



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
21.08.2019 Bulletin 2019/34

(51) Int Cl.:
A47K 3/30 (2006.01)

(21) Application number: **19157250.2**

(22) Date of filing: **14.02.2019**

(84) Designated Contracting States:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**
Designated Extension States:
BA ME
Designated Validation States:
KH MA MD TN

(71) Applicant: **Marco Mammoliti S.p.A.**
11100 Aosta (IT)

(72) Inventor: **DI LORENZO, Alessio**
28010 FONTANETO D'AGOGNA (NOVARA) (IT)

(74) Representative: **Tansini, Elio Fabrizio**
Bugnion S.p.A.
Viale Lancetti 17
20158 Milano (IT)

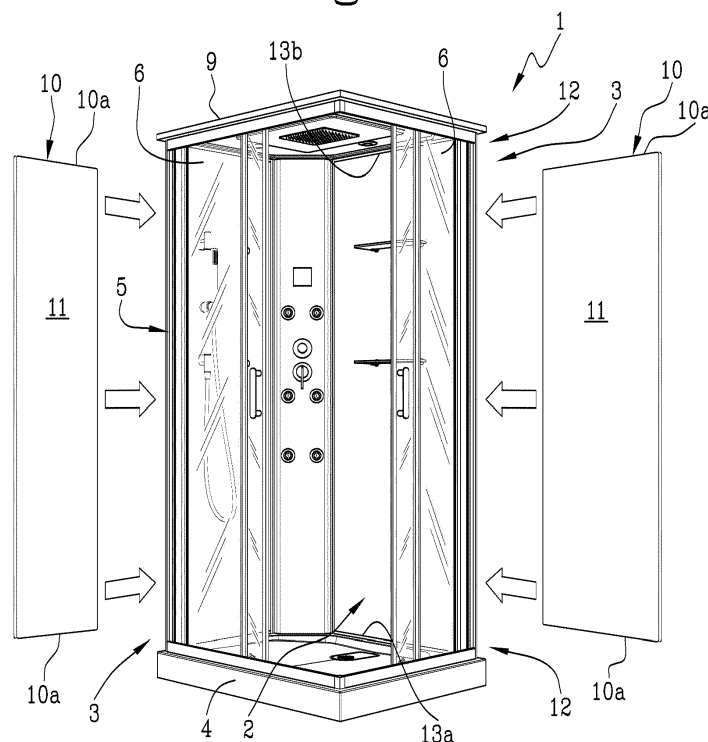
(30) Priority: **14.02.2018 IT 201800002690**

(54) **SHOWER CABIN**

(57) A shower cabin (1) comprising: an internal compartment (2) for use defined by at least three side walls (3) emerging from a respective base plate (4), at least one of said side walls being movable for accessing inside said compartment (2); and water supply means (8) arranged inside said compartment (2) for controlled flow and temperature distribution of the water; at least one of

said fixed walls (5) comprising a bottom panel (10) having a visible surface (11) facing the compartment (2); said fixed wall (5) further comprising reversible engagement means (12) of the panel (10) to separating the panel (10) from the respective wall (5) and replacing it with a panel (10) having a visible surface (11) of different aesthetic effect.

Fig.1



Description

[0001] The present invention refers to a shower cabin.

[0002] In particular, the present invention refers to a shower cabin for domestic use, provided with a transparent-wall structure which defines an internal compartment for use of the shower.

[0003] As known, the shower cabins have a substantially parallelepipedal structure, defined by fixed side walls and at least one movable lateral wall for accessing the inside of the compartment. Based on the cross-sectional shape of the cabin, the shape and number of fixed walls is defined.

[0004] Furthermore, depending on the type of opening, the number of mobile walls is defined.

[0005] For example, the most widespread shower cabins have a substantially rectangular shape in peripheral development, in which two adjacent walls are fixed and the other two walls are movable, for example slidable or pivoted to open "like a book".

[0006] The joining angle between the fixed walls has a column equipped to support the water distribution and regulation members, while the joining angle of the mobile walls defines instead an area of entry/exit from the cabin.

[0007] In this situation, the two sides of the cabin defining the fixed walls are intended to be associated with a support structure such as, for example, the walls of a building.

