



(11) **EP 4 252 602 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
04.10.2023 Bulletin 2023/40

(51) International Patent Classification (IPC):
A47K 3/00 (2006.01) A47K 3/20 (2006.01)

(21) Application number: **23382308.7**

(52) Cooperative Patent Classification (CPC):
A47K 3/006; A47K 3/00; A47K 3/20

(22) Date of filing: **30.03.2023**

(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 ME MK MT NL
NO PL PT RO RS SE SI SK SM TR**
Designated Extension States:
BA
Designated Validation States:
KH MA MD TN

(71) Applicant: **Moreno Pérez, Diego**
41006 Sevilla (ES)

(72) Inventor: **Moreno Pérez, Diego**
41006 Sevilla (ES)

(74) Representative: **Pons
Glorieta Rubén Darío 4
28010 Madrid (ES)**

(30) Priority: **01.04.2022 ES 202230545 U**

(54) **BATHTUB STRUCTURE**

(57) The invention describes a bathing structure located between three walls to be used as a shower tray, comprising a frame (1) with a base (2), a first end (3), a second end (4) and a central area (5), a first vertical extension (6) that extends from the first end (3), a second vertical extension (7) that extends from the central area (5) and a third vertical extension (8) that extends from the second end (4), in addition to a vertical panel (9) supported between the first vertical extension (6) and the second vertical extension (7), and a gate (11) that is located in an access (10) defined on the base (2) and between the second and third vertical extensions (7, 8) and is laterally movably coupled to one of said second or third vertical extensions (7, 8) sealing or opening the access (10).

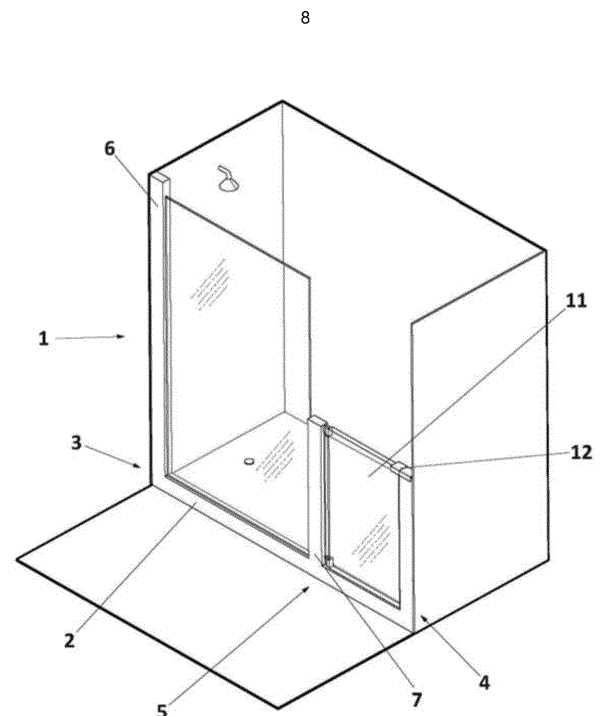


FIG. 1

EP 4 252 602 A1

Description

OBJECT OF THE INVENTION

[0001] The object of the invention falls within the technical field corresponding to home furnishings, specifically to the home furnishings sector.

[0002] The present invention relates to a bathing structure that incorporates a gate that allows the use of a shower tray as a shower or as a bathtub when said gate opens or closes an access to said bathing structure.

BACKGROUND OF THE INVENTION

[0003] The shower is known in the state of the art as equipment for a bathroom, wherein the water falls on a subject, while same is standing and without producing an accumulation of water, which is directed directly to the drain of the bathroom where it is located.

[0004] The action of showering is normally carried out in a bathtub or shower tray, which has a hose that can be oriented with the hands or a fixed portion above the head of the user, where there is a head that distributes the water in several jets.

[0005] In shower trays, they are generally fixed above the head of the user or arranged along the entire body for hydromassage showers, and are generally protected by a glass or translucent methacrylate screen. Roll-up screens can also be used the sheet of which is usually made of polyester.

