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(57) A drawer (3) comprising a base body (4) with a front wall (5) having a set of slots (11) commonly arranged in a longitudinal direction, and a cover plate (8), which is attached to the front wall (5) with screws (10), which extend through the slots (11), wherein an intermediate adjustment plate (9) is provided between the front wall (5) and the cover plate (8) and comprises a set of slots (13),

which are commonly arranged in a longitudinal direction orthogonal to the longitudinal direction of the slots (11) in the front wall (5), that the cover plate (8) is mounted to the adjustment plate (9) by screws (12), which extend through the slots (13) in the adjustment plate (9), and that the adjustment plate (9) is mounted to the front wall (5) by screws (10) which extend through the slots (11) provided therein.

**FIG 1**

FIG 1 is a perspective view of a modular storage unit 1. The unit includes a main cabinet 2 with a front panel 3. A drawer 4 is partially pulled out, showing its internal structure including a front panel 5, side rails 6, 7, and 12, and a bottom panel 10. A handle 15 is attached to the front panel 5. The drawer is supported by a track system 8, 9, 17.

## Description

### TECHNICAL FIELD

[0001] The invention relates to a drawer comprising a base body with a front wall having a set of slots commonly arranged in a longitudinal direction, and a cover plate, which is attached to the front wall with screws, which extend through the slots.

### BACKGROUND TECHNOLOGY

[0002] In the conceptioning of modern kitchens there is an increasing tendency to design kitchen fronts which have a uniform appearance. In this coherence the kitchen designers in particular provide the electrical kitchen appliances with cover plates or panels, which have the same appearance as the front panels of the kitchen furniture, so that the kitchen appliances are not recognizable as such anymore. This applies in particular to kitchen appliances, which are designed as drawers, such as cooking and warming elements in the form of drawers as well as cooling drawers.

[0003] A problem, which is involved with the provision of cover plates consists in that this cover plate has to be carefully aligned with front plates of the surrounding furniture, so that it does not interfere with the surrounding furniture. Also, the optically correct alignment improves the overall appearance of the kitchen front.

[0004] To facilitate the alignment of the cover plate, German utility model 86 20 038 suggests to provide a set of vertical slots in the front wall. The cover plate is then attached to the front wall by the use of screws, which extend through the slots. Accordingly, the cover plate can be adjusted in the vertical direction. However, an adjustment in a lateral direction is not possible.

[0005] Starting from this prior art technology it is an object of the present invention to provide a drawer of the initially mentioned kind, wherein the cover plate can be quickly and exactly mounted and adjusted.

### DISCLOSURE OF THE INVENTION

[0006] According to the present invention this object is solved in that an intermediate adjustment plate is provided between the front wall and the cover plate and comprises a set of slots, which are commonly arranged in a longitudinal direction orthogonal to the longitudinal direction of the slots in the front wall, that the cover plate is mounted to the adjustment plate by screws, which extend through the slots in the adjustment plate, and that the adjustment plate is mounted to the front wall by screws which extend through the slots provided therein.

[0007] It is therefore the basic idea of the present invention to attach the cover plate indirectly via an intermediate adjustment plate to the front plate of the drawer. Specifically the cover plate is attached to the intermediate adjustment plate and adjustable relative thereto in one

direction, and the adjustment plate in turn is attached to the front plate of the drawer and adjustable thereto in a second direction. By this arrangement the cover plate is more or less freely adjustable relative to the base body.

The adjustment is in particular easy, when the two sets of slots are arranged in the horizontal and the vertical direction.

[0008] According to an embodiment of the invention the front wall of the drawer comprises a set of apertures which overlie the slots in the adjustment plate, so that the screws for fixing the adjustment plate to the cover plate are operable through the apertures. This arrangement allows to adjust the position of the cover plate from inside the drawer in both the horizontal and the vertical directions when the cover plate and the adjustment plate are already attached to the front wall. Accordingly, the cover plate can first be mounted, without taking care about its final positioning, and can be finally adjusted afterwards, e.g. when the front plates of the surrounding kitchen furniture are in place.

