



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
28.12.2011 Bulletin 2011/52

(51) Int Cl.:
A47K 3/30 (2006.01)

(21) Application number: **11171113.1**

(22) Date of filing: **22.06.2011**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

(71) Applicant: **TEUCO GUZZINI S.p.A.**
Montelupone (IT)

(72) Inventor: **Guzzini, Mauro**
62019 Recanati (IT)

(74) Representative: **Jorio, Paolo et al**
Studio Torta S.p.A.
Via Viotti, 9
10121 Torino (IT)

(30) Priority: **22.06.2010 IT BO20100400**

(54) **Covering structure for a shower box**

(57) A covering structure for a shower box (1) having a frame (7) and a roof (8); the frame (7) having a first and a second shoulder element (10, 11), which are connected to the roof (8); the second shoulder element (11)

comprising at least one adjustment element (32) for varying the reciprocal arrangement between the second shoulder element (11) and the first shoulder element (8) with respect to roof (8).

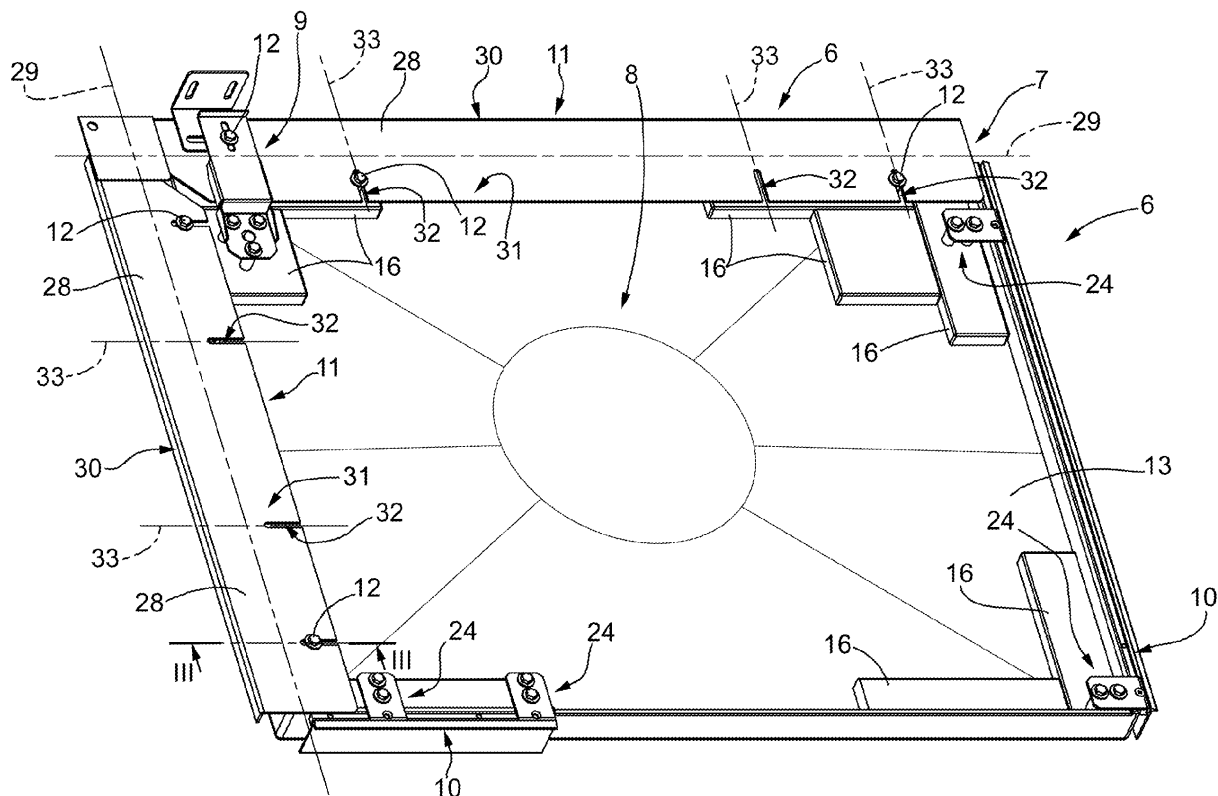


FIG.2

Description

[0001] The present invention relates to a covering structure for a shower box; in particular, a covering structure for the upper closing of an angular type shower box.

[0002] It is known that in an angular type shower box two adjacent partitions are made by means of walls, while the other walls are made by means of panels (generally glass) which overhangingly protrude from the walls themselves. At least one panel is mobile so as to allow access into the shower box.