[0006] Moreover, the showers can be used in bathtubs, with a closed structure with a certain height, allowing a user to accumulate water for bathing in said closed structure in a position that is not necessarily standing, also while the user is sitting or lying down without additional elements such as benches.

[0007] However, these facilities have several problems. In the first place, the showers located in shower trays do not allow the accumulation of water and the user must remain strictly standing, making it difficult for the user to wash himself in the event that he suffers an injury or disability that does not allow him or her to maintain the posture or settle comfortably in the shower tray due to the dimensions thereof.

[0008] Moreover, regarding the shower established in bathtubs, access for people who have suffered an injury or disability or are elderly people having reduced mobility, is difficult due to the height of the bathtub structure both for the entrance and exit from same, additionally making the work of a third party difficult in the event that the user cannot fend for himself.

DESCRIPTION OF THE INVENTION

[0009] The present invention intends to solve the proposed problems by incorporating a gate into an elongated structure that facilitates access for people and allows changing from a shower configuration in a shower tray

to a shower configuration in a bathtub, facilitating cleaning tasks for all types of people safely.

[0010] Specifically, the bathroom structure object of the invention is positioned on a bathroom surface and extended vertically, said surface being delimited by bathroom lateral walls and a rear wall. The bathroom structure provides a user with the use of a shower tray, located between said mentioned walls and positioned on the floor surface of the bathroom, as a shower or bathtub.

[0011] Said bathroom structure comprises a frame equipped with a horizontal base that also rests on the surface of the bathroom and is located adjacent to the shower tray, between the lateral walls and facing the aforementioned rear wall. The frame is also made up of a series of vertical extensions, defined as the first, second and third vertical extension, which start respectively from one end, from the central area and from the opposite end of the aforementioned base.

[0012] Likewise, the structure object of the invention incorporates a vertical panel supported between the first vertical extension and the second vertical extension, the first vertical extension being higher than the second and third extension; and the invention also incorporates an access defined between the second vertical extension and the third vertical extension, which allows a user to enter the shower tray, delimited by the aforementioned structure object of the invention and the lateral and rear walls.

[0013] Additionally, the bathing structure is equipped with a gate located on the base and between the second and third vertical extension, coupled to one of the extensions and mobile with respect to said extensions, closing or opening the previously defined access.

[0014] When the gate closes the access, the structure acquires a configuration that allows a user to use the shower tray as a bathtub, producing said closure in a sealing manner, guaranteeing the tightness of the water accumulated on the shower tray.

[0015] Moreover, when the gate opens the access, the bathing structure has a configuration such that it allows a user to use the shower tray as a shower only, without the accumulation of water within the delimited bathing surface.

[0016] The gate is mobile, preferably in an articulated and collapsible manner with respect to the second or third vertical extension about an axis of vertical rotation and is equipped with a lock that makes contact with the second or third vertical extension to ensure the closure and tightness when the bathing structure acquires a bathtub configuration.

DESCRIPTION OF THE DRAWINGS

[0017] As a complement to the description provided herein, and for the purpose of helping to make the features of the invention more readily understandable, in accordance with a preferred practical exemplary embodiment thereof, said description is accompanied by a set

of drawings constituting an integral part of the same, wherein by way of illustration and not limitation, the following has been represented:

Figure 1 shows a perspective view of the shower able to be converted into a bathtub.

Figure 2 shows a lateral view of the shower able to be converted into a bathtub where the gate opens the access.

Figure 3 shows a lateral view of the shower able to be converted into a bathtub where the gate closes the access.

PREFERRED EMBODIMENT OF THE INVENTION

[0018] With the aid of Figures 1 to 3, a preferred embodiment of the shower convertible into a bathtub object of the invention is described.

