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(54) Title: A DOMESTIC APPLIANCE COMPRISING TOP PLATE

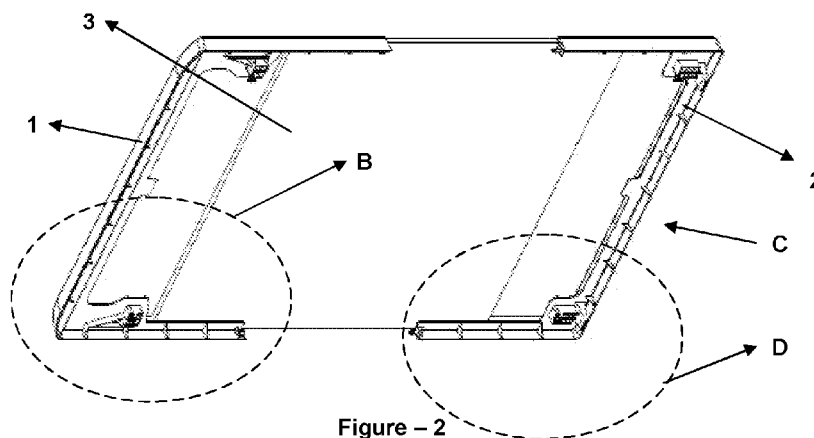


Figure - 2

(57) Abstract: Present invention relates to a domestic appliance (G) comprising at least one top plate (A). Said domestic appliance (G) comprises at least one frame (C) consisting of at least two parts (1, 2); at least one plate (3) which is placed in the frame (C); at least one tab structured connecting member (5) provided in one (2 or 1) of the parts; at least one recess (4), which is provided in the other part (1 or 2), into which connecting member (5) is placed, and which surrounds the connecting member (5) completely. Mounting process of the plate (A) is completed after the plate (3) is placed into the parts (1, 2) and the connecting member (5) is placed into the recess (4) by moving the parts (1, 2) towards each other.

WO 2012/032007 A1

DESCRIPTION
A DOMESTIC APPLIANCE COMPRISING TOP PLATE

Technical Field

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Present invention relates to domestic appliances comprising at least one top plate.

Prior Art

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In domestic appliances, top plates are used in order to cover top portion of the domestic appliance, to carry stuff put on the domestic appliances by user and to make aesthetical appearance of the domestic appliance better. The top plate is generally formed by assembling one or two-piece plastic frame produced by plastic injection and particle board plate into one piece by using different fastening elements (liquid chemical adhesive or

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staple).
The patent document no. US7363779B2 of the state of art discloses a top plate. In said document, the top plate comprises one front frame, one rear frame and one plate, which is placed into said frames. Said plate is placed into recesses provided in front and rear

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frames and said frames are fastened to each other by means of a tab. Then, the frames are fixed to each other at adjoining portions thereon by a fixing tab in order to ensure that the frames do not move in horizontal axis with respect to each other.

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Another patent document no. DE19706285A1 of the state of art discloses a top plate consisting of one frame, whose at least one side member can be detachable, and a planar, which is placed into said frame. After one side member of said frame is detached, one planar is placed into the frame through said side member. Then, the detached side member is mounted to where it was provided again. In said document, there is no embodiment which ensures that it is fixed to where it is mounted after the detached side

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member is mounted to where it was provided again.

Brief Disclosure of Invention

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Present invention discloses a domestic appliance comprising at least one top plate. Said domestic appliance comprises at least one frame consisting of at least two parts; at least

934/PCT

one plate, which is placed into said frame; at least one connecting member having tabbed structure; at least one recess, into which said connecting member is placed and which surrounds the connecting member. When the parts forming the frame are assembled to each other, the connecting member is mounted into the recess. The parts mounted to
5 each other are prevented from moving with respect to each other since the connecting member has a tabbed structure and the connecting member is surrounded by the recess completely and thus, the parts are fixed so as not to have gap between its surfaces.

Objective of Invention

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An aim of the invention is to develop a domestic appliance comprising at least one aesthetical top plate.

Another aim of the invention is to develop a domestic appliance comprising at least one
15 easy to assembly top plate.

The other aim of the invention is to form cheap and safe top plate which is easy to produce, assemble and use..

Description of the Invention

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An exemplary dishwasher of the domestic appliance of the invention and an exemplary top plate thereof placed in said machine are illustrated in annexed figures, wherein;

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Figure 1 is perspective view of the dishwasher comprising the top plate.

Figure 2 is perspective view of pre-mounted state of the top plate.

