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## Description

### Field of the invention

**[0001]** The present invention relates to the field of interior renovation and precisely it relates to a method for replacing a bathtub with a shower platform.

### Background of the invention

**[0002]** In modern life, a particular attention is paid to water consumption and other factors such as the reduction of the room sizes of houses and flats, and then of the bathrooms, that have brought with time to a large diffusion of the shower cabinets and to a subsequent decrease of the demand for bathtubs.

**[0003]** Also owing to the presence in families of old or of disabled people a shower platform is preferable to a bathtub, in particular, for difficulties met by such categories of people to have access to the bathtub.

**[0004]** Therefore, in the houses of old construction the need is felt to replace the bathtub present in the bathroom with a shower platform. This change is carried out through a succession of demolition and of construction works that time consuming and expensive.

**[0005]** In particular, during the demolition of the bathtub a big amount of debris is created that has to be disposed of and is, furthermore, associated with damaging neighbouring tiles with subsequent need of changing them.

**[0006]** This step is very complicated also for a difficulty of finding tiles of the same type of the preexisting ones.

**[0007]** Another drawback of the used techniques for replacing a bathtub with a shower platform the difficulty of finding on the market shower cabinets of standard corresponding size to that of the bathtub. This requires making a shower platform to measure, with further costs.

**[0008]** FR 2882243 discloses a shower installing system for bathroom having wallboards with concave surface applied against existing wall and side surfaces delimiting ceiling space, destined for passage of valves, between existing wall and front surface. The wallboards are molded in modular dimensions and include sectile parts (20) for an adjustment to the standard overall dimensions

**[0009]** FR 2860411 discloses a shower cabinet comprising a tray having a bottom which leads to an outlet, fitted with an assembled drainage board on which a person can stand while towelling off after showering. The drainage board forms an extension to the tray and acts as a dry area. The cabinet has a hinged panel which can be set parallel to the drainage board's edge or perpendicular to it, separating the shower tray from the dry area.

### Summary of the invention

**[0010]** It is therefore a feature of the present invention to provide a method for replacing a bathtub with a shower

platform that does not require substantial construction works for its actuation.

**[0011]** It is, furthermore, a feature of the present invention to provide a method for replacing a bathtub with a shower platform that is easy and quick to carry out.

**[0012]** It is also a feature of the present invention to provide a method for replacing a bathtub with a shower platform without making large amounts of debris.

**[0013]** It is a further feature of the present invention to provide a method for replacing a bathtub with a shower platform that avoids changing the existing taps of the bathtub with new taps.

**[0014]** It is another feature of the invention to provide a method for replacing a bathtub with a shower platform that is particularly adapted to disabled people.

**[0015]** These and other objects are achieved by a method for replacing a bathtub with a shower platform comprising the steps of:

- removing an existing bathtub that is defined by containing walls in order to create a recess of corresponding size as defined by said containing walls of the bathtub, said step of removing comprising the step of pulling down the bathtub containing walls up to leaving a shoulder which defines said recess;
- forming a base frame by introducing fragments, or debris, deriving from the above described demolition in said recess defined by said shoulder, said base frame formed by a layer of fragments, or debris, within said shoulder;
- levelling said layer of fragments, or debris, within said shoulder, in order to conform substantially the thickness of the debris level;
- introducing a filling material in spaces present between the fragments, or debris, in order to level said base frame same in a way substantially uniform that assists a next step of arranging a shower platform, finishing said shoulder;
- arranging a shower platform of determined size on said layer of fragments, or debris;
- levelling said shower platform and fixing it to said shoulder;
- wherein said shoulder and said base frame are configured such that said shower platform is arranged at the same level of the floor of the room in which it is installed.

**[0016]** Preferably, the shower platform can be made of a material selected from the group comprised of:

- plastic material, in particular, an acrylic resin;
- ceramic material.

**[0017]** In a possible embodiment, a step is provided of cutting the shower platform up to the size of said shoulder. In particular, the shower platform may be oversized with respect to the standard size of the bathtubs. Therefore, before being located on a base frame made with

masonry material and/or with the fragments generated by the demolition of the bathtub, the shower platform is subject to a cutting step in order to fit it to the desired size. This way, it is possible to mould a single universal shower platform, or a limited series of shower platforms, and then fitting it to the size of the shoulder, by cutting the exceeding part.

**[0018]** In particular, the base frame may have a height set between 2 and 50 cm, advantageously between 4 and 30 cm.

**[0019]** More in detail, the shower platform has the following size:

- width set between 60 and 80 cm;
- length set between 160 and 180 cm.

**[0020]** Alternatively, the shower platform can be selected among a plurality of shower platforms of different size, each of which having corresponding size to traditional bathtubs.

**[0021]** In particular, the shower platform can be associated with a shower cabinet comprising a frame consisting of a plurality of vertical rods adapted to support a plurality of side walls, said vertical rods being capable of approaching/moving away from each other for adapting to the size of the shower platform. The shower platform can be defined laterally by at least one wall of the room in which is installed.

**[0022]** In particular, when removing the bathtub, the original taps are not pulled out, whereby the final shower platform comprises the taps of the original bathtub. This reduces remarkably the work made by the operator for carrying out the transformation of the bathtub into a shower platform, with subsequent time saving and reduced costs.

**[0023]** Since when removing the bathtub portions of wall are uncovered that used to define laterally the bathtub, said portions of wall are coated by at least one lining sheet. In particular, the, or each, lining sheet coats the plaster uncovered when removing the bathtub.

**[0024]** Therefore, the lining sheet coats the side walls of the final shower platform only for a measured height. This solution allows to limit remarkably the finishing work that has to be carried out after the demolition of the bathtub. Advantageously, the shower platform comprises at least one lining sheet that defines laterally at least one wall side, or the wall of the room in which it is installed.

**[0025]** In particular, the or each lining sheet can be connected to the above described portions of wall, by means of screws, glue for building industry, etc.

**[0026]** In particular, the lining sheet can be made using a plurality of tiles, for example the same tiles that cover the walls of the room in which the shower platform is installed.