[0019] Figure 1 shows a perspective view of the bathroom structure intended to be positioned on a surface of a bathroom and that facilitates a user the use of a shower tray as a shower or bathtub, comprising a frame (1) equipped with a horizontal base (2) intended to be located on the surface of the bathroom and adjacent to the shower tray comprising a first end (3), a second end (4) and a central area (5), a first vertical extension (6) that starts and extends in height from the first end (3) of the base (2), a second vertical extension (7) that starts and extends in height from the central area (5) of the base (2), and a third vertical extension (8) that starts and extends in height from the second end (4) of the base (2).

[0020] The structure object of the invention includes a vertical panel (9) supported between the first vertical extension (6) and the second vertical extension (7), and an access (10) defined between the second vertical extension (7) and the third vertical extension (8) intended to facilitate the entry of a user to the shower tray.

[0021] Additionally, said bathroom structure comprises a gate (11) that is located on the base (2) and between the second and third vertical extensions (7, 8), said second and third vertical extensions (7, 8) being of less height than the first vertical extension (6), wherein the gate (11) is laterally coupled to one of said second or third vertical extensions (7, 8) and is mobile with respect to the second or third vertical extension (7, 8) sealing or opening the access (10), said gate (11) intended to allow a user to use the shower tray as a bathtub when the user closes the access (10) or to allow a user to use the shower tray as a shower when he opens the access (10).

[0022] With the help of Figures 2 and 3, a lateral view of the bathing structure is observed wherein the gate (11) opens and closes the access (10) in an articulated and collapsible manner with respect to the second or third extension (7, 8), so that when the access (10) is open, the shower tray can simply be used as a shower and when it is closed, it is used as a bathtub.

[0023] Finally, to facilitate the closing of the access (10), the gate (11) comprises a lock that makes contact

with the second or third vertical extension (7, 8) and that ensures the closure of the access (10).

Claims

1. A bathing structure intended to be positioned on a surface of a bathroom delimited by lateral walls and a rear wall and that facilitates for a user the use of a shower tray located between said walls as a shower or bathtub, comprising:

- a frame (1) equipped with:

- a horizontal base (2) intended to be positioned on the surface of the bathroom between the lateral walls and facing the rear wall adjacent to the shower tray comprising a first end (3), a second end (4) and a central area (5),
- a first vertical extension (6) that starts and extends in height from the first end (3) of the base (2),
- a second vertical extension (7) that starts and extends in height from the central area (5) of the base (2), and
- a third vertical extension (8) that starts and extends in height from the second end (4) of the base (2),

- a vertical panel (9) supported between the first vertical extension (6) and the second vertical extension (7), and

- an access (10) defined between the second vertical extension (7) and the third vertical extension (8) intended to facilitate the entry of a user to the shower tray;

characterised in that it additionally comprises a gate (11) that is located on the base (2) and between the second and third vertical extensions (7, 8), said second and third vertical extensions (7, 8) being of less height than the first vertical extension (6), and in addition, the gate (11) is laterally coupled to one of said second or third vertical extensions (7, 8) and is mobile with respect to the second or third vertical extension (7, 8) sealing or opening the access (10), so that in the open position it allows the use of the shower tray as a shower and in the closed position it allows the use of the shower tray as a bathtub.

2. The bathing structure according to claim 1, wherein the gate (11) is movable in an articulated and collapsible manner with respect to the second or third vertical extension (7, 8) around a vertical axis of rotation.

3. The bathing structure according to claim 1, wherein

the gate (11) comprises a lock (12) that makes contact with the second or third vertical extension (7, 8) and that ensures the closure of the access (10).

