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(11) **EP 0 901 335 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention
of the grant of the patent:

24.07.2002 Bulletin 2002/30

(21) Application number: **97919861.1**

(22) Date of filing: **11.04.1997**

(51) Int Cl.7: **A47K 3/02**

(86) International application number:
PCT/SE97/00617

(87) International publication number:
WO 97/45047 (04.12.1997 Gazette 1997/52)

(54) **BATH ARRANGEMENT, STAND AND METHOD OF MOUNTING**

BADVORRICHTUNG, WANNENTRÄGER UND MONTIERVERFAHREN

ENSEMBLE BAIGNOIRE, SUPPORT ET PROCEDE DE MONTAGE

(84) Designated Contracting States:
**AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC
NL PT SE**

(30) Priority: **29.05.1996 SE 9602097**

(43) Date of publication of application:
17.03.1999 Bulletin 1999/11

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Description

Field of the Invention

[0001] The present invention relates to a bath arrangement comprising a bath, a stand and at least one detachable front panel as well as a method of mounting such a bath arrangement. The invention also concerns a stand for a bath and a method of mounting such a stand.

Background Art

[0002] In modern bathrooms, the sides of the bath facing the room are usually covered in one way or another so as to conceal piping, bath and legs of the bath and thus afford the bathroom a more aesthetic appearance. In the following use is made of the term front panel for such sides of a bath. There are also shower tubs, the sides of which may be coated with fronts correspondingly. For the sake of simplicity, such fronts are also called front panels, and by the term bath is also meant such a shower tub.

[0003] In Scandinavia, pivotable or detachable front panels are normally used for this purpose, whereas in many other countries it is more common to build in the bath and tile the walls. Both constructions cause problems in the cleaning of floor and floor drain, mounting and new installation of baths and inspection thereof. Of course, the most serious problems arise when the bath is built in, but also in the use of such front panels as are today available on the market, problems arise.

[0004] In many of the bath arrangements that are sold today, the bath is standing on legs which are mounted at the bottom of the bath and the front panels are detachably fixed to the edge of the bath by means of clamps or hooks. The front panels on the side wall and the end wall of the bath are then fixed to each other or to the corner legs by means of some sort of hook or clip. The drawback of such an arrangement is that the front panel is often unwieldy and heavy to handle, and in such an arrangement, the front panel must be raised and its upper edge must be aligned with the bath during a relatively long period of time so as to fit the front panel into receiving means at the edge of the bath. This movement requires accuracy and is often carried out in an inconvenient working position. A further drawback of such a construction is that mounting and dismounting of the bath arrangement are time-consuming and require tools. It is also disadvantageous that the vertical position of the front panels is not quite stable which may give an unsatisfactory aesthetic impression.

[0005] The above-mentioned drawbacks are stressed especially when building e.g. a new block of flats, where a large number of baths are to be installed in a very short time and with no mistakes. Generally seen, today's building industry demands increasing rapidity and simplicity.

[0006] In connection with baths of the type, in which mounting of the front panel takes place by means of a greater or smaller number of loose mounting components, the mounting operation is, of course, complicated. Besides, this means that the removal of the front panel is also complicated. In many cases, it is not possible to see from the assembled bath how the front panel is mounted, and so one pulls at the front panel, thereby damaging the mounting components. This is made still worse by the mounting components often being made of plastic. Plastic material ages and turns brittle, thereby withstanding the pull in connection with dismounting even less. Especially for old baths, it is difficult to find spare parts when the original mounting components have gone to pieces.

[0007] SE-364,864 discloses an arrangement in baths for suspension of an end plate and/or a front plate. The plates are suspended by means of special corner mountings which are arranged at the edge bead located at the top of the bath. The corner mountings are made of plastic, for instance propylene, and both right-hand and left-hand corner mountings are necessary. The plates are detachable, and a special tool for this purpose is also described.

[0008] SE-B-446,369 discloses a bath front panel which is divided into a number of front panel parts. These front panel parts are attached in recesses in fixing irons, which are suspended vertically from the edge bead of the bath and the lower portions of which are fixed in a supporting bracket. In fact, this construction makes it possible to remove the front panel without any great effort, but the removal of the entire front panel is a complicated operation. The installation and mounting of new bath arrangements of this kind are very time-consuming and require equipment and experience.

[0009] A further known bath arrangement is disclosed in FR-B-1,357,499, in which a bath having a pivotable front panel is described. This construction implies that corner parts are screwed onto the edge of the bath. Each corner part is in its upper portion provided with pins which are adapted to form, in coaction with holes in the upper portion of the front panel, a pivot, which permits pivoting of the front panel so as to facilitate cleaning. At their lower edge, the front panels and the corner parts are attached to each other by means of screws. The construction is difficult and time-consuming to assemble and is impractical in cleaning since the front panel must be held with one hand and cleaned with the other.

[0010] A further variant of a bath arrangement is disclosed in SE-B-470,004. In this construction, two fixed front panels are attached to the stand of the arrangement or to the frame of the bath. The front panels are provided with bushes for the supporting of pins on an intermediate front panel, which are adapted to form a pivot. The intermediate front panel is secured in its inwardly pivoted position by means of e.g. Velcro fasteners and in its vertical position by means of catches or Velcro fasteners. This variant allows cleaning under the

bath, but the front panel is difficult to remove completely for e.g. repairs or inspection. Besides, the time it takes to mount and install new baths is found to be unnecessarily long.

[0011] GB-659,239 discloses a bath with front panels that are attached by means of male and female members. However, the front panels are not detachable after mounting.

[0012] Improved accessibility for cleaning, repairs and inspection and considerable cost savings in the form of shorter mounting times for new installations of baths could be achieved if mounting and dismounting of front panels could be made easier.

