim 1, **characterized in that** the utility cabinet (6) further includes a power generator (63) and a distribution panel (64) for supplying sufficient electric power needed for normal water and power supply to the inflatable tent (100).

6. An inflatable tent (100), comprising:

an inflatable main body (1) including a tent floor (11), an inner tent wall (122), an outer tent wall (121), and a tent roof (13); the inner and the outer tent wall (121) together defining an inflatable space (123) therebetween and constituting a tent wall; whereby when the inflatable main body (1) has been fully inflated, the tent floor (11), the inner tent wall (122), and the tent roof (13) together enclose an interior space; an inflation valve (2) mounted on the outer tent wall (121), so that air is supplied into the inflatable space (123) between the inner and the outer tent walls (122, 121) via the inflation valve (2); at least one entrance (3) formed on the tent wall of the inflatable main body (1), so that the interior

space is accessible via the entrance (3); and
a bed and sofa set (5) being arranged in the
interior space at a selected position and com-
municable with the inflatable space (123), such
that when the inflatable main body (1) is fully
inflated, the bed and sofa set (5) is also inflated
into shape for use.

7. The inflatable tent (100) as claimed in claim 6, **characterized in that** the bed and sofa set (5) includes
a bed, a sofa, and a TV set table.

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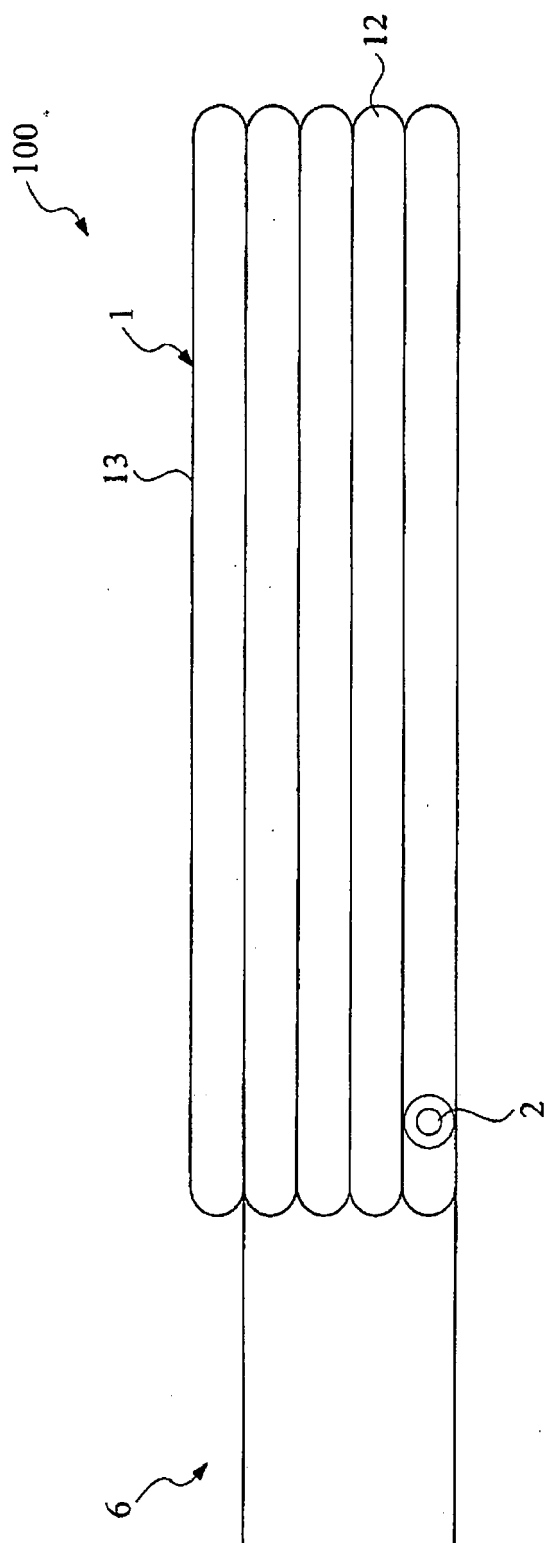