**[0027]** Alternatively, the lining sheet is made using at least one plate of plastic material.

**[0028]** In particular, the sheets are located in order to result flush with the walls of the bathroom that are not

involved with removing the bathtub, or with the possible tiles fastened to them.

**[0029]** Advantageously, said filling material is polyurethane foam, that is arranged in spaces present between the fragments, or debris, in order to level the base frame same. This way, it is possible to provide a platform substantially uniform that assists the next step of arranging the shower platform.

**[0030]** In particular, the lining sheet has at least one graphical sign selected from the group comprised of:

- an image;
- a text;

15 a combination thereof.

**[0031]** Advantageously, the graphical sign can be made on the vertical sheet by means of litographic techniques.

## 20 Brief description of the drawings

**[0032]** Further characteristic and the advantages of the method for replacing any bathtub with a shower platform, according to the invention, will be made clearer with the following description of an exemplary embodiment thereof, exemplifying but not limitative, with reference to the attached drawings, in which like reference characters designate the same or similar parts, throughout the figures of which:

- Figures from 1 to 7 and from 8 to 11 show diagrammatically perspective views and an elevational side view of a possible succession of steps obtainable by the method, according to the invention, for replacing a bathtub with a shower platform;
- Figure 9 show diagrammatically a perspective view of a possible exemplary embodiment of the shower platform that can be associated with the method, according to the invention;
- Figure 11 shows a possible exemplary embodiment of the shower platform of figure 9.

## Description of a preferred exemplary embodiment

**[0033]** With reference to figures from 1 to 9, the method for replacing a bathtub 1 associated with taps 10 with a shower platform, according to the invention, begins with the step of removing the preexisting bathtub 1. This can be effected extracting the still entire bathtub body 3 from the containing walls 5a-5d, as diagrammatically shown in figure 2A, obtaining a recess 4 (figure 4). Preferably, bathtub 3 is pulled out cutting, or crushing in situ the body 3 of the bathtub (figure 2B).

**[0034]** Then, the partial, or complete, demolition of the containing walls 5a-5d that define recess 4 is carried out. The removing step of bathtub 3 does not involve the original taps 10, such that, in particular, neither the faucets 10a nor the ducts are removed, leaving the shower plat-

form obtained at the end of the operation with the same taps 10 of the original bathtub, thus saving work of the operator. This confers high savings to the client that requires turning the bathtub into a shower platform.

**[0035]** As diagrammatically shown in figure 5, in a possible arrangement, when pulling down the bathtub containing walls 5a-5d, only part of them is involved. In this case, a portion 11 of the walls 5a-5d of height H and any tiles 6 to them connected remain intact.

**[0036]** Alternatively, the complete demolition of the containing walls 5a-5d that define recess 4 is carried out.

**[0037]** According to the invention, the fragments and the debris 7 produced during the demolition of the walls 5a-5d are stored in recess 4' defined by the lower portion of walls 5a-5d, which forms a shoulder 11, thus avoiding of disposing of the debris and the fragments produced by the demolition (figure 5).

**[0038]** The layer of fragments 7 that is obtained can then be flattened to provide a base frame 8 on which shower platform 20 is then located. For making the base frame 8 substantially homogeneous it is possible to add filling material, for example polyurethane foam 50 (figure 6). By penetrating, in fact, in the spaces between the fragments 7, the filling material 50 levels the layer of fragments 7 assisting the arrangement of shower platform 20 on base frame 8.

**[0039]** Shower platform 20, preferably of acrylic material, is selected among a plurality of shower platforms of size corresponding to bathtubs of different standard sizes. In general, shower platform 20 is oversized with respect to a bathtub 1 standard size. As shown in figure 7, according to the invention, the shower platform 20 is arranged at a same level of the floor of the room 100 in which the shower platform is installed, which can be on a masonry layer 11'.

**[0040]** Therefore, before being put on a base frame 8, shower platform 20 is subject to a preliminary cutting step for example by a common manual saw 30, in order to fit it to a desired size. This step is assisted using a shower platform 20' as shown in figure 9, whose surface 21' is completely planar.

**[0041]** According to what provided by an advantageous step of the invention, to surfaces 25, or wall portions, which have been uncovered when removing bathtub 1 (figure 6), a lining sheet 15 is applied, for example fixing it to the surfaces 25 by means of nails, screws, glue for building industry (figures 10 and 7).

**[0042]** Alternatively, the lining sheets 15 can cover a higher surface, for example up to coating all the height of a shower cabinet 100 associated with shower platform 20 (figure 7).

**[0043]** The lining sheet 15 can be made using tiles 150 like those of the bathroom in which the shower platform is installed (figure 7), or alternatively, can be sheets of plastic material (figure 9). In this case, the lining sheet 15 can be decorated with images, or text 16 as desired.

**[0044]** As shown in figure 11, the shower platform can be arranged on shoulder 11 for example at a height set

between 2 and 50 cm, remained after the demolition of bathtub 1, leaving a portion 20b out from the shower platform, for example for a piece of furniture or other object useful for a bathroom.

**[0045]** The shower cabinet 100 comprises, in particular, a frame consisting of a plurality of vertical rods, for example four rods 101a-101d, adapted to support a plurality of side walls 105. The vertical rods 101a-101d can be approached/moved away with respect to each other for example by means of connection guides 105 mounted telescopically in order to adapt the shower cabinet 100 to the size of shower platform 20.

**[0046]** The foregoing description of a specific embodiment will so fully reveal the invention according to the conceptual point of view, so that others, by applying current knowledge, will be able to modify and/or adapt for various applications such an embodiment without further research and without parting from the invention, and it is therefore to be understood that such adaptations and modifications will have to be considered as equivalent to the specific embodiment. The means and the materials to realise the different functions described herein could have a different nature without, for this reason, departing from the field of the invention. It is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.