[0003] It is further known that a covering structure is applied over the shower box so as to isolate the environment within the shower box itself. Such a type of covering structure may be advantageously used to avoid the dispersion of steam within a room or for applying shower heads or lighting or furnishing elements.

[0004] Since the walls which form the two adjacent partitions of the shower box of the type described above are not generally perfectly perpendicular to each other, in order to guarantee the correct upper closing of the shower box itself it is necessary to make from time to time a customized covering structure, the peripheral profile of which perfectly corresponds to the actual arrangement of the walls and of the panels. Such a type of covering structure has the drawback of being expensive and requiring relatively long production times.

[0005] It is the object of the present invention to provide a covering structure for a shower box which allows to eliminate the drawbacks described above.

[0006] According to the present invention, a covering structure for a shower box is provided as disclosed in claim 1 and, preferably, in any one of the appended claims.

[0007] The invention will now be described with reference to the accompanying drawings which illustrate a non-limitative embodiment thereof, in which:

- figure 1 is a perspective, diagrammatic view of a preferred embodiment of the covering structure for a shower box according to the present invention in an operative configuration;
- figure 2 is a perspective view, on enlarged scale, of the covering structure for a shower box in figure 1;
- figure 3 shows, on enlarged scale, a section taken along line III-III in figure 2;
- figure 4 shows, on an enlarged scale, a first detail of figure 2;
- figure 5 shows, on an enlarged scale, a second detail of figure 2; and
- figure 6 shows, on an enlarged scale, a third detail of figure 2.

[0008] In figure 1, numeral 1 indicates as a whole a shower box of angular type wherein a pair of side partitions P are defined by walls 2 and 3, respectively, and a pair of side partitions P are made by means of panels 4 and 5, respectively.

[0009] The walls 2 and 3 are adjacent and angular to one another and each panel 4 and 5 protrudes from a corresponding wall 2 and 3, respectively.

[0010] Preferably, at least one panel 4 (5) is hinged to the respective wall 2 (3). As shown in figure 1, both panels 4 and 5 are hinged to the respective walls 2 and 3. Alternatively, at least one panel 4 or 5 comprises a concertina or sliding door.

[0011] The shower box 1 further comprises a covering structure 6 which delimits and isolates the upper part of the area in the shower box 1.

[0012] As shown in figure 2, the covering structure 6 comprises, in turn, a frame 7 to be applied to the partitions P of the shower box 1, a roof 8 for closing the top of the shower box 1 and an anchoring system 9, which is adapted to fix the roof 8 to a respective wall 2 or 3. The frame 7 delimits the perimeter of the covering structure 6 and the roof 8 extends within the perimeter delimited by the frame 7 itself.

[0013] The frame 7 comprises one or more reference elements 10, each of which is connected to the roof 8.

[0014] Each reference element 10 is adapted to be aligned with a respective reference plane, substantially with a respective panel 4 and 5 of the shower box 1.

[0015] The frame 7 comprises one or more covering elements 11, each of which is connected to the roof 8. Each covering element 11 is adapted to be aligned with a respective reference plane, essentially with a respective wall 2 and 3 of the shower box 1.

[0016] The frame 7 further comprises a plurality of locking elements 12 for fixing the roof 8 to the reference elements 10 and to the covering elements 11, as explained better below.

[0017] As described in figures 2 and 3, the roof 8 is made as a cup-shaped body comprising a base partition 13 in parallelogram shape plan; the two adjacent sides of the base partition 13 are substantially parallel to each other.

[0018] As shown in figure 3, the roof 8 further comprises a side partition 14, which protrudes perpendicularly from the base partition 13 and delimits an inner cavity.

[0019] The roof 8 further comprises a plurality of bases 16 of substantially parallelepiped shape, arranged within the cavity 15 and integral with the base partition 13; in particular, each base 16 is arranged in proximity of a respective angle of the roof 8 and is adapted to connect the roof 8 itself to the frame 7 by means of locking elements 12 (figure 2).

[0020] As shown in figures 2 and 6, each reference element 10 comprises:

an abutting partition 17 of substantially parallelepiped shape with two side surfaces 18 of larger dimensions and having a longitudinal axis 19; a contrast element 20 which has, in turn, an abutting surface 21 which perpendicularly protrudes from the side surface 18 of dimensions larger than the abutting partition 17 and has a longitudinal axis parallel

to the longitudinal axis 19;

a stopper 23 which has parallelepiped shape with longitudinal axis parallel to axis 19 and which protrudes from the abutting partition 17 from the side opposite to the contrast element 20; the stopper 23 further has a cavity 22 arranged along axis 19 with U-shaped cross section facing the outside of the stopper 23;

at least one bracket 24 which comprises a plate 25 and a tooth 26, which is adapted to be engaged within the cavity 24 and protrudes laterally from the plate 25, and has a plurality of holes (of known type and not shown in the figures), each of which is adapted to accommodate a respective locking element 12.

