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54 **Shower cabin with multiple controllable functions.**

57 Shower cabin consisting of a room which can be fully closed, comprising a side slidable door (16), a shaped ceiling (96) which can be upwardly fastened, a shower distributor (72) of adjustable height, a seat (26) housed in a recess (22), downwardly directed cascade jets (30, 32), horizontally oriented jets (44) operating in a pulsating manner, steam and/or hot air generating equipments and heated compartments for bath gowns or like clothing.

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Shower cabin with multiple controllable functions

The present finding relates to an improved shower cabin suitable to fulfill multiple functions, which can be controlled by the user, besides the normal and usual shower function to be received in an erected condition.

Said additional multiple functions may consist of cleaning treatments by means of cascade-jets with a water film, of hydromassage by means of pulsating jets actuated either simultaneously or according to a predetermined sequence, of steam and/or hot air treatments like Turkish bath of the possibility of effecting said treatments both in the user's erected and in the seated condition, of the possibility of deviating the water of the treatments to an auxiliary outlet until a temperature is achieved which can be tolerated without discomfort and of the possibility of keeping clothing articles within an isolated and heated compartment.

A number of different shower cabins are known in the form of a compartment which is accessible through a closable door to receive a water jet divided in single drops, or shower, falling from a distributor connected to hot and cold water systems in order to permit said jet to be adjusted as regards both the flow rate and the temperature. Said cabins can be provided with a great variety of accessories such as recesses receiving hygienic products and items, like creams, soaps detergents, lotions, sponges, brushes and the like, supporting handles for the user to retain an equilibrium position or to abut, himself and taps and valves for the either manual or automatic adjustment of the temperature and flow rate of the water for said shower.

Apparatus for hydromassage treatments are also known, normally carried out within a bath tub, as well as apparatus for steam and/or hot air treatments which can be carried out within boxes or small rooms in which said steam and/or hot air are circulated. However at the present time no apparatus or apparatus assembly is known which is able to carry out in only one room or compartment all the functions of the above listed equipments.

The purpose of the present finding is just that of providing said functions in only one compartment and additionally further function such as to make it of exceedingly useful and pleasant use.

Said finding consists of a shower cabin provided with two thin, transparent or partially transparent, side walls and of two thick and opaque side walls adapted to house the accessories of the multiple functions included in the same cabin.

According to a preferred embodiment, a first wall of said thick walls contains a recess with a seat and possible armrests, upwardly provided with flattened openings adapted to originate water film

cascade jets, said recess being encompassed by a series of openings for hydromassage type jets and provided downwardly at the base of said seat with an opening for the outlet of steam and/or hot air to originate the conditions of a Turkish bath, and is upwardly continued by a zone containing a suction opening for the return air to be heated for the said function of Turkish bath.

According to another preferred embodiment, the other of said thick walls contains in sequence, starting from a position close to said first thick wall, a first series of recesses, vertically aligned and encompassed by bridge or rail members suitable to retain items positioned within said recesses, although the removal of water possibly entering in said recess is permitted, a second vertically elongated recess of a height essentially equal to that of the whole wall, containing a vertical support member for a clamp which can be fastened to said support member in order to adjust the height of a shower distributor or rose, and a third recess, also vertically elongated and having essentially the same height and closed by a door so as to form a heatable cavity suitable to house clothing items to be kept in a hot and dry condition, such as bathgowns and the like.

According to a further preferred embodiment of the present finding the side walls of the cabin are downwardly supported by a pedestal shaped base, housing a tub having essentially the same height as said base, the bottom of which is provided with a relieved grid, having anti-skid and foot isolating function from the possible discharge water which accumulates onto the tub bottom.

Furthermore according to the present finding the bottom wall of the recess of said first thick wall and the seat in said recess are provided with anti-skid corrugated surfaces, said surfaces being aligned with each other and also with a surface, corrugated as well continuing up to the top of the wall adapted to house said air suction opening for the Turkish bath function and, above said opening, a lightening device enclosed within a shelf protrusion.

Moreover between the recesses of the first series of the second thick wall there are positioned the tap handles, a push button panel for the control of the accessories and light displays of the type commonly used for electronically controlled apparatus.