Figure 3 is view of D detail of the top plate illustrated in Figure 2.

Figure 4 is view of B detail of the top plate illustrated in Figure 2.

Figure 5 is detail view of connecting element provided in top plate.

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Figure 6 is detail view of half assembled parts of the top plate.

Figure 7 is sectional view of the assembled parts of the top plate.

Figure 8 is bottom view of the top plate.

Figure 9 is perspective view of the top plate during assembly process.

Figure 10 is view of E detail of the top plate illustrated in Figure 9.

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Figure 11 is perspective view of the top plate before it is mounted to the machine.

934/PCT

All the parts illustrated in figures are individually assigned a reference numeral and the corresponding terms of these numbers are listed as below.

5	Domestic appliance	(G)
	Top plate	(A)
	Frame	(C)
	Upper part	(1)
	Lower part	(2)
10	Plate	(3)
	Recess	(4, 11)
	Input portion	(4a)
	Outlet portion	(4b)
	Inner surface	(4c)
15	Contact surface	(4d, 6d)
	Connecting member	(5)
	Tip	(6)
	Tabbed part	(6a)
	Aperture	(6b)
20	Surface	(6c)
	Plate recess	(7)
	Securing element	(8)
	Mounting member	(9)
	Projection	(10)
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Disclosure of Invention

An exemplary domestic appliance (G) (illustrated as dishwasher in figures) shown in Figure 1 comprises at least one top plate (A). Said top plate (A) comprises at least one frame (C) consisting of at least two parts (1, 2) (shown as an upper part (1) and a lower part (2) in figures) given in figure 2, and also at least one plate (3), which is placed into said frame (C). After at least one connecting member (5) provided in at least one (2) of the parts (1, 2) (for example, in lower part (2)), the detailed views of which are illustrated in Figure 3 and 4, is placed in at least one recess (4) provided in the other part (1) (for

934/PCT

example, in upper part (1)), the parts (1, 2) are mounted to each other and the frame (C) is formed.

5 Said recess (4) has such a structure that it surrounds the connecting member (5) for the aim of preventing the parts (1, 2) from moving with respect to each other after said parts (1, 2) are mounted. In addition, the connecting member (5) has a tabbed structure so as to be placed into said recess (4).

10 In an alternative embodiment of the invention, there is at least one projection (10) on side of one of the parts (1) (for example upper part (1)), on which it connects with the other parts (2) (for example, lower part (2)). In other part (2) (for example the lower part (2)), there is at least one recess (11), into which said projection (10) is placed. After said projection (10) is placed into the recess (11), thus supporting the securing of the parts (1, 2) to each other.

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The connecting member (5), whose detailed view is illustrated in figure 5, is in projection form extending out of the part (2) (illustrated as lower part (2) in figures). Said connecting member's (5) tip (6) has a tabbed structure. Said tab structured tip (6) has preferably curved and inclined surface (6c). Said curved surface (6c) ensures that the connecting member (5) is placed easily into the recess (4) provided in other part (illustrated as upper part (1) in figures). There is at least one aperture (6b) in the tab structured tip (6) of the connecting member (5). Said aperture (6b) converts said tip (6) of the connecting member (5) into a tabbed structure with at least two parts (6a) and then, while the connecting member (5) is being placed into the recess (4), it ensures that said tabbed parts (6a) are stretched towards each other. Therefore, when the curved surface (6c) of the connecting member (6) contacts with inner surface (4c) of the recess (4), said parts (6a) flex towards each other and thus, it is ensured that connecting member (5) advances into the recess (4).

20 25 30 35 In an exemplary application of the invention illustrated in the figures, both portions (4a, 4b) of the recess (4) are preferably open and the connecting element (5) moves forward into the recess (4) from one portion (4a) (input portion (4a)) of the recess (4) and tab structured tip (6) of the connecting member (5) gets out from the other portion (4b) (outlet portion (4b)) as shown in Figure 7. When said tip (6) leaves the recess (4), the parts (6a) stretching towards each other take their previous position and at least one surface (6d) of

934/PCT

these parts (6a) contacts with at least one surface (4d) of the recess (4) which is provided at mentioned side thereof.. Since this surface (6d) of the two-part tabbed structure (6) contacts with said surface (4d) of the recess (4), the connecting member (5) is prevented from moving within said recess (4). Thus, the parts (1, 2) are mounted to each other so as to ensure that no gap is formed between their surfaces, and their movement with respect to each other is prevented. The projection (10) on one of the parts (1, 2) (shown as upper part (1) in figures) is placed into the recess (11) provided on the other part (shown as lower part (2) in figures). This further limits movement of parts (1, 2) mounted to each other, thus supporting the securing of the parts to each other.

