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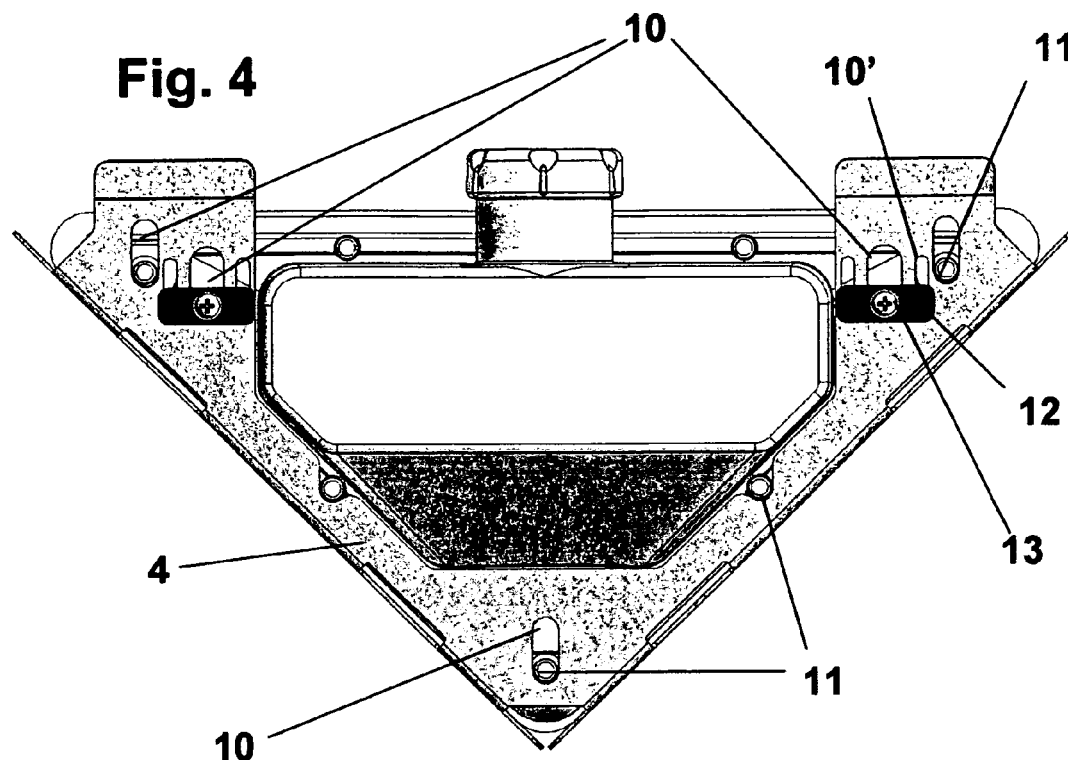
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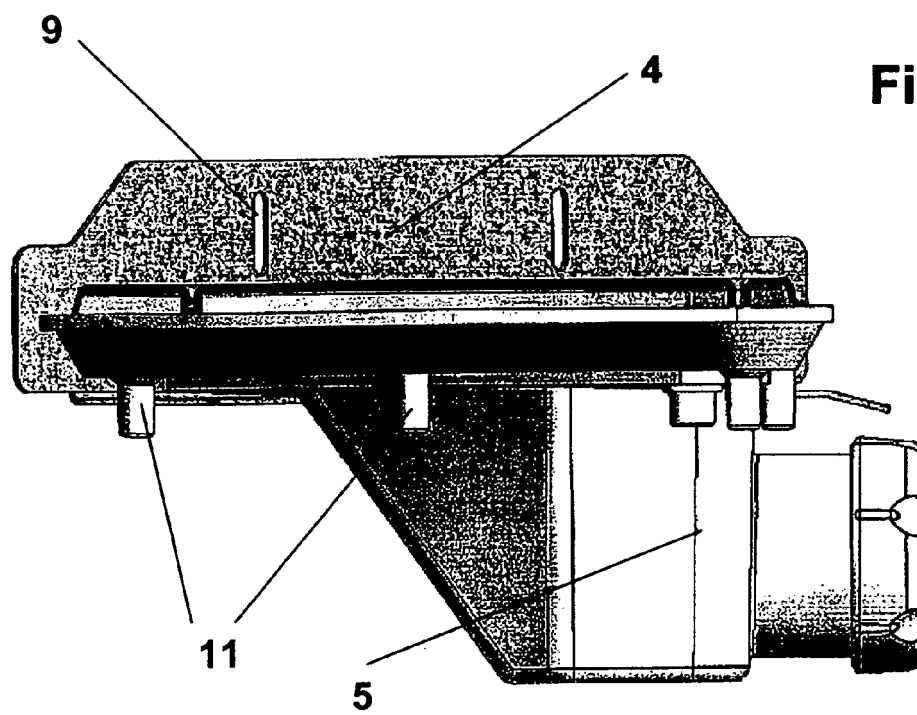
(54) **Adjustable support for a drain**