[0009] Also a supporting plate can be provided between the cover plate and the adjustment plate and attached to the base body of the drawer to provide an abutment face for the cover plate, and the supporting plate comprises two recesses, which overlie the slots of the adjustment plate when the supporting plate is mounted to the base body. This supporting plate provides an abutment face for the cover plate and supports it basically over its entire surface. As a result a high stability of the cover plate is achieved. In particular the supporting plate can be fixed via supporting struts to side faces the base body of the drawer to obtain a high stability.

[0010] Finally the adjustment plate can be made of plastics. In this way, the adjustment plate can be easily manufactured, e.g. as a molded article, which has additionally a low weight for an easy handling.

### BRIEF DESCRIPTION OF THE ACCOMPANYING DRAWINGS

[0011] Further features and advantages of the present invention will become apparent from the following description of an embodiment of the present invention with reference to the accompanying drawing. In the drawing

Figure 1 is an exploded view of a drawer according to the present invention, and

Figure 2 is a partial cross sectional view of the drawer from figure 1 showing the assembly of a front wall of the drawer to its base body,

Figure 3 is a detailed view from figure 1 showing the assembly of an intermediate plate to the base body, and

Figure 4 is a detailed view from figure 1 showing the assembly of the front wall to the intermediate

plate.

## BEST MODE FOR CARRYING OUT THE INVENTION

**[0012]** Figure 1 shows a warming element 1 of a built-in kitchen appliance. The warming element 1 comprises a housing 2 and a drawer 3 with a base body 4, which has a front wall 5, a rear wall 6 and two side walls 7.

**[0013]** Moreover a cover plate 8 is attached to the front wall 5 of the base body 4. This cover plate 8 is provided for improving the optical appearance of the warming element 1 and adapted to the kitchen furniture surrounding the warming element 1. According to the present invention the cover plate 8 is indirectly attached to the front wall 5 via an intermediate adjustment plate 9, which is made of plastics and provided between the front wall 5 and the cover plate 8. The adjustment plate 9 is mounted to the front wall 5 of the base body 4 by a pair of screws 10, which extend through a corresponding pair of vertical slots 11 in the front wall 5. The screws 10 are screwed from the inside of the base body 4 into the adjustment plate 9. The cover plate 8 in turn is mounted to the adjustment plate 9 by screws 12, which extend through a pair of horizontal slots 13 in the adjustment plate 9 and are screwed into the cover plate 8. The entire assembly of the cover plate 8 to the base body 4 can be best seen in the cross sectional view of figure 2. Apertures 14 are provided in the front wall 5 of the base body 4, which overlie the slots 13 in the adjustment plate 9, so that also the screws 12 for fixing the adjustment plate 9 to the cover plate 8 can be operated from the inside of the base body 4.

**[0014]** Further a supporting plate 15 is provided between the cover plate 8 and the adjustment plate 9. It is attached to the base body 4 of the drawer 3 via supporting struts 16, which are fixed to the side walls 7 of the base body 4. The supporting plate 15 provides an abutment face for the cover plate 8 and comprises two recesses 17, which overlie the slots 11 of the adjustment plate 9, so that the screws 12 for mounting the cover plate 8 can pass therethrough. The supporting plate 15 is smaller than the cover plate 8 and therefore fully covered by it.

**[0015]** For mounting the cover plate 8, the adjustment plate 9 is roughly adjusted relative to the front wall 5, and then the screws 10 for mounting the adjustment plate 9 are inserted through the vertical slots 11 of the front wall 5 and screwed into the adjustment plate 9, so that the adjustment plate 9 is securely attached to the front wall 5. Then the supporting plate 15 is mounted to the side walls 7 to provide an abutment face for the cover plate 8. Finally, screws 12 for mounting the cover plate 8 are inserted through the apertures 14 of the front wall 5, the horizontal slots 13 of the adjustment plate 9, and the recesses 17 of the supporting plate 15 and screwed into the cover plate 8 to draw it against the supporting plate 15, so that the cover plate 8 is reliably supported over almost its entire surface.

**[0016]** For adjusting the cover plate 8 vertically the

screws 10 extending through the vertical slots 11 are loosened to allow a vertical movement of the adjustment plate 9 relative to the front wall 5, as indicated by vertical double arrow V. The cover plate 8 is moved together with the adjustment plate 9 into its desired vertical position. By tightening up again the screws 10, the adjustment plate 9 and the cover plate 8 are fixed in place.

