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(54) **Professional cabin for wellbeing treatments, such as turkish baths, saunas and the like and a method for making such cabins**

(57) A professional cabin for wellbeing treatments, such as Turkish baths, saunas and the like, comprising at least one access wall (2) fitted with a door (3), one or more lateral walls (4) and a roof (17), in which each lateral wall (4) comprises a plurality of prefabricated first modules (18) which are drawn near each other vertically and each have a height corresponding to the height of the entire wall, the access wall (2) comprises at least one prefabricated second module (7) forming the door (3) and at least one prefabricated third module (18) which is

drawn near to the prefabricated second module (7), and the roof (17) in turn comprises a plurality of prefabricated components (18) drawn near and connected to each other; the first modules and third modules (8) substantially forming the entire thickness of the wall and comprising a first finishing layer (9) towards the inside of the cabin (1); and each component (18) substantially forming the entire thickness of the roof (17) and comprising a second finishing layer towards the inside of the cabin (1). A method for making such cabins is also claimed.

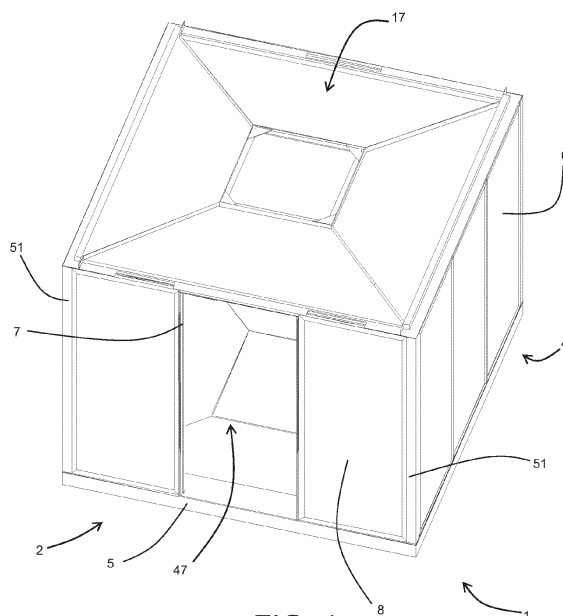


FIG. 1

Description

[0001] This invention relates to a professional cabin for wellbeing treatments, such as Turkish baths, saunas and the like and a method for making such cabins. The cabins to which this invention relates are mainly those intended for insertion in wellbeing centres (health spas). In general they are closed structures forming a compartment in which it is possible to create the desired environmental condition (for example, wet heat in the case of Turkish baths, dry heat for saunas, etc.). Therefore, the cabins normally comprise an access wall fitted with a door, a plurality of lateral walls connected to the access wall and to each other, and a roof. In some cases they may also comprise their own floor, whilst in others they use the floor of the room in which they are installed. At present there are substantially two methods for making such cabins.

[0002] The first method involves complete construction of the cabin at the installation site. Therefore, it involves a substantially artisan method of construction, which is not relevant to this invention.

[0003] The second construction method, in whose context this invention fits, instead involves construction of the cabins using prefabricated structures. In fact, having established the measurements the cabin must have, the maker builds at its own premises a prefabricated structure which is designed to substantially form the skeleton of the cabin. That structure normally comprises a combination of polystyrene (or other similar insulating materials), rigid reinforcing elements and mortars with a base of binders such as chalk or cement. In more detail, at the maker's premises the prefabricated structure is normally made as a set of pieces, one for each wall, one for the roof and, if required, one for the floor. The structure is then normally pre-assembled at the maker's premises to check that there are no design errors. Once everything has been checked, the structure is disassembled into its component parts. If the roof or the floor is too big for transporting by road (the cabins usually have a plan measuring several metres on each side) it is cut into two or more pieces. If the walls or roof must be fitted with further elements, such as lighting systems, heating elements, loudspeakers, etc., once the structure has been assembled, similarly to what happens for buildings, the workers prepare chases in the structure, in which all of the elements needed for subsequent passage of the various systems are positioned (the systems being installed once the cabin has been assembled at the premises of the end customer). When said elements have been fitted, all chases are filled and plastered.

[0004] At that point the various parts, whole or in pieces, are transported to the installation site, where they are definitively assembled. The various joints are plastered using a suitable binder. Then the final installation step can be performed, which involves covering the entire cabin with the finishing material (tiles, marble, wood, etc.). However, it is easy to imagine how even this prior

art technology has several disadvantages from an industrial viewpoint.

[0005] First, each installation requires the presence onsite of highly specialised personnel who are perfectly familiar with the construction technique for the cabins. In fact, although the cabin structure is in the form of a set of prefabricated pieces, cabin construction still requires a considerable contribution from skilled craftsmen. Second, for the makers it is almost impossible to standardise cabin production, since each unit is entirely made to measure.

[0006] Third, since the individual parts designed to form the prefabricated structure may have considerable dimensions (even up to four or five metres per side), transporting them is also relatively complicated, both regarding transportation on the road, and, above all, as regards the possibility of getting the various parts into existing rooms. In the case of new buildings, it is therefore preferable to place the prefabricated structure in the area that will be the wellbeing centre as the building is put up. However, as well as exposing the structure to the risk of damage caused by normal site activities, that also requires two lots of work by the maker's personnel who, first must install the prefabricated structure, but then must return, once work at the site is complete or almost complete, to install the various systems and fit the cabin inner covering.

[0007] In this context the technical purpose which forms the basis of this invention is to provide a professional cabin for wellbeing treatments, such as Turkish baths, saunas and the like, and to provide a method for making such cabins which overcomes the above-mentioned disadvantages.

[0008] In particular, the technical purpose of this invention is to provide a professional cabin for wellbeing treatments, such as Turkish baths, saunas and the like, and to provide a method for making such cabins which allows simplification of the cabin design and production procedures, allowing greater standardisation of them.

[0009] A further technical purpose of this invention is to provide a professional cabin for wellbeing treatments, such as Turkish baths, saunas and the like, and to provide a method for making such cabins which allows simplification of cabin installation operations at the premises of the end customer, making this possible even using personnel who are not particularly specialised.

[0010] Also a technical purpose of this invention is to provide a professional cabin for wellbeing treatments, such as Turkish baths, saunas and the like, and to provide a method for making such cabins which simplifies cabin transportation from the production site to the installation site, in particular allowing the cabins to be transported into substantially any existing room.

[0011] The technical purpose specified and the aims indicated are substantially achieved by a professional cabin for wellbeing treatments, such as Turkish baths, saunas and the like, and a method for making such cabins, as described in the appended claims. Further fea-

tures and the advantages of this invention are more apparent in the detailed description, with reference to the accompanying drawings which illustrate several preferred, non-limiting embodiments of a professional cabin for wellbeing treatments, such as Turkish baths, saunas and the like and a method for making such cabins, in which:

- Figure 1 is a schematic axonometric view of a cabin made in accordance with this invention (with only the door missing);
- Figure 2 is a transparent view of the cabin of Figure 1, without any inner accessories/equipment;
- Figure 3 is a schematic axonometric view, partly in cross-section, of a first module which is part of a cabin made in accordance with this invention;
- Figure 4 is an enlarged view of the detail IV of Figure 3;
- Figure 5 is an enlarged view of the detail V from Figure 3;
- Figure 6 illustrates an alternative embodiment of the first module of Figure 3, with reference to the detail visible in Figure 4;
- Figures 7 to 9 are front views of three different finishing layers of modules for making cabins according to this invention;
- Figure 10 is a schematic plan view with some parts cut away to better illustrate others, of a first possible layout of a cabin made in accordance with this invention;
- Figure 11 is a horizontal section of the detail of the connection between two coplanar modules of a cabin made in accordance with this invention;
- Figures 12 to 15 are enlarged views respectively of the details XII, XIII, XIV and XV of Figure 10;
- Figures 16 and 17 are respectively an axonometric normal and transparent view of several components of the floor of the cabin of Figures 1 and 2;
- Figure 18 is an enlarged view of a detail of Figure 17;
- Figure 19 is an axonometric view of a first component of the roof of the cabin of Figure 1;
- Figure 20 is an axonometric view of a second component of the roof of the cabin of Figure 1;
- Figure 21 is an axonometric exploded view of the roof of the cabin of Figure 1;
- Figure 22 is an axonometric exploded view of the roof of a cabin made in accordance with a different embodiment of this invention (roof suitable for the cabin of Figure 10);
- Figure 23 is a vertical section of the detail of the connection between a module which is part of one of the walls of the cabin of Figure 1 and a component which is part of the roof; and
- Figures 24 to 30 show a set of different layouts of cabins which can be obtained in accordance with this invention.

[0012] With reference to the accompanying drawings

the numeral 1 denotes in its entirety a professional cabin for wellbeing treatments, such as Turkish baths, saunas and the like, made in accordance with this invention.

[0013] For the sake of simplicity, below is a description first of the cabin 1 according to this invention and then of the cabin construction method. Similarly to prior art cabins, the cabin 1 according to this invention obviously comprises at least one access wall 2 fitted with a door 3 (even if depending on the embodiments it is also possible that there is more than one access wall 2), a plurality of lateral walls 4 coupled to each other and to the access wall 2, and a roof 17 in turn being coupled to the lateral walls 4 and to the access wall 2, (Figures 1 and 2).

[0014] In most of the preferred embodiments of this invention the cabin 1 is rectangular or square in plan view. However, this invention may advantageously also be applied to cabins with more complex plans.

[0015] Moreover, depending on the embodiments, the cabin 1 may or may not also comprise a floor 5, or it may use the floor of the room in which it is installed. The first aspect which characterises this invention is the fact that each lateral wall 4 is advantageously obtained by joining together a plurality of prefabricated first modules 6 which have been vertically drawn near each other. Each first module 6 has a height corresponding to the height of the entire wall. Moreover, preferably, all of the first modules 6 substantially have the same basic width, but may differ from each other in several construction details better described below with reference to the accompanying drawings, based on which the first modules 6 may be divided into a set of sub-types, more or less numerous depending on requirements. Alternatively, it is also possible that several first modules 6 have a width equal to a whole multiple of the basic width.

[0016] In this case, each lateral wall 4 has an overall width which is a whole multiple of the basic width of the first modules 6. Moreover, if all of the first modules 6 have the same basic width, the overall width of the lateral wall 4 is equal to the basic width multiplied by the number of first modules 6.

[0017] Regarding the shape of the first modules 6, they usually advantageously have the shape of panels. However, depending whether the related lateral wall 4 is straight or shaped in plan view, the panels may in turn be straight or shaped.

[0018] Advantageously, the same also applies for the access door 2. In fact, in the preferred embodiment (the accompanying drawings showing an example embodiment of it) the access wall 2 in turn comprises at least one prefabricated second module 7 and at least one prefabricated third module 8 which are drawn near each other. The prefabricated second module 7 comprises the access door 3 to the cabin 1 and in the preferred embodiment consists of an inverted U-shaped border frame on which the door 3 is hinged. The frame can be seen in its entirety in Figures 1 and 2, whilst in Figures 10 and 24 to 30 its upper part has been removed to show the door 3 (which is instead absent in Figures 1 and 2). In general

the second module 7 may however even comprise more than one door 3. Alternatively, where multiple access doors are required, there may even be two or more second modules 7 on the same access wall 2 (but normally, to optimise the use of space in the cabin 1, there is only one second module 7). In contrast, the third module 8 advantageously has a structure similar to that of the first modules 6, from which it differs by dimensions and construction details.