(57) The support (4) for the drain body (5) is fixed to the wall of a shower by means of some vertical slotted holes (9) permitting the height of the drain to be adjustable. Further openings (10) in the horizontal elements of the support (4) allow fixing of the drain body (5) by means of studs (11) on the drain body (5) engaging these open-

ings (10). The openings (10) in the horizontal elements of the support (4) are also slotted holes such that the position of the drain with respect to the support (4) may be adjusted.

The immobilization of the drain body (5) on the support (4) is achieved by clips (12) and nails (13).





Description

OBJECT OF THE INVENTION

[0001] The present invention relates to a drain for showers in which the floor of the bathroom acts as the shower base and its walls consist of wall tiling, and where everything has the appearance of being integrated and the drain is scarcely noticed since it is at the level of the floor.

[0002] The drain forming the object of the present invention is of the kind that incorporates a support whose height is adjustable when being installed and which can also advantageously be adjusted in terms of its depth for its perfect adaptation to the different possible thicknesses of the wall tiles.

BACKGROUND OF THE INVENTION

[0003] Triangular drains are known that are fitted in new showers, in which the bathroom floor acts as the shower base, and the vertical tiling becomes the walls of the shower. Everything has the appearance of being integrated and the drain is scarcely noticed since it is at the level of the floor.

[0004] In order to install this kind of drain, a support is normally fixed to which the drain body will then be attached along with the other elements making up the drain. This support is fixed to the wall in a position that permits the drain body to be installed in such a way that the unit remains at floor level. Also, a minimum of precautions and measures are required so that the unit does not move upwards when creating the concrete floor, either by securing it to the wall, or by securing it from an upper position using means existing in the state of the art, until the concrete of the floor has dried, after which these means are then removed.

[0005] The above presents the problem that the different thicknesses of tiling can alter the aesthetic appearance of the drain since it is fixed to the wall in terms of height only when being fitted. When the wall is laid with tiles or ceramic, these can overlap and hide part of the grating of the drain diminishing the aesthetic appearance of the shower. Access, removal and, in general, maintenance of the drain can all be made more difficult even, if the drain is partially hidden by the tiling being superimposed on it by a few centimetres. In this latter case, a situation can be reached in which it becomes necessary to break the lower tiles in order to be able to remove the drain or gain access to it for maintenance.

DESCRIPTION OF THE INVENTION

[0006] The object of the present invention is to overcome the problems described above by means of a drain incorporating a support permitting its depth to be adjusted.

[0007] Said adjustment of depth allows the location of

the drain to be adapted to the thickness of the vertical tiling, therefore the whole of the grating will always be able to be perfectly visible, with the same width on all its sides.

[0008] To achieve this, some openings have been provided in the form of runners in the support piece for the body of the drain, which will be traversed by some studs incorporated in the body. In this way, the body can slide horizontally with respect to the support piece according to the length of travel of the runners. The fixing of the support piece and the body is done by means of some clips which secure the position of the unit at the desired distance from the wall depending on the thickness of the tiling.

[0009] Optionally, some or all of the runners can be replaced with holes arranged at a predetermined distance, and which can be traversed by the studs in order to adapt the positioning of the drain to the different thicknesses of the tiling.