**[0017]** For a horizontal adjustment of the cover plate 8, the screws 12 fixing the cover plate 8 to the adjustment plate 9 are loosened through the apertures 14 in the front wall 5. This allows a horizontal movement of the cover plate 8 relative to the adjustment plate 9, as indicated by horizontal double arrow H. When the cover plate 8 is finally adjusted, the screws 12 are tightened up again to fix the cover plate 8 in its desired position relative to the front wall 5.

## Claims

1. A drawer (3) comprising a base body (4) with a front wall (5) having a set of slots (11) commonly arranged in a longitudinal direction, and a cover plate (8), which is attached to the front wall (5) with screws (10), which extend through the slots (11), **characterized in that** an intermediate adjustment plate (9) is provided between the front wall (5) and the cover plate (8) and comprises a set of slots (13), which are commonly arranged in a longitudinal direction orthogonal to the longitudinal direction of the slots (11) in the front wall (5), that the cover plate (8) is mounted to the adjustment plate (9) by screws (12), which extend through the slots (13) in the adjustment plate (9), and that the adjustment plate (9) is mounted to the front wall (5) by screws (10) which extend through the slots (11) provided therein.
2. Drawer (3) according to claim 1, **characterized in that** the two sets of slots (11, 13) are arranged in the horizontal and the vertical direction.
3. Drawer (3) according to claim 1 or 2, **characterized in that** the front wall (5) of the drawer (3) comprises a set of apertures (14) overlying the slots (13) in the adjustment plate (9), and that the screws (12) extending through the slots (13) in the adjustment plate (9) are operable through the apertures (14).
4. Drawer (3) according to one of the foregoing claims, **characterized in that** a supporting plate (15) is provided between the cover plate (8) and the adjustment plate (9) and attached to the base body (4) to provide an abutment face for the cover plate (8), and that the supporting plate (15) comprises two recesses (17), which overlie the slots (13) of the adjustment plate (9).
5. Drawer (3) according to claim 4, **characterized in that** the supporting plate (9) is fixed via supporting

struts (16) to side faces of the base body (4).

6. Drawer (3) according to one of the foregoing claims,  
**characterized in that** the drawer (3) is the drawer  
of a built-in kitchen appliance, especially of a warm- 5  
ing drawer (1).
7. Drawer (3) according to one of the foregoing claims,  
**characterized in that** the adjustment plate (9) is  
made of plastics. 10