[0021] As shown in figure 6, the stopper 23 has a plurality of holes 27a with axis perpendicular to axis 19 facing outwards from the side opposite to that from which the abutting partition 17 protrudes. Furthermore, each bracket 24 displays a through hole 27b made on the plate 25; the hole 27b is adapted to overlap each hole 27a of the stopper 23 when the bracket 24 is arranged in operative configuration. Finally, the bracket 24 comprises a bushing B which is arranged through a pair of mutually aligned holes 27a and 27b.

[0022] As shown in figures 2 and 3, each covering element 11 comprises a profile 28 with longitudinal axis 29 and a L-shaped cross section with respect to axis 29 (figure 3). In particular, the section 28 has an abutting partition 30 of smaller dimensions adapted to be arranged in contact with a respective wall 2 (3) and a coupling partition 31 of larger dimensions adapted to be arranged parallel to the base partition 13 of the roof 8.

[0023] According to a variant (not shown), the covering element 11 comprises the adjustment elements which allows to translate and maintain the covering element 11 with respect to a reference point of the roof 8 in a predetermined position.

[0024] As shown in figures 2, 5 and 6, the covering element 11 has one or more slots 32, each of which is adapted to vary the reciprocal arrangement between the covering element 11 and the reference element 10 with respect to a predetermined point of the roof 8. In particular, the coupling partition 31 of each covering element 11 has a plurality of slots 32 uniformly distributed along the axis 29 of the coupling partition 31; each slot 32 has an axis perpendicular 33 to the longitudinal axis 29 itself.

[0025] As shown in figures 2 and 5, the anchoring system 9 comprises a bracket 34, which is fixed to the roof 8 by means of locking elements 12 and comprises a plate 34a, which is parallel to a coupling partition 31 and has a slot 35 with longitudinal axis 36 perpendicular to the respective abutting partition 30, and a bracket 37, which is adapted to be applied to a respective wall 2 (3) and comprises a partition 37a, which is parallel to the plate 34a, and a partition 37b which is perpendicular to the plate 34a protrudes from the top of the respective covering element 11.

[0026] As shown in figure 5, the partition 37a has a slot 38 with axis 39 parallel to axis 29 and is arranged between the plate 34a and the coupling partition 31. Furthermore, the partition 37b has a pair of slots 40. The anchoring system 9 further comprises a locking element 12 which is arranged through slot 35 of the first bracket 34 and slot 38 of the second bracket 37 to connect the two brackets 34 to 37 to each other. It is worth noting that the locking element 12 may shift inside slots 35 and 38 so as to adapt their working position as a function of the actual arrangement of roof 8 and of the respective application wall 2 (3).

[0027] In use, each bracket 25 is connected to roof 8 by means of locking elements 12 in a given position defined on the basis of the dimensions of the respective panels 4 and 5, as will be explained in greater detail below.

[0028] Thus, a reference element 10 is applied to the panel 4 so as to make the abutting partition 17 adhere onto an inner surface of the panel 4 itself and the abutting surface 21 of contrast element 20 against a respective upper side surface of the panel 4 itself; in other words, the reference element is arranged in contact with the two adjacent side partitions of panel 4.

[0029] At the same time, a further reference element 10 is applied similarly to that described above in panel 5.

[0030] Thus, each bracket 25 is applied to a respective reference element 10 engaging tooth 26 within cavity 23 of reference element 10 itself. Preferably, the position of each bracket 25 along axis 19 is fixed by inserting the respective bushing B so as to align and restrain hole 27b of bracket 25 in a given hole 27a of stopper 23.

[0031] Thus, roof 8 is fixed to a wall 2 (3) by means of anchoring system 9. In particular, anchoring system 9 is fixed to roof 8 by means of the bracket 34 and is fixed to wall 2 (3) by means of bracket 37. It is worth noting that by virtue of the connection between brackets 34 and 37 by means of a locking element 12 which may shift within slots 35 and 38, respectively, of both brackets 34 and 37, the anchoring system 9 may be adapted to the actual arrangement of walls 2 and 3 so as to maintain roof 8 aligned with both panels 4 and 5.