[0010] In this way, a shower is obtained whose drain can be seen completely, independently of the thickness of the ceramic or tiles of the wall. The appearance of the drain will always be the same, without any need to produce models with different dimensions for different thicknesses of vertical tiling, and also permitting comfortable maintenance and access for the drain without any need to destroy part of the vertical tiling.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] The following figures are included with the aim of facilitating an understanding of the invention:

- Figure 1: view of an integrated drain installed in a shower.
- Figure 2: perspective view of an integrated drain unit removed from the shower, without the support.
- Figure 3: exploded view of the components of the integrated drain forming the object of the present invention, incorporating runners.
- Figure 4: lower plan view of the drain body installed in a support, incorporating runners and holes, and where the securing of the unit by means of clips can be seen.
- Figure 5: side view of the union of the drain and of the support without showing the clips.
- Figure 6: perspective view of part of the support with runners and a clip.

PREFERRED EMBODIMENT OF THE INVENTION

[0012] Figure 1 shows part of a shower in which the drain (1) is integrated in such a way that the floor (2) of

the bathroom acts as the shower base and its walls consist of wall tiles (3), the whole having the appearance of being integrated, and with the drain appearing at floor level, with just the grating (8) of the drain (1) and its frame (7) being visible (see figure 2).

[0013] In figure 3 the elements making up the drain (1) forming the object of the present invention can be seen, which consist of a drain (1) which incorporates a support (4) that is adjustable in height by means of some vertical runners (9), and adjustable in depth permitting the location of the drain (1) to be adapted to the thickness of the vertical tiling (3). Therefore the grating (8) and its frame (7) as a whole will at all times be perfectly visible, with equal width on all its sides. The grating (8) is incorporated into a frame (7) which is fixed to a pressing rim union (6) of the drain body (or external piece of the drain body) (5), which houses inside itself an internal piece (5') which can be removed and exchanged in case of maintenance.

[0014] The entire foregoing unit (5 to 8) is assembled to form the drain (1) as can be seen in figure 2.

[0015] Figures 3 to 5 show the fastening of the drain (1) to its support (4), with the latter being fixed to the wall of the shower.

[0016] In figure 3 it can be seen that for the horizontally displaceable fastening of the body of the drain (5), and therefore of the drain (1) itself, to its support (4), the latter (4) incorporates some runners (10) and the former (5) some studs (11) which traverse said runners (10) as can be seen in figures 4 and 5.

[0017] In this way, the body of the drain (5) and the internal piece (5') can be displaced horizontally with respect to the support piece (4) according to the length of travel of the runners (10). The fixing of the external piece of the drain body or body of the drain (5) to the support piece (4) is done by means of some clips (12) which fasten the position of the drain-support assembly at the desired distance from the wall depending on the thickness of the tiling.

[0018] As can be seen in figures 3 and 4, the clip (12) is traversed by a nut (13) which threads into the threaded base of the corresponding stud (11). In figure 6 a detail can be seen of the clip (12) and the nut or screw with a spiral thread (13). The traversing element can also be a nail or equivalent.

[0019] It can also be seen in figure 4 that the runners (10) can optionally be complemented on both sides thereof with other auxiliary runners (10') or with a succession of aligned holes (not represented) acting as a guide for the fastening clips (12) via some small studs (12') which the latter (12) incorporate in their lateral ends and which are introduced in these auxiliary runners (10'), as can be seen in figure 6, and which prevent the latter (12) from turning when they are tightened.

[0020] The present integrated drain can be used for purposes other than its use in showers.

Claims

1. Integrated drain of the type that comprises at least a grating (8) attached to a drain body unit (5,5'), and a support (4), **characterized in that** the position of said drain body unit (5,5') is adjustable in depth with respect to said support (4) by means of some openings (10) located in some horizontal elements of the support (4) which are traversed by some studs (11) incorporated in the surface of the external piece of the drain body (5) facing said horizontal elements of the support (4).
2. Drain according to claim 1, **characterized in that** said openings consist of runners (10).
3. Drain according to either of the above claims, **characterized in that** at least one of said openings consists of a succession of holes located in a single axis parallel to the axis of displacement of the drain.
4. Drain according to any of the above claims, **characterized in that** the fixing of the external piece of the drain body (5) to the support (4) is done by means of at least one clip (12) which supports itself on at least one of the said horizontal elements of the support (4) via the opposite surface to the position of the drain body (5), and which is traversed by an element (13) which is fixed to the base of one of said corresponding studs (11).
5. Drain according to claim 4, **characterized in that** said elements traversing the clips (12) are screws.
6. Drain according to claim 4, **characterized in that** said elements traversing the clips (12) are nails.
7. Drain according to claim 6, **characterized in that** said elements traversing the clips (12) are nails with a spiral thread (13).
8. Drain according to any of the above claims, **characterized in that** provided on both sides of at least one of said openings (10) is an auxiliary runner (10') which acts as a guide for said clip (12,12').
9. Drain according to any of the above claims, **characterized in that** provided on both sides of at least one of said openings (10) is a series of holes located in a single axis parallel to the axis of displacement of the drain which act as a guide for said clip (12,12').