[0013] A bath arrangement according to the preamble of claim 1 and a stand for baths according to the preamble of claim 11 are known from the document EP 0 197 183 A.

Summary of the Invention

[0014] One object of the present invention thus is to provide a bath arrangement which allows mounting without loose mounting components, the front panel still being detachable.

[0015] A further object of the invention is to provide a bath arrangement which is quick and easy to install.

[0016] A further object is to provide a stand for a bath and a quick and easy method of mounting a stand.

[0017] One more object of the invention is to provide a rational method of mounting bath arrangements.

[0018] The invention bath arrangement has the characteristic features as stated in the characterising clause of claim 1.

[0019] The stand according to the invention has the characteristic features stated in the characterising clause of claim 11.

[0020] The method of mounting a stand according to the invention has the characteristic features stated in the characterising clause of claim 12.

[0021] The method of mounting a bath arrangement according to the invention has the characteristic features stated in the characterising clause of claim 13.

[0022] Preferred embodiments of the invention are recited in the subclaims.

[0023] An advantage of the invention is that difficult lifting operations are avoided when removing the front panels and that such removal can be carried out without tools and special previous training.

[0024] A further advantage of the invention is that the front panels are stable in their vertical position.

[0025] One more advantage of the invention is that packing, storing and transporting will be both less expensive and easier since the stand needs less space and can be mounted where the bath is to be located. The stand requires no loose mounting components.

[0026] According to one aspect of the invention, the legs of the bath arrangement are provided at their one end with suspension means intended for the front panel

and at their other end with clamping means. The suspension means allow pivoting of the front panel in relation to the stand and the suspension means. The front panel is formed with holes corresponding to the suspension means and pins corresponding to the clamping means. When mounting the front panels on the stand, the front panels are so arranged that the suspension means of the stand fit into the holes of the front panel. Subsequently, the other end of the front panel is pivoted inwards to the stand and is fixed by inserting the pin into the clamping means. This results in simple, quick and stable mounting. When cleaning, repairs or inspection is to be carried out, one takes hold of the edge of the front panel in the vicinity of the pin and pulls the front panel outwards so as to release the pin from the clamping means. The front panel can then be pivoted in relation to the suspension means or be completely removed therefrom.

20 Brief Description of the Drawings

[0027] The invention will now be described in more detail with reference to the accompanying drawings, which schematically illustrate a preferred embodiment and in which

Fig. 1 is a perspective view of a bath arrangement according to one embodiment of the invention,

Fig. 2 is a perspective view/exploded view of the bath arrangement in Fig. 1,

Fig. 3 is a side view of an enlargement of a coupling means belonging to the bath arrangement in Fig. 2,

Fig. 4 is a sectional view taken along IV-IV in Fig. 3,

Fig. 5 shows a blank for a leg,

Fig. 6 is a side view of a leg, part thereof being shown in cross-section to illustrate the mounting means of the leg, and

Fig. 7 is a sectional view of an enlargement of the mounting means.

40 Description of an Embodiment of the Invention

[0028] Fig. 1 shows a mounted and installed bath arrangement 1 which comprises a bath 2 and two so-called front panels 3a and 3b. Fig. 2 shows the bath arrangement 1 in Fig. 1 in its unmounted state without the actual bath 2 and illustrates a stand 4 which in this embodiment consists of four legs 5, two elongate parts 6, two transverse parts 7 and four essentially triangular corner parts 8 for supporting the bath 2. The stand may also be of another design, for instance the number of legs may vary. The legs also need not be interconnected but can be fixed to, for instance, the floor or the bath. Besides, the corner parts may have any form that fits the bath involved.

[0029] In a preferred embodiment, the elongate parts 6 and the transverse parts 7 consist of essentially C-shaped sectional elements, the end portions of which

are flat, as shown in Fig. 2. The elongate parts 6 and the transverse parts 6 have mounting means coating with corresponding mounting means of the legs 5. The mounting means of the parts consist of at least one hook 24 at each end of the parts, said hooks being integrally formed with the respective parts 6, 7. The mounting means of the legs 5 consist of corresponding slots 25 having a pressed-in portion 26 in the legs.

[0030] In the embodiment shown in Fig. 2, the mounting means consist of two hooks 24 at each end portion and two corresponding slots 25. The stability increases when using two mounting means instead of one at each end portion. By the-hooks as well as the slots being formed integrally with the parts and the legs, respectively, no loose mounting components are required for the mounting of the stand. There is also no need of fixing the mounting means by e.g. welding, which requires semiskilled workers, is expensive and dangerous in connection with sparking.

[0031] When mounting the stand, the hooks 24 of the elongate parts and the transverse parts are inserted into corresponding pressed-in portions 26 in the legs 5 and are hooked into corresponding slots 25. Such mounting is very quick and easy. The hooks have at their upper end a projection 27, as shown in Fig. 7. The C-type sectional elements are locked to the legs when this projection 27 has passed the lower edge of the pressed-in portion 26.

[0032] The parts 6, 7 are preferably made of metal. The sectional element is bent to a suitable shape, and the hooks 24 are bent out of the material of the sectional element.

[0033] The leg 5 will be produced as described below.

[0034] At the bottom of each leg there is an adjusting means which allows adjustment of the stand to make it balanced. The stand is now ready for insertion of the bath.

[0035] The stand may also be used for other types of suspension means and coupling means for the front panel than those appearing from the application.

[0036] Each of the legs 5 is at its lower part provided with suspension means 9 which comprise a portion 10 extending transversely of the leg 5 and an upwardly directed flap 11 which extends essentially in parallel with the leg 5. The suspension means 9 can be attached to the leg 5 in various ways, for instance by welding, gluing or with the aid of a screw (not shown). Preferably, the suspension means 9 is made of the material of the leg 5, see Figs 2, 5 and 6, which simplifies the manufacture to a considerable extent. Welding requiring semiskilled workers and being expensive and dangerous in connection with sparking will not be necessary either. The suspension means can also be designed and located in other positions, for instance in the form of a ball in the centre of the leg for supporting a front panel that just extends over part of the length of the leg.