FIG. 1

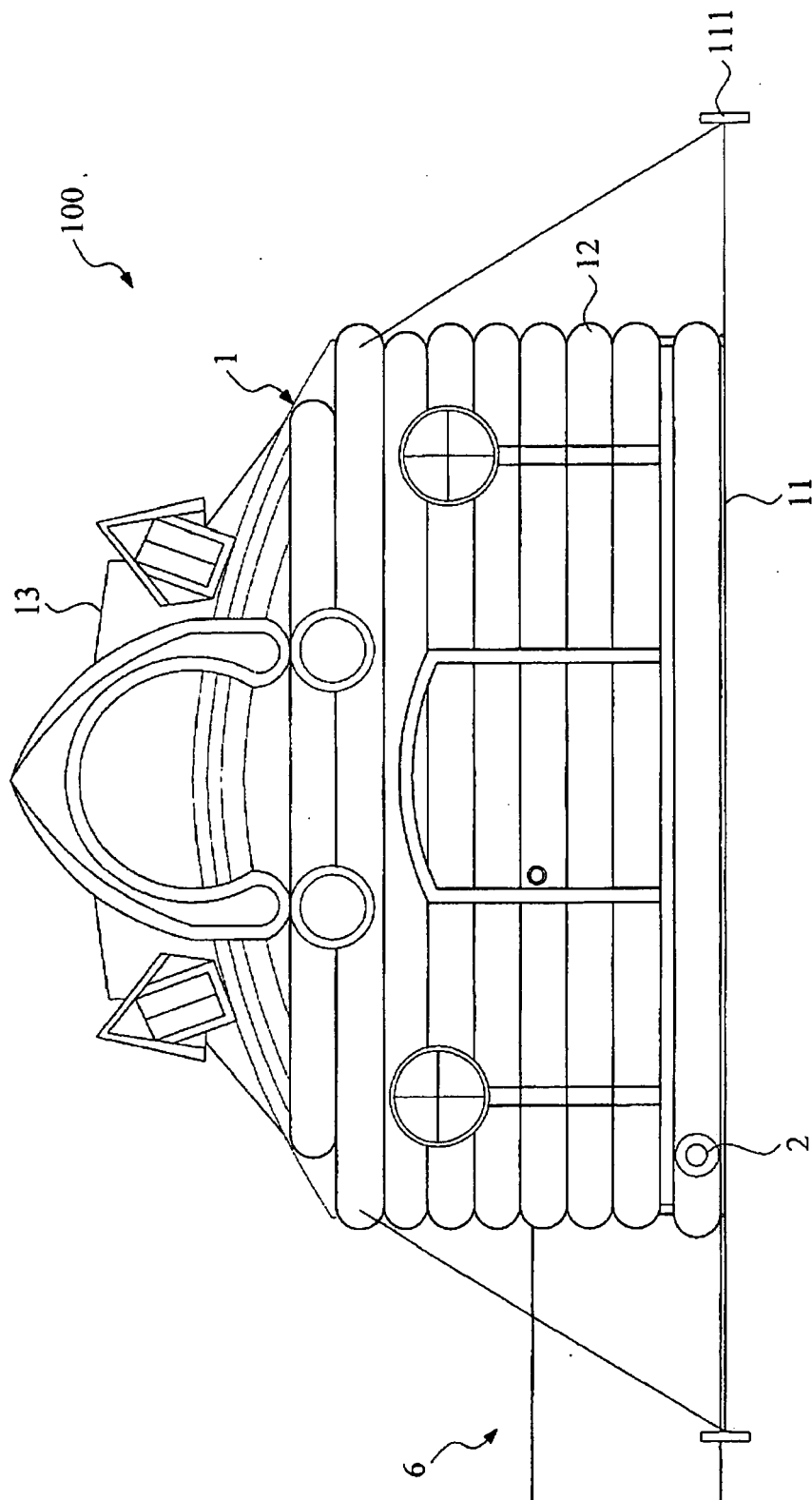


FIG. 2

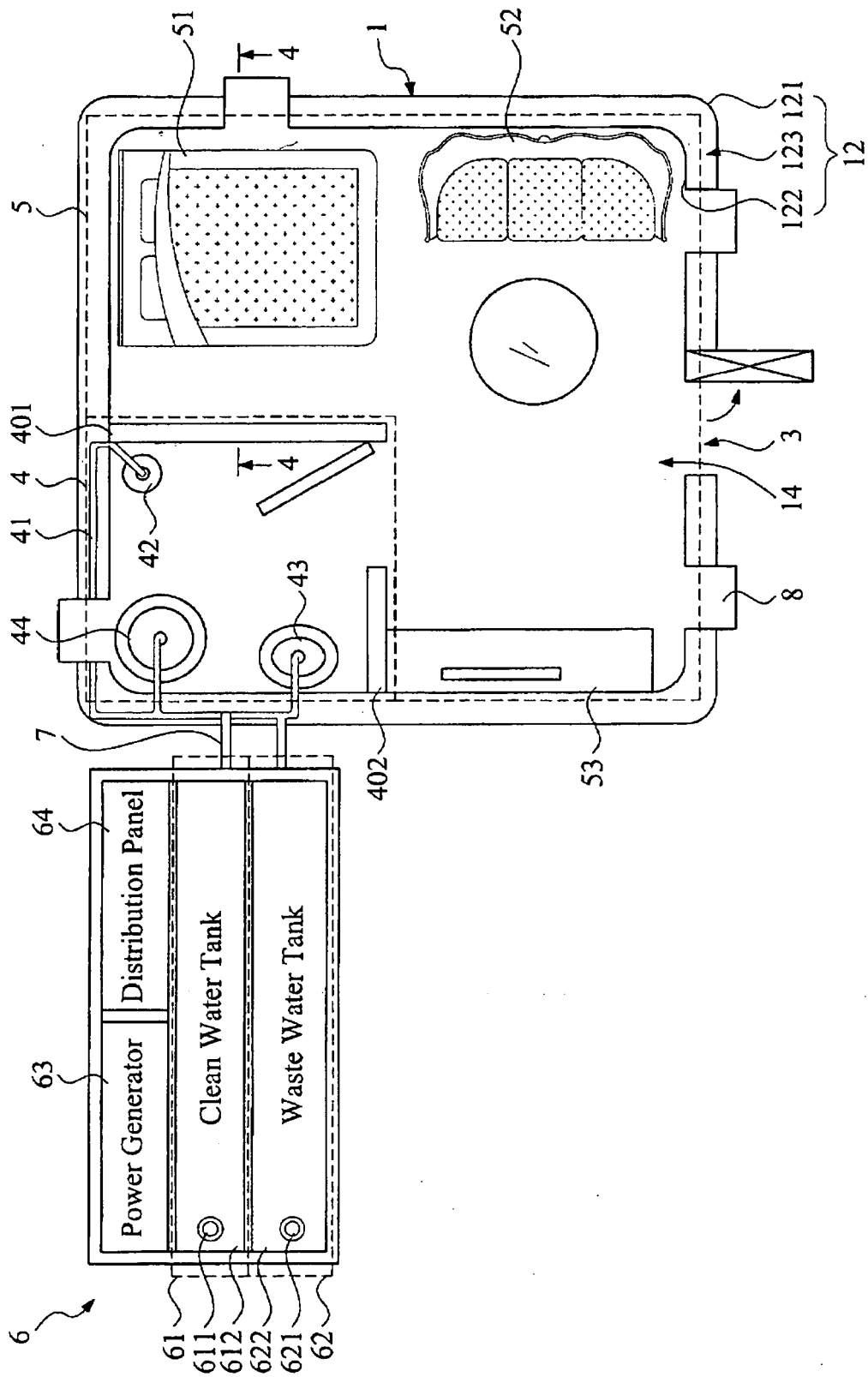


FIG.3

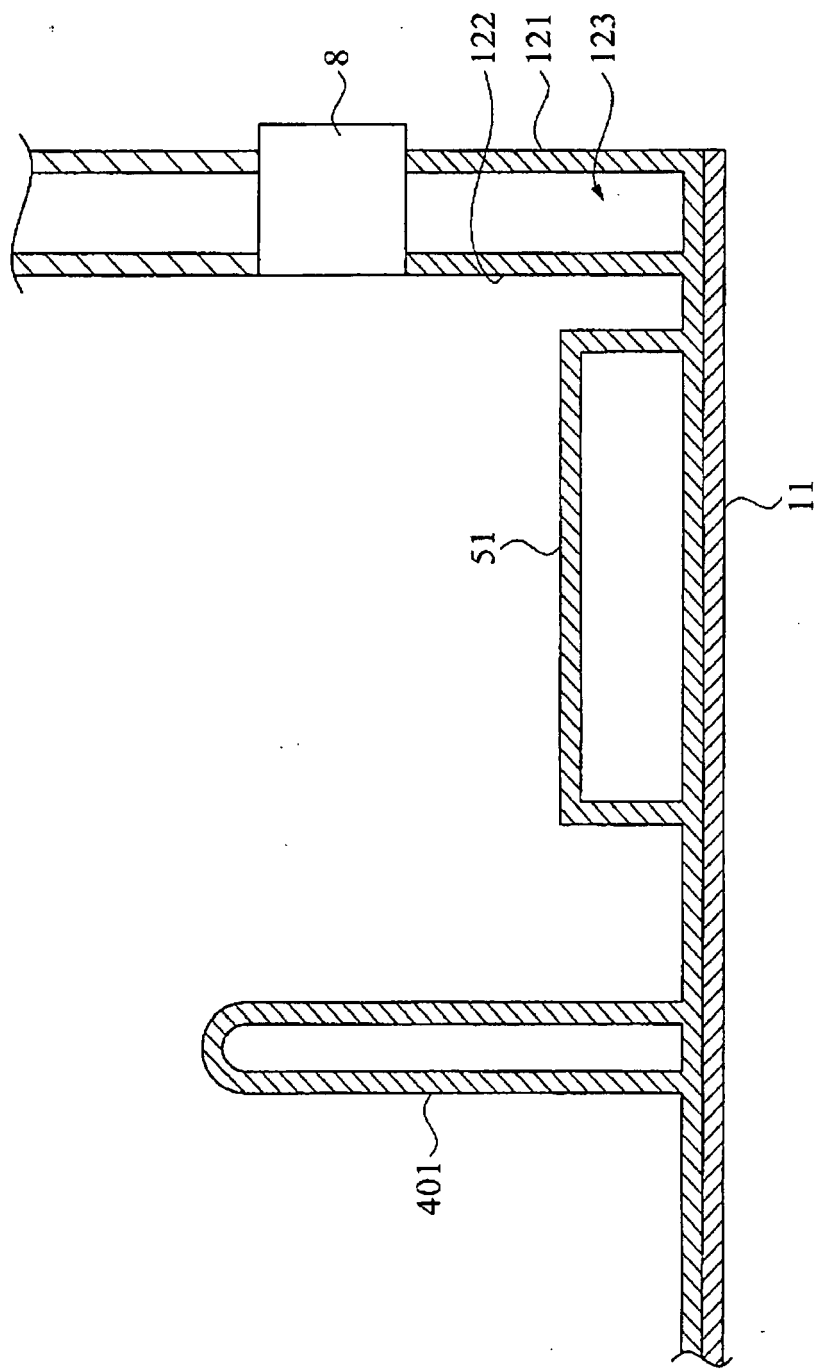


FIG.4



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EUROPEAN SEARCH REPORT

Application Number
EP 07 01 6190

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 0 987 386 A (MANFRED VETTER GMBH & COMP [DE]) 22 March 2000 (2000-03-22) * paragraphs [0008], [0017]; figure 1 *	1-5	INV. E04H15/20
A	US 2 854 014 A (HASSELQUIST VICTOR H) 30 September 1958 (1958-09-30) * column 6, line 21 - line 35; figure 1 *	1	
A	GB 850 512 A (PROT DEV LTD) 5 October 1960 (1960-10-05) * page 1, line 44 - line 52 * * page 3, line 109 - line 122; figure 1 *	1,3-5	
A	US 6 192 633 B1 (HILBERT CLINT J [US]) 27 February 2001 (2001-02-27) * column 19, line 24 - column 20, line 15; figure 9 *	1,3-5	
A	US 3 390 491 A (HAYDEN HOWARD L ET AL) 2 July 1968 (1968-07-02)		
X	DE 94 06 617 U1 (FRANK HANS ALBRECHT [DE]) 16 June 1994 (1994-06-16) * page 3, line 19 - page 5, line 7; figure 1 *	6,7	TECHNICAL FIELDS SEARCHED (IPC) E04H
A	EP 0 036 051 A (HSU YUN TUNG) 23 September 1981 (1981-09-23) * page 3, line 3 - page 4, line 7; figures 1-4 *	1,3,6,7	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 18 March 2008	Examiner Zuurveld, Gerben
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	

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Application Number

EP 07 01 6190

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:
- ☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



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LACK OF UNITY OF INVENTION
SHEET B

Application Number
EP 07 01 6190

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-5

Inflatable tent with a bathroom

2. claims: 6,7

Inflatable tent with a bed and sofa set

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

EP 07 01 6190

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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18-03-2008

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REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- TW M255884 [0003]