[0032] Subsequently, each covering element 11 is applied to a respective wall 2 (3), in known manner, so that the respective coupling partition 31 protrudes perpendicularly from side partition 14 of roof 8 and is substantially parallel to base partition 13 of roof 8 itself, while the abutting partition 30 is arranged against the respective wall 2 (3), to which is made integral in known manner and illustrated diagrammatically.

[0033] After applying covering element 11 to the respective wall 2 (3), roof 8 is fixed to each coupling partition 31 by means of locking elements 12, each of which is engaged with a respective base 16 of roof 18 and a slot 32 of the covering element. It is worth observing that each locking element 12 engaged with the coupling partition 31 may be arranged along respective slot 32 in different positions as a function of the actual arrangement of walls 2 and 3. In particular, the position of each locking element

12 engaged with a respective coupling partition 31 is chosen so as to maintain roof 8 aligned with reference elements 10, and consequently with both panels 4 and 5.

[0034] From the above it derives that a covering structure 6 for a shower box 1 of the type described above may be made in series and may be adapted in simple and quick manner to any shower box 1 of angular type, independently from the actual angle of the adjacent walls 2 and 3.

Claims

1. A covering structure for a shower box (1); the covering structure (6) comprising a frame (7) and a roof (8); the covering structure (6) being **characterized in that** frame (7) comprises a first and a second shoulder element (10, 11), which are connected to roof (8); the second shoulder element (11) comprising at least one adjustment means (32) for varying the reciprocal arrangement between the second shoulder element (11) and the first shoulder element (8) with respect to the roof (8) .
2. A structure, according to Claim 1, and comprising a plurality of first shoulder elements (10) and a plurality of second shoulder elements (11).
3. A structure, according to Claim 1 or 2, wherein each second shoulder element (11) has a longitudinal axis (29); and wherein each adjustment means (32) is made as a slot with an axis (33) perpendicular to said axis (29) of the second shoulder element (11); and wherein covering structure (6) comprises one or more locking elements (12), each of which is mobile within a respective slot and connects roof (8) to a respective second shoulder element (11).
4. A structure, according to any one of the preceding Claims, wherein each first shoulder element (10) comprises an abutting partition (17) and a contrast body (20) transversal to each other; and wherein covering structure (6) comprises a coupling system (12, 24, 27b, B) which connects shoulder element (10) to roof (8) .
5. A structure, according to any one of the preceding Claims, and comprising an anchoring system (9), which comprises a first bracket (34) connected to roof (8), a second alignment bracket (37) with a reference plane (2; 3), and one or more locking elements (12) for connecting the first (34) and the second (37) bracket to each other.
6. A structure, according to Claim 5, wherein the roof (8) comprises a base partition (13) and each second shoulder element (11) comprises a coupling partition (31), which is parallel to said base partition (13) and

has a longitudinal axis (29), and an abutting partition (30), which protrudes perpendicularly from a side and longitudinal edge of said coupling partition (31) and is adapted to be aligned to the reference plane (2; 3); and wherein the first bracket (34) comprises a partition (34a), which is parallel to the coupling partition (31) and has a slot (35) with axis (36) perpendicular to axis (29) of the coupling partition (31).

7. A structure, according to Claim 5 or 6, wherein roof (8) comprises a base partition (13) and each second shoulder element (11) comprises a coupling partition (31), which is parallel to said base partition (13) and has a longitudinal axis (29), and an abutting partition (30), which protrudes perpendicularly from a side and longitudinal edge of said coupling partition (31) and is adapted to be aligned with the reference plane (2; 3); and wherein the second bracket (37) comprises a partition (37a), which is parallel to the coupling partition (31) and has a slot (38) with axis (39) parallel to the axis (29) of the coupling partition (31).
8. A structure, according to Claim 5 or 7, wherein the anchoring system (9) comprises a locking element (12), which engages a slot (35) of the first bracket (34) and a slot (38) of the second bracket (37).
9. A shower box comprising a covering structure (6) as disclosed in one or more Claims from 1 to 8.