[0019] Regarding the widths of the second module 7 and the third module 8, according to a first embodiment (not illustrated), these may also have the same basic width as the first modules 6. However, in other embodiments, there may also be different solutions. In particular, irrespective of the size of the second module 7 and the third module 8, the widths of the second module 7 and the third module 8 are selected in such a way that the sum of the widths of a second module 7 and of one or more third modules 8 is substantially equal to the sum of the widths of a certain total number of first modules 6 having the basic width. As is described in more detail below relative to the production method, the combination of a second module 7 with one or more third modules 8, which allows that size correspondence to be obtained with the lateral walls 4 constitutes a minimum width of the access wall 2 for that embodiment of the cabin 1. In fact, greater widths can be obtained by also mounting one or more first modules 6 on the access wall 2. In the case shown in Figures 1 to 26, in which, for aesthetic reasons, the door 3 substantially has the same width as the first modules 6 (and consequently the related second module 7 is instead wider), the width correspondence between first modules 6 on one hand and second modules 7 plus third modules 8 on the other, is established for one second module 7 plus two third modules 8 and for three first modules 6 having the basic width; the sum of their widths corresponds to the sum of the widths of a second module 7 with two third modules 8 (advantageously mounted on either side of it, as described in more detail below). In contrast, in the case shown in Figures 27 to 30, in which the second module 7 has the same width, the correspondence is again established for one second module 7 plus two third modules 8 regarding the access wall 2, but for four first modules 6 having basic width (in fact, in this case, the third modules 8 have greater width).

[0020] Advantageously, each prefabricated first module 6 and third module 8 substantially forms the entire thickness of the related wall and comprises a first finishing layer 9 at a first face of it which is towards the inside of the cabin 1 (that aspect is described in more detail below with reference to a third aspect characterising this invention). However, it should be noticed relative to all of the modules 6, 7, 8 that when talking about width, in the context of this invention, reference is made to their width corresponding to parts which are designed to be in contact with each other side by side, not parts designed to be superposed on the module alongside (as in the

case of the first finishing layer 9 in the case of the third modules 8, described in detail below). If the various modules 6, 7, 8 do not have a constant vertical width along their entire height, depending on requirements, reference may be made either to their width point by point or to their average width.

[0021] The various modules 6, 7, 8 which form the walls may be connected to each other with various methods depending on requirements. However, advantageously, at least each first module 6 and/or third module 8 is fixed to the first modules 6 and/or the third modules 8 adjacent to it by reversible connections made at a portion of it which is on the outside of the cabin 1. For that purpose, each module may comprise one or more bored holes 10 through which through screws and/or bolts can be inserted. The connection can then be made using suitable connecting elements 11 mounted on the various modules 6, 7, 8 (for example at the corner shown in Figure 4 or 6) or at the related coupled surfaces. Figure 11 shows one such possible connecting element 11 positioned along a vertical lateral edge of two modules 6, 7, 8 drawn near each other.

[0022] In particular, the connecting element 11 is inserted in a perimetric groove 12 formed by each module 6, 7, 8. By way of example only, Figure 11 shows three different possible connections between the connecting element 11 and the modules 6, 7, 8. In fact, for the lower module in Figure 11 the connection is made using suitable self-tapping through screws which may be inserted through the cavities 13 made in the C-shaped profile delimiting the module. In contrast, for the upper module the connection may or may not be present. Indeed, depending on requirements, the connecting element 11 may either be glued in the perimetric groove 12, or just inserted in it to guarantee exclusively the correct alignment between the various modules 6, 7, 8.

[0023] In contrast, regarding the second module 7, it is also possible that the connection to the adjacent modules 6, 7, 8 is made by means of fixing elements, such as screws, fitted in such a way that they pass through the border frame and are inserted in the adjacent module (not illustrated).

[0024] Moreover, as already indicated for the first modules 6, both these and the third modules 8 may comprise a plurality of types which differ from each other in their construction details. In fact, in general, the various modules 6, 7, 8 may comprise service through holes 14 and/or preparations or set-ups 15 for cabin 1 accessory equipment. In particular, the accompanying drawings show the case of a first module 6 without through holes (Figure 8) and a first module 6 with, in its lower part, a service through hole 14 (Figure 7), through which it is possible to take into the cabin 1 a steam diffusion system, an electric system (for powering any equipment or lights located inside the cabin 1), a public address system, etc. Also in the accompanying drawings, the third modules 8 shown differ from each other first because they may or may not each have a preparation 15 for mounting a telephone

shower 16. Moreover, as shown for example in Figure 10, the telephone shower 16 may be installed on opposite sides of the third module 8 (on the right or the left). However, in the preferred embodiment, the third module 8 is made in such a way that it may be mounted upright or inverted (as shown in Figure 9 the preparation 15 is placed precisely half way up).

[0025] Also, depending on requirements, any module may also comprise a preparation 15 for mounting an interface for controlling the cabin 1 (advantageously a keyboard with display). Advantageously, all of the preparations 15 only relate to part of the thickness of the cabin 1, which means that they cannot be seen from the outside. Consequently, to allow the water or electricity supply connection for the accessory equipment, all of the preparations 15 are preferably connected at the top (and/or at the base) of the related modules 6, 7, 8 using a through hole through which, in practice it is possible to pass the systems (electric or water) needed to supply the accessory equipment (hole not illustrated). A further aspect in which the first modules 6 and third modules 8 may differ from each other is the positioning of the first finishing layer 9. For example, in the case of the first modules 6 illustrated there are two types regarding positioning of the first finishing layer 9, one with the first finishing layer 9 positioned symmetrically, and one with the first finishing layer 9 positioned asymmetrically, as is described in more detail below. Again by way of example, also in the case of the third modules 8 illustrated, the first finishing layer 9 is positioned asymmetrically relative to the third module 8. This point is also referred to below, with reference to the third aspect characterising this invention. According to a second aspect which characterises this invention, not necessarily linked to the first described above (since it may be applied even in the case of lateral walls 4 and an access wall 2 which are not made using modules 6, 7, 8), the roof 17 in turn comprises a plurality of prefabricated components 18 which are drawn near and connected to each other, where on one hand each prefabricated component 18 substantially forms the entire thickness of the roof 17, and on the other hand it comprises a second finishing layer at a lower face of it which is towards the inside of the cabin 1. It should be noticed that in the preferred embodiment, each component 18 comprises a single layer, such as a folded sheet, which forms the second finishing layer.

[0026] Advantageously, similarly to what is described relative to the walls, the components 18 of the roof 17 may also be connected to each other and to the walls on which they are mounted, using connecting elements 11 positioned on the outer part of the cabin 1. For example, they may be screws and/or bolts coupled to pierced flanges 19 fixed to the various components 18 of the roof 17 (Figures 19 to 22).

[0027] In the preferred embodiment, the roof 17 comprises at least as many components 18 as there are walls of the cabin 1. In particular, in the preferred embodiment the roof 17 comprises a plurality of components 18 which

have the shape of a trapezium or triangle in plan view, being coupled to the walls on one of their sides, and coupled to each other at the other sides (Figures 21 and 22). Advantageously, the components 18 in plan view have the shape of isosceles triangles or trapeziums, with a base angle equal to half of the angle formed by the walls at the corresponding corner of the cabin 1 (in the case of perpendicular walls, as in the accompanying drawings, the base angle of the components 18 is 45°).

[0028] In the preferred embodiment, in particular, in which the cabin 1 has a rectangular plan and the walls are obtained by joining modules 6, 7, 8, there are several basic shapes for the components 18 of the roof 17 which, suitably combined, allow any roof 17 to be built within a predetermined range. There is a triangular component 18 (Figure 22) with a base substantially as wide as two basic width first modules 6 and height equal to the basic width of a first module 6, and a set of components 18 having the shape of an isosceles trapezium with the larger base and smaller base respectively equal to the width of n and $(n-2)$ basic width first modules 6 (where n is greater than or equal to three and usually not more than six) and height equal to the basic width of a first module 6.

[0029] In this way, in the embodiments illustrated, with a number of components 18 equal to the number of walls it is possible to form an outer frame of the roof 17. If the size requires it (that is to say, if all of the lateral walls 4 comprise more than two first modules 6), the roof 17 may also comprise at least one central component 20, polygonal in plan view, which is coupled exclusively to other components 18 of the roof 17. In the preferred embodiment, in plan view the central component 20 has a similar shape to the cabin 1 overall (square in Figure 21).

[0030] Depending on requirements, the central component 20 may be fixed to the others using through screws fitted through the central component 20 from inside the cabin 1, which are screwed into cavities prepared in corner elements 21 fixed by screws not illustrated to the vertical pierced flanges 19 of the other components 18. Said embodiment is particularly advantageous for allowing complete mounting of the roof 17 by acting directly from inside the cabin 1 (mounting first all of the perimetric components 18 and finally the central component 20).

[0031] Similarly to what happens for the first modules 6 and the third modules 8, the components 18 of the roof 17 may also differ from each other in construction details, within the same type. In particular, for each different type there may be basic components 18 (Figure 20) and components 18 equipped with a lighting element 22 as described in more detail below (Figure 21).

[0032] Advantageously, at least in the cabins intended to be used with steam applications, the roof 17 is at least partly made with sloping elements, as shown in the accompanying drawings (Figure 23). In this way, at least most of the condensation which forms on the roof 17 rather than dripping in the middle of the cabin 1 can run along the roof 17 to the walls, and is then conveyed by the walls to the floor 5.

[0033] Moreover, in the preferred embodiment illustrated in the accompanying drawings, both the components 18 of the roof 17 and the upper part of the walls are made in such a way as to allow temporary support for each component 18 resting on a wall even in the absence of the other components 18 (Figure 23). For that purpose, each wall superiorly comprises a housing 23 formed by one or more shaped projections 24 fixed to the wall, in which a shaped edge 25 of each component 18 of the roof 17 which is coupled to said wall is inserted. During assembly, the housing 23 and the shaped edge 25 can operate in conjunction with each other to hold the component 18 of the roof 17 cantilever-style relative to the wall (not necessarily in the final position) even in the absence of further connections. A third aspect characterising this invention, which may even be applied independently of the first two described above, relates to the construction method for the individual walls. Said construction method may be applied either in the case of walls made by joining modules 6, 7, 8 as described above, or in the case of single-block walls (in which each wall comprises a single module).

[0034] According to the third aspect of the invention, either a single module (first or third) or an entire wall (lateral 4 or access 2 - in the latter case referring to each part of wall to one side of the door 3), comprises a rigid supporting and connecting structure 26, on which at least the first finishing layer 9 and one or more thermal insulation layers are mounted. Advantageously, the rigid supporting structure 26 forms at least one perimetric frame of the module or the wall, and is equipped with any flanges or other devices necessary (such as the bored portions 10) for fixing the modules 6, 7, 8 and/or the walls to each other.

[0035] If the intended use of the cabin 1 requires it, the individual modules 6, 7, 8 and/or the walls may also comprise in their thickness suitable heating elements 27. In the preferred embodiment they may be a heating layer formed, for example, by a resistive film which may or may not be adhesive (if adhesive, it is advantageously applied to the first finishing layer 9). Within the thickness of the wall there may also be any parts of the cabin 1 electric or water system necessary. They may be either stretches of ready-assembled system fitted with ends accessible from outside the cabin (advantageously on the related top section) and which, during installation, can simply be connected up using special connections, or simple empty pipes in which the system can subsequently be laid.