[0037] The front panels 3a and 3b are formed with holes 12, for instance in the form of rectangular punch-

ings. The holes 12 may have any contour that fits the corresponding suspension means 9, and alternatively, the holes 12 are formed in the respective legs 5 and the suspension means 9 are arranged on the respective front panels 3a, 3b.

[0038] Each of the legs 5 is also provided with a clamping means 13, which constitutes the female member of a coupling means adapted to fix the front panels 3a, 3b to the stand 4. The clamping means 13 comprises a mounting 14 arranged on the leg 5 and being in the form of an angular mounting with a hole 15 (see Fig. 2), into which a clamp 16 is inserted (see Figs 3 and 4). The fits are preferably such as to let the clamp 16 remain in the hole 15 once it is inserted. The clamp 16 comprises a bent body 17 with fixing flaps 18 grasping the edge of the hole 15. The body 17 has two opposing, spaced-apart clamping flaps 19, each having a bent edge portion 20.

[0039] The front panels 3a and 3b are provided with a corresponding male member in the form of a pin 21 with a thickened pointed portion 22 and a waist portion 23. The pin 21 is adapted to be pressed against the clamping flaps 19, thereby moving them apart and making them spring back so as to clamp the waist portion 23 of the pin 21. The bent edge portions 20 of the clamping flaps 19 prevent the pointed portion 22 of the pin 21 from sliding back.

[0040] The mounting 14 can be arranged on the leg 5 in various ways, for instance by welding, gluing or with the aid of a screw (not shown). Preferably, the mounting 14 is made of the material of the leg 5, see Figs 2, 5 and 6, which simplifies the manufacture to a considerable extent. Welding, which requires semiskilled workers and is expensive and dangerous in connection with sparking, will not be necessary either. The mounting may also have a form other than an angular mounting, for instance it may be formed as a hollow semi-sphere of a rectangular mounting (not shown). According to one embodiment, the clamp 16 is so designed as to have two horizontally arranged clamping flaps, and according to another embodiment, it has a number of clamping flaps (not shown) arranged radially from the space. The space may also be rectangular, circular or of any other shape, and consequently the pin may be of any shape whatever that corresponds to the shape of the space, thereby forming an efficient clamping device. The clamp 16 may also be arranged on the front panel 3 and the pin 21 on the leg 5.

[0041] As appears from that stated above, mounting means 25, 26, coupling means 13 and suspension means 9 are formed integrally with the leg 5. The appearance of the leg is shown in Fig. 6. The entire leg 5 and all these means can thus be made in one piece. A blank for such a leg is illustrated in Fig. 5. In a preferred embodiment, all three types of means are formed integrally with the leg. However, it is possible to form only one or two of the types of means of the material of the leg and fix the remaining ones in conventional manner,

such as e.g. by welding, gluing or with the aid of a screw means.

[0042] The leg 5 is preferably made of metal and is produced from the blank shown in Fig. 5. The slots 25 and the holes 15 are punched, the mountings 14 and the portions 10 and the flaps 11 are bent outwards, the portions 26 are pressed inwards, and the blank is bent along the dash-dot line in Fig. 5. After such machining, the leg has the appearance as shown in Fig. 6.

[0043] Either the mountings 14 or the portions 10 or both may have reinforcements in the form of semicircular pressed-in portions extending along the mountings 14 and/or the portions 10 and a distance onto the material of the leg 5.

[0044] When mounting the front panel 3a, the flaps 11 of the suspension means 9 are inserted into the holes 12 of the front panel 3a. This construction results in the front panel 3a being pivotable about the flap 11. Then the front panel 3a is pressed towards the stand 4 and the pins 21 of the front panel 3 cause the clamping flaps 19 of the clamp 16 to move apart and then spring back to abut against the waist portion 23 of the pin 21. This results in quick and easy mounting of the entire bath arrangement 1. In practical tests, it has been found that the mounting of an entire bath arrangement according to the invention takes about 4 min, which is twice as quick as other comparable products on the market.

[0045] When dismounting, one grasps the edge of the front panel 3a, preferably in the vicinity of the snap-acting coupling means 13, 21 and pulls the front panel 3a towards oneself. The pin 21 releases the clamp 16 and the front panel 3a can either be pivoted outwards or easily be lifted off from the suspension means 9. The front panel 3b is mounted and dismounted correspondingly.

[0046] The bath arrangement according to the invention thus has a detachable front panel and is mountable without any loose mounting components.

[0047] Finally, it should be emphasised that the inventive concept is in no way restricted to the embodiments here described, and several modifications are possible within the scope of the inventive idea as expressed in the appended claims. For instance, it may be mentioned that the described coupling means can be of any other design as long as the objects of the invention are achieved.

Claims

1. A bath arrangement comprising a bath (2), a stand (4) with legs (5), and at least one detachable front panel (3a, 3b), whereby the front panel (3a, 3b) is detachably fixed to the stand (4) with the aid of at least one snap-acting coupling means comprising a male member (21) arranged on the front panel (3a, 3b), and a female member (13) arranged on the stand (4) **characterised in that** the female member (13) comprises a mounting (14) which is

made of the material of the leg (5), integrally with the leg, whereby the front panel (3a, 3b) is detachably fixed without any loose mounting components.