Fig. 1

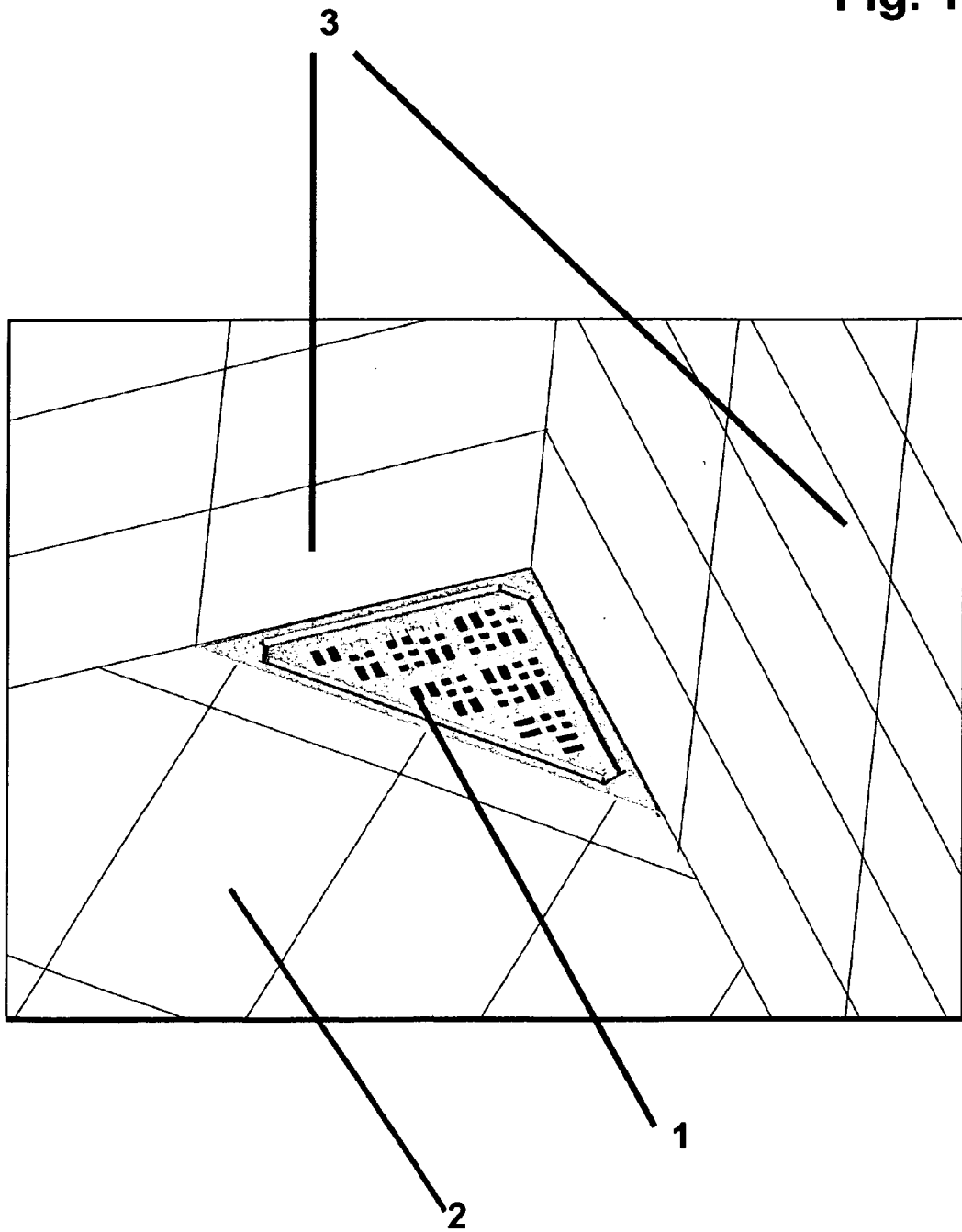