[0036] In the embodiment illustrated in Figure 3, each module 6, 7, 8 and/or wall comprises, starting from the inside of the cabin 1 to the outside, at least the first finishing layer 9, an adhesive heating resistive film 27, a layer of rock wool 28 or the like, a layer of polystyrene 29 or the like, and an outer covering panel 30 around which the rigid supporting and connecting structure 26 is positioned (advantageously comprising C-shaped profiles able to retain at least the thermal insulation layers).

[0037] In contrast, in the alternative embodiment in

Figure 6, the module 6, 8 has no heating element 27 or rock wool layer. As already indicated, in all of the embodiments illustrated, each rigid supporting structure 26 forms a perimetric groove 12 and is equipped with bored portions 10 for any connection to other modules 6, 7, 8.

[0038] Obviously, the positioning of the first finishing layer 9 depends on specific requirements. For example, the accompanying drawings show an embodiment in which, when the cabin 1 is finished, a small vertical groove 31 remains visible between the finishing layers of the various modules 6, 7, 8. To obtain that effect and guarantee correct drawing near each other of the various modules 6, 7, 8 there are various types of first modules 6 and third modules 8.

[0039] In the case of the first modules 6, a first type, intended for mounting in central positions of the wall, has the first finishing layer 9 positioned symmetrically and recessed on both vertical sides by a predetermined distance X from the edge of the module (Figure 12). In a second type of first module 6, in contrast the first finishing layer 9 is mounted asymmetrically (Figures 12 and 13): on one side it is recessed by a distance X as for the first modules 6 (Figure 12), whilst on the other side it is recessed by a larger width equal to $X+d$ (where d, advantageously is equal to the thickness of the first finishing layer 9). The first modules 6 of the second type (which can be mounted either upright or inverted) are intended for use at the corners of the cabin 1 (Figure 13) since their shape is such that it allows the edges of the related rigid supporting structures (described in more detail below) to be drawn near each other without the risk of interference between the finishing layers.

[0040] Regarding the third modules 8 of the embodiment in Figure 10, there is only one type with the first finishing layer 9 positioned asymmetrically. In particular, on a first side the first finishing layer 9 is recessed by a distance $X+d$ relative to the edge of the third module 8 as was the case for the first modules 6 of the second type described above (Figure 14).

[0041] In contrast, on the other side, the first finishing layer 9 projects laterally relative to the third module 8 in such a way that it can be superposed on part of the border frame of the second module 7 (Figure 15). In the case of the embodiments in Figures 26, 28 and 30, in contrast, there are two types of third modules 8. The first type, intended to be placed in contact with the second module 7 has the shape shown in Figure 15 on one side and a shape similar to that of Figure 12 on the other side. In turn, the second type has a similar shape to that shown in Figure 12 on one side and a shape similar to that of Figure 14 on the other side.

[0042] As already indicated, Figure 10 and Figures 24 to 30 show a set of possible cabin layouts which can be obtained with a limited number of modules 6, 7, 8: first central modules 32, first corner modules 33, second modules 7 of a single type, first third modules 34 with smaller width for mounting between the second module 7 and the corner, second third modules 35 with smaller width

for mounting between the second module 7, a further third module, third third modules 36 with smaller width for mounting between a second third module and the corner, first third modules 37 with larger width for mounting between the second module 7 and the corner, second third modules 38 with larger width for mounting between the second module 7 and a further third module, and third third modules 39 with larger width for mounting between a second third module 38 with larger width and a corner.

[0043] As already indicated, in all of the preferred embodiments the cabin 1 may also comprises a floor 5 which is at least partly prefabricated, being equipped with drainage channels 40. Advantageously, the entire surface of the floor 5 is slightly sloping, in such a way as to convey any liquid present on it towards the drainage channels 40. Preferably, the floor 5 may be made up of pieces which, in plan view, are like those of the roof 17, having the draining channels 40 made at the points where the individual pieces 41, 42 are joined.

[0044] An embodiment of the floor 5 is shown in Figures 16 to 18. As can be seen, in this case the floor 5 comprises four trapezoidal pieces 41 and one square central piece 42. The joints between the trapezoidal pieces 41 form channels which converge towards the central piece 42. As shown more clearly in Figure 18, the central piece comprises a base 43, the top of which forms a collection bowl 44 having a central drainage hole 45. Mounted above the base there is a covering surface 46 which is slightly smaller in plan view than the base, so that a perimetric drainage slit 47 is formed. In particular, the covering surface 46 is mounted on a set of spacer feet 48. In this way, the water may flow away into the bowl 44 through the perimetric slit 47 and flow into the central drainage hole 45. In fact, a drain can be fitted at the latter. A passage 49 made in the central piece 42 and in one of the lateral pieces 41 allows the insertion of a waste pipe to be connected to the drain.

[0045] In some embodiments of this invention, there is also at least one module and/or one component 18 of the roof 17 equipped with at least one lighting element 22 positioned in such a way that the light it produces is visible inside the cabin 1. Advantageously, the lighting element 22 may be inserted in a suitable niche 50. To guarantee operation of the lighting element 22 there are electricity supply means which can be connected to an external electricity network and preferably mounted on/in the module or component 18 and accessible from the outside of it.

[0046] In more detail, in the embodiment illustrated the lighting elements are positioned inside suitable niches 50 made in several components 18 of the roof 17.

[0047] Finally, to guarantee easier and more precise positioning of the various modules 6, 7, 8, the cabin 1 may also comprise both vertical rigid uprights 51 positioned at the corners, and at least one lower and/or upper guide and positioning element to which the modules 6, 7, 8 are coupled respectively at the bottom and/or at the top. In particular, the guide and positioning element may

comprise a groove or a projecting tooth 52 fixed to the floor 5 (Figure 16), or a profile which can be positioned on top of the modules 6, 7, 8 (not illustrated; in this case the profile may also comprise a plurality of separate pieces to be joined during a cabin 1 assembly step 1) and inserted for example in the upper part of the various perimetric grooves 12.

[0048] Relative to the method for making professional cabins according to this invention, it is possible to apply everything described above, provided that it is applicable in the specific production context.

[0049] In particular, according to a first aspect of this invention, the method comprises first preparing a plurality of prefabricated modules 6, 7, 8, of the type described above, intended for making the walls of the cabin 1. In particular, the method involves preparing first modules 6 substantially having either the same basic width or widths equal to a whole multiple of the basic width, and height corresponding to the height of an entire wall of the cabin 1 to be made.

[0050] Moreover, advantageously, each prefabricated first module 6 has a thickness substantially corresponding to that of a wall of the cabin 1, and is provided with a first finishing layer 9 at a first face of it.

[0051] Similarly, at least one prefabricated second module 7 forming the door 3 of the cabin 1 and at least one prefabricated third module 8 are prepared. Both the second module 7 and the third module 8 also have a height corresponding to the height of an entire wall of the cabin 1 to be made. Moreover, like the first modules 6, the third modules 8 are made with a thickness substantially corresponding to that of a wall of the cabin 1, and with a first finishing layer 9 at a first face of them.

[0052] In contrast, as regards the widths of the second module 7 and the third module 8, in general what was already indicated applies: they are advantageously selected in such a way that the sum of the widths of a second module 7 and of one or more third modules 8 (advantageously not more than two) is substantially equal to the sum of the widths of a certain total number of first modules 6 having the basic width. Therefore, for each size a minimum number of first modules 6 with basic width is determined for obtaining that correspondence. For example, in Figures 10, 25 and 26 where each first module 6 has the basic width equal to 900 mm, each second module 7 equal to 960 mm and each third module 8 equal to 870 mm, that minimum number is three. In fact, the sum of the widths of a second module 7 and two third modules 8 is equal to the sum of the widths of three first modules 6. In contrast, in the case in Figure 24 where each first module has a basic width equal to 900 mm, the second module 7 equal to 960 mm and the third module 8 equal to 840 mm, that minimum number is two. Finally, in the case in Figures 27 to 30, where each first module 6 has the basic width equal to 900 mm, each second module 7 equal to 960 mm and each third module 8 equal to 1320 mm, that minimum number of first modules 6 is four. In fact, the sum of the widths of a second module 7 and two

third modules 8 is equal to the sum of the widths of four first modules 6.

[0053] The method according to this invention comprises sizing the widths of the walls of the cabin 1 substantially as whole multiples of the basic width of the first modules 6. Moreover, at least the access wall 2 is sized with width equal to or greater than the sum of the widths of the minimum number of first modules 6.

[0054] At this point, the method comprises making the lateral walls 4 by drawing near each other and connecting to one another a plurality of first modules 6, being positioned with the first face towards the inside of the cabin 1.

[0055] Similarly, it comprises making the access wall 2 by drawing near each other a second module 7, one or more third modules 8 and optionally one or more first modules 6. Obviously, the number of second modules and third modules 8 is selected in such a way that the sum of their widths corresponds to the sum of the widths of said minimum number of first modules 6 having the basic width.

[0056] Then the method comprises connecting the lateral walls 4 to each other and to the access wall 2, for example according to one or more of the methods indicated above.

[0057] Regarding the roof 17, in the preferred embodiment of this invention, the method comprises preparing a plurality of prefabricated components 18 which can be drawn near each other for making the roof 17, of the type described above. In particular, each prefabricated component 18 forms the entire thickness of the roof 17 and comprises a second finishing layer at a lower face of it. Once the components 18 are prepared, the method comprises mounting them on the walls, connecting them to each other, with the lower faces towards the inside of the cabin 1. In particular, in the embodiments illustrated, the components 18 may all be mounted by acting from the inside of the structure in the case of embodiments having a central component 20 (leaving around thirty centimetres of space above the cabin 1 is sufficient. In contrast, in the absence of the central component 20, it is possible to leave until last the component 18 at the access wall 2, which may in any case be easily mounted from the front of the cabin 1.

[0058] Moreover, if necessary, the method may also comprise an operating step of mounting at least one lower and/or upper guide and positioning element and of coupling the various modules 6, 7, 8 to it. Finally, if the cabin 1 comprises it, the method also comprises, before the assembly steps, an operating step of positioning a floor 5 which is at least partly prefabricated, fitted with drainage channels 40, and then mounting the walls on the floor 5. This invention brings important advantages.

[0059] First, the modular structure of the walls and the roof of the cabin 1 allow the production of cabins of various sizes using a limited number of standardised pieces, therefore simplifying production and design operations.

[0060] Moreover, that modularity facilitates operations for transporting the cabin on the roads and into existing

buildings.

[0061] The fact that the walls are made as one or more finished pieces which must simply be drawn near each other during installation, simplifies installation to the point that it is no longer necessary for highly qualified personnel to be present. Moreover, installation times are also clearly reduced compared with those for conventional cabins.

[0062] The second aspect characterising this invention simplifies operations for mounting the roof even in situations where there is little space available, since assembly can be performed by operating either from the inside of the cabin or from the front of it.

[0063] Furthermore, the fact that the walls are made in the form of modules allows easy action even in the event of a fault (the faulty or damaged module can simply be removed and substituted).

[0064] Finally, it should be noticed that this invention is relatively easy to produce and that even the cost linked to implementing the invention is not very high.

[0065] The invention described above may be modified and adapted in several ways without thereby departing from the scope of the inventive concept.

[0066] Moreover, all details of the invention may be substituted with other technically equivalent elements and the materials used, as well as the shapes and dimensions of the various components, may vary according to requirements.