Most preferable for a better operation this cabin can be provided with a shaped ceiling which can be closed, permitting an atmosphere to be originated suitable for treatments such as the aforesaid

Turkish bath.

Moreover an inner panel of said first thick wall is journaled on pins for the rotation around a vertical edge thereof to permit the access to the devices housed behind said wall.

The features and advantages as above mentioned of the present finding shall be better understandable from the following detailed description of a preferred embodiment thereof, referring to the enclosed drawing.

According to said drawing the present finding consists of a cabin 10 of essentially parallelepipedal shape, having two adjacent side walls 12 and 14 substantially thin and transparent or at least partially transparent, the wall 12 of which contains a slidable door 16, whereas the wall 14 is integer, and two walls 18 and 20, of substantial thickness and opaque, adapted to contain equipments and accessories of the said cabin 10.

The first thick wall 18 adjacent to the thin wall 12 containing the slidable door 16 is downwardly provided with a vertical recess 22 having essentially the shape of a triangular prism, on the lower base 24 of which a seat 26 is located, provided with anti-skid corrugations or grid 27, and from the upper base 28 of which slot shaped elongated outlets 30 and 32 are downwardly directed, having the purpose of emitting water jets in form of cascade, and the side faces 34 and 36 of which, wherein two essentially rounded recesses 38 and 40 are formed so as to receive and support the arms of the user when seated onto the seat 26, are connected by an abutment corrugated surface 42, serving as the possible abutment for the user's back. The side faces 34 and 36 are provided, near to their edge, with a series of openings 44a-44b connected to a hydromassage plant for the purpose of emitting through said openings pulsating water jets, the latter being activated either temporarily or according to a preselected sequence.

The said thick wall 18 continues above the recess 22 with a planar area 46, crossed by a corrugated vertical strip 48 centrally provided with an opening covered by a grid 50 and terminating with a shelf protrusion 52, which is essentially transparent, in which a lightening device is housed. The second thick wall 20 contains three orders of recesses, the leftist of which contains a series of vertically aligned recesses 54, 56, 58, 60, downwardly encompassed, where possible, by crossing bridge or rail members 62, 64, 66 having the purpose of retaining items housed in said recesses such as bottles, boxes, small bottles, sponges, brushes and the like, although permitting the draining of water possibly entering the recess, the intermediate order consists of only one elongate recess 68 having height substantially equal to the height of the wall 20 and containing a support member 70

shaped as a tubular column adapted to support a shower distributor 72 fastened by means of a loosenable clamp 74 to said column 70 and connected through a hose 76 to a hydraulic system concealed within said wall 20, said recess 68 being crossed, together with the adjacent recesses 56 and 58, by two bars or handrails 78 and 80, and the rightmost order is formed by only one elongated recess closed by a door 82 provided with a handle 84, to define a heated compartment having the purpose of keeping in a warm and dry condition clothing items, like bath-gown and the like.

In said wall 20 also several control systems are housed such as a tap and valve group 86, positioned between the recesses 56 and 58 to control the several functions and an assembly of displays and push-buttons 88 for the control and readings of parameters of interest, such as times, temperatures and the like.

Other provisions useful for the operation of the present finding comprise a first hole 92 and a second hole 94 positioned under the seat 26 for the exit of the stem in the case of the Turkish bath function and for a first discharge of water to be carried out at the beginning of the shower function as the water is too cooled to be tolerated without discomfort.

When a Turkish bath is carried out, in order to avoid a dispersion of steam the cabin is preferably closed upwardly by means of a shaped ceiling 96, by which hot air and steam are retained within the cabin.

In the thickness of the wall 18 other accessories can be housed such as a panel 98 containing a filling plug of a reservoir for Turkish bath and push-buttons as well as signalling lights for the actuation and monitoring of said Turkish bath.

Moreover an inner panel of said wall 18 is journaled onto pins 100 and 102 in order to be rotatable around its right vertical edge whereby an access is permitted to devices lodged in the same wall. A lock 104 permits the panel to be fastened to said wall 19.