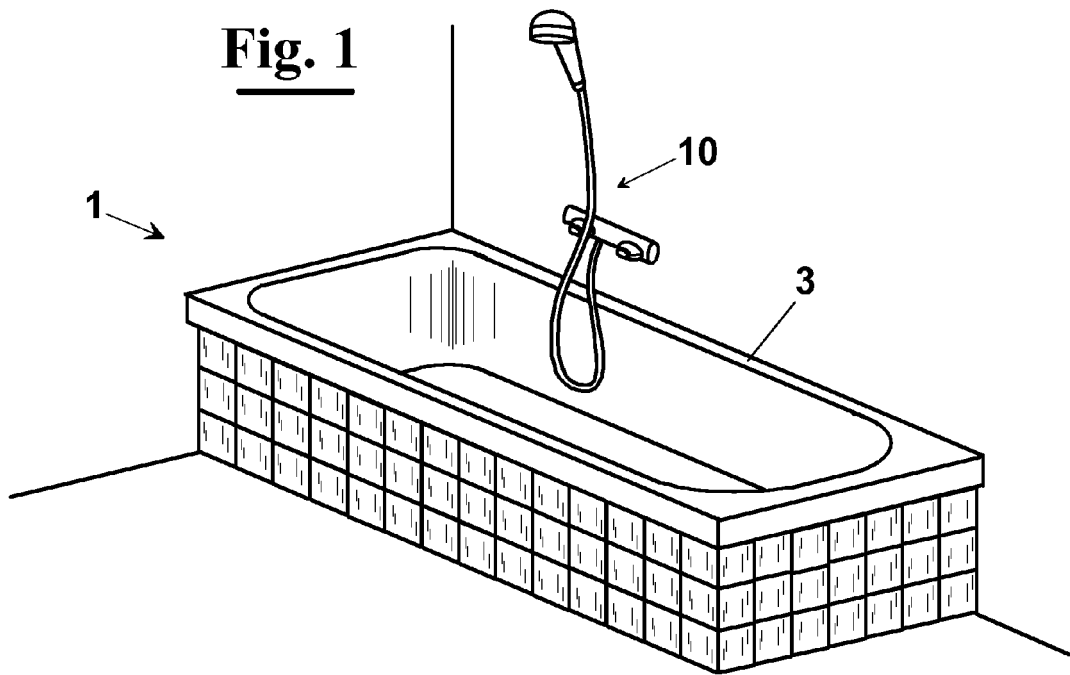
## Claims

1. Method for replacing a bathtub (1) with a shower platform (20) comprising the steps of:

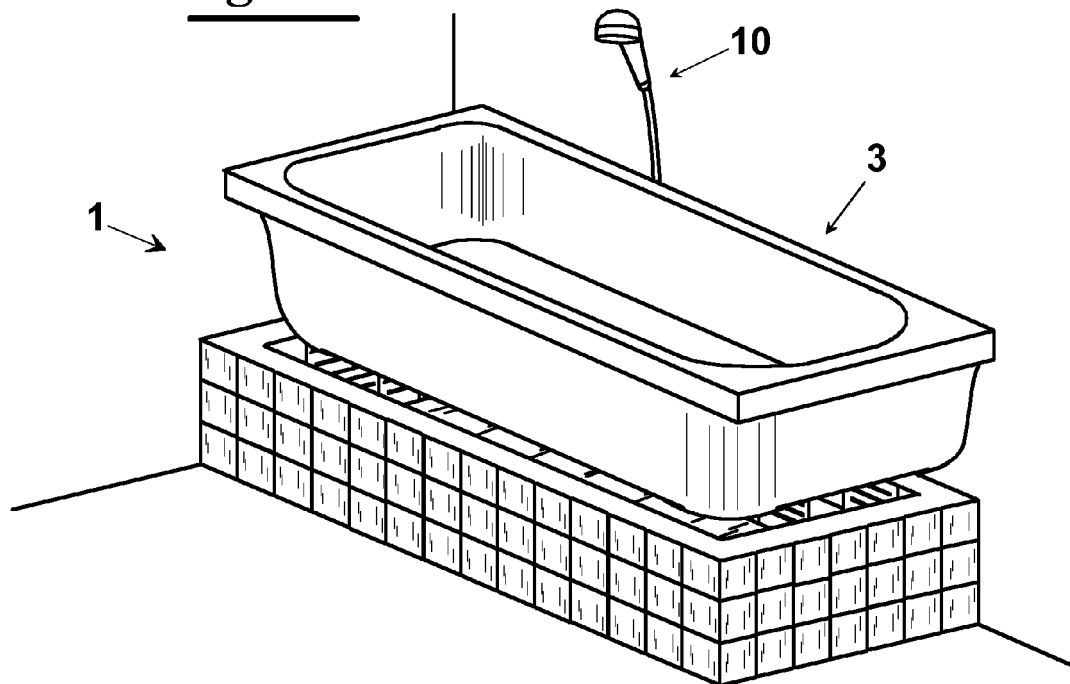
- removing an existing bathtub (1) that is defined by containing walls in order to create a recess (4) of corresponding size as defined by said containing walls (5a-5d) of the bathtub (1), said step of removing comprising the step of pulling down said containing walls (5a-5d) up to leaving a shoulder (11) which defines said recess (4);
- forming a base frame by introducing fragments, or debris (7), deriving from said pulling down step into said recess (4) defined by said shoulder (11), said base frame formed by a layer of fragments, or debris (7), within said shoulder (11);
- levelling said layer of fragments, or debris (7), within said shoulder (11) in order to conform substantially the thickness of the debris (7) level;
- introducing a filling material in spaces present between the fragments, or debris, in order to level said base frame same in a way substantially uniform that assists a next step of arranging a shower platform,
- finishing said shoulder (11);
- arranging a shower platform (20) of determined size on said layer of fragments, or debris (7);
- levelling said shower platform (20) and fixing it to said shoulder (11);