5

10

15

20

25

30

35

40

45

50

55

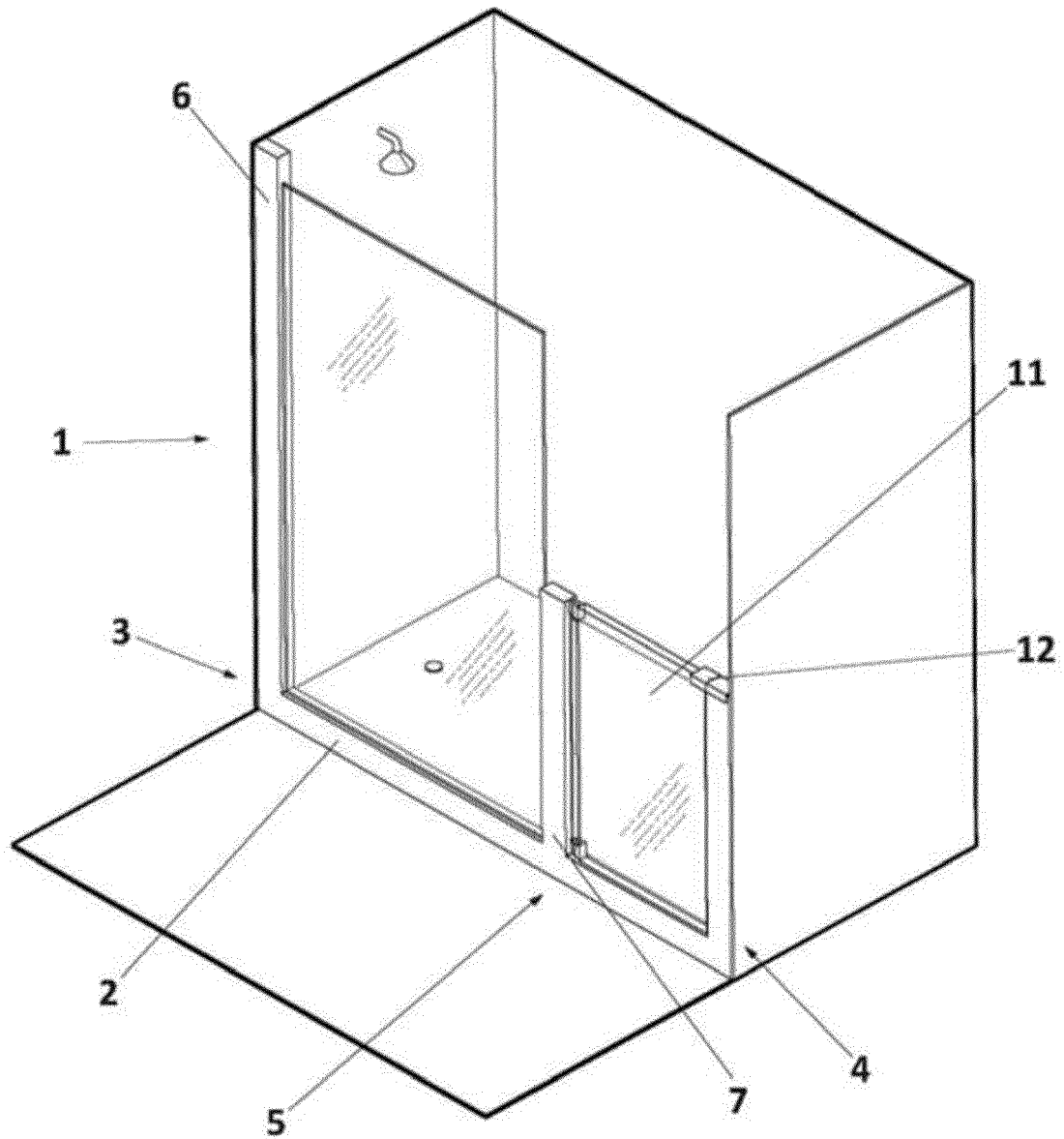


FIG. 1

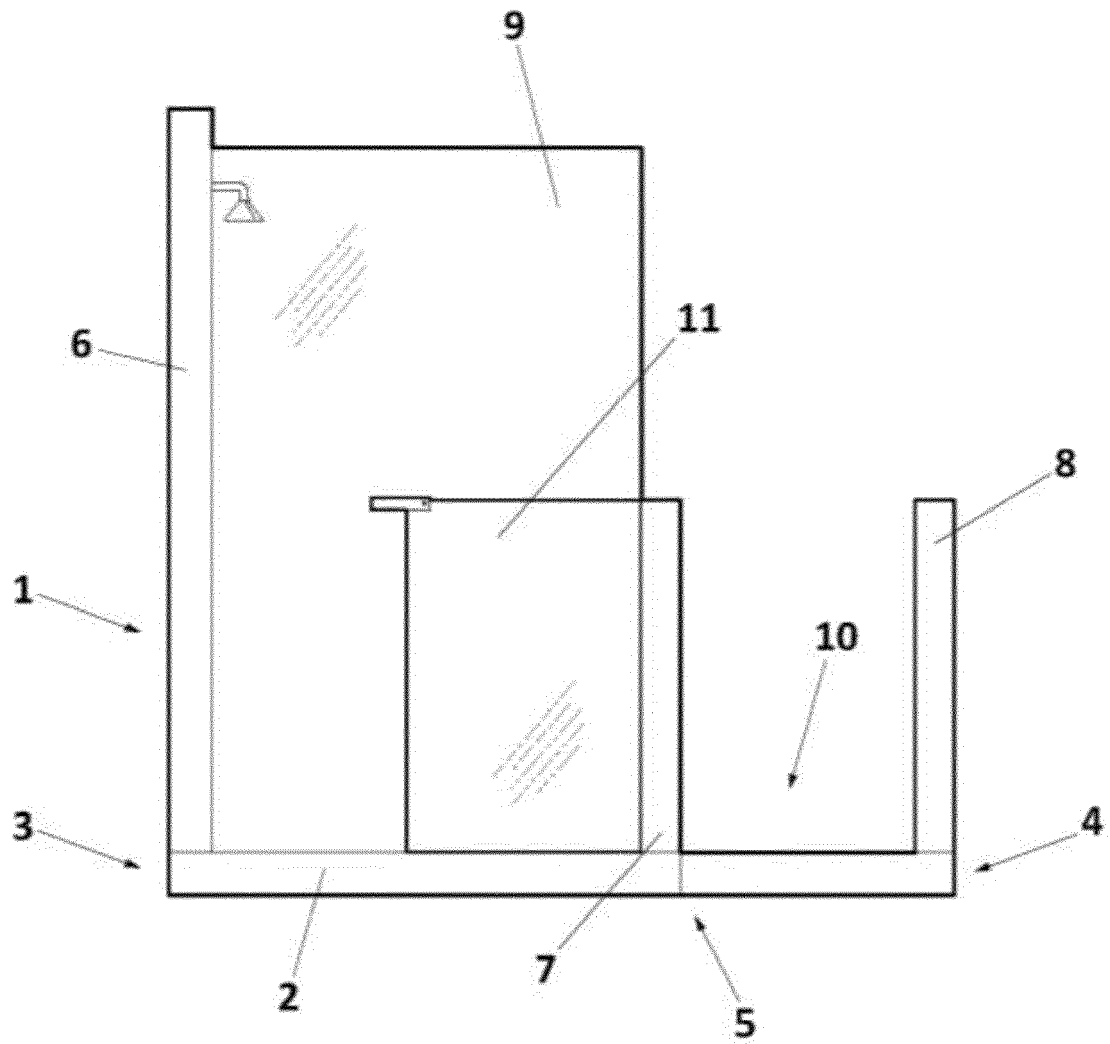


FIG. 2

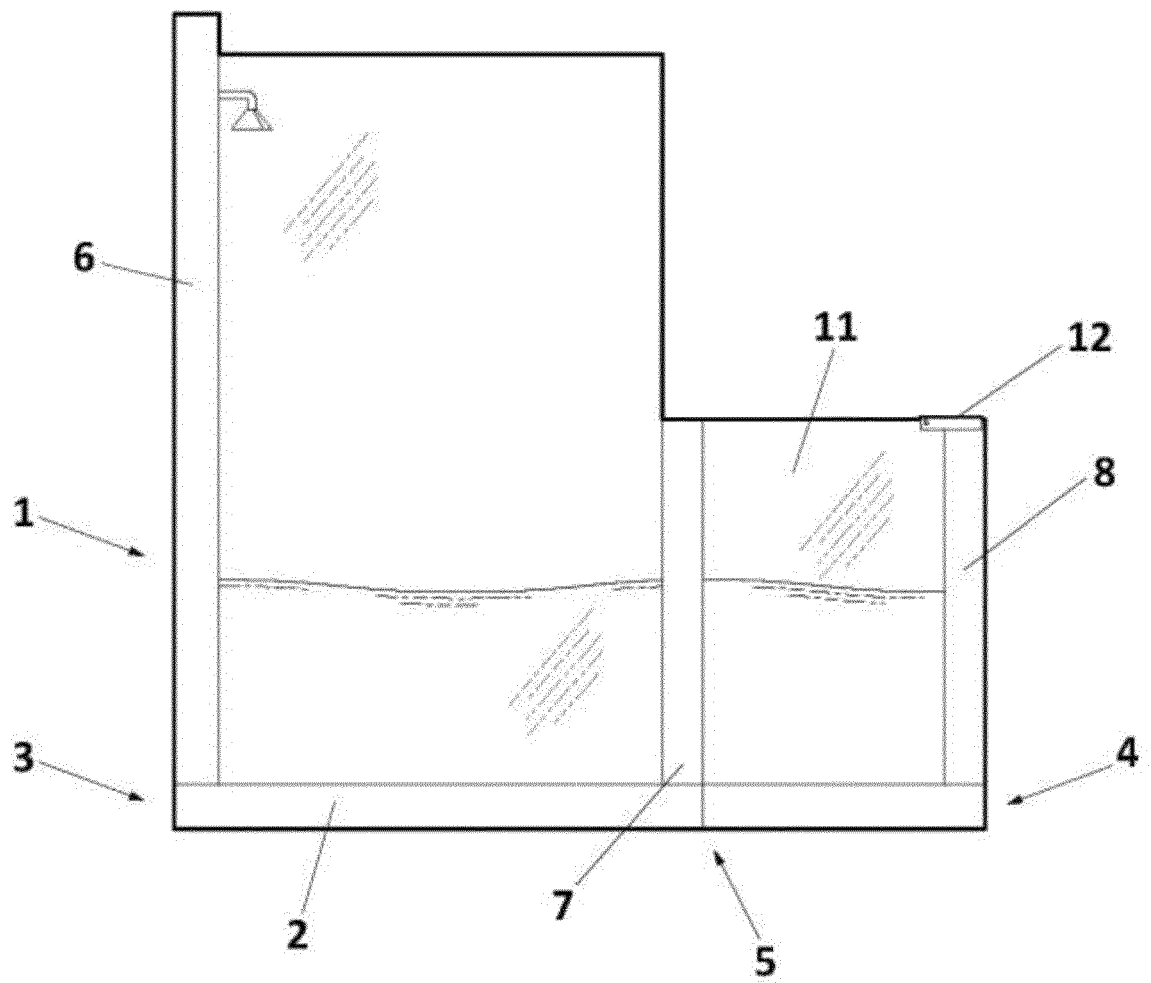


FIG. 3



EUROPEAN SEARCH REPORT

Application Number

EP 23 38 2308

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 2012/198611 A1 (ZIERLER WOLFGANG [AT]) 9 August 2012 (2012-08-09) * paragraph [0025] - paragraph [0033]; figures 2, 3 * -----	1-3	INV. A47K3/00 A47K3/20
			TECHNICAL FIELDS SEARCHED (IPC)
			A47K
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		1 August 2023	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			

EPO FORM 1503 03.82 (P04C01)

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

EP 23 38 2308

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.

01-08-2023

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2012198611 A1	09-08-2012	AT 511016 A1	15-08-2012
		CA 2766567 A1	07-08-2012
		CN 102626296 A	08-08-2012
		EP 2484257 A2	08-08-2012
		US 2012198611 A1	09-08-2012