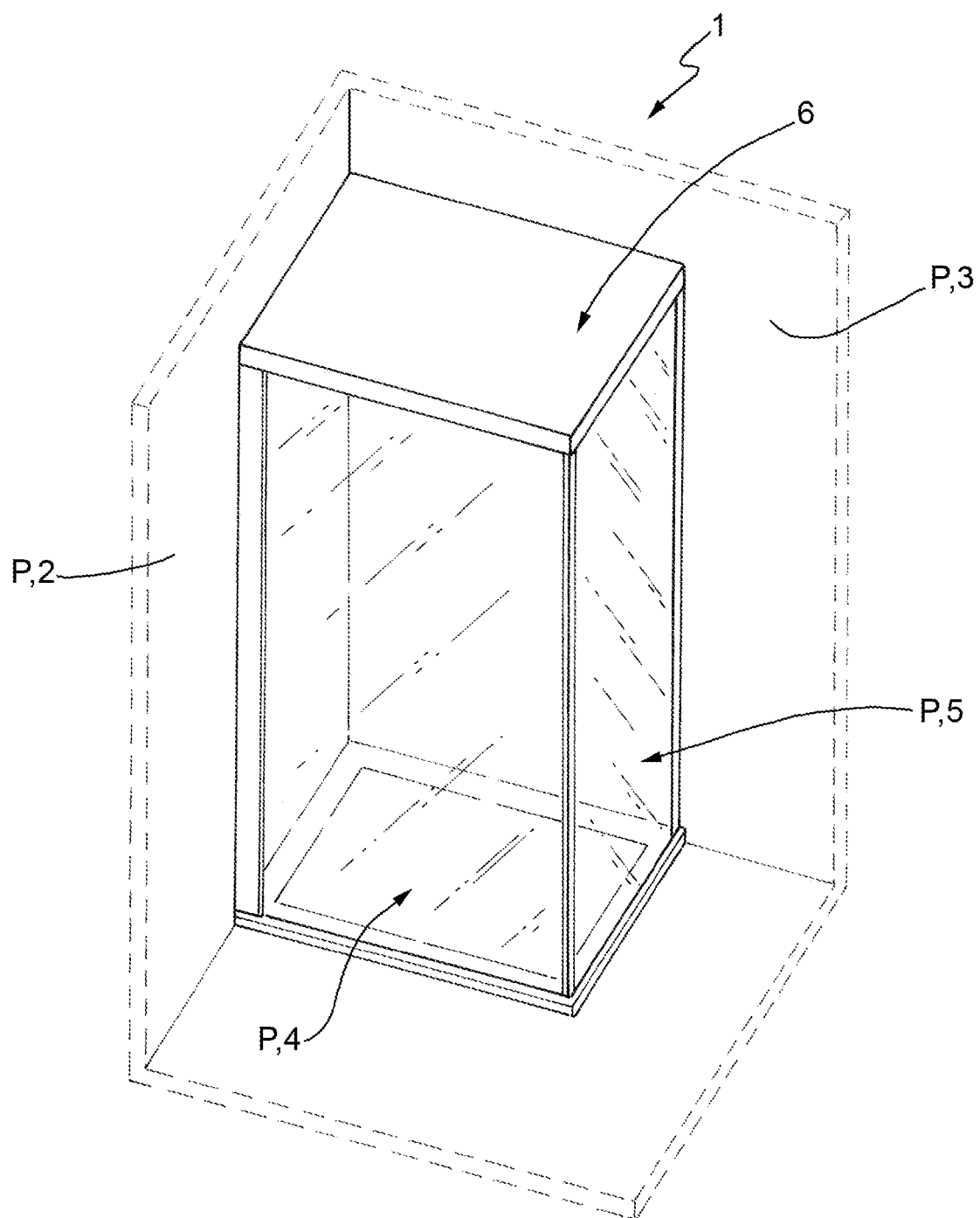


FIG.1