- wherein said shoulder and said base frame are configured such that said shower platform is arranged at the same level of the floor of the room in which it is installed.
2. Method for replacing a bathtub (1) with a shower platform (20), according to claim 1, wherein said shower platform (20) is made of a material selected from the group comprised of:
- plastic material, in particular, an acrylic resin;
  - ceramic material.
3. Method for replacing a bathtub (1) with a shower platform (20), according to claim 1, wherein said shower platform (20) is selected among a plurality of shower platforms (20) of different size.
4. Method for replacing a bathtub (1) with a shower platform (20), according to claim 1, wherein said shower platform (20) is oversized with respect to the standard size of bathtubs, and a step is provided of cutting the shower platform up to the size of said shoulder.
5. Method for replacing a bathtub (1) with a shower platform (20), according to claim 1, wherein said shower platform (20) has the following size:
- width set between 60 and 80 cm;
  - length set between 160 and 180 cm.
6. (20), according to claim 1, wherein during said removing step of said bathtub (1) portions (25) of wall defining laterally said bathtub (1) are uncovered, on said portions of uncovered wall (25) at least one lining sheet (15) being arranged.
7. Method for replacing a bathtub (1) with a shower platform (20), according to claim 1, wherein said shower platform (20) is associated with a shower cabinet comprising a frame consisting of a plurality of vertical rods adapted to support a plurality of side walls (5a-5d), said vertical rods being such that they can move towards/away from each other for adapting to the size of said shower platform (20).
8. Method for replacing a bathtub (1) with a shower platform (20), according to claims 5 and 6, wherein said shower platform (20) is defined laterally from said, or each, lining sheet (15).
9. Method for replacing a bathtub (1) with a shower platform (20), according to claim 6, wherein said, or each, lining sheet (15) is connected to said uncovered portions (25) of wall by means of screws, glue for building industry, and the like.
10. Method for replacing a bathtub (1) with a shower platform (20), according to claim 6, wherein said, or each, lining sheet (15) is arranged in order to result flush with the walls (5a-5d), or with the possible tiles fastened to them, of the room in which said shower platform (20) is installed.
11. Method for replacing a bathtub (1) with a shower platform (20), according to claim 1, wherein said filling material is polyurethane foam.
12. Method for replacing a bathtub (1) with a shower platform (20), according to claim 6, wherein said lining sheet (15) have at least one graphical sign selected from the group comprised of:
- an image;
  - a text;
  - a combination thereof.
13. Method for replacing a bathtub (1) with a shower platform (20), according to claims 1 and 6, wherein during said step of removing said bathtub (1), any taps to it associated are not pulled out, whereby said shower platform (20) has said taps.