Fig. 2

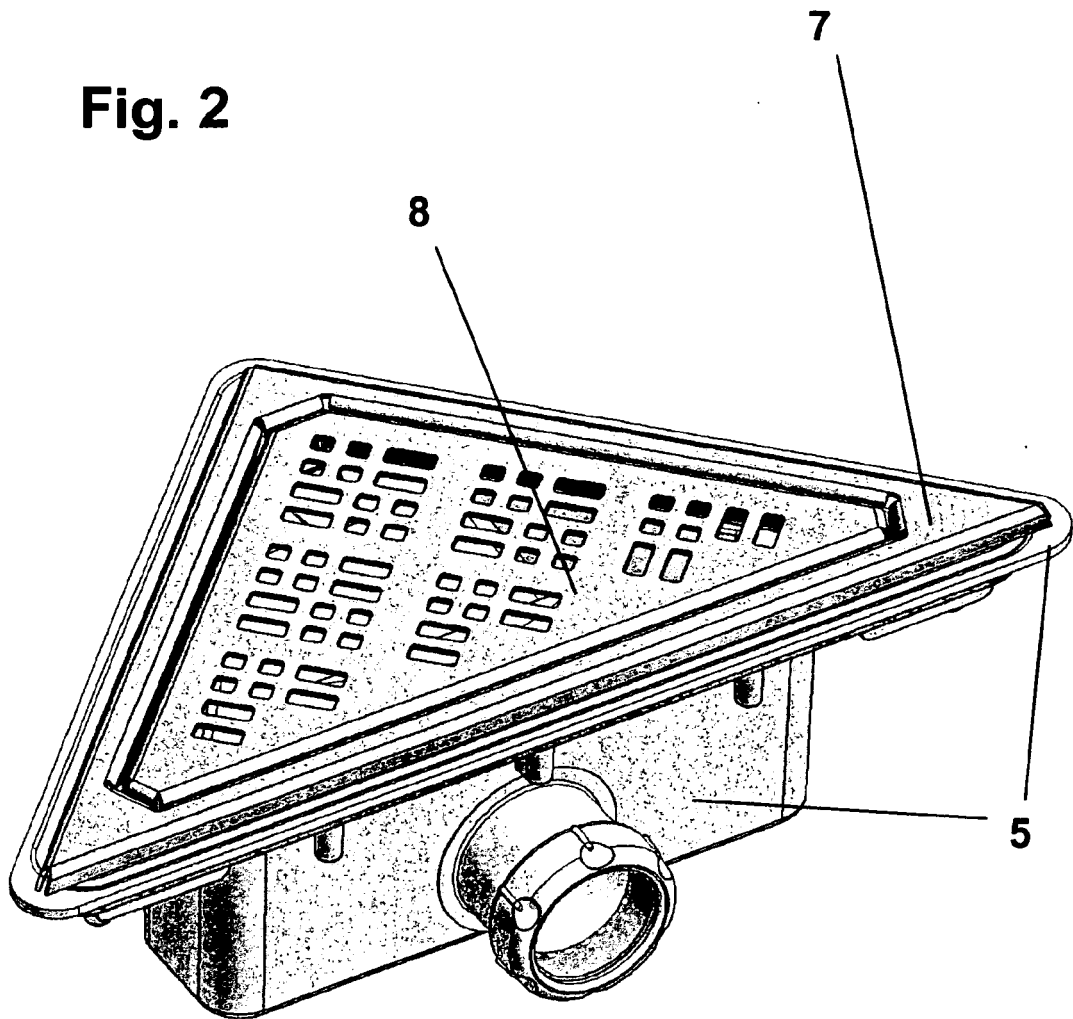