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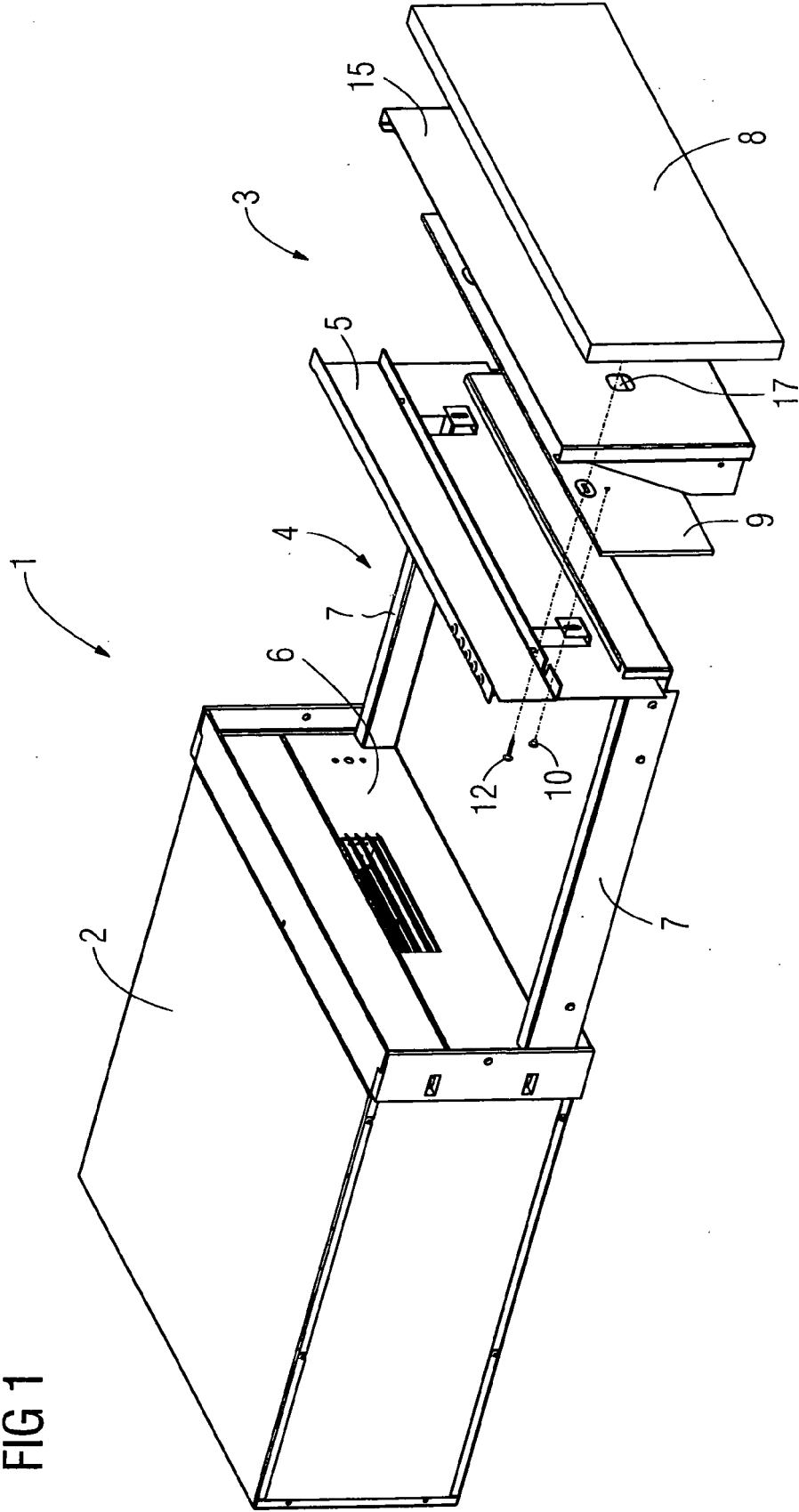
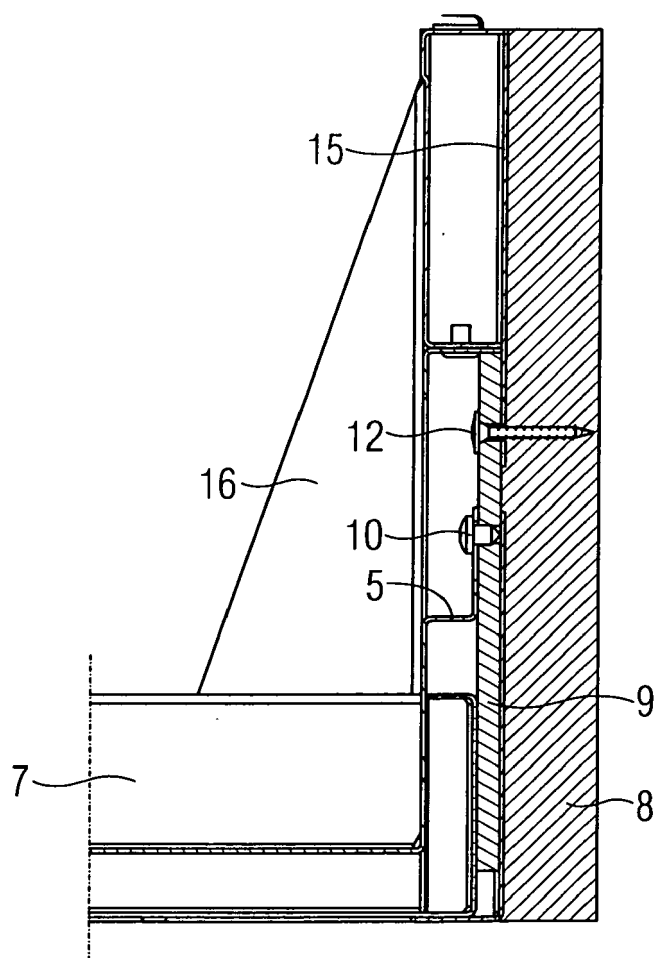
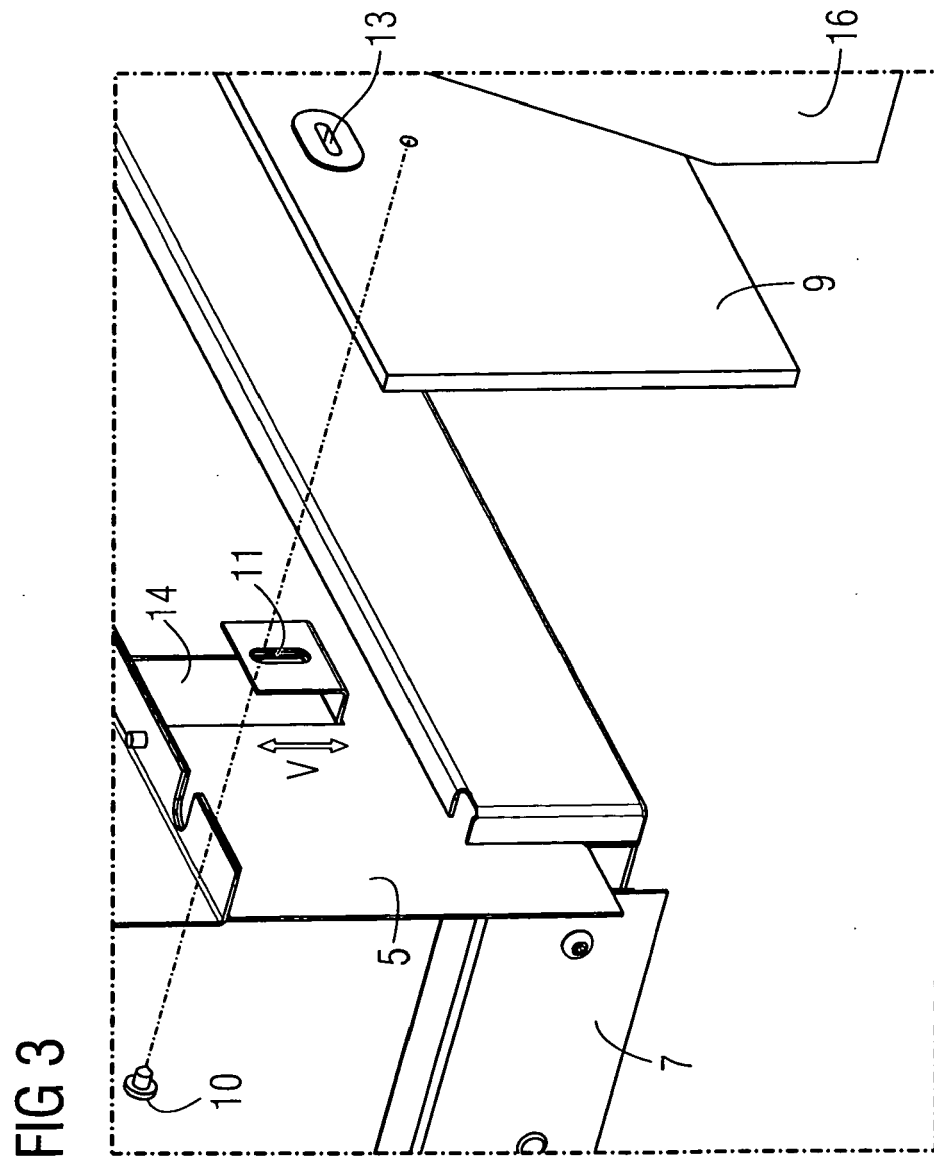
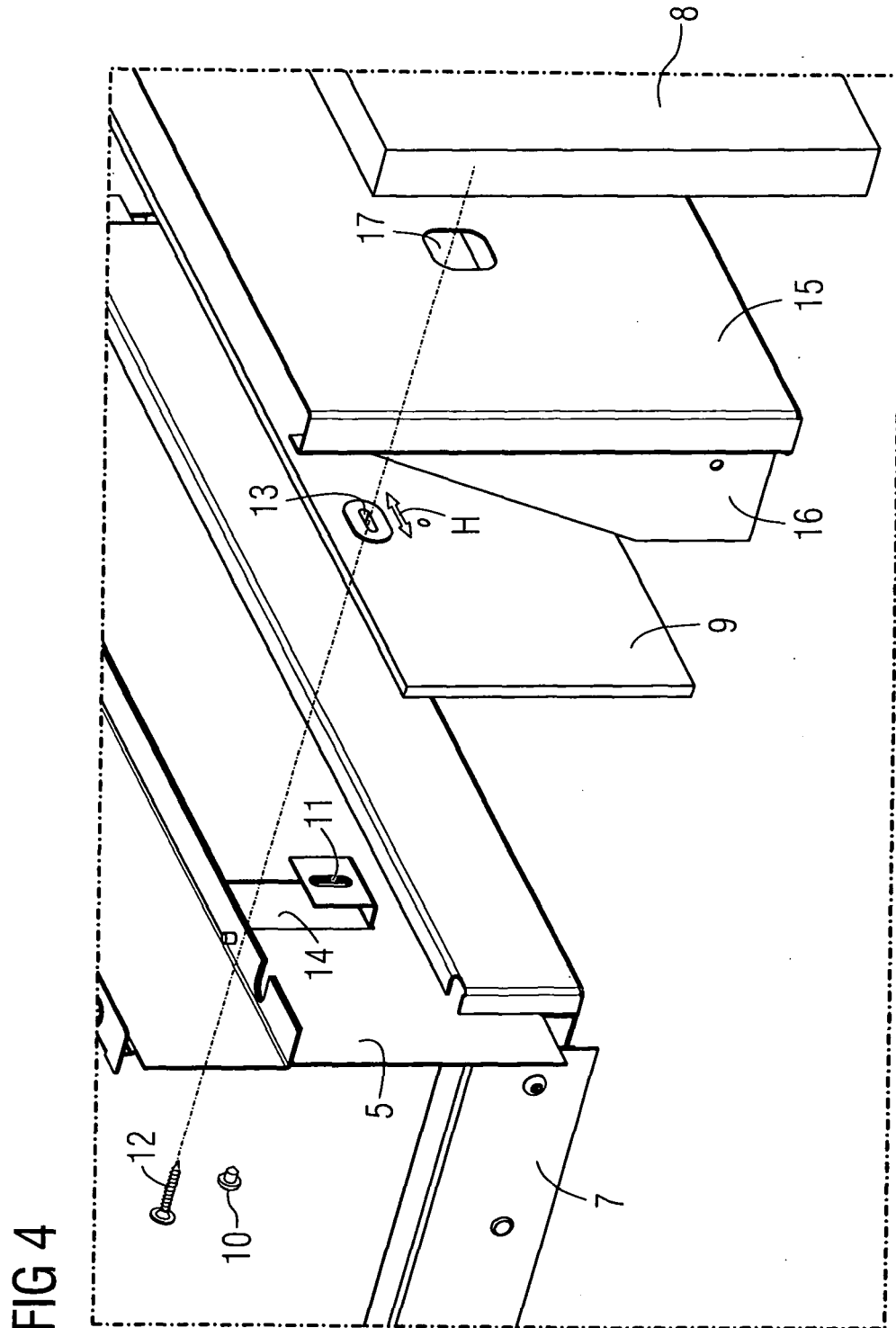


FIG 1

FIG 2











## EUROPEAN SEARCH REPORT

Application Number  
EP 09 00 3253

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                             |                                                   |                                         |
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| Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Citation of document with indication, where appropriate, of relevant passages                               | Relevant to claim                                 | CLASSIFICATION OF THE APPLICATION (IPC) |
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| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                             |                                                   |                                         |
| Place of search<br>Munich                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                             | Date of completion of the search<br>7 August 2009 | Examiner<br>Cardan, Cosmin              |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone<br/>Y : particularly relevant if combined with another document of the same category<br/>A : technological background<br/>O : non-written disclosure<br/>P : intermediate document</p> <p>T : theory or principle underlying the invention<br/>E : earlier patent document, but published on, or after the filing date<br/>D : document cited in the application<br/>L : document cited for other reasons</p> <p>&amp; : member of the same patent family, corresponding document</p> |                                                                                                             |                                                   |                                         |

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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EP 09 00 3253

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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**REFERENCES CITED IN THE DESCRIPTION**

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