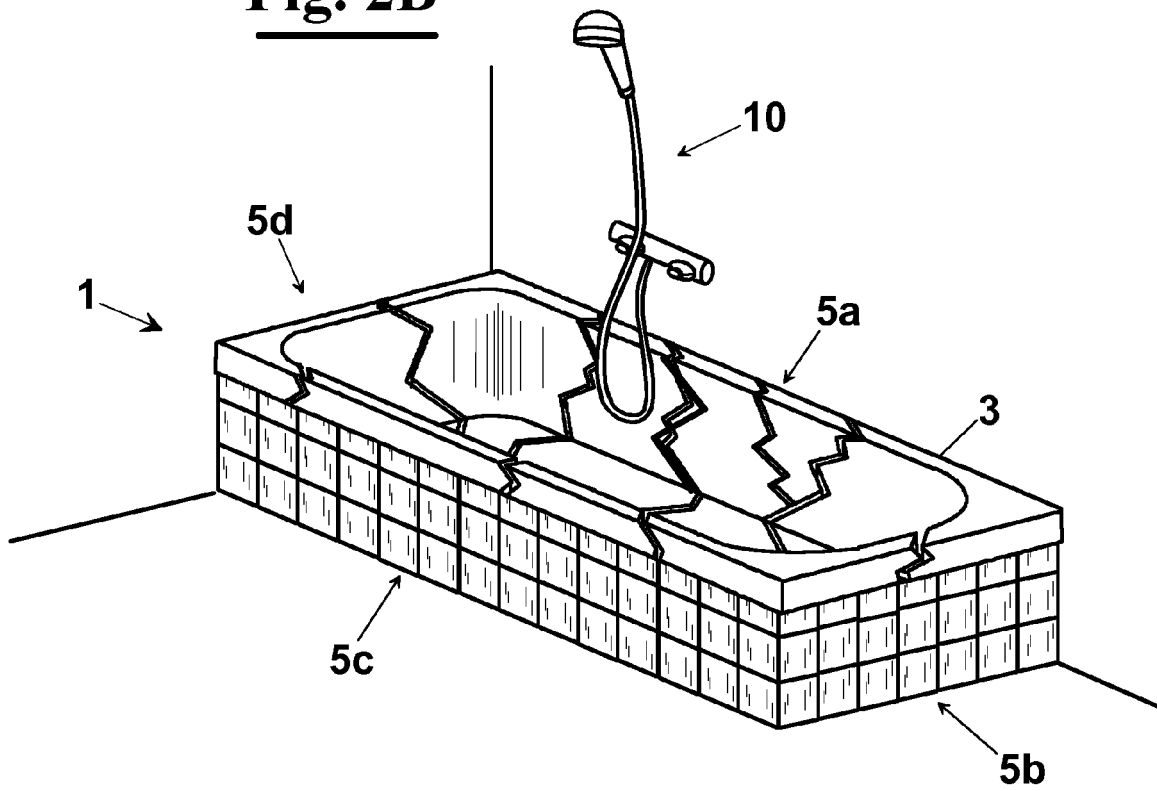
**Fig. 1**



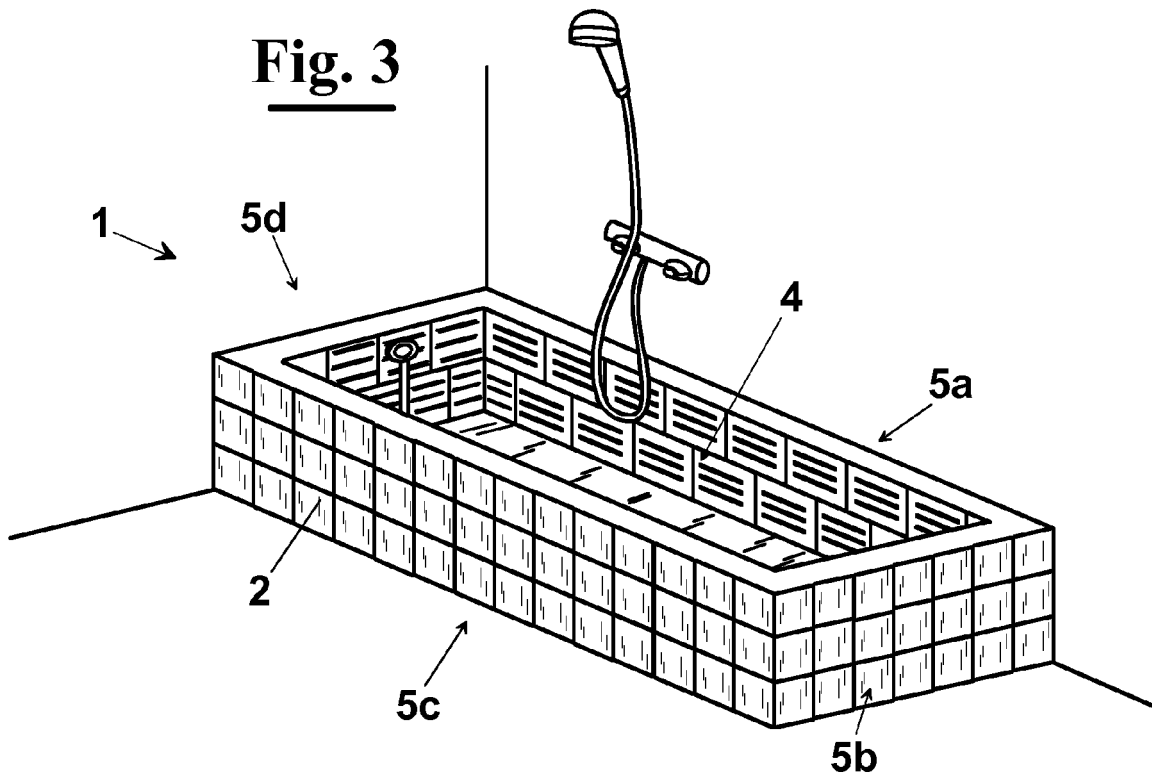
**Fig. 2A**



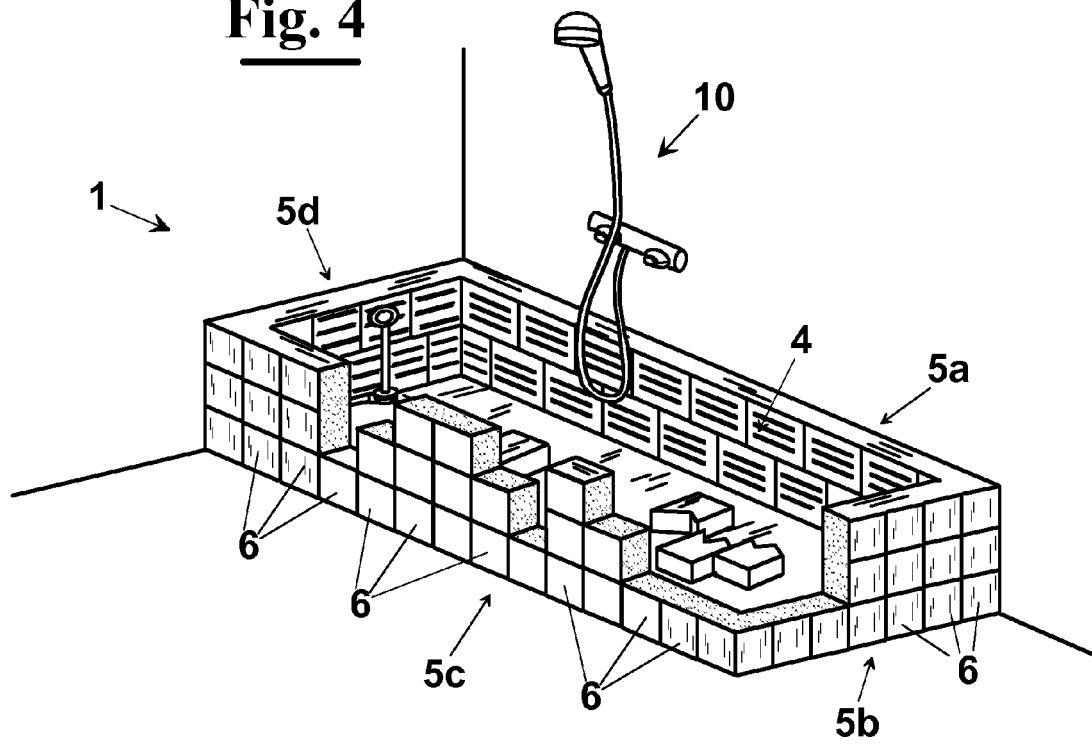
**Fig. 2B**



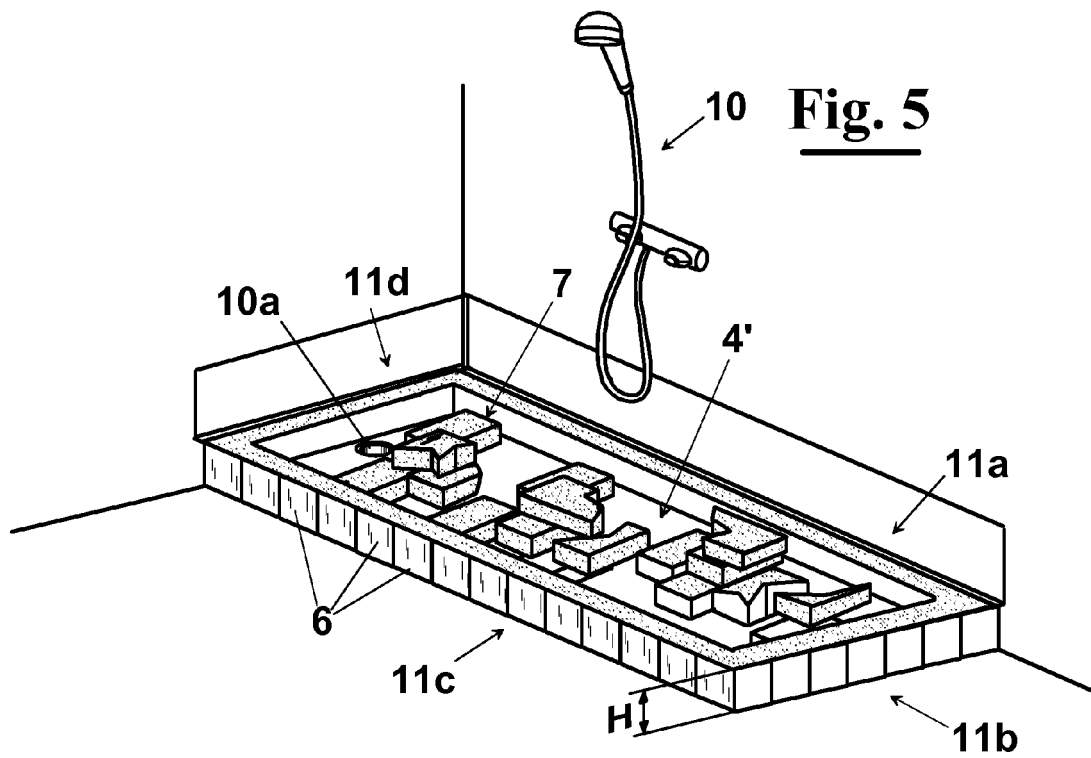