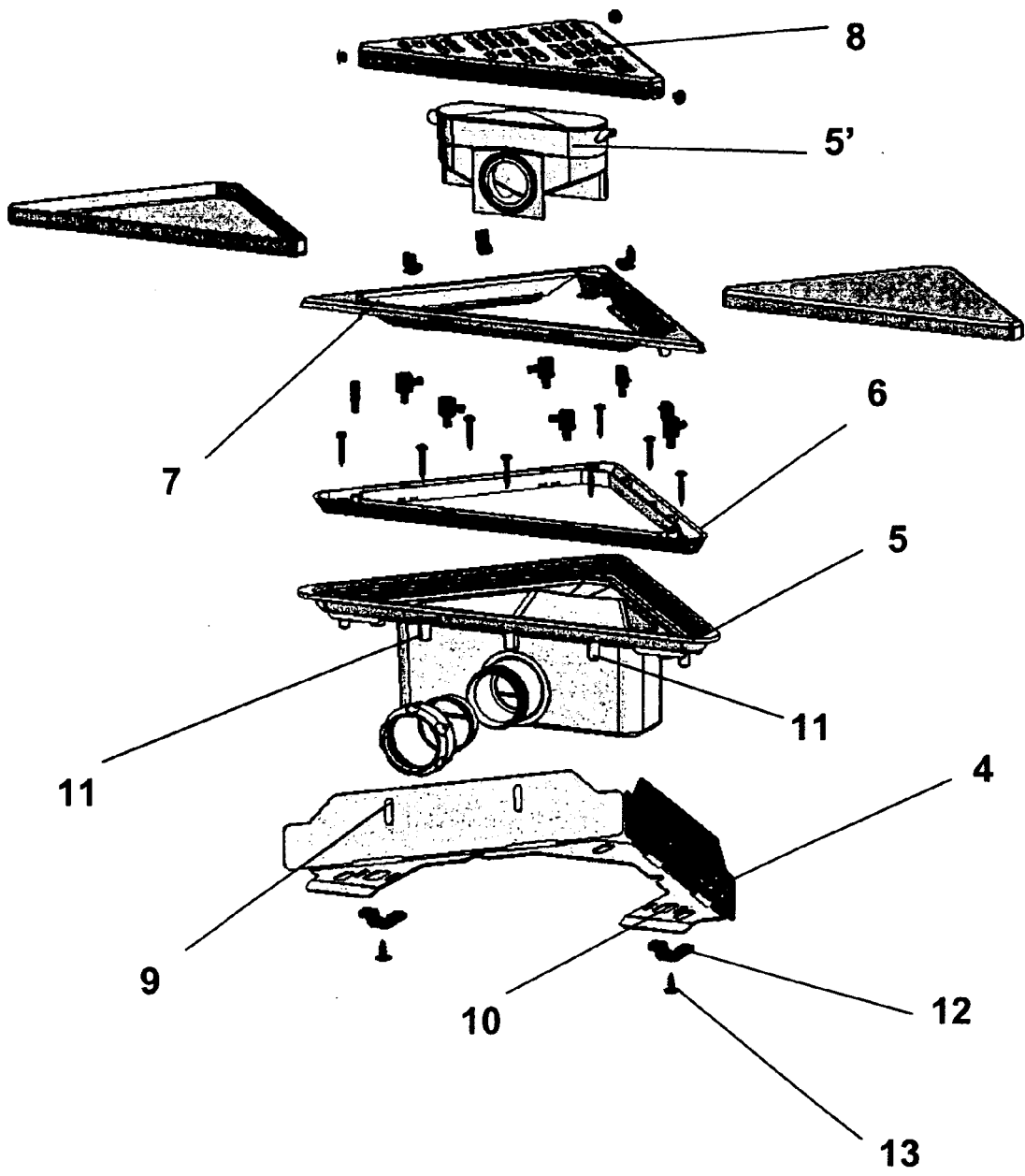