2. A bath arrangement as claimed in claim 1, wherein one of the front panel (3a, 3b) and the stand (4) is provided with suspension means (9), which are adapted to cooperate with holes (12) in the other of the stand (4) and the front panel (3a, 3b) to form a pivot connection between the front panel (3a, 3b) and the stand (4).
3. A bath arrangement as claimed in claim 2, wherein the suspension means (9) are made of the material of the legs (5).
4. A bath arrangement as claimed in any one of the preceding claims, wherein the male member is a pin (21), which has a pointed portion (22) and a waist portion (23) and which is adapted to be inserted into the female member (13), which comprises opposing flaps (19) having a mutual minimum distance that is smaller than the thickness of the pointed portion (22) of the pin (21).
5. A bath arrangement as claimed in any one of claims 2-4, wherein the suspension means (9) comprises a portion (10) extending transversely of the leg (5) and a flap extending essentially in parallel with the leg (5).
6. A bath arrangement as claimed in any one of the preceding claims, wherein the mounting (14) of the female member has a hole (15), in which a clamp (16) is inserted, having at least one clamping flap (19) for engaging the male member (21).
7. A bath arrangement as claimed in claim 6, wherein the clamp (16) comprises a bent body (17) with fixing flaps (18) grasping the edge of the hole (15) and two opposing clamping flaps (19).
8. A bath arrangement as claimed in claim 7, wherein the clamping flaps (9) have bent edges (20) for holding the male member (21).
9. A bath arrangement as claimed in any one of the preceding claims, wherein the legs (5) of the stand (4) are interconnected by means of elongate parts (6) and transverse parts (7), said parts (6, 7) having mounting means for coaction with corresponding mounting means of the legs (5).
10. A bath arrangement as claimed in claim 9, wherein the mounting means of the parts (6, 7) consist of at least one hook (24) at each end of the parts, said hooks (24) being formed integrally with the respective parts (6, 7), and the mounting means of the legs

(5) consist of corresponding slots (25) with a pressed-in portion (26) in the legs (5).

11. A stand for baths, having means for mounting of a front panel (3a, 3b), the stand comprising legs (5), whereby the front panel (3a, 3b) can be detachably fixed to the stand (4) with the aid of at least one snap-acting coupling means comprising a male member (21) arranged on the front panel (3a, 3b), and a female member (13) arranged on the stand (4), **characterised in that** the front panel (3a, 3b) can be detachably fixed without any loose mounting components, **in that** the female member (13) comprises a mounting (14) which is made of the material of one of the legs (5) and integrally with that leg, the legs (5) being interconnected by means of elongate parts (6) and transverse parts (7), said parts (6, 7) having mounting means for coaction with corresponding mounting means of the legs (5), **in that** the mounting means of the parts (6, 7) consist of at least one hook at each end of the parts, said hooks (24) being formed integrally with the respective parts (6, 7), and **in that** the mounting means of the legs (5) consist of corresponding slots (25) with a pressed-in portion (26) in the legs (5).

12. A method of mounting a stand (4) as claimed in claim 11, **characterised in that** the hooks (24) of the elongate parts (6) and the hooks (24) of the transverse parts (7) are inserted into the pressed-in portions (26) in the legs (5) and are hooked into corresponding slots (25), whereby the stand is mountable without any loose mounting components.

13. A method of mounting a bath arrangement as claimed in claim 1, **characterised by** the steps of:

- a) pivotally connecting the front panel (3a, 3b) at its upper or lower longitudinal edge with the stand (4) in two spaced-apart connecting points (9), and
- b) pivoting the front panel (3a, 3b) to an essentially vertical position, in which engaging means (21) located at the opposite longitudinal edge of the front panel (3a, 3b) are engaged with corresponding engaging means (13) on the stand (4) for retaining the front panel (3a, 3b), whereby the bath arrangement is mountable without any loose mounting components.

Patentansprüche

1. Wannenvorrichtung, die eine Wanne (2), ein Gestell (4) mit Füßen (5) und wenigstens eine abnehmbare Außenverkleidung (3a, 3b) umfasst, wobei die Außenverkleidung (3a, 3b) mit Hilfe wenigstens einer

Einschnappverbindungseinrichtung, die ein Einführelement (21), das an der Außenverkleidung (3a, 3b) angeordnet ist, und ein Aufnahmeelement (13), das an dem Gestell (4) angeordnet ist, umfasst, abnehmbar an dem Gestell (4) befestigt ist, **dadurch gekennzeichnet, dass** das Aufnahmeelement (13) eine Anbringung (14), die aus dem Material des Fußes (5) besteht, integral mit dem Fuß umfasst, wobei die Außenverkleidung (3a, 3b) ohne jegliche lose Anbringungsbauteile lösbar befestigt.

2. Wannenvorrichtung nach Anspruch 1, wobei die Außenverkleidung (3a, 3b) oder das Gestell (4) mit Aufhängungseinrichtungen (9) versehen ist, die mit Löchern (12) in dem Gestell (4) bzw. der Außenverkleidung (3a, 3b) zusammenwirken, um eine Schwenkverbindung zwischen der Außenverkleidung (3a, 3b) und dem Gestell (4) zu bilden.

3. Wannenvorrichtung nach Anspruch 2, wobei die Aufhängungseinrichtungen (3) aus dem Material der Füße (5) bestehen.

4. Wannenvorrichtung nach einem der vorangehenden Ansprüche, wobei es sich bei dem Einführelement um einen Zapfen (21) handelt, der einen Spitzenabschnitt (22) und einen Einschnürungsabschnitt (23) aufweist und der in das Aufnahmeelement (13) eingeführt wird, das einander gegenüberliegende Zungen (19) mit einem minimalen Abstand zueinander umfasst, der kleiner ist als die Dicke des Spitzenabschnitts (22) des Zapfens (21).