[0008] The cabin also has a support base, commonly referred as "shower tray" and eventually an upper cover. Both the plate and the possible cover have the same shape as a function of the transversal development of the cabin. Known cabins described above, although functional in their use, nevertheless present important drawbacks and limitations of application, mostly derived from the lack of versatility of the walls that make up the internal compartment.

[0009] In fact, it should be noted that the fixed and movable walls are mostly made of transparent material, capable of conferring more lightness into the compartment and allowing the view through the same walls.

[0010] Furthermore, in order to make the overall effect of the cabin aesthetically pleasing, the walls may be at least partially opacified.

[0011] The walls thus created are however very rigid and not versatile in the possibility of the user to adapt the aesthetic effect of the cabin according to the individual needs.

[0012] In fact, despite the possibility of obtaining particular geometrical shapes of the cabins themselves, using suitably shaped walls, it is however impossible to obtain ornamental drawings and representations that can be modified and updated without necessarily removing the walls themselves.

[0013] In such context, the object of the present invention is therefore to provide a shower cabin which overcomes the drawbacks of the prior art.

[0014] In particular, it is an object of the present inven-

tion to propose a shower cabin capable of modifying and adapting the ornamental effect imparted by the walls without replacing the walls themselves.

[0015] It is still an object of the present invention to provide a shower cabin which is structurally simple, of cost efficient and totally adaptable to the individual aesthetic and application requirements.

[0016] The mentioned technical task and the stated objects are substantially achieved by a shower cabin, comprising the technical characteristics set out in one or more of the appended claims.

[0017] Further features and advantages of the present invention will become more apparent from the description of an exemplary, but not exclusive, and therefore non-limiting preferred embodiment of a shower cabin, as illustrated in the appended figures, wherein:

- Figure 1 shows a perspective and exploded view of a shower cabin tool according to the present invention; and
- Figure 2 shows a perspective view of the shower cabin according to the invention in a respective mounting configuration.

[0018] With reference to the attached figures, reference number 1 globally indicates a shower cabin according to the present invention.

[0019] It should be specified that in the accompanying figures a shower cabin 1 having a parallelepiped conformation and a rectangular section is illustrated purely by way of a non-limiting example. However, it should be specified that the shower cabin can have any dimension and transversal development, such as squared, semi-circular, etc.

[0020] The cabin 1 has a compartment 2 inside which the water is dispensed, and which is defined by at least three side walls 3 emerging from a respective base plate 4 (shower tray).

[0021] In greater detail, with reference to the exemplary solution of Figures 1 and 2, two fixed side walls 5 and two movable side walls 6 are provided. The movable walls 6 are preferably of the sliding type towards the fixed walls to define an access zone inside the compartment 2.

[0022] Also in this case, the type of movable walls 6 may be any, for example also hinged "like a book" to define the access zone to the compartment 2. Between the fixed walls 5 a column panel 7 is also provided for supporting respective water supply means 8 for managing the flow and temperature of the water.

[0023] For example, the column 7 may be provided with the water distribution knobs and with the respective nozzles for delivering a water flow.

[0024] Furthermore, the electronic regulation and temperature flow elements of the known type therefore are also provided and not described in detail in the present discussion.

[0025] It should also be noted that both the fixed walls 5 have identical surface openings 5a placed inside the

compartment 2 and are suitable for supporting equipment of the cabin 1 such as, for example, shelves and water supply ducts. The analogous position of the openings 5a on the two walls 5 allows greater versatility in the positioning of the aforementioned equipment on at least one of the aforementioned fixed walls 5.

[0026] Also shown in the accompanying figures is an upper cover element 9, opposite to the base plate 4 and presenting the same peripheral development of the plate 4. Also the cover element 9 can be provided for supporting the water supply means 8 and/or suitable lighting systems of the compartment 2.

[0027] At least one of the fixed walls 5 further comprises a bottom panel 10 having a visible surface 11 facing the compartment 2. Preferably, each fixed wall 5 has a respective panel 10 and is provided with means 12 for reversible engagement of the panel 10 for separating the panel 10 itself from the respective wall 5 and replacing it with a panel 10 having a visible surface 11 having a different aesthetic effect (Figure 1).