**Fig. 3**



**Fig. 4**

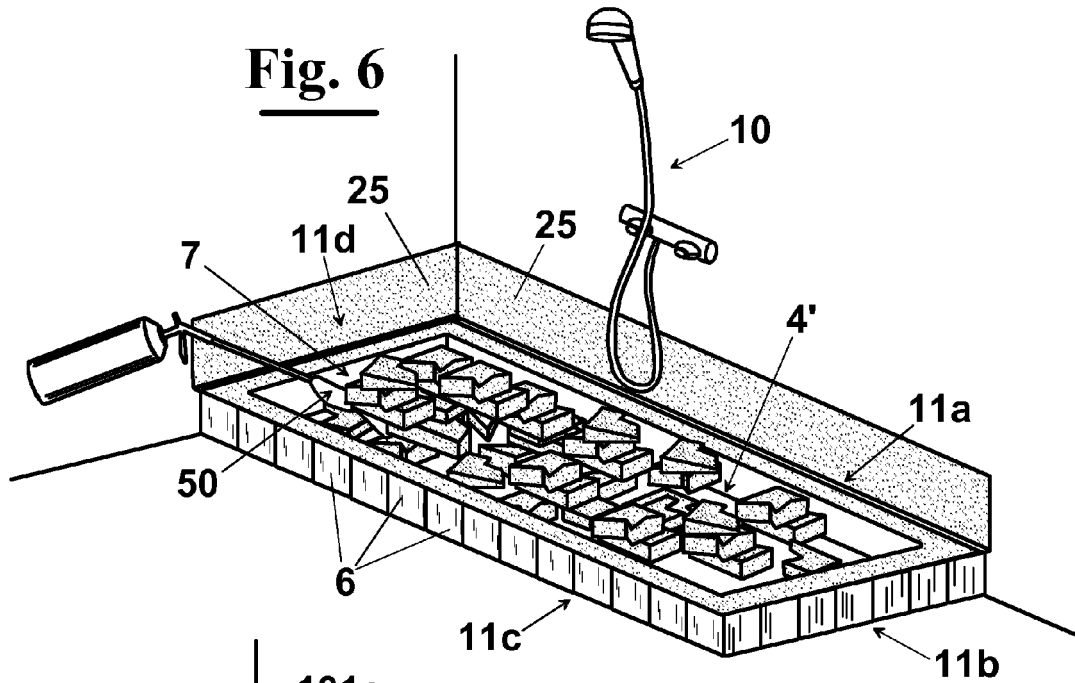


**Fig. 5**

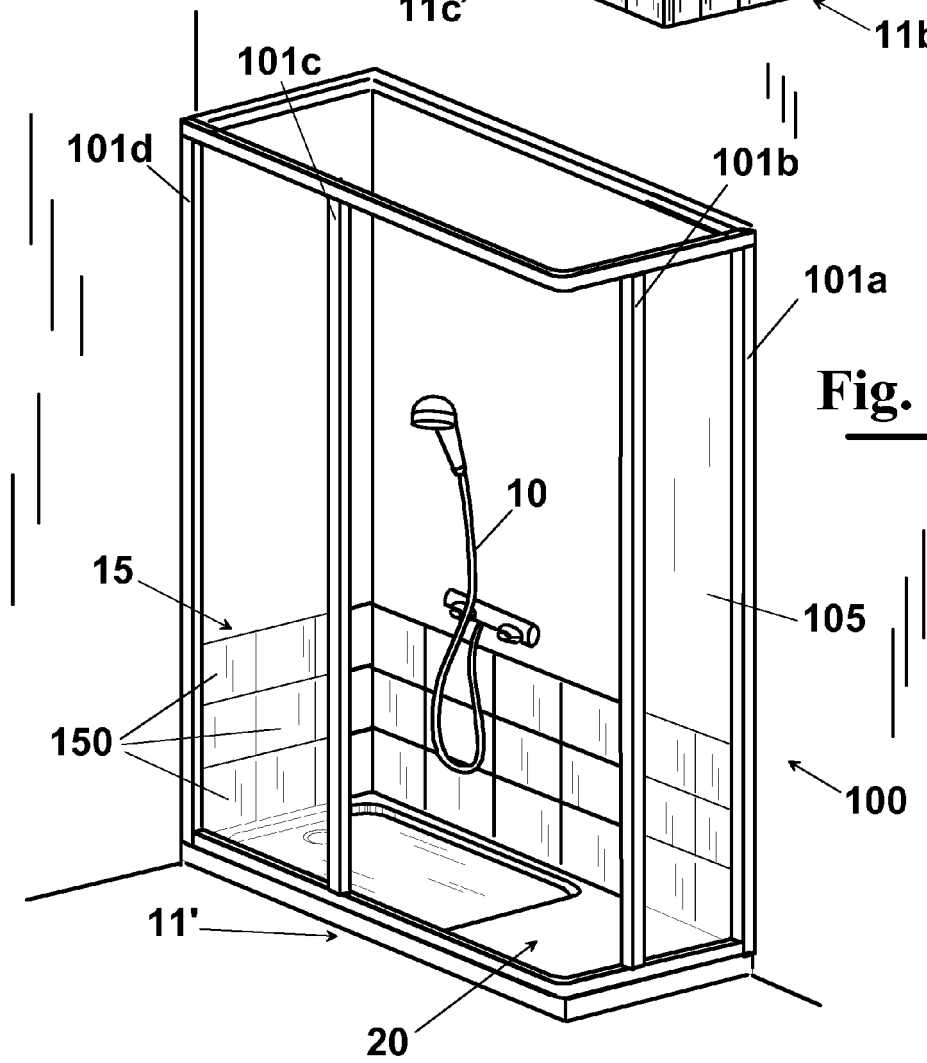




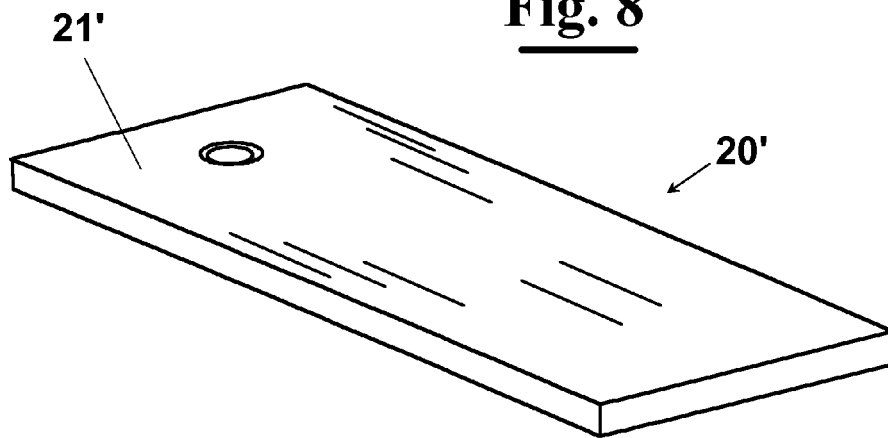