The cabin is downwardly terminated by a raised pedestal base 106, inwardly defining a tub 208 for the water collection, provided at the bottom with a grid 110 having the functions of anti-skid and isolation of the user's feet from the water collected at the bottom.

The above illustrated embodiment of the present finding is a typical example of realization thereof and it is understood that obvious variations, substitutions and full or partial equivalents, which may occur to a skilled in this art upon reading the above description are to be considered as therefrom all protected.

Claims

1. Shower cabin with multiple functions comprising two side, thin and transparent on partially transparent, walls (12, 14) and two thick and opaque walls (18, 20) suitable for housing accessories for the multiple functions which can be carried out within said cabin, characterized in that a first of said thick walls contains a recess (22) with a seat (26) and possible armrests (36, 38), above which recess flattened openings (30, 32) are formed and adapted to generate water film cascade jets, said recess being encompassed by a number of openings (44a-44h) for jets of the hydromassage type and downwardly provided at the base of said seat with an opening (92) for the outlet of steam and/or hot air to establish the conditions of a Turkish bath, this recess upwardly continuing with a zone (46) containing a suction opening (50) for return air to be heated for the said Turkish bath function.

2. Shower cabin according to claim 1, characterized in that the second of said thick walls (20) contains, in sequence, starting from a position close to said first thick wall (18) a first series of recesses (54-60) vertically aligned and crossed by bridge or rail members (62-66) suitable to retain items positioned within said recesses, although permitting the discharge of water possibly entering within said recesses, a second vertically elongated recess (58) having height substantially equal to that of the whole wall (20), containing a vertical support member (70) for a clamp (74) which can be fastened to said support member in order to adjust the height of a shower distributor (72) and a third recess, also vertically elongated and of essentially equal height, closed by a door (82) to form the heatable compartment adapted to contain clothing items to be kept in a warm and dry condition, such as a bath-gown or the like.

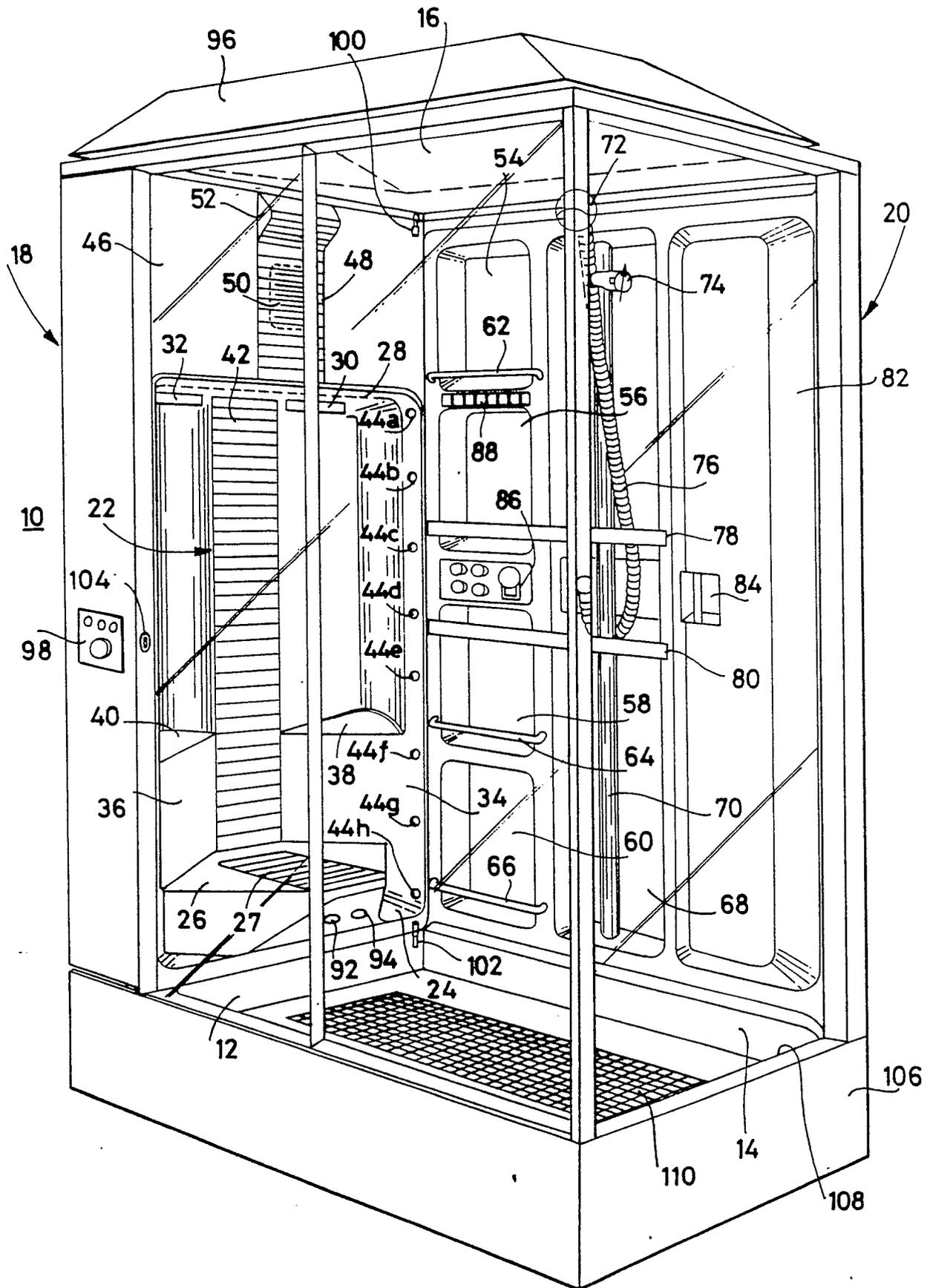
3. Shower cabin, according to claims 1 and 2, characterized in that the side walls thereof abut at the lower side onto a relieved pedestal base (106), forming a tub (108) having essentially the same height as said base, provided onto the bottom with a raised grid (110), having anti-skid function and that of isolating the user's feet from the discharge water which possibly accumulates on the tub bottom.