5. Wannenvorrichtung nach einem der Ansprüche 2-4, wobei die Aufhängungseinrichtung (9) einen Abschnitt (10), der sich quer zu dem Fuß (5) erstreckt, und eine Zunge, die sich im Wesentlichen parallel zu dem Fuß (5) erstreckt, umfasst.

6. Wannenvorrichtung nach einem der vorangehenden Ansprüche, wobei die Anbringung (14) des Aufnahmeelementes ein Loch (15) aufweist, in das eine Klemme (16) eingeführt ist, die wenigstens eine Klemmzunge (19) aufweist, die mit dem Einführelement (21) in Eingriff kommt.

7. Wannenvorrichtung nach Anspruch 6, wobei die Klemme (16) einen gebogenen Körper (17) mit Befestigungszungen (18), die um den Rand des Lochs (15) herumgreifen, und zwei einander gegenüberliegende Klemmzungen (19) umfasst.

8. Wannenvorrichtung nach Anspruch 7, wobei die Klemmzungen (9) gebogene Kanten (20) zum Halten des Einführelementes (21) aufweisen.

9. Wannenvorrichtung nach einem der vorangehenden Ansprüche, wobei die Füße (5) des Gestells (4)

durch Längsteile (6) und Querteile (7) miteinander verbunden sind und die Teile (6, 7) Anbringungseinrichtungen aufweisen, die mit entsprechenden Anbringungseinrichtungen der Füße (5) zusammenwirken.

10. Wannenvorrichtung nach Anspruch 9, wobei die Anbringungseinrichtungen der Teile (6, 7) aus wenigstens einem Haken (24) an jedem Ende der Teile bestehen, wobei die Haken (24) integral mit den entsprechenden Teilen (6, 7) ausgebildet sind, und die Anbringungseinrichtungen der Füße (5) aus entsprechenden Schlitzen (25) mit einem eingedrückten Abschnitt (26) in den Füßen (5) bestehen.

11. Gestell für Wannen mit einer Einrichtung zum Anbringen einer Außenverkleidung (3a, 3b), wobei das Gestell Füße (5) umfasst und die Außenverkleidung (3a, 3b) mit Hilfe wenigstens einer Einschnapp-Verbindungseinrichtung, die ein Einführ-element (21), das an der Außenverkleidung (3a, 3b) angeordnet ist, und ein Aufnahmeelement (13), das an dem Gestell (4) angeordnet ist, umfasst, lösbar an dem Gestell (4) befestigt werden kann, **dadurch gekennzeichnet, dass** die Außenverkleidung (3a, 3b) ohne jegliche lose Anbringungsbauteile lösbar befestigt werden kann, dass das Aufnahmeelement (13) eine Anbringung (14) umfasst, die aus dem Material eines der Füße (5) besteht und eine Einheit damit bildet, wobei die Füße (5) durch Längsteile (6) und Querteile (7) miteinander verbunden sind und die Teile (6, 7) Anbringungseinrichtungen aufweisen, die mit entsprechenden Anbringungseinrichtungen der Füße (5) zusammenwirken, dass die Anbringungseinrichtungen der Teile (6, 7) aus wenigstens einem Haken an jedem Ende der Teile bestehen, wobei die Haken (24) integral mit den entsprechenden Teilen (6, 7) ausgebildet sind, und dass die Anbringungseinrichtungen der Füße (5) aus entsprechenden Schlitzen (25) mit einem eingedrückten Abschnitt (26) in den Füßen (5) bestehen.

12. Verfahren zum Montieren eines Gestells (4) nach Anspruch 11, **dadurch gekennzeichnet, dass** die Haken (24) der Längsteile (6) und die Haken (24) der Querteile (7) in die eingedrückten Abschnitte (26) in den Füßen (5) eingeführt werden und in entsprechenden Schlitzen (25) eingehängt werden, wobei das Gestell ohne jegliche lose Anbringungsbauteile montiert werden kann.

13. Verfahren zum Montieren einer Wannenvorrichtung nach Anspruch 1, **gekennzeichnet durch** die folgenden Schritte:

a) schwenkbares Verbinden der Außenverkleidung (3a, 3b) an ihrer oberen oder unteren