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Pre-mounted state of the top plate (A), whose bottom view in mounted state is given in Figure 8, is illustrated in Figure 2. One side of the plate (3), preferably produced from the particle board, is placed into the panel recess (7) provided in one (1 or 2) of the parts and the other side is placed into the panel recess (7) provided in the other part (2 or 1) by sliding. As shown in figures 9 and 10, the parts (1, 2) are moved towards each other and the connecting element (5) provided in one of the parts (2 or 1) is placed into the recess (4) provided in the other part (1 or 2). Therefore, the parts (1, 2) are mounted to each other and these parts (1, 2) are prevented from moving with respect to each other. Finally, the plate (3) provided in formed frame (C) is fixed to said frame (C) by using a securing element (8) such as liquid chemical adhesive or staple and mounting process of the top plate (A) is completed. After the top plate (A) is mounted, it is placed on the domestic appliance (G) by means of mounting members (9) as shown in Figure 11.

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CLAIMS

1. A domestic appliance (G) comprising at least one top plate (A) comprising
- at least one frame (C) consisting of at least two parts (1, 2), and
 - at least one plate (3) placed into said frame (C)
- 5 **characterized in that** the domestic appliance (G) comprises,
- at least one tab structured connecting member (5) which is provided in one (2) of the parts (1, 2);
 - at least one recess (4), which completely surrounds the connecting member (5), into which said connecting member (5) is placed and which is
- 10 provided in other part (1).
2. A domestic appliance (G) according to claim 1 characterized in that the tip (6) of the connecting member (5) comprises at least one aperture (6b) and at least two
- 15 tabbed parts (6a) formed by said aperture (6b).
3. A domestic appliance (G) according to claim 1 characterized in that the tip (6) of the connecting member (5) comprises a curved or inclined surface (6c).
- 20 4. A domestic appliance (G) according to claim 1 characterized in that the connecting element (5) comprises at least one surface (6d) contacting with at least one surface (4d) provided in the recess (4) to fix the connecting element (5) to the recess (4).
- 25 5. A domestic appliance (G) according to claim 4 characterized in that two portions (4a, 4b) of the recess (4) are open.
- 30 6. A domestic appliance (G) according to claim 5 characterized in that the surface (4d) provided in the recess (4) contacts with the surface (6d) provided in the connecting member (5) after one side of the connecting member (5) leaves the recess (4) and the parts (6a) of the connecting member (5) take their previous positions.