Fig. 3



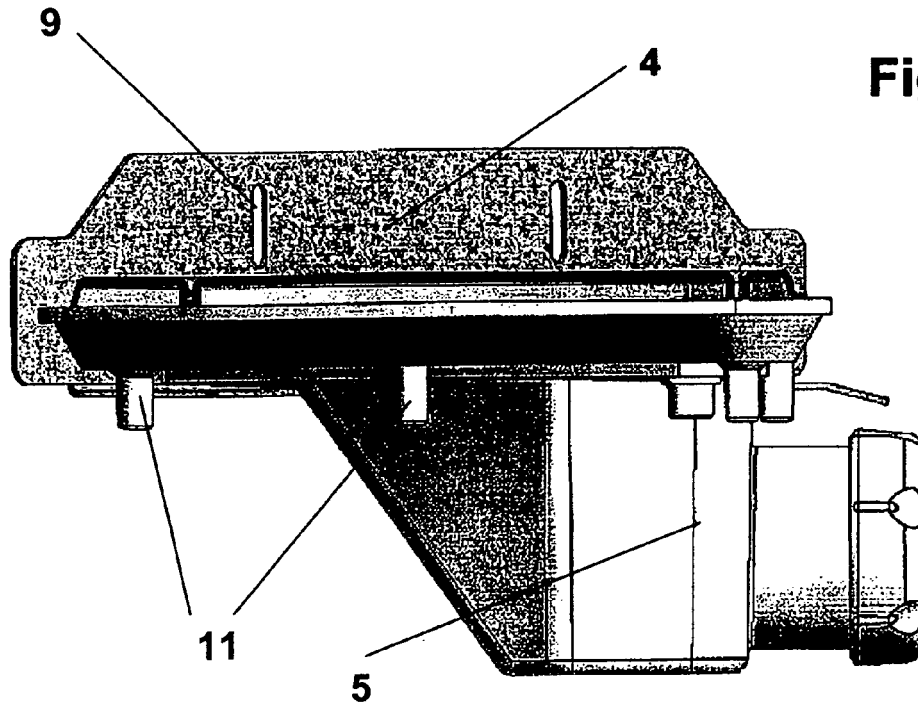
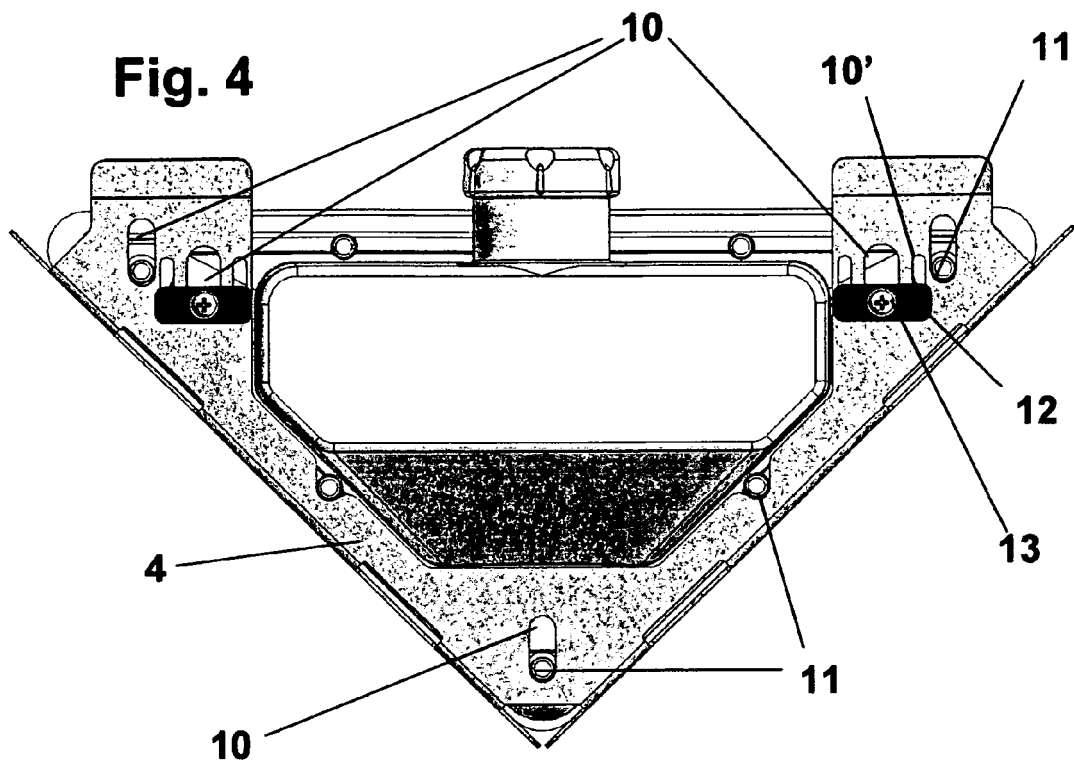
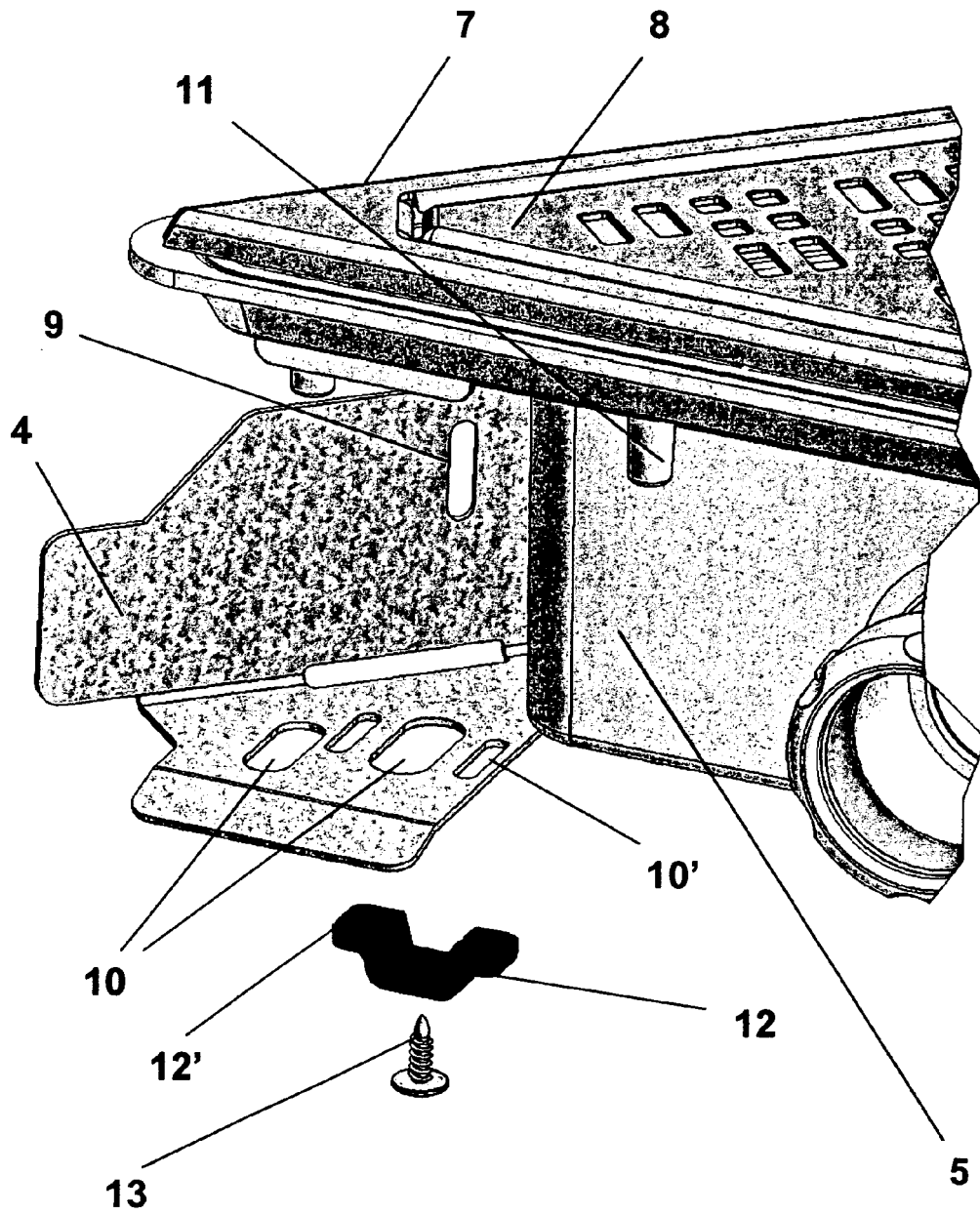


Fig. 6





EUROPEAN SEARCH REPORT

Application Number
EP 10 01 5030

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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A	DE 20 2006 002077 U1 (VIEGA GMBH & CO KG [DE]) 21 June 2007 (2007-06-21) * abstract *	1	
X	EP 1 914 355 A1 (PURUS AB [SE]) 23 April 2008 (2008-04-23) * claims 22,23; figure 1 *	1-3	
			TECHNICAL FIELDS SEARCHED (IPC)
			E03F
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 19 April 2011	Examiner Geisenhofer, Michael
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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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 10 01 5030

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
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19-04-2011

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