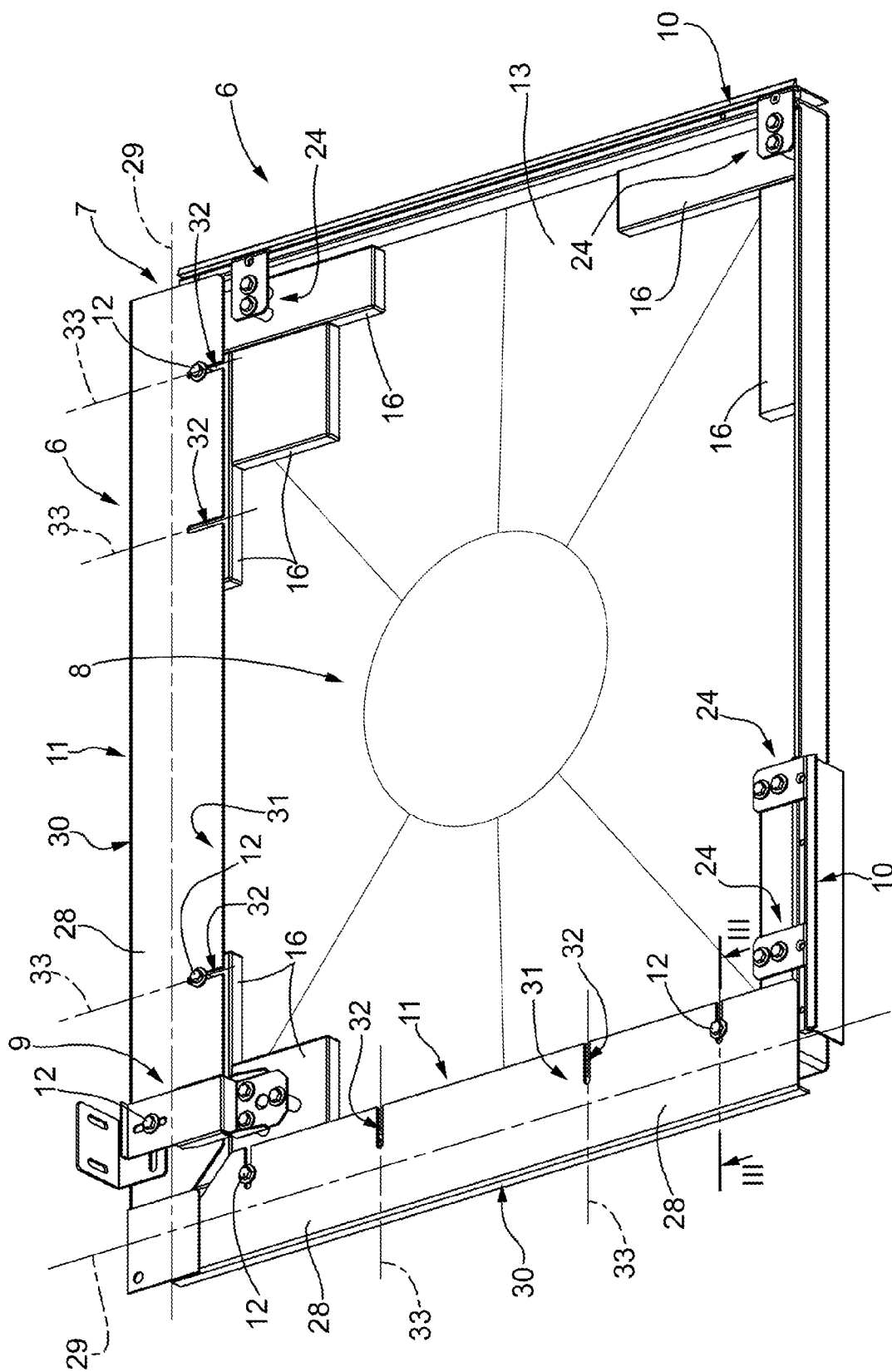
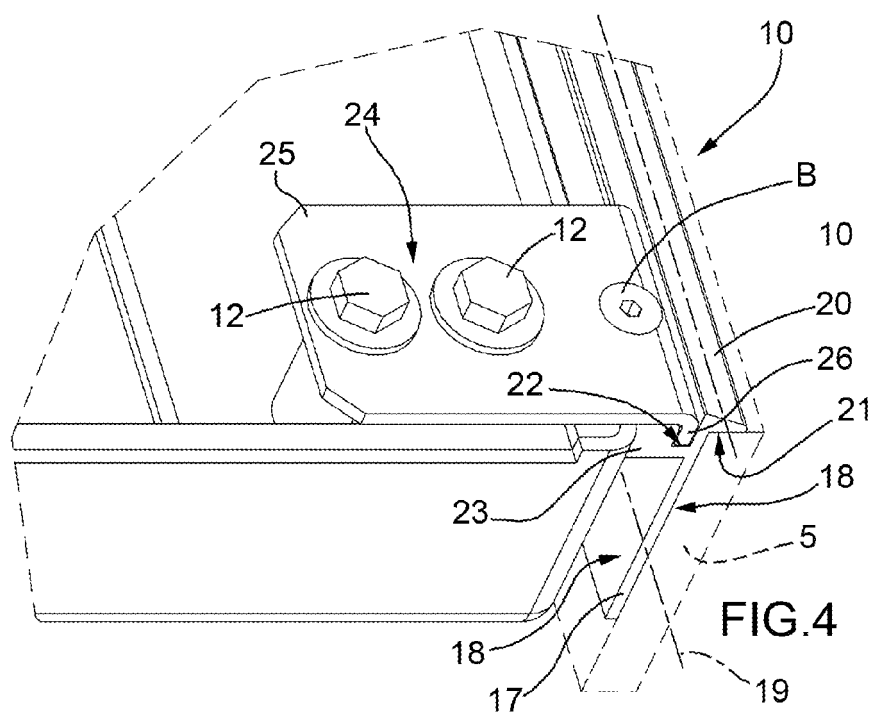