[0028] In greater detail, the fixed walls 5 are made of transparent material and the respective panels 10 are arranged outside the walls 5 to be visible from inside the compartment 2.

[0029] The panel 10 is preferably made of a flexible and opaque material and has a sheet structure.

[0030] The visible surface 11 of the panel 10 can be moulded to give a particular ornamental effect to the surface itself. For example, on the surface 11 graphic symbols or coloured photographs can be depicted, in order to customize and define a particular aesthetic effect to the cabin 1.

[0031] In this situation, it should be noted that both the fixed walls 5 and the respective panels 10 have the same substantially rectangular shape.

[0032] The smaller sides of the walls are defined by edges 13a, 13b respectively arranged in correspondence with the base plate 4 and the compartment top 9.

[0033] Advantageously, the reversible engagement means 12 comprise a pair of longitudinal grooves, each of them arranged at an edge 13a, 13b of the fixed wall 5.

[0034] The grooves define a channel for housing an edge 10a of the respective panel 10.

[0035] In greater detail, each panel 10 has two smaller end edges 10a, each of which can be associated in the housing channel of the respective longitudinal grooves.

[0036] Advantageously, each panel 10 can be inserted/removed inside the respective housing channels of the grooves, to be engaged/disengaged to the respective fixed walls 5.

[0037] To retain each panel 10 associated with the respective wall 5, the cabin 1 is supported by an angular zone of a supporting structure, such as for example a wall structure not depicted in the accompanying figures since it is not part of the present invention.

[0038] Advantageously, by detaching the cabin from the support structure it is possible to remove the panels 10 from the grooves and provide for their replacement in

order to modify the aesthetic appearance of the cabin 1.

[0039] The present invention provides important advantages.

[0040] First of all, as already specified, the presence of longitudinal grooves for each fixed panel 5 enables the panels 10 to be associated in a reversible manner, defining the aesthetic appearance of the cabin 1.

[0041] Moreover, the possibility of modifying the panel 10 and printing on the surface 11 any graphic motif, makes the cabin extremely versatile and adaptable to various aesthetic requirements.

[0042] This results in an advantage in terms of economy and construction simplicity of the entire cabin 1 which does not require properly configured walls.

[0043] In fact, according to the present invention, the fixed walls 5 remain the same and only the panels 10, made of a more economical and light material, can be removed and replaced.

Claims

1. Shower cabin including:

an internal compartment (2) for use defined by at least three side walls (3) emerging from a respective base plate (4), at least one of said side walls being movable to access inside said compartment (2); and

water supply means (8) arranged inside said compartment (2) for controlled flow and temperature distribution of water;

characterized in that at least one of said fixed walls (5) comprises a bottom panel (10) having an exposed surface (11) facing the compartment (2) and **in that** said fixed wall (5) further comprises means (12) of reversible engagement of the panel (10) in order to dissociate the panel (10) from the respective wall (5) and replace it with a panel (10) having an exposed surface (11) of different aesthetic effect.

2. Cabin according to the previous claim, **characterized in that** said walls (3) are made of transparent material; said bottom panel (10) being positioned outside said compartment (2).

3. Cabin according to any one of the preceding claims, **characterized in that** said panel (10) is made of a flexible and opaque material, said exposed surface (11) being molded to give a particular ornamental effect to the surface (11) itself.

4. Cabin according to any one of the preceding claims, **characterized in that** said compartment comprises two fixed side walls (5) and two movable side walls (6); each of the fixed walls (5) having a respective panel (10).

5. Cabin according to any one of the preceding claims, **characterized in that** each of the fixed walls (5) has a substantially rectangular conformation with the respective smaller sides defined by edges (13a, 13b) placed in correspondence of the base plate (4) and of the top of the compartment (2). 5
6. Cabin according to the previous claim, **characterized in that** said reversible engagement means (12) comprise a pair of longitudinal grooves, each of them arranged in correspondence of an edge (13a, 13b) of the fixed wall (5); said grooves defining a housing channel of an edge (10a) of the respective panel (10). 10
7. Cabin according to the previous claim, **characterized in that** each panel (10) has a sheet-like structure and a rectangular conformation substantially corresponding to that of the respective wall (5); said panel (10) having lower end edges (10a) each of which can be associated in the housing channel of the respective longitudinal grooves. 15 20
8. Cabin according to the previous claim, **characterized in that** each panel (10) associated with the respective wall (5) is held in position between the panel (10) itself and a supporting structure of the entire cabin (1). 25
9. Cabin according to any one of the preceding claims, **characterized in that** said fixed walls (5) have the same structure and surface openings (5a) in order to allow the engagement of said water supply means (8). 30
10. Cabin according to any one of the preceding claims, **characterized in that** it further comprises an angular column (7) interposed among the fixed walls (5) and arranged to engage said water supply means (8). 35