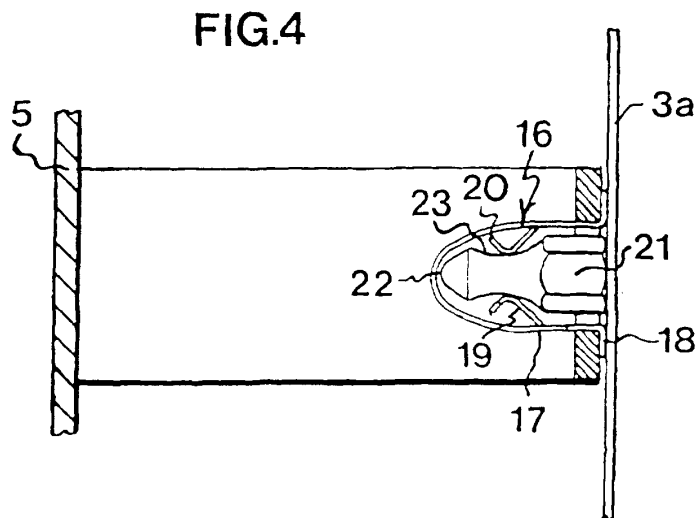
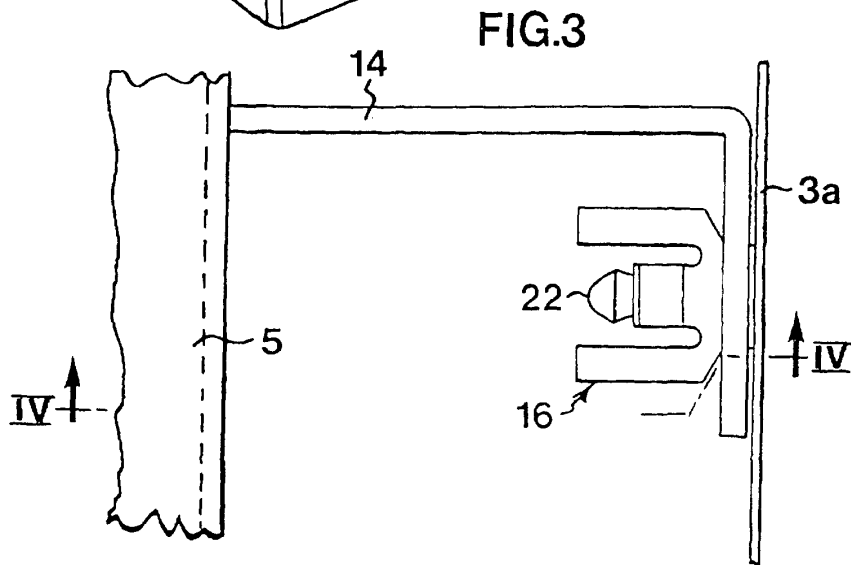
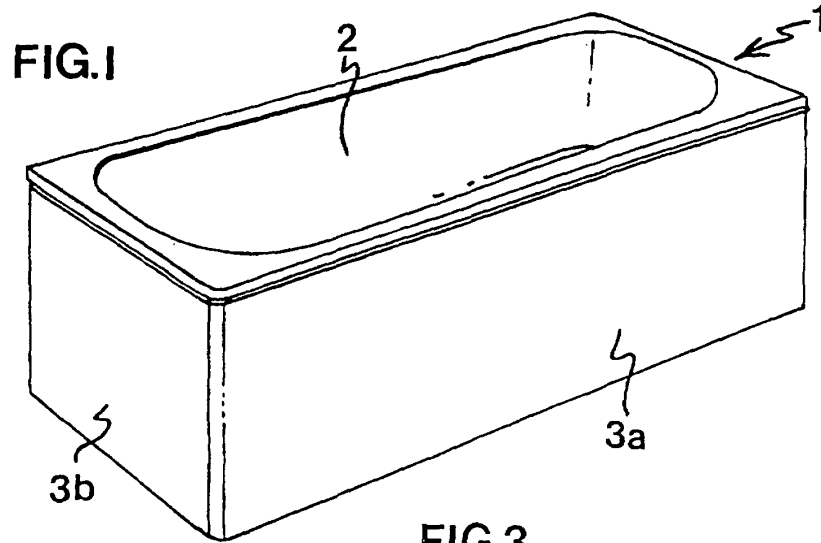
Längskante mit dem Gestell (4) an zwei beabstandeten Verbindungspunkten (9), und

b) Schwenken der Außenverkleidung (3a, 3b) in eine im Wesentlichen vertikale Position, in der Eingriffseinrichtungen (21), die sich an der gegenüberliegenden Längskante der Außenverkleidung (3a, 3b) befinden, mit entsprechenden Eingriffseinrichtungen (13) an dem Gestell (4) in Eingriff gebracht werden, um die Außenverkleidung (3a, 3b) zu halten, wobei die Wannenvorrichtung ohne jegliche lose Anbringungsbauteile montiert werden kann.

Revendications

1. Ensemble à baignoire, comprenant une baignoire (2), une ossature (4) munie de pieds (5), et au moins un panneau avant amovible (3a, 3b), le panneau avant (3a, 3b) étant fixé de façon amovible à l'ossature (4) à l'aide d'au moins un dispositif de raccordement rapide comprenant un organe mâle (21) placé sur le panneau avant (3a, 3b) et un organe femelle (13) disposé sur l'ossature (4), **caractérisé en ce que** l'organe femelle (13) comporte une monture (14) formée du matériau du pied (5) et solidaire du pied, si bien que le panneau avant (3a, 3b) est fixé de façon amovible sans aucun élément libre de montage.
2. Ensemble à baignoire selon la revendication 1, dans lequel le panneau avant (3a, 3b) ou l'ossature (4) possède un dispositif de suspension (9) destiné à coopérer avec des trous (12) de l'ossature (4) ou du panneau avant (3a, 3b) respectivement pour la formation d'un raccord à pivot entre le panneau avant (3a, 3b) et l'ossature (4).
3. Ensemble à baignoire selon la revendication 2, dans lequel le dispositif de suspension (9) est formé du matériau des pieds (5).
4. Ensemble à baignoire selon l'une quelconque des revendications précédentes, dans lequel l'organe mâle est une broche (21) ayant une partie pointue (22) et une partie rétrécie (23) et qui est destinée à être insérée dans l'organe femelle (13), qui comporte des volets opposés (19) ayant une distance minimale mutuelle inférieure à l'épaisseur de la partie pointue (22) de la broche (21).
5. Ensemble à baignoire selon l'une quelconque des revendications 2 à 4, dans lequel le dispositif de suspension (9) comporte une partie (10) qui s'étend transversalement au pied (5) et un volet qui est pratiquement parallèle au pied (5).