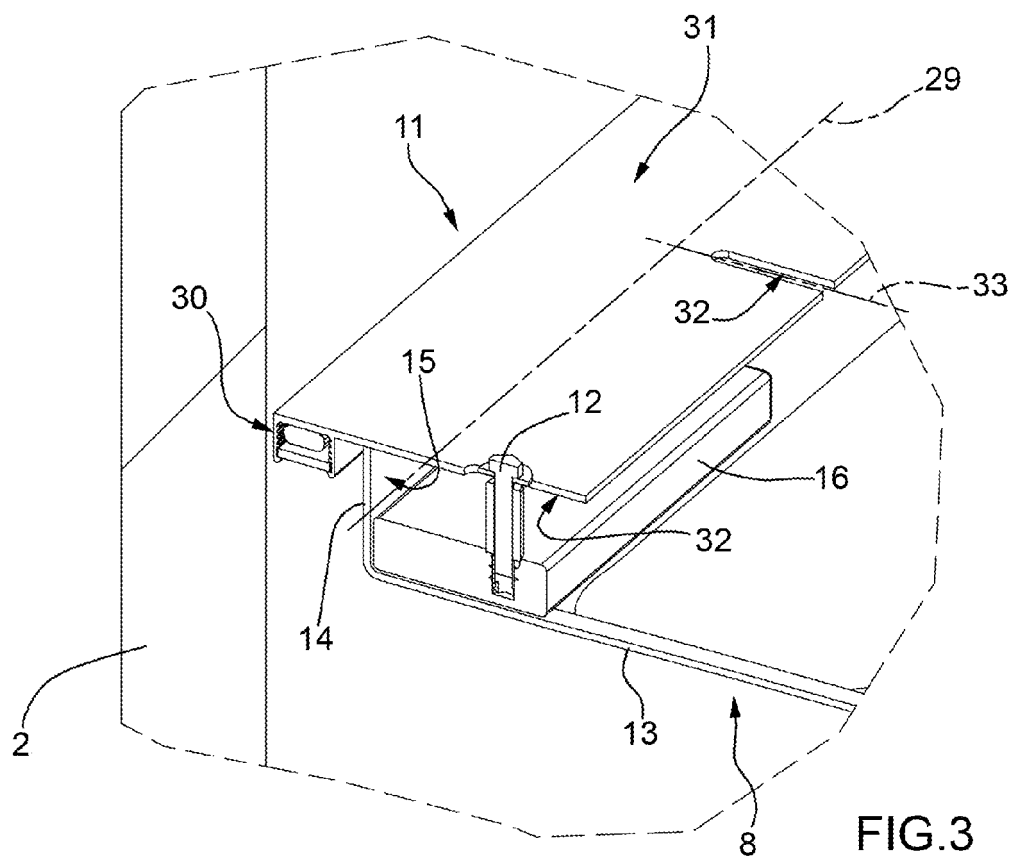