Claims

1. A professional cabin for wellbeing treatments, such as Turkish baths, saunas and the like, comprising at least one access wall (2) fitted with a door (3), one or more lateral walls (4) coupled to each other and to the access wall (2), and a roof (17) which is in turn coupled to the lateral walls (2) and to the access wall (2), each lateral wall (4) comprising a plurality of prefabricated first modules (6) which are drawn near each other vertically and each have a height corresponding to the height of the entire wall, the access wall (2) comprising at least one prefabricated second module (7) forming the door (3) and one or more prefabricated third modules (8) which are drawn near to the prefabricated second module (7), the first modules (6) and the third modules (8) substantially forming the entire thickness of the related wall, **characterised in that:**

at least one out of the first modules (6) and the third modules (8) comprises a rigid supporting and

connecting structure (26), a first finishing layer (9) mounted on the rigid supporting structure (26) at a first face of the module facing towards the inside of the cabin (1), one or more thermal insulation layers and a heating resistive film be-

- tween the first finishing layer (9) and the one or more thermal insulation layers.
2. The cabin according to claim 1, **characterised in that** all of the first modules (6) and/or the third modules (8) comprise a rigid supporting and connecting structure (26), a first finishing layer (9) mounted on the rigid supporting structure (26) at a first face of the module facing towards the inside of the cabin (1), one or more thermal insulation layers and a heating resistive film between the first finishing layer (9) and the one or more thermal insulation layers. 5 10
 3. The cabin according to claim 1 or 2, **characterised in that** at least the first modules (6), and optionally also the second modules and the third modules (8), substantially all have the same width. 15
 4. The cabin according to any of the foregoing claims, **characterised in that** mounted on the rigid supporting and connecting structure (26) starting from the inside of the cabin (1) to the outside there is at least the first finishing layer (9), the heating resistive film, a layer of rock wool or the like and a layer of polystyrene or the like, the rigid supporting and connecting structure (26) forming at least a perimetric frame of the prefabricated module. 20 25
 5. The cabin according to any of the foregoing claims, **characterised in that** the roof (17) in turn comprises a plurality of prefabricated components (18) which are drawn near and connected to each other, each prefabricated component (18) substantially forming the entire thickness of the roof (17) and comprising a second finishing layer at a lower face of it which is towards the inside of the cabin (1). 30 35
 6. The cabin according to claim 5, **characterised in that** the roof (17) comprises at least as many components (18) as there are walls of the cabin (1). 40
 7. The cabin according to claim 6, **characterised in that** the roof (17) comprises a plurality of components (18) which have a substantially trapezoidal or triangular shape in plan view, each such component (18) comprising one side coupled with one of the walls and the other sides coupled with the sides of other components (18) of the roof (17). 45
 8. The cabin according to claim 7, **characterised in that** it also comprises at least one central component (20), which is polygonal in plan view, being coupled exclusively to other components (18) of the roof (17). 50
 9. The cabin according to any of the foregoing claims, **characterised in that** the roof (17) is at least partly made with sloping elements. 55
 10. The cabin according to claim 5 and any of the foregoing claims, **characterised in that** at least one out of the modules (6), (7), (8) and the components (18) of the roof (17) comprises at least one lighting element (22), being positioned in such a way that the light which it produces is visible inside the cabin (1), and means for supplying electricity to the lighting element (22) which are accessible from the outside of the cabin (1) and can be connected to an external electricity network.
 11. The cabin according to claim 5 and any of the foregoing claims, **characterised in that** each wall superiorly comprises a housing (23) in which a shaped edge (25) of each component (18) of the roof (17) which is coupled to said wall is inserted, the housing (23) and the shaped edge (25) operating in conjunction with each other during the cabin (1) assembly step to hold the component (18) of the roof (17) cantilever-style relative to the wall even in the absence of further connections.
 12. The cabin according to any of the foregoing claims, **characterised in that** at least each first module (6) and/or third module (8) is fixed to the first modules (6) and/or the third modules (8) adjacent to it by reversible connections made at a portion of it which is on the outside of the cabin (1).
 13. The cabin according to any of the foregoing claims, **characterised in that** it also comprises a lower and/or upper guide and positioning element to which the modules (6), (7), (8) are coupled respectively at the bottom and/or at the top.
 14. The cabin according to any of the foregoing claims, **characterised in that** one or more of the modules (6), (7), (8) also comprise service through holes (14) which are accessible from the outside and/or preparations or set-ups (15) for cabin (1) accessory equipment.
 15. A method for making professional cabins for wellbeing treatments, such as Turkish baths, saunas and the like, each cabin (1) comprising at least one access wall (2) fitted with a door (3), a plurality of lateral walls (4) coupled to each other and to the access wall (2), and a roof (17) in turn being coupled to the lateral walls (4) and to the access wall (2), **characterised in that** it comprises the operating steps of:
 - preparing a plurality of prefabricated first modules (6), each substantially having either the same basic width or widths equal to a whole multiple of the basic width and height corresponding to the height of an entire wall of the cabin (1) to be made;
 - preparing at least one prefabricated second

module (7) forming the door (3) and one or more
 prefabricated third modules (8), all having a
 height corresponding to the height of an entire
 wall of the cabin (1) to be made; the first modules
 (6) and the third modules (8) substantially forming the entire thickness of the related wall, and
 at least one out of the first modules (6) and the
 third modules (8) comprising a rigid supporting
 and
 connecting structure (26), a first finishing layer
 mounted on the rigid supporting structure (26)
 at a first face of the module facing the inside of
 the cabin (1), one or more thermal insulation lay-
 ers and a heating resistive film between the first
 finishing layer (9) and the one or more thermal
 insulation layers; the widths of the second mod-
 ule and the third module (8) being selected in
 such a way that the sum of the widths of a second
 module (7) and those of one or more third mod-
 ules (8) is substantially equal to the sum of the
 widths of a certain total number of first modules
 (6) having the basic width, thus identifying a min-
 imum number of second modules and third mod-
 ules (8) on one hand and of first modules (6)
 with basic width on the other, which are neces-
 sary to achieve said correspondence;
 sizing the widths of the walls of the cabin (1)
 substantially as whole multiples of the basic
 width of the first modules (6), at least the access
 wall (2) having a width equal to or greater than
 the sum of the widths of the minimum number
 of first modules (6);
 making the lateral walls (4) by drawing near each
 other and connecting to one another a plurality
 of first modules (6), being positioned with the
 first face towards the inside of the cabin (1);
 making the access wall (2) by drawing near each
 other and connecting to one another at least one
 second module (7), one or more third modules
 (8) and optionally one or more first modules (6),
 the number of third modules (8) being selected
 in such a way that the sum of their widths and
 that of the second module (7) corresponds to
 the sum of the minimum number of first modules
 (6) having the basic width;
 connecting the lateral walls (4) to each other and
 to the access wall (2);
 preparing a plurality of prefabricated compo-
 nents (18) which can be drawn near each other
 to make the roof (17), each prefabricated com-
 ponent (18) forming the entire thickness of the
 roof (17) and
 comprising a second finishing layer at a lower
 face of it;
 mounting the components (18) on the walls, con-
 necting them to each other, with the lower faces
 towards the inside of the cabin (1).

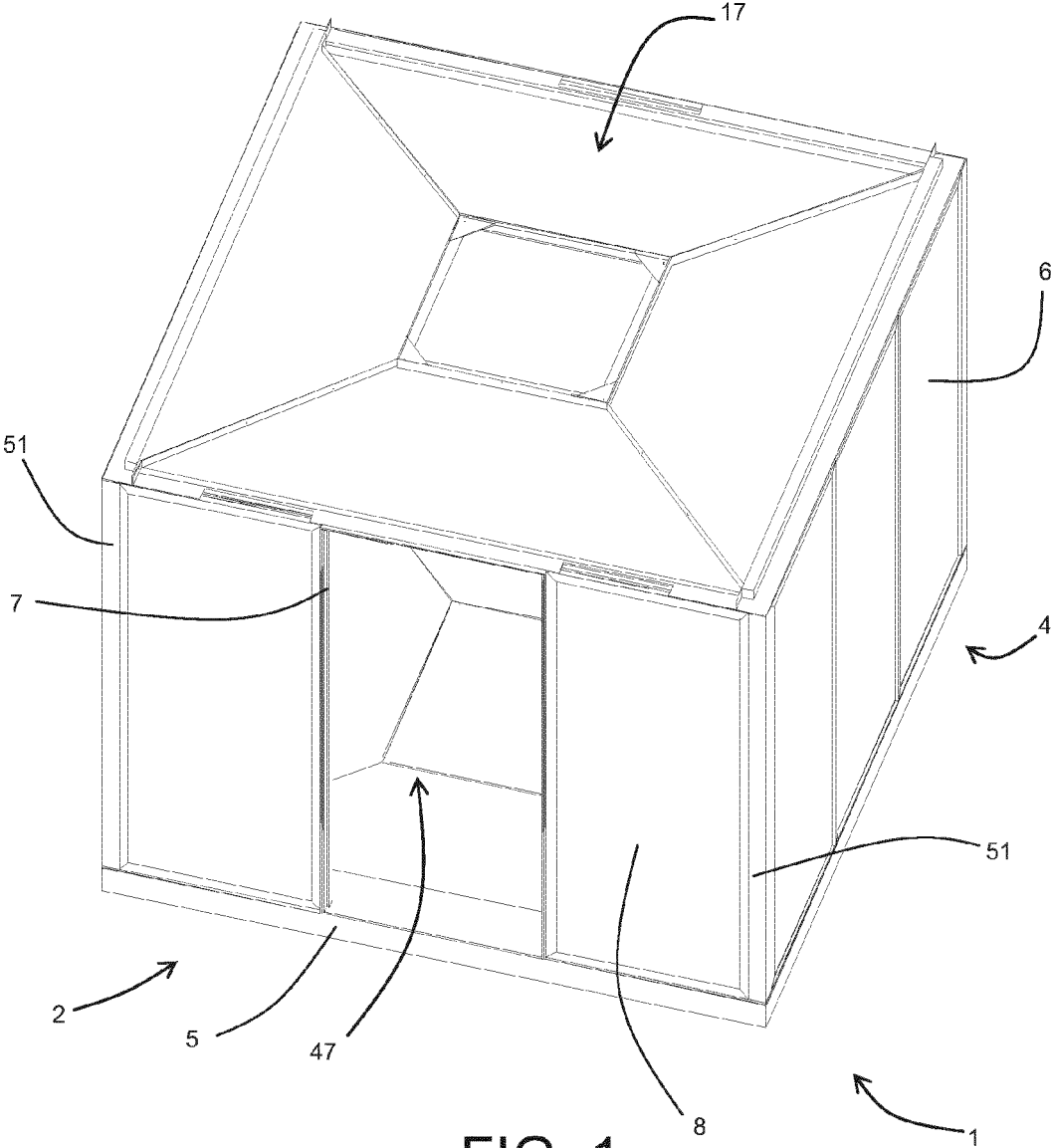
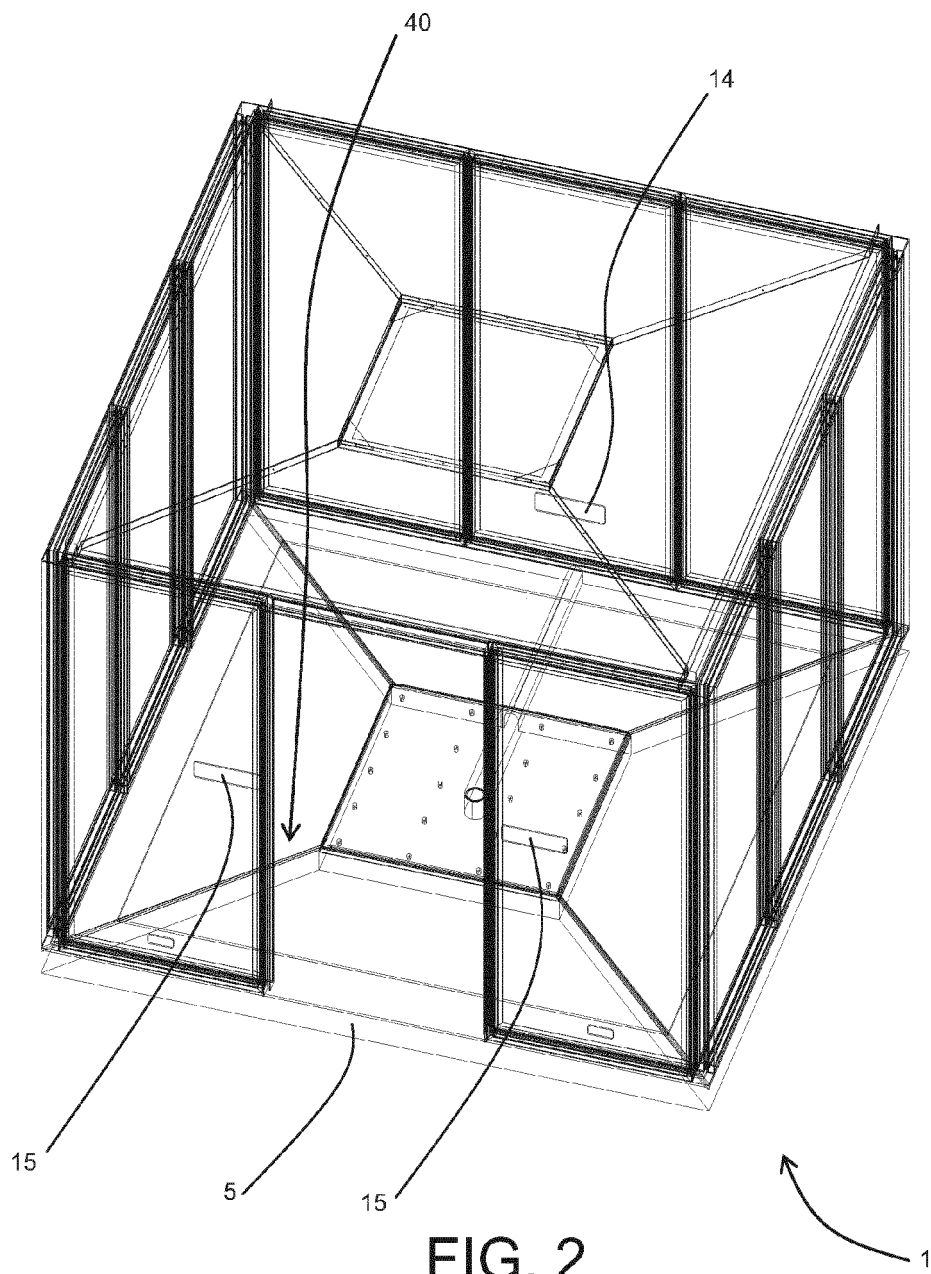