6. Ensemble à baignoire selon l'une quelconque des revendications précédentes, dans lequel la monture (14) de l'organe femelle a un trou (15) dans lequel est insérée une agrafe (16) ayant au moins un volet de serrage (19) destiné à coopérer avec l'organe mâle (21).
7. Ensemble à baignoire selon la revendication 6, dans lequel l'agrafe (16) possède un corps cintré (17) ayant des volets de fixation (18) retenant le bord du trou (15) et les deux volets opposés de serrage (19).
8. Ensemble à baignoire selon la revendication 7, dans lequel les volets de serrage (9) ont des bords courbés (20) destinés à maintenir l'organe mâle (21).
9. Ensemble à baignoire selon une quelconque des revendications précédentes, dans lequel les pieds (5) de l'ossature (4) sont interconnectés par des parties allongées (6) et des parties transversales (7), ces parties (6, 7) ayant des dispositifs de montage destinés à coopérer avec des dispositifs correspondants de montage des pieds (5).
10. Ensemble à baignoire selon la revendication 9, dans lequel les dispositifs de montage des parties (6, 7) sont constitués d'au moins un crochet (24) placé à chaque extrémité des parties, les crochets (24) étant formés afin qu'ils soient solidaires des parties respectives (6, 7), et les dispositifs de montage des pieds (5) sont constitués de fentes correspondantes (25) ayant une partie (26) décalée vers l'intérieur dans les pieds (5).
11. Ossature pour baignoire, comprenant un dispositif de montage de panneau avant (3a, 3b), l'ossature comprenant des pieds (5), le panneau avant (3a, 3b) pouvant être fixé de façon amovible à l'ossature (4) à l'aide d'au moins un dispositif de raccordement rapide qui comporte un organe mâle (21) disposé sur le panneau avant (3a, 3b) et un organe femelle (13) disposé sur l'ossature (4), **caractérisé en ce que** le panneau avant (3a, 3b) peut être fixé de façon amovible sans élément libre de montage, **en ce que** l'organe femelle (13) comporte une monture (14) formée du matériau de l'un des pieds (5) et solidaire de ce pied, les pieds (5) étant interconnectés par des parties allongées (6) et des parties transversales (7), ces parties (6, 7) ayant des dispositifs de montage destinée à coopérer avec des dispositifs correspondants de montage des pieds (5), **en ce que** les dispositifs de montage de ces parties (6, 7) sont constitués d'au moins un crochet placé à chaque extrémité desdites parties, les crochets (24) étant formés solidairement des parties respectives (6, 7), et **en ce que** les dispositifs de montage des pieds (5) sont constitués des fentes correspondantes (25) ayant une partie (26) décalée vers l'intérieur dans les pieds (5).
12. procédé de montage d'une ossature (4) selon la revendication 11, **caractérisé en ce que** les crochets (24) des parties allongées (6) et les crochets (24) des parties transversales (7) sont insérés dans les parties (26) décalées vers l'intérieur dans les pieds (5) et sont accrochés dans des fentes correspondantes (25), si bien que l'ossature peut être montée sans aucun élément libre de montage.
13. Procédé de montage d'un ensemble à baignoire selon la revendication 1, **caractérisé par** les étapes suivantes :
- a) le raccordement par pivotement du panneau avant (3a, 3b) à son bord longitudinal supérieur ou inférieur sur l'ossature (4) en deux points distants de raccordement (9), et
- b) le pivotement du panneau avant (3a, 3b) vers une position pratiquement verticale dans laquelle des dispositifs de coopération (21) placés au bord longitudinal opposé du panneau avant (3a, 3b) coopèrent avec des dispositifs correspondants de coopération (13) placés sur l'ossature (4) pour la retenue du panneau avant (3a, 3b), si bien que l'ensemble à baignoire peut être monté sans aucun élément libre de montage.