40

45

50

55

Fig.2

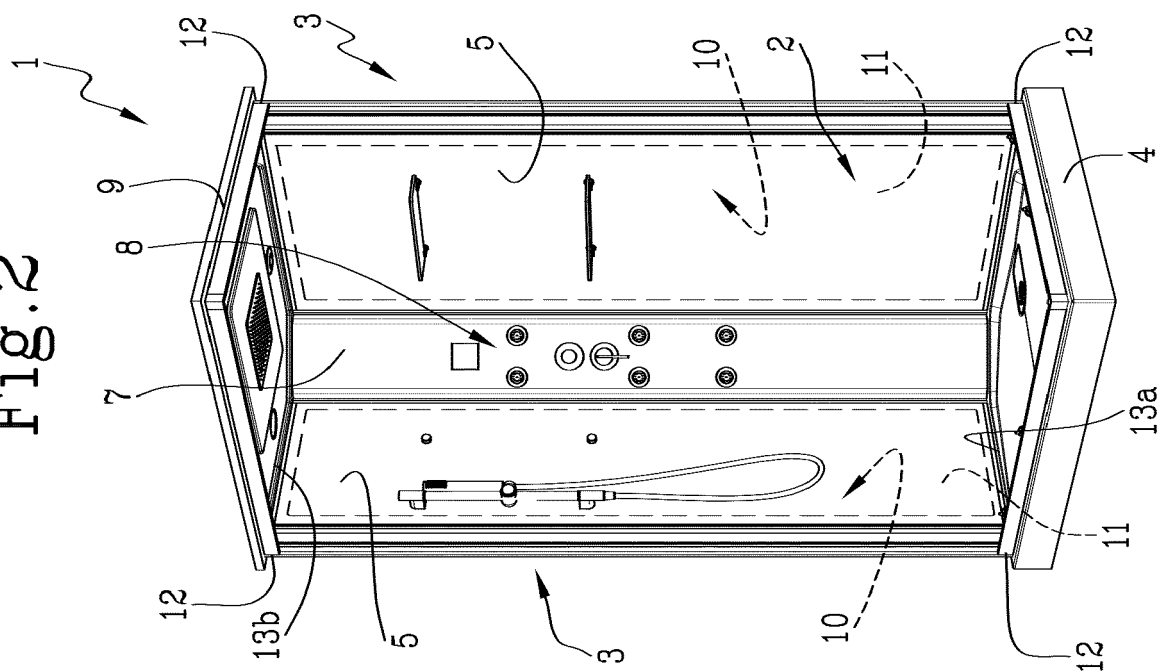
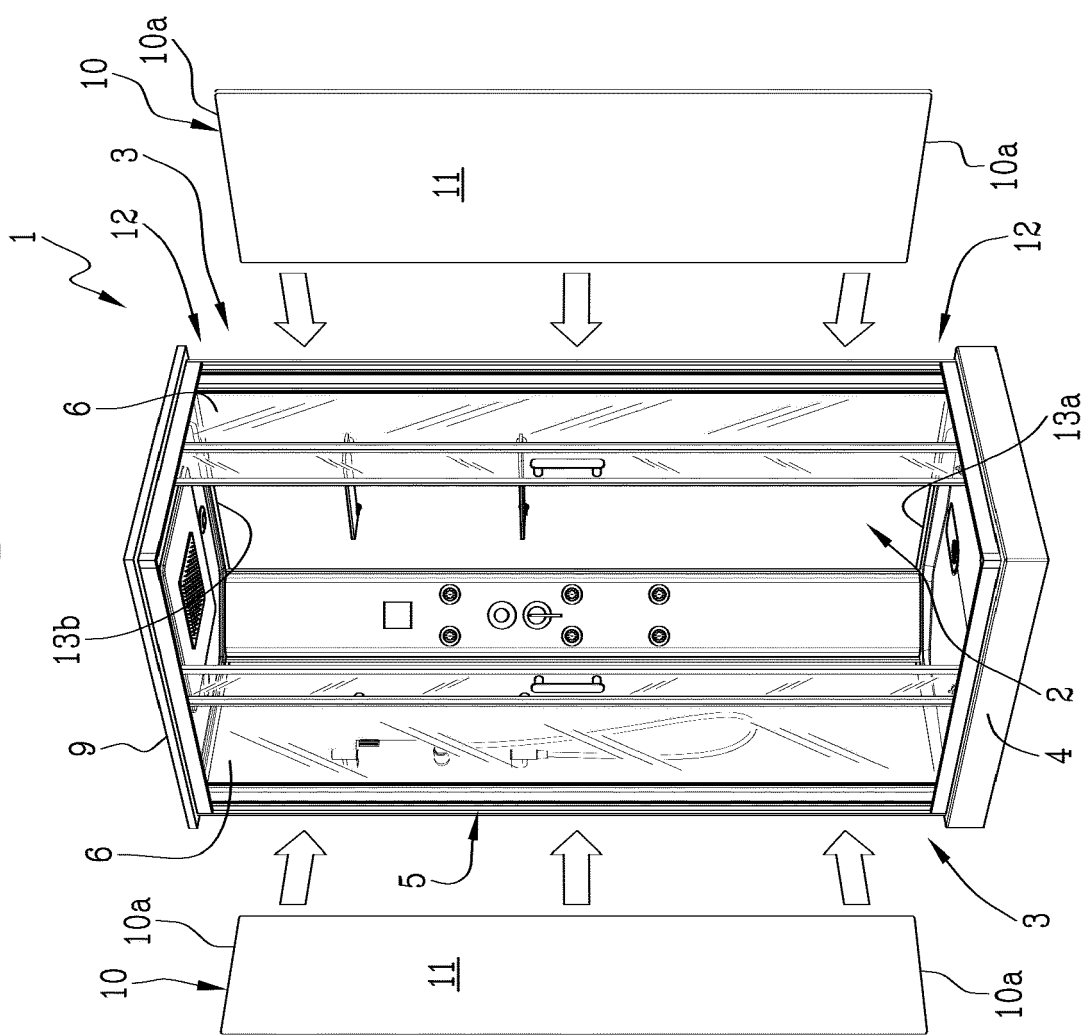