FIG. 1



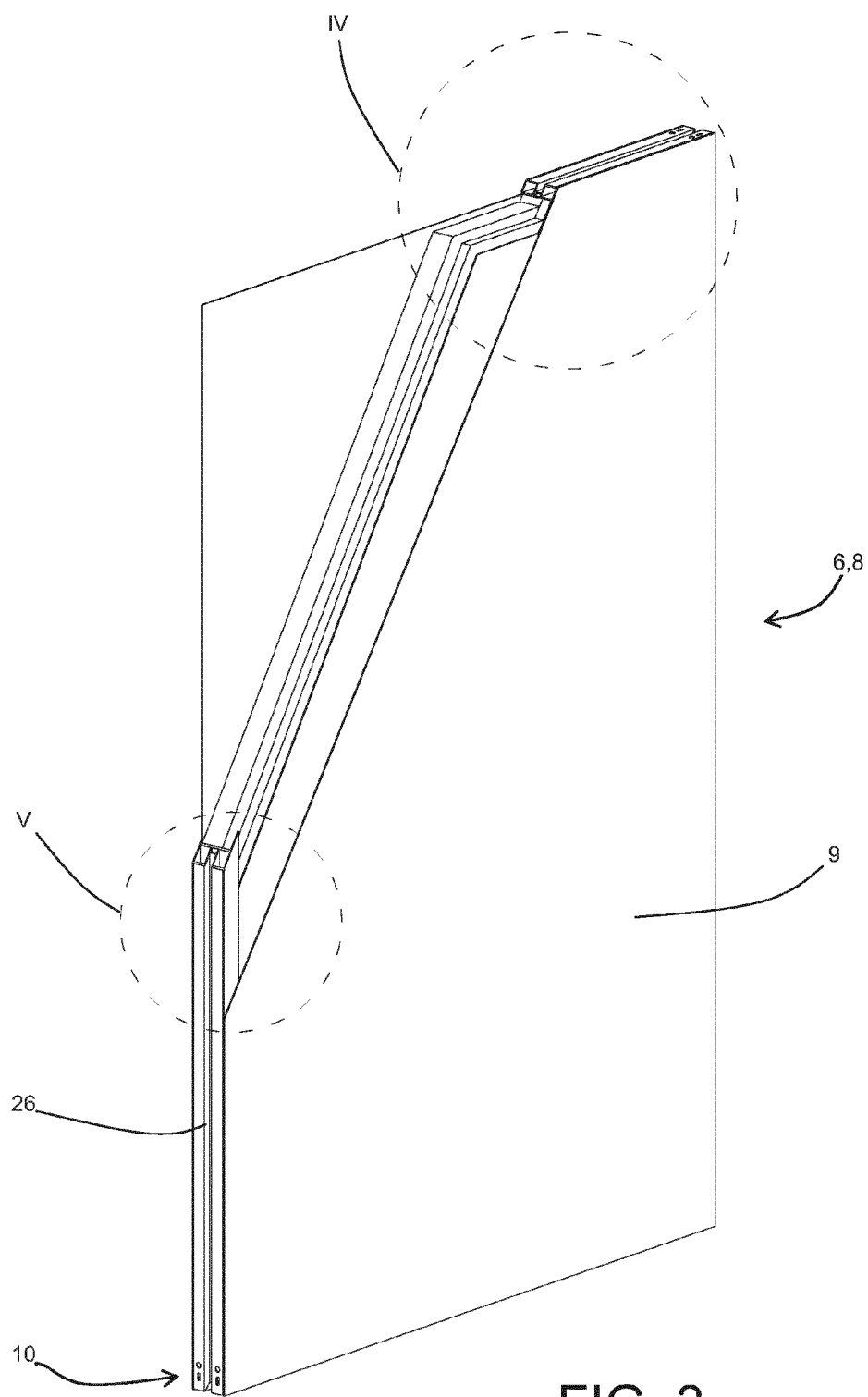


FIG. 3

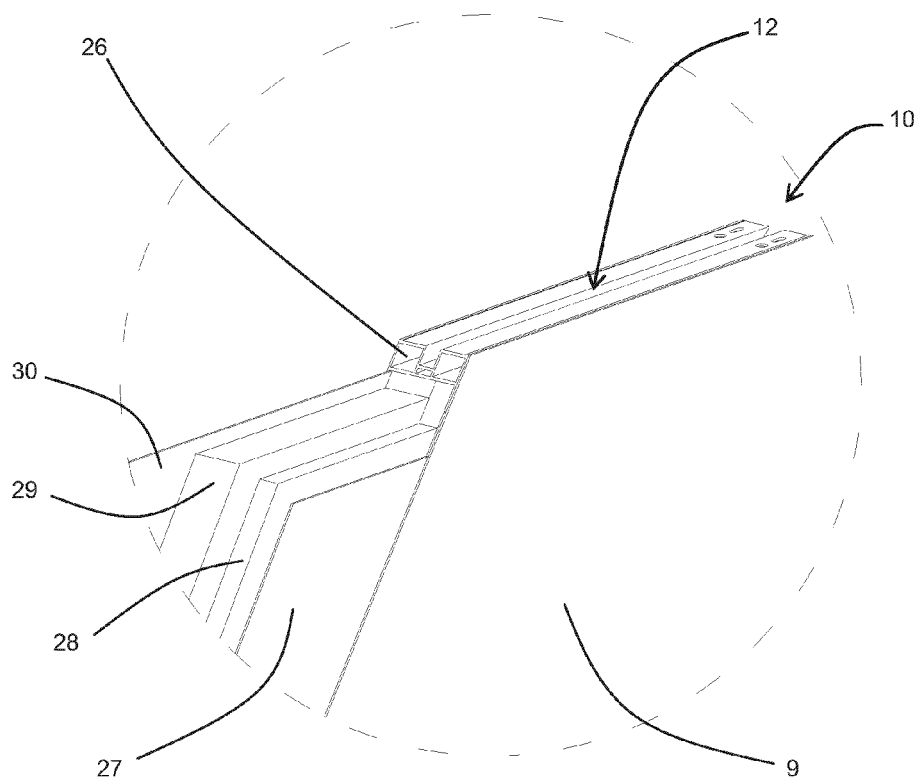


FIG. 4

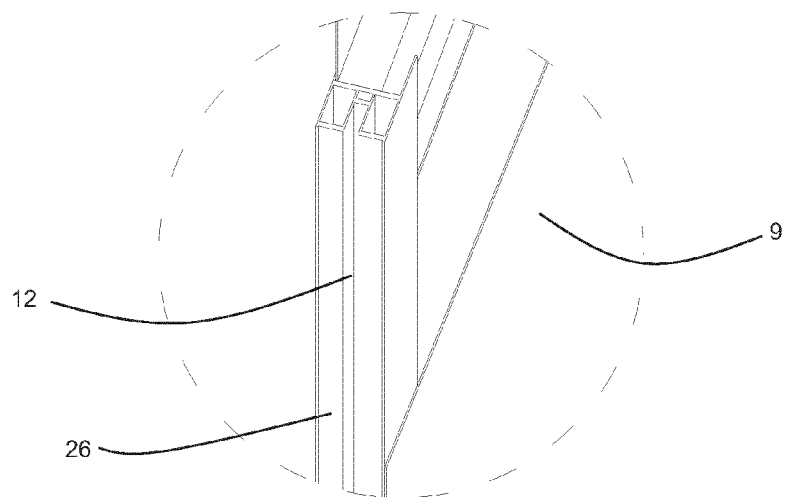


FIG. 5

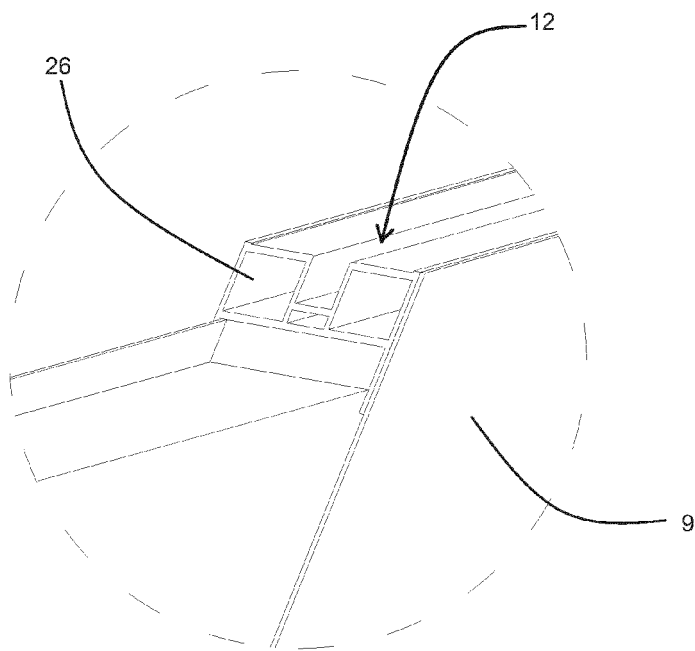


FIG. 6

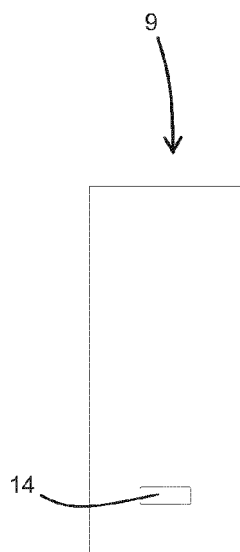


FIG. 7

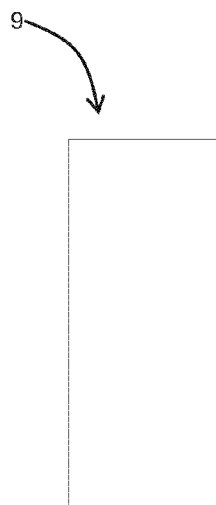


FIG. 8

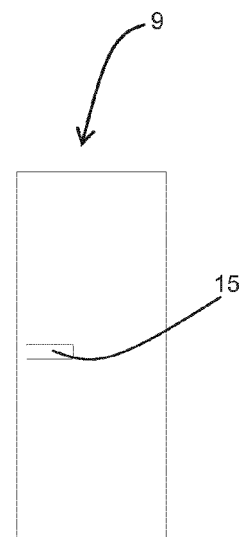


FIG. 9

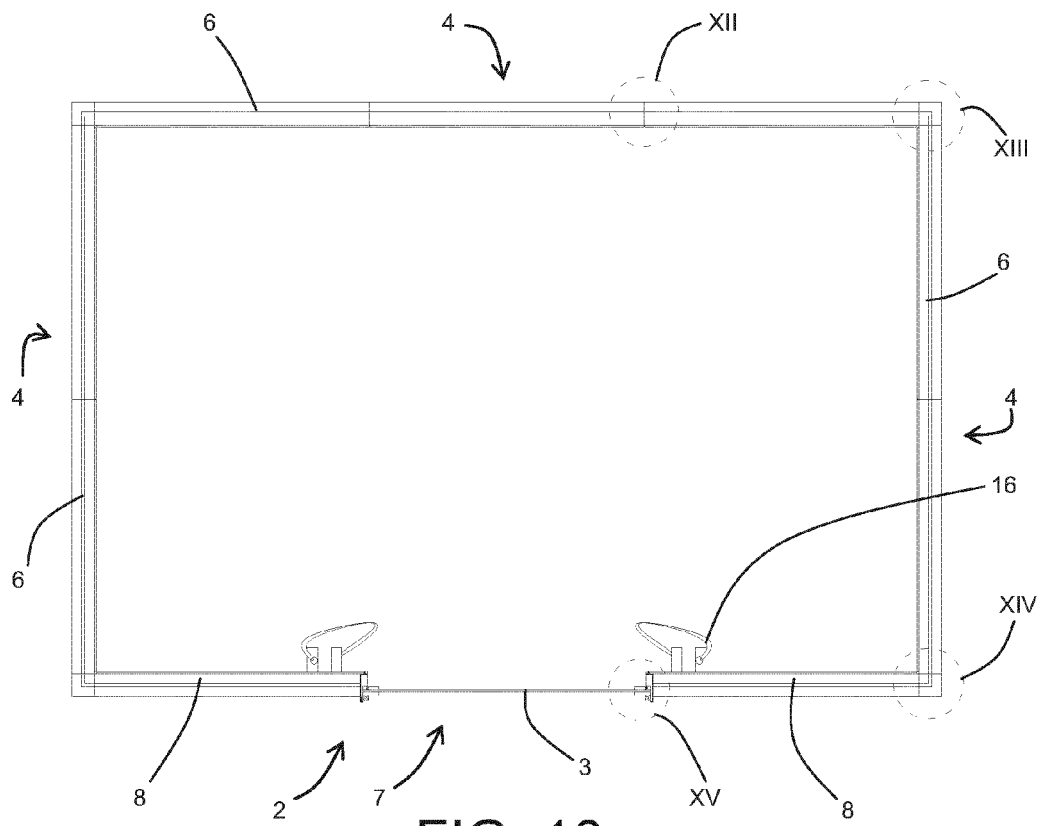


FIG. 10

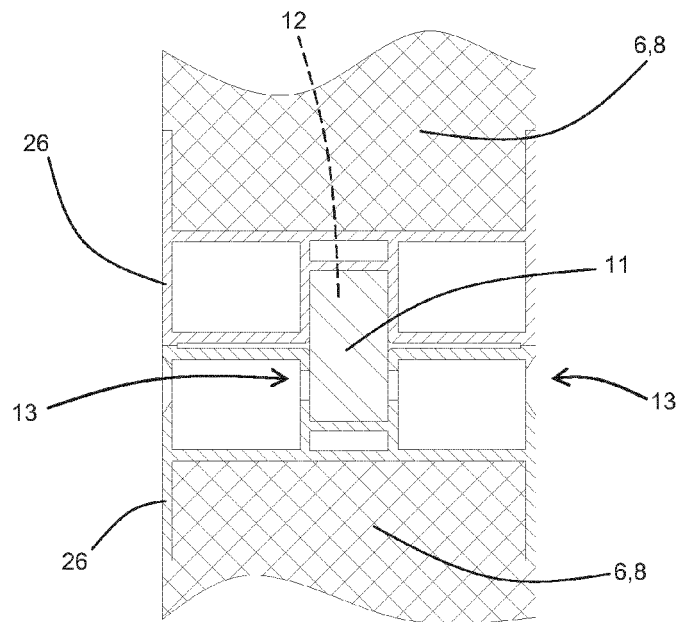


FIG. 11

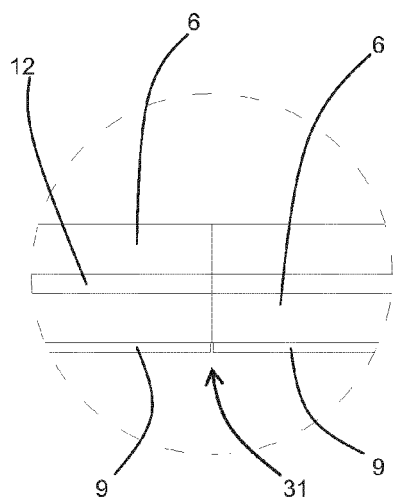


FIG. 12

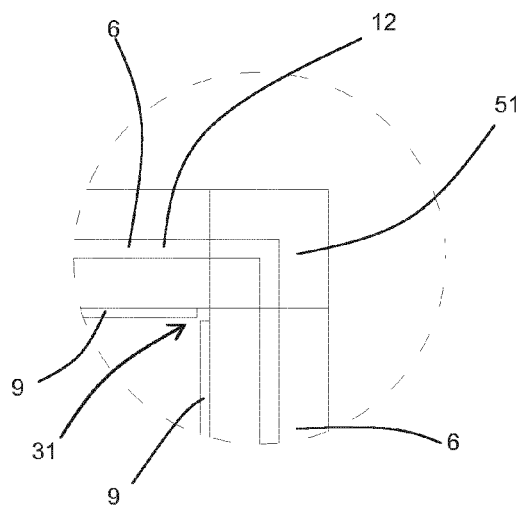