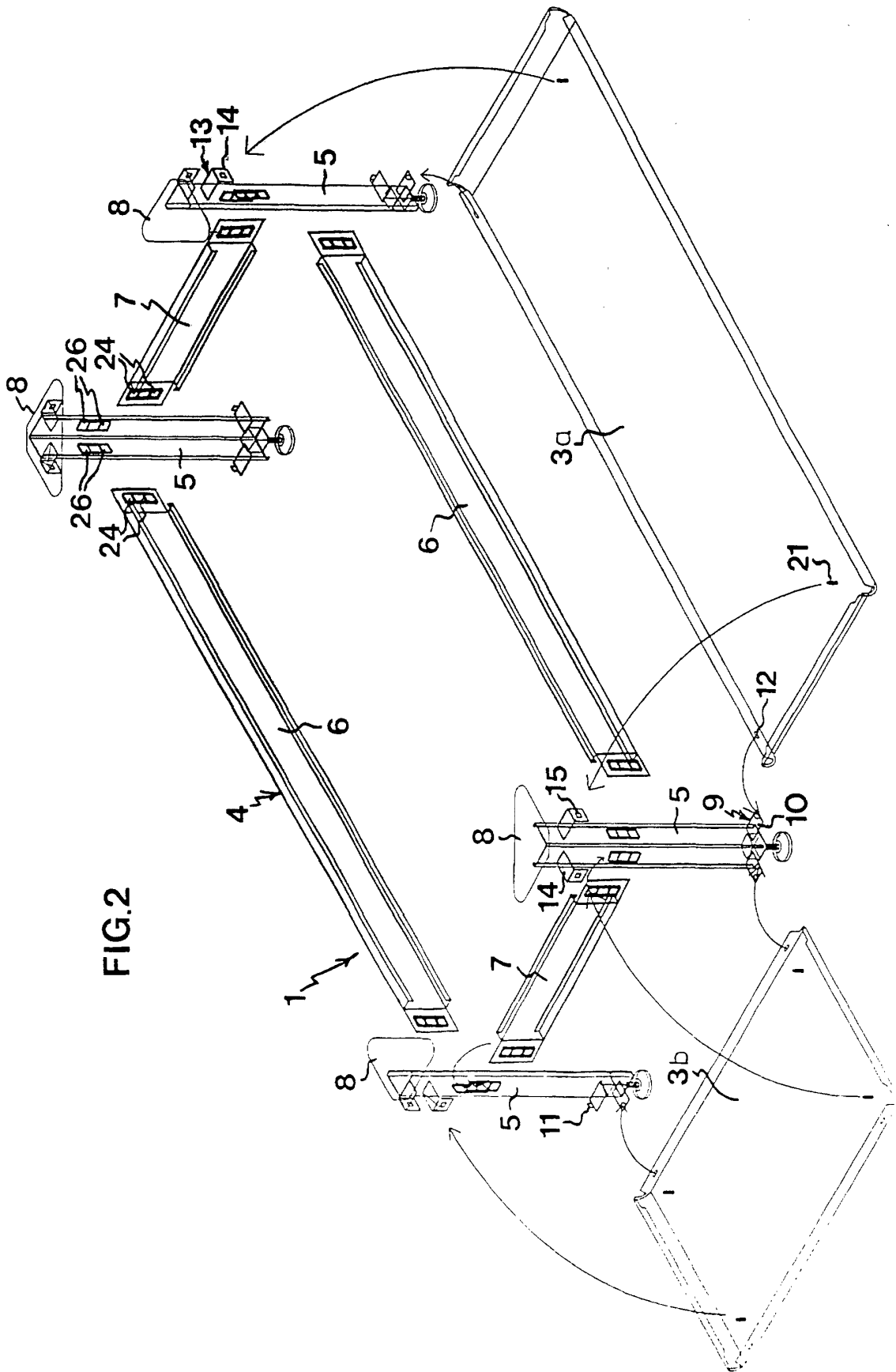


FIG.2

FIG.5

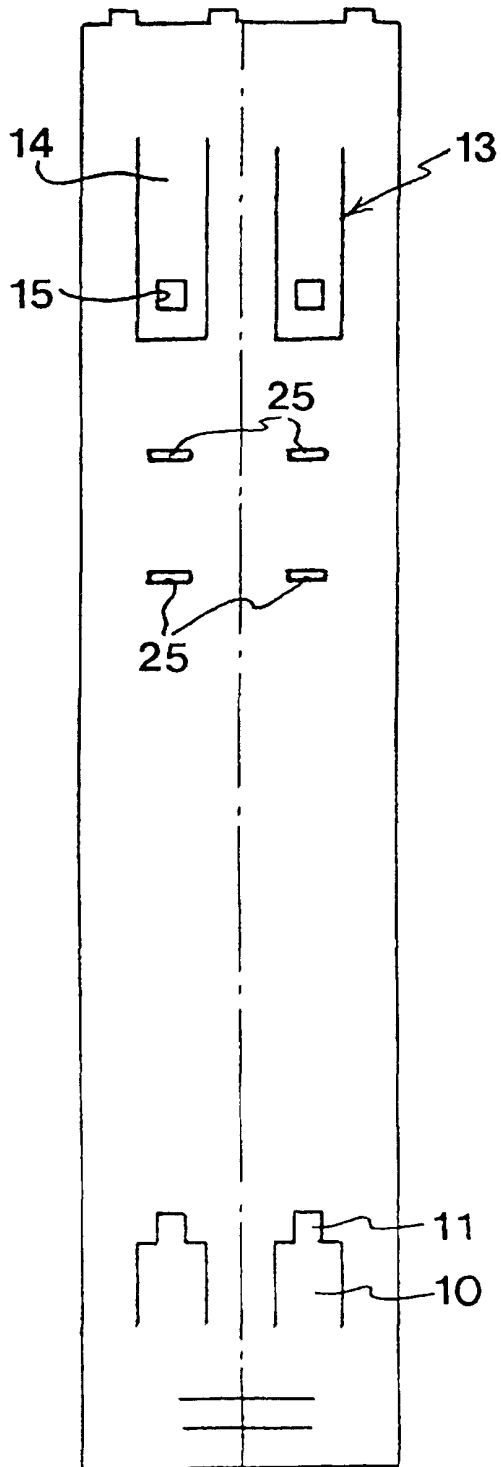


FIG.6

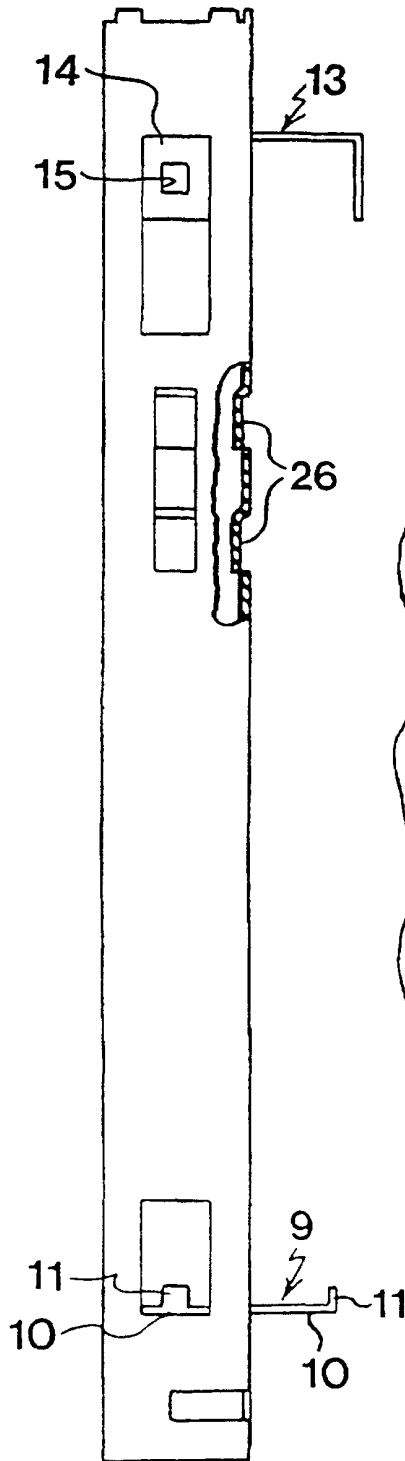


FIG.7