4. Shower cabin according to claims 1 to 3, characterized in that the bottom wall (42) of the recess (22) in the first thick wall (18) and the seat (26) in said recess (22) are provided with anti-skid corrugated surfaces, said surfaces being aligned with each other and with a surface (49), also corrugated, adapted to house said air suction opening (50) for the Turkish bath function and, above said opening, a lightening device enclosed within a shelf protrusion (52).

5. Shower cabin according to claims 1 and 2, characterized in that, between the recesses (54-60) of the first series on the second thick wall (20), tap handles (86), a push-button and light display panel (88) for the control of the accessories are located, of the type commonly used for electronically controlled equipments.

6. Shower cabin according to the above claims, characterized in that, for a better operation, said cabin is provided with a shaped ceiling (96) which can be closed and permits the atmosphere adapted for treatments as the aforesaid Turkish bath to be generated therewithin.

7. Shower cabin according to the above claims, characterized in that an inner panel of said first thick wall (18) is journaled on pins (100, 102) for the rotation around a vertical edge thereof to permit the access to the devices housed within said wall (18), said panel being lockable by means of a lock (104) actuatable by means of a key.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	EP-A-0 024 714 (PORTASAUNA LTD) * Page 3, lines 17-30; page 4, lines 1-33; page 5, lines 1-34; page 6, lines 1-33; page 7, lines 1-3; figure 1 *	1	A 47 K 4/00
A	DE-A-3 628 691 (MÜLLER) * Column 6, lines 46-68; column 7, lines 1-68; column 8, lines 1-51; figures 1,2 *	1	
A	US-A-4 171 545 (KANN) * Column 2, lines 9-68; column 3, lines 1-66; figures 1,9 *	1,2	
A	EP-A-0 046 475 (HUNZIKER) * Page 2, lines 9-371; page 3, lines 1-17; figures 1-3 *	1,3	
A	US-A-4 457 031 (MOORE) * Column 2, lines 53-68; column 3, lines 1-68; column 4, lines 1-40; figures 1-5 *	2	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			A 47 K A 61 H
Place of search THE HAGUE		Date of completion of the search 05-04-1989	Examiner SCHOLS W. L. H.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			