**Fig. 6**



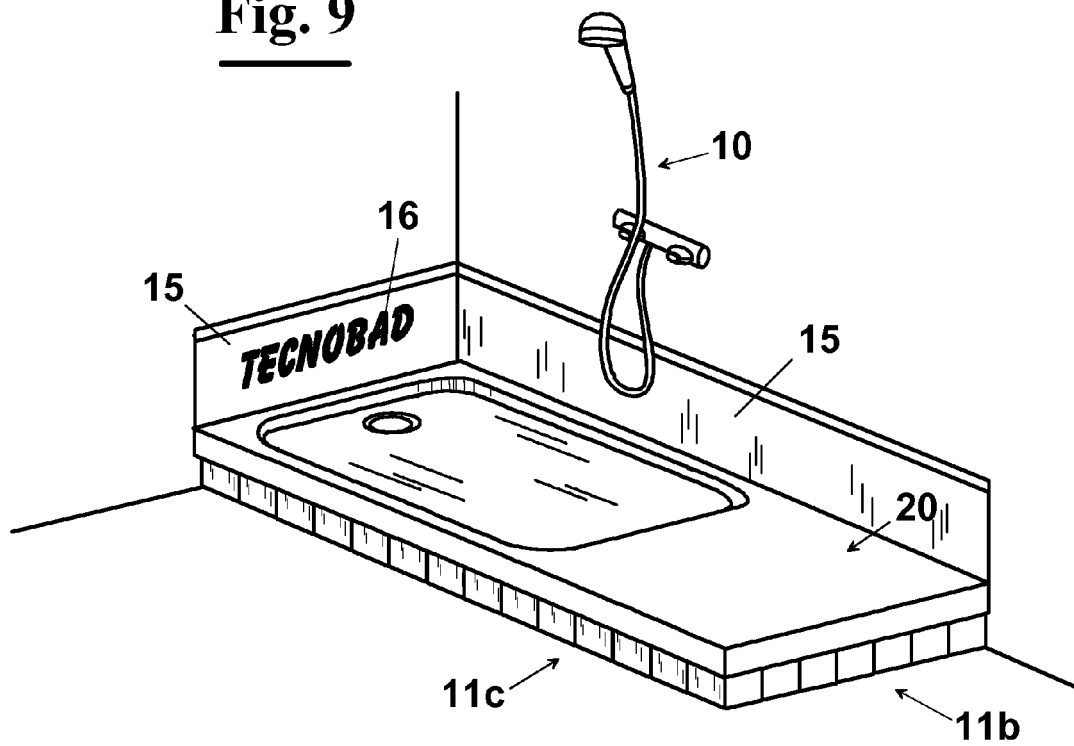
**Fig. 7**



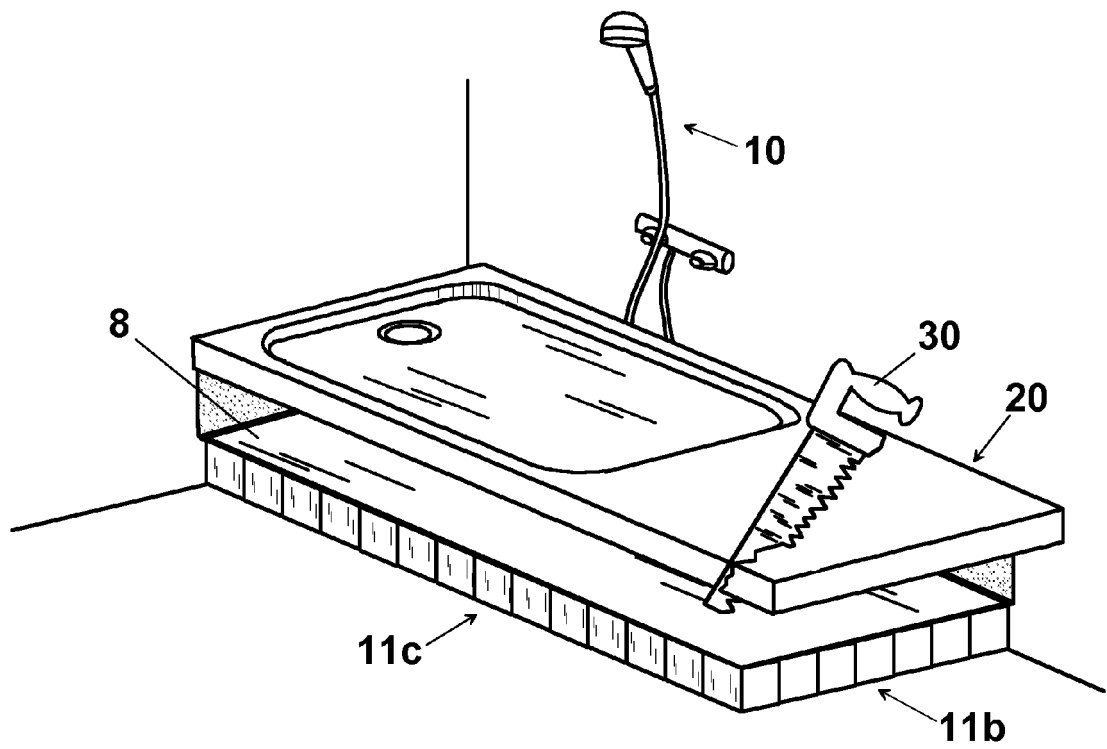
**Fig. 8**



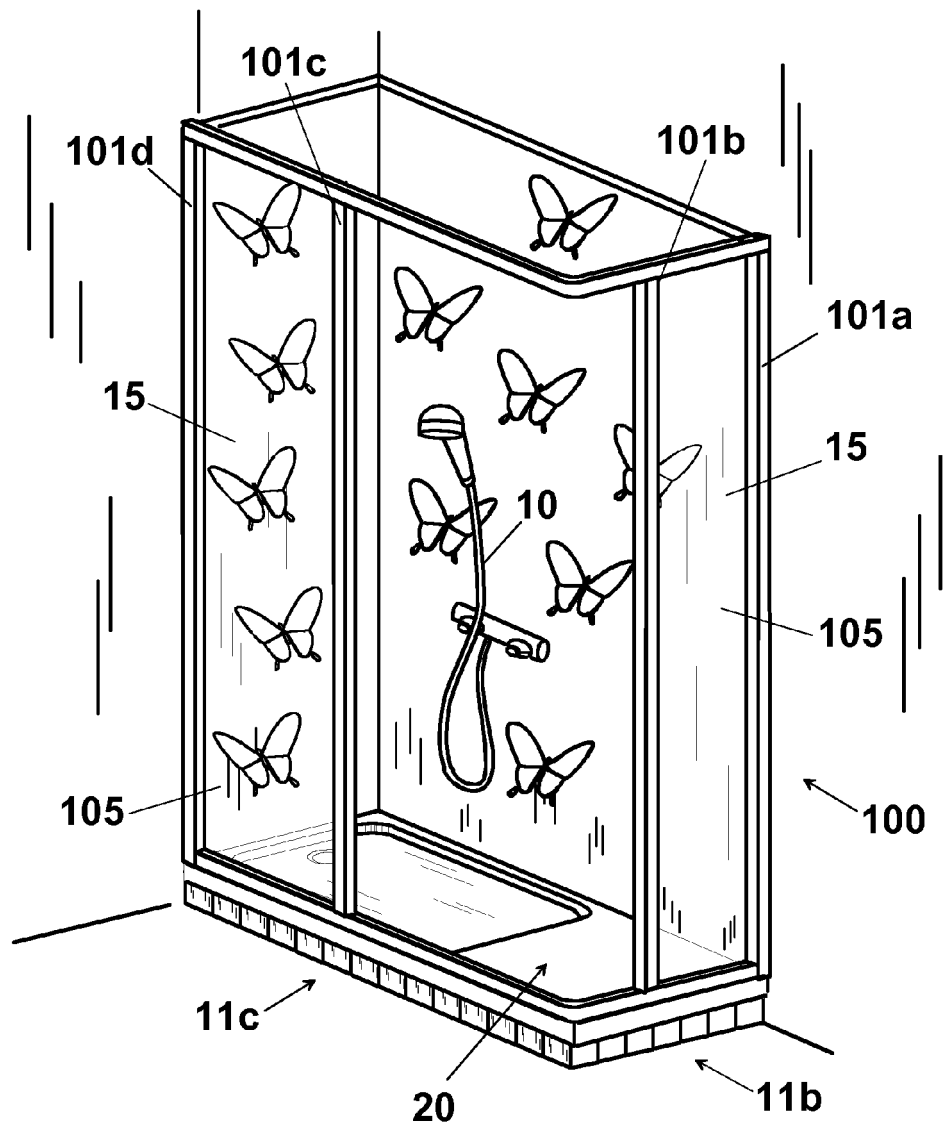
**Fig. 9**



**Fig. 10**



**Fig. 11**



**REFERENCES CITED IN THE DESCRIPTION**

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**Patent documents cited in the description**

- FR 2882243 [0008]
- FR 2860411 [0009]