934/PCT

7. A domestic appliance (G) according to claim 1 characterized in that parts (1, 2) forming the frame (C) comprise at least one panel recess (7) into which the plate (3) is slidably placed.
- 5 8. A domestic appliance (G) according to claim 1 characterized in that the plate (3) is produced from particle board.
9. A domestic appliance (G) according to claim 1 characterized in that there is provided at least one projection (10) on the surface of one (1) of the parts (1, 2) that is connected to the other part (2).
- 10 10. A domestic appliance (G) according to claim 9 characterized in that the other part (2) comprises at least one recess (11), into which said projection (10) is placed.
- 15 11. A domestic appliance (G) according to claim 1 characterized in that it comprises at least one fixing element (8) which fixes the plate (3) to the frame (C).
12. A domestic appliance (G) according to claim 11 characterized in that the fixing element (8) is a chemical glue.
- 20 13. A domestic appliance (G) according to claim 11 characterized in that the fixing element (8) is a staple.
14. A domestic appliance (G) according to claim 1 characterized in that it comprises at least one mounting member (9) to mount the top plate on the appliance (G).
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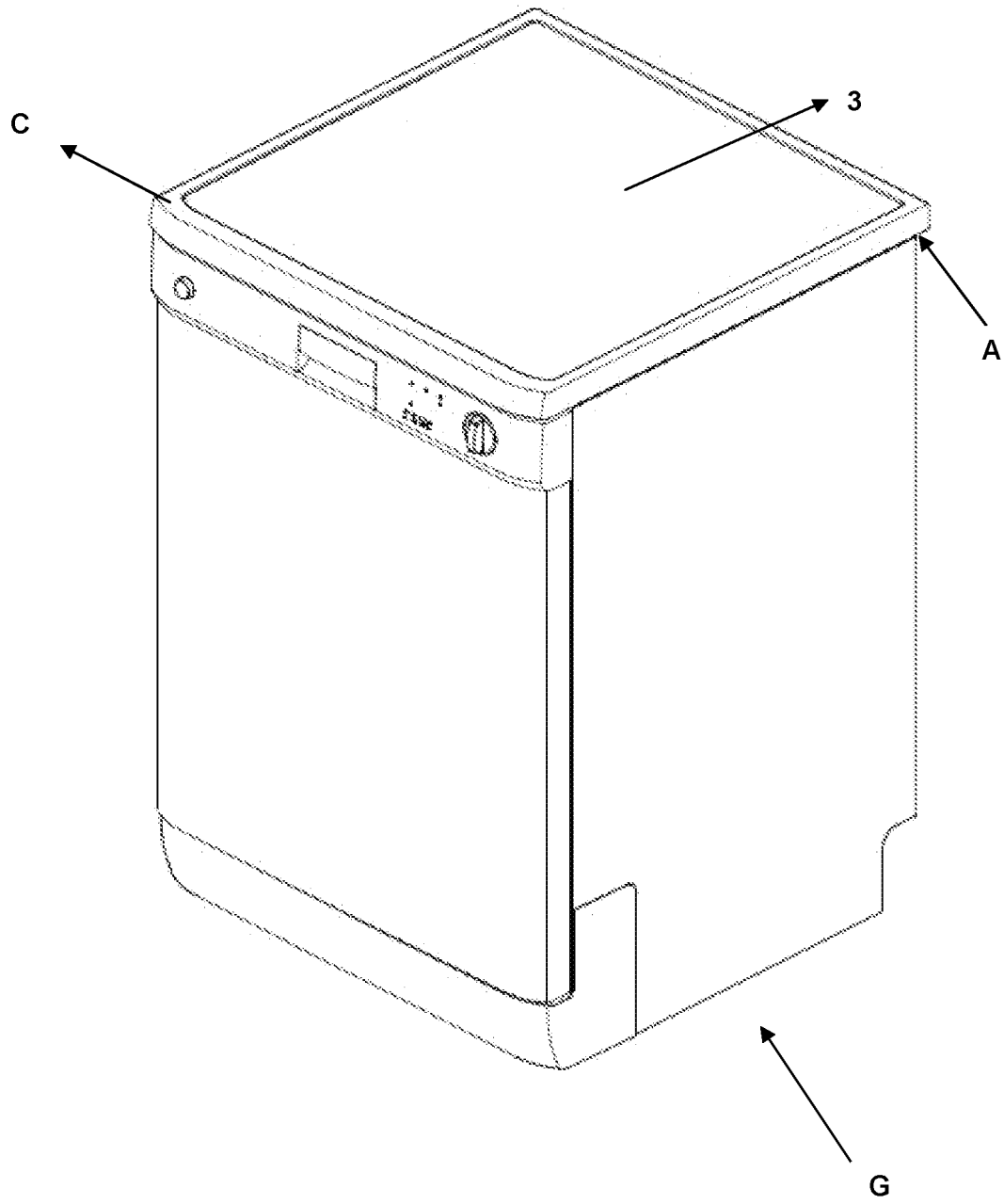
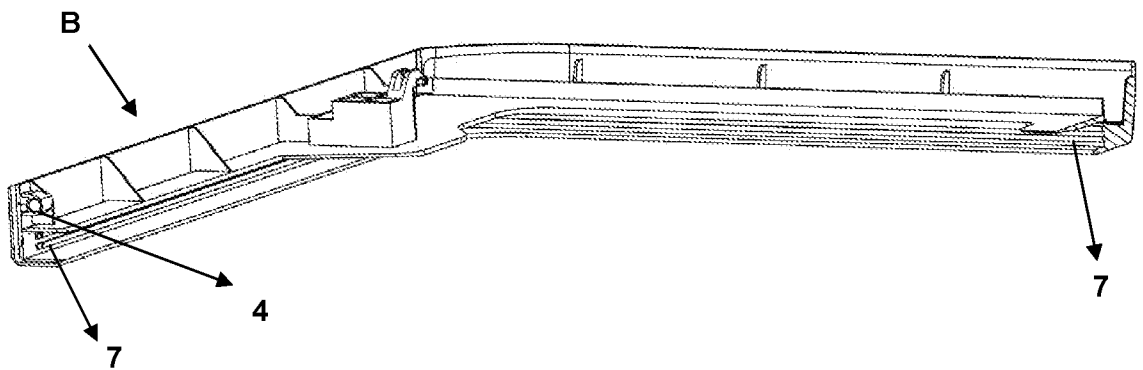