FIG. 13

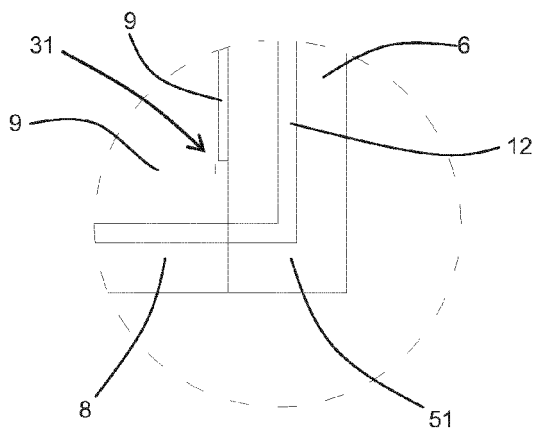


FIG. 14

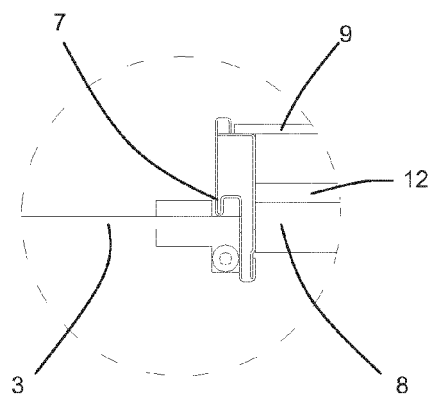


FIG. 15

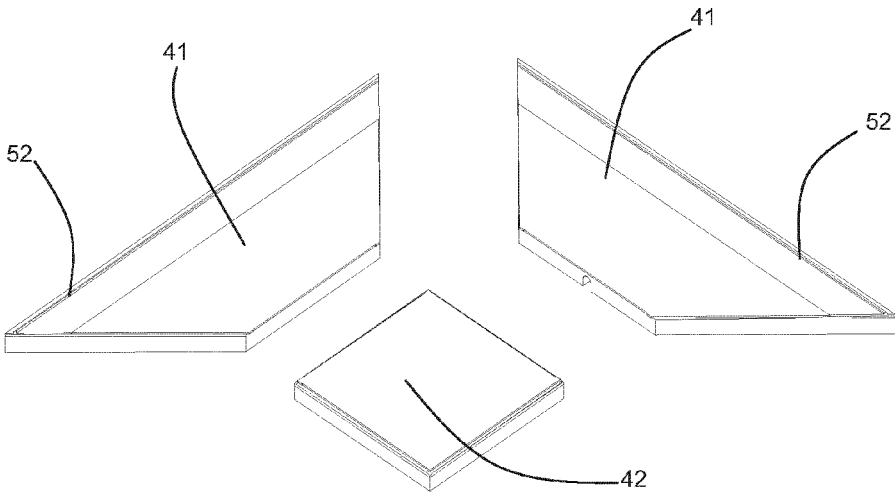


FIG. 16

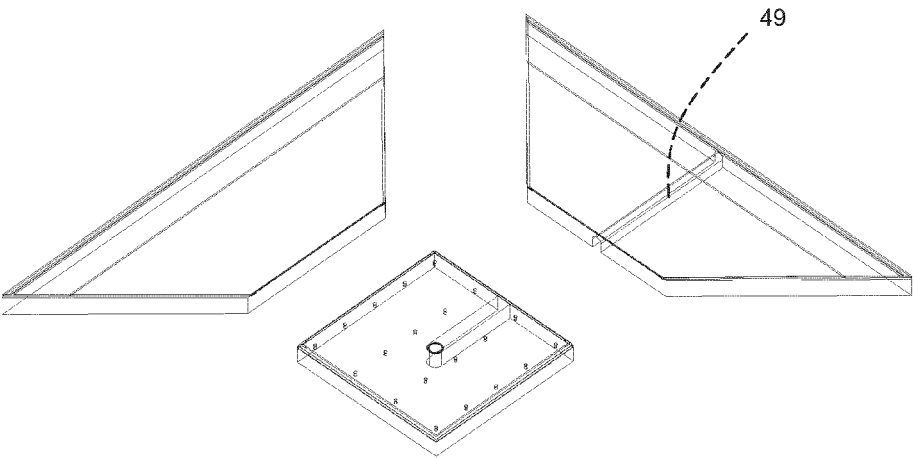


FIG. 17

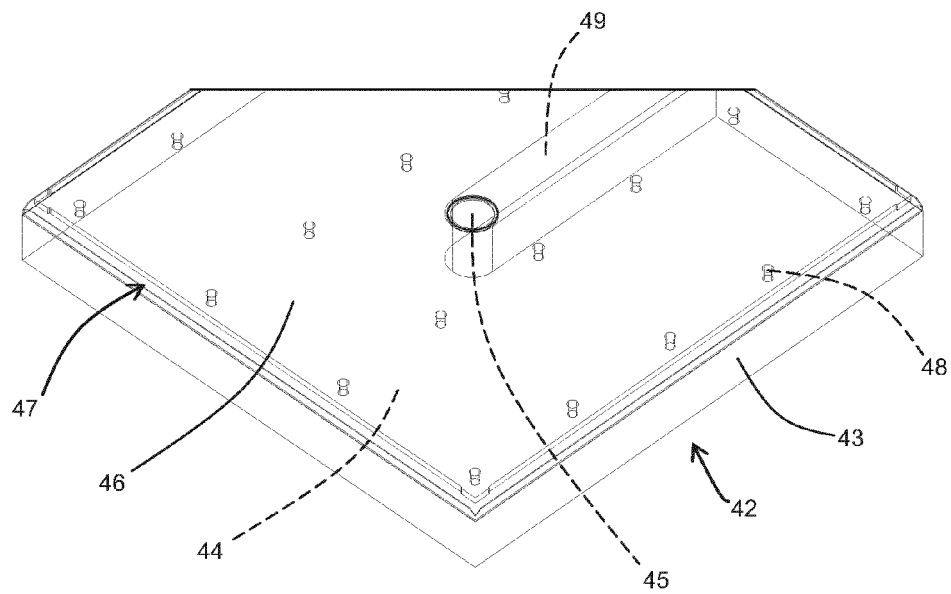


FIG. 18

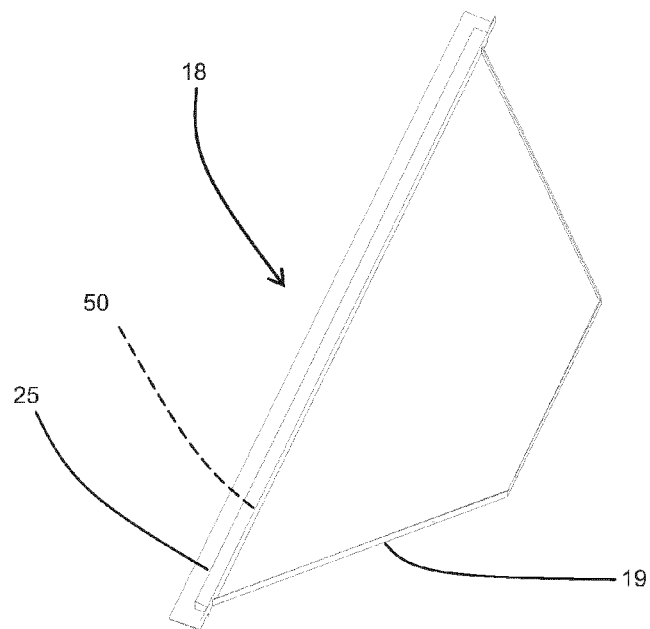


FIG. 19

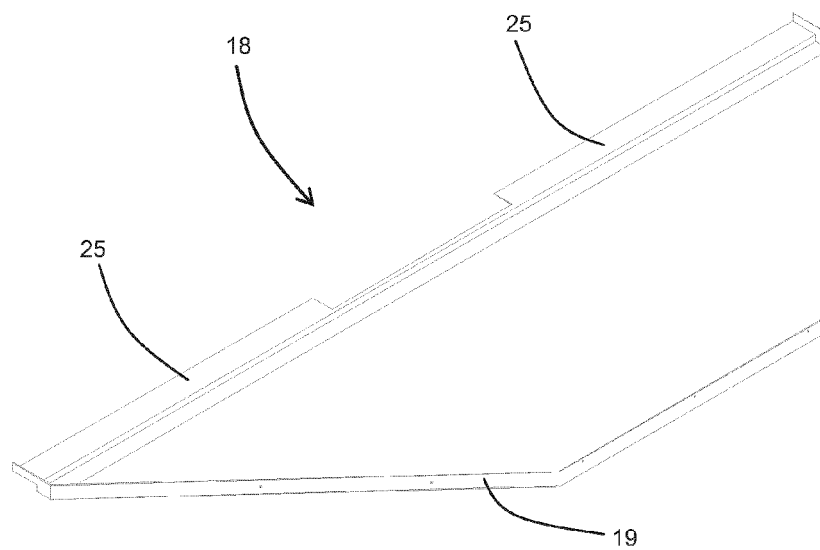


FIG. 20

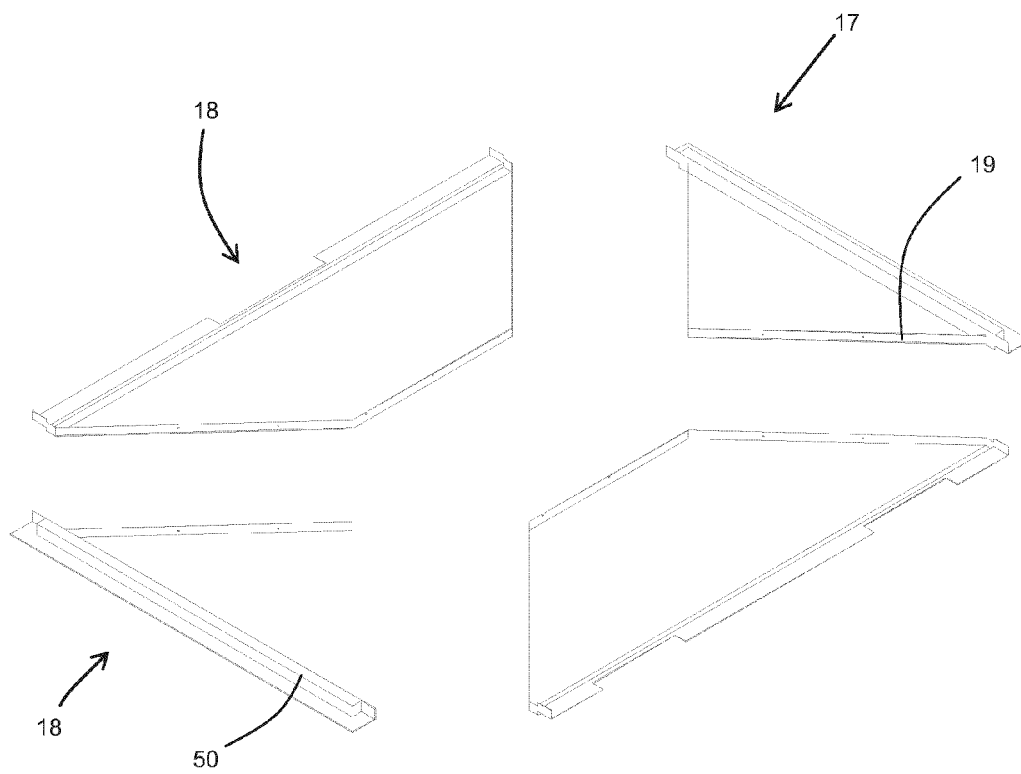


FIG. 22

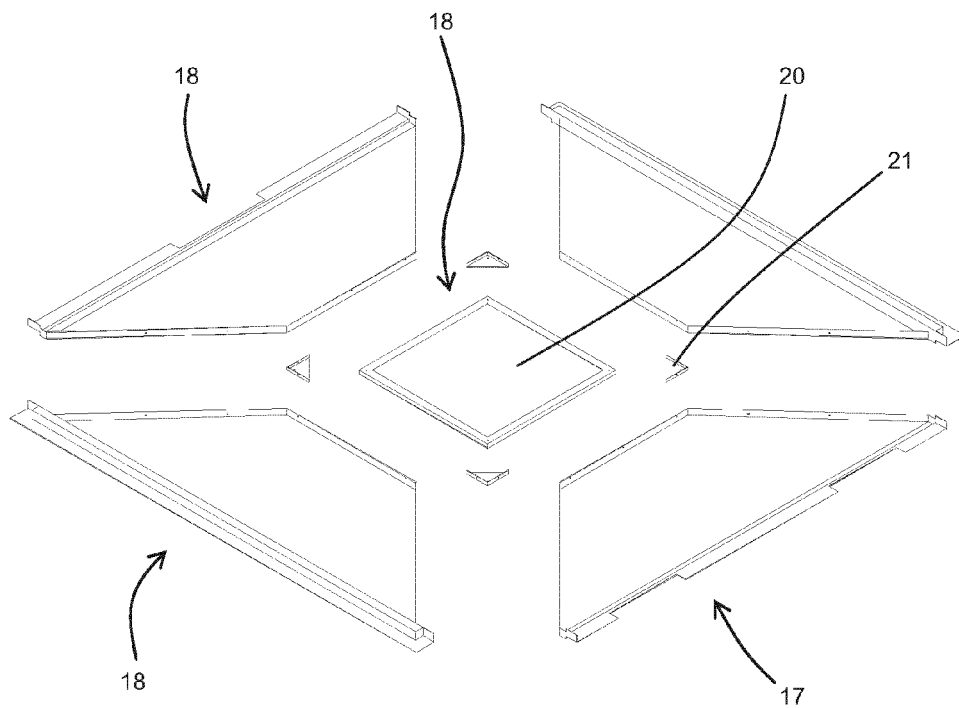


FIG. 21

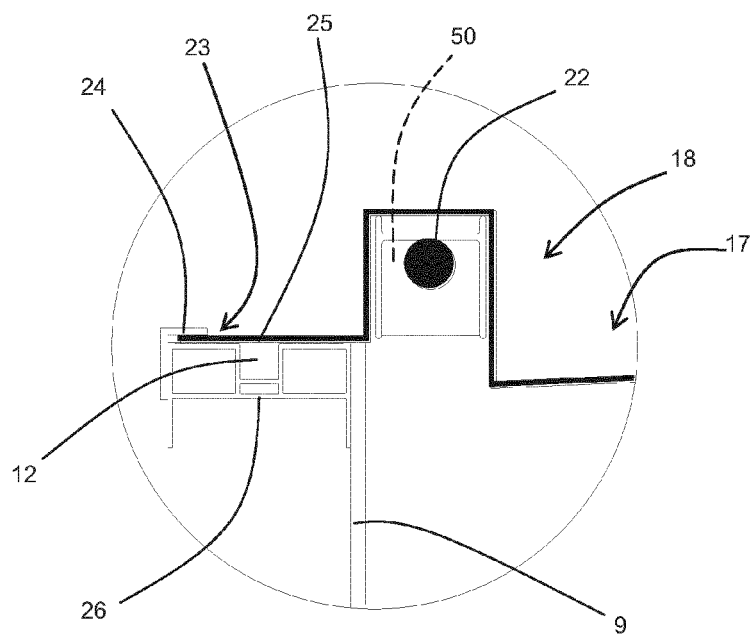


FIG. 23