Fig.1





EUROPEAN SEARCH REPORT

Application Number
EP 19 15 7250

5

10

15

20

25

30

35

40

45

50

55

1

EPO FORM 1503 03.82 (P04C01)

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	DE 200 12 036 U1 (NOLTE WOLFGANG [DE]) 26 October 2000 (2000-10-26) * page 2, paragraph 3 * * page 6, paragraph 3; figures 1,2,4 * -----	1-10	INV. A47K3/30
X	WO 2016/115534 A1 (SMITH ALBERT BARRY [US]; SAKS CONRAD [US]; DANNETTEL MARK E [US]) 21 July 2016 (2016-07-21) * paragraph [0055]; figures 1,2,10,11 * -----	1,3-5,7,9,10	
X	DE 86 21 857 U1 (HÜPPE GMBH) 2 October 1986 (1986-10-02) * the whole document * -----	1-10	
			TECHNICAL FIELDS SEARCHED (IPC)
			A47K
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 12 June 2019	Examiner Fordham, Alan
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 19 15 7250

5

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
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

12-06-2019

10

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 20012036	U1	26-10-2000	NONE

WO 2016115534	A1	21-07-2016	CA 2977704 A1 21-07-2016
			CN 107427165 A 01-12-2017
			US 2016206156 A1 21-07-2016
			US 2018103806 A1 19-04-2018
			WO 2016115534 A1 21-07-2016

DE 8621857	U1	02-10-1986	NONE

15

20

25

30

35

40

45

50

55

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82