FIG.2



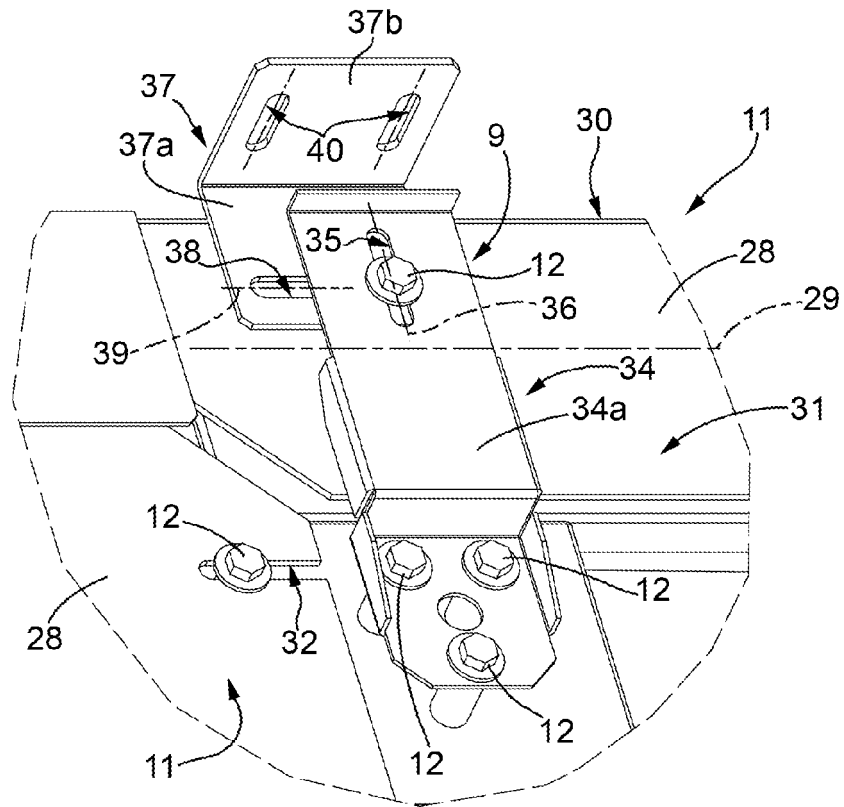


FIG. 5

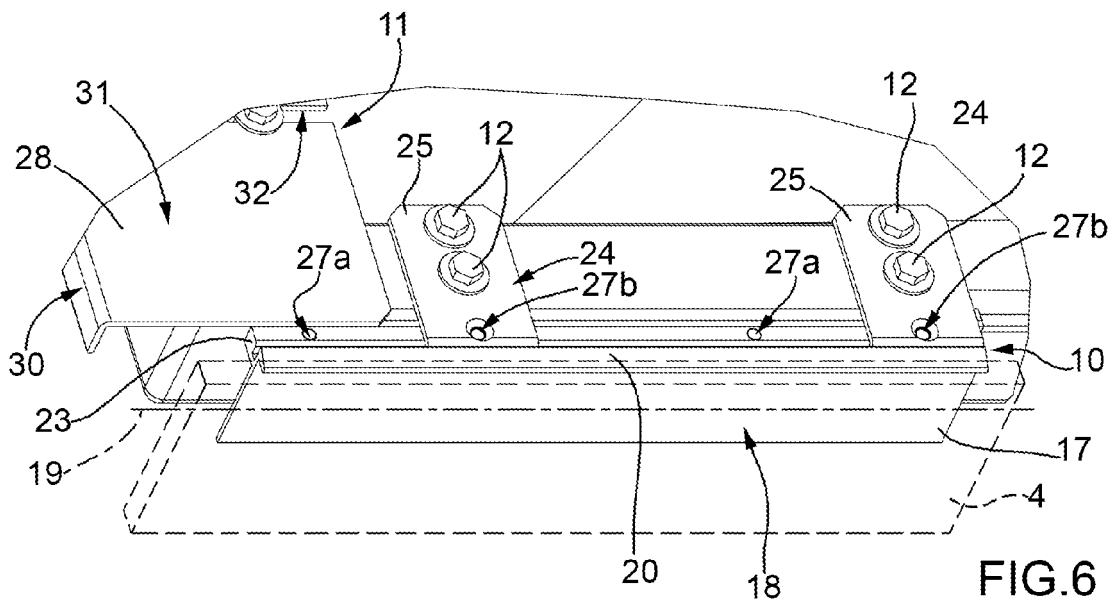


FIG. 6



EUROPEAN SEARCH REPORT

Application Number
EP 11 17 1113

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	AU 619 164 B3 (PETER ANTHONY HEARNE) 15 November 1991 (1991-11-15) * the whole document *	1,4	INV. A47K3/30
A	US 2005/246831 A1 (MAYHEW STEVEN K [US] ET AL) 10 November 2005 (2005-11-10) * page 1, paragraph 11 - page 3, paragraph 38; figures *	1,4	
A	US 4 365 368 A (BOGGS WILLIAM H) 28 December 1982 (1982-12-28) * column 4, lines 11-18 * * column 5, line 12 - column 6, line 3; figures 3,10,12,13 *	1	
A	DE 91 02 292 U1 (WORMUTH, ARMIN) 16 May 1991 (1991-05-16) * page 6, paragraph 2 - page 7, paragraph 1; figure *	1	
A	US 2008/184478 A1 (HOWARD FREDRICK T [US]) 7 August 2008 (2008-08-07) * page 1, paragraph 18 - page 2, paragraph 27; figures *	1	TECHNICAL FIELDS SEARCHED (IPC) A47K A61H A61N B62D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 21 October 2011	Examiner Fajarnés Jessen, A
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	

1
EPO FORM 1503 03.82 (P04C01)

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

EP 11 17 1113

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

21-10-2011

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
AU 619164	B3	15-11-1991	AU 7805291 A	16-01-1992
US 2005246831	A1	10-11-2005	NONE	
US 4365368	A	28-12-1982	NONE	
DE 9102292	U1	16-05-1991	NONE	
US 2008184478	A1	07-08-2008	NONE	