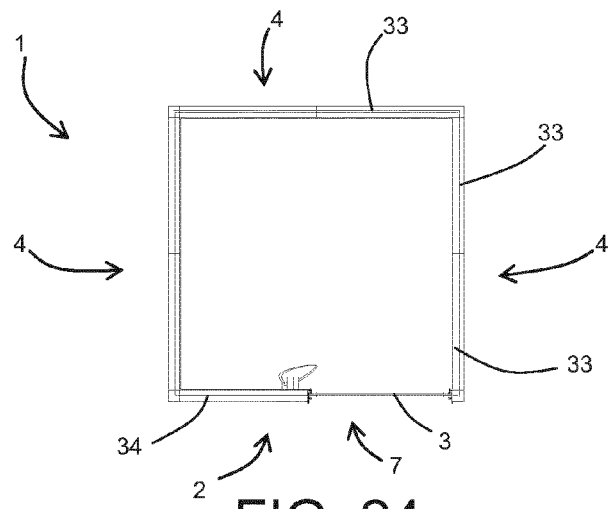


FIG. 24

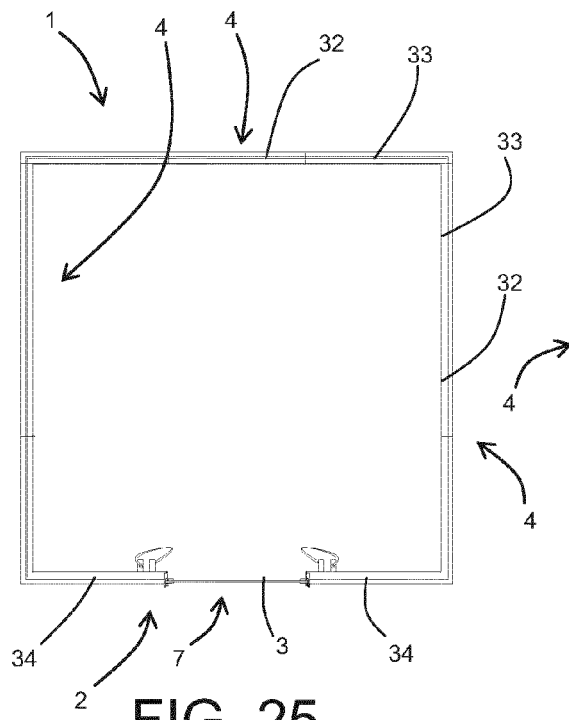


FIG. 25

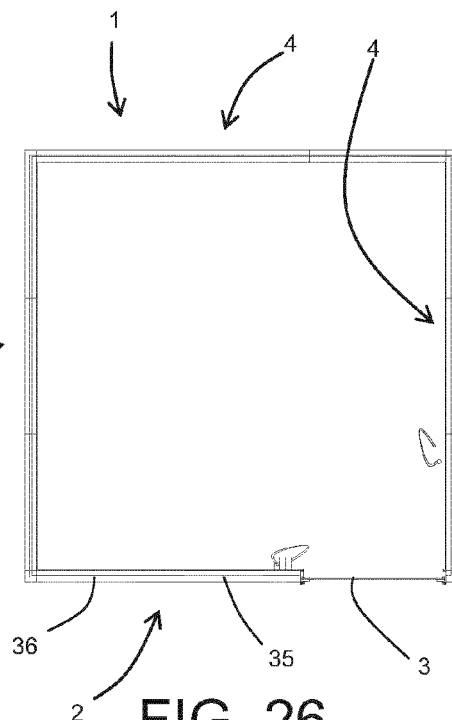
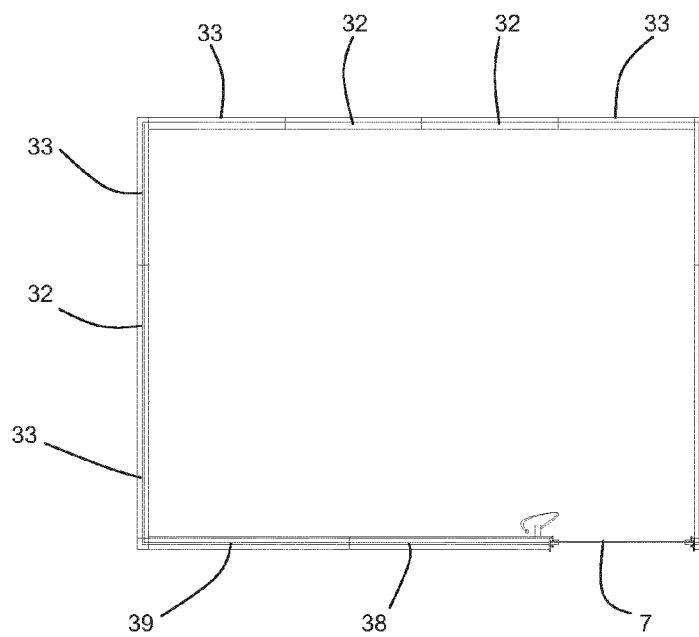
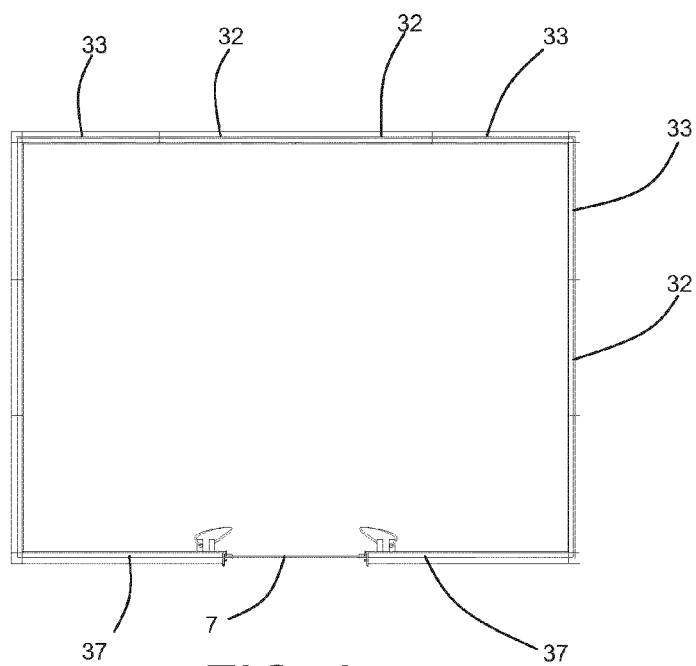
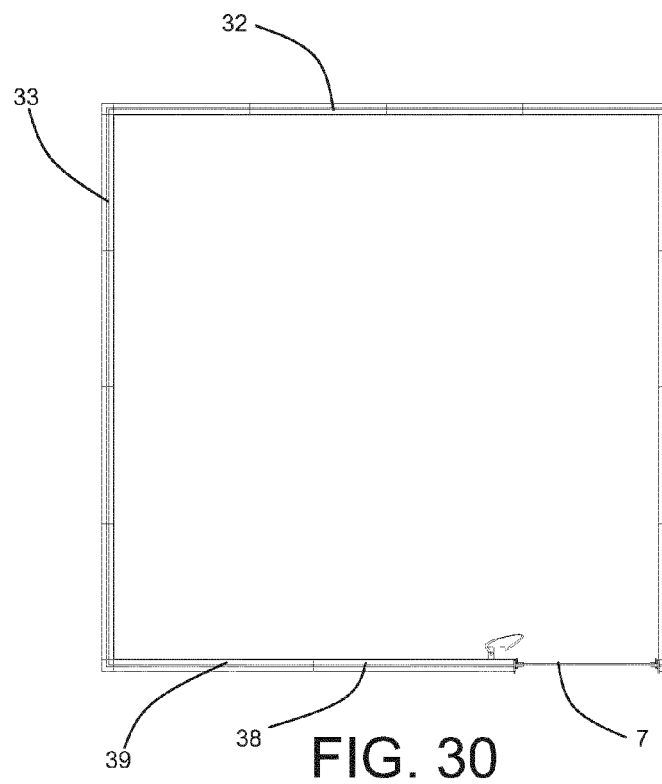
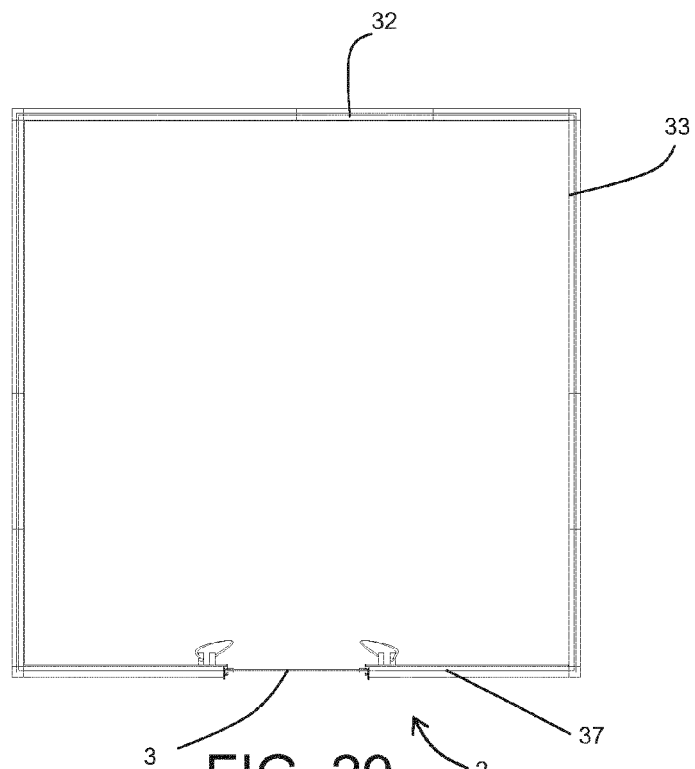


FIG. 26







EUROPEAN SEARCH REPORT

Application Number
EP 11 18 9126

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A	* page 4, line 30 - page 5, line 30; figures 1-4 *	9,10,12	A61H33/06
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A	----- JP 11 332949 A (HIROSE SAKAE) 7 December 1999 (1999-12-07) * abstract; figure *	1,2,4,15	
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A	----- DE 296 15 324 U1 (KNUELLWALD HELO SAUNA GMBH [DE]) 3 April 1997 (1997-04-03) * claims 1-6; figures *	1,3,4, 10,12, 14,15	E01H A61H E04H E04B
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Place of search Munich		Date of completion of the search 15 February 2012	Examiner Stefanescu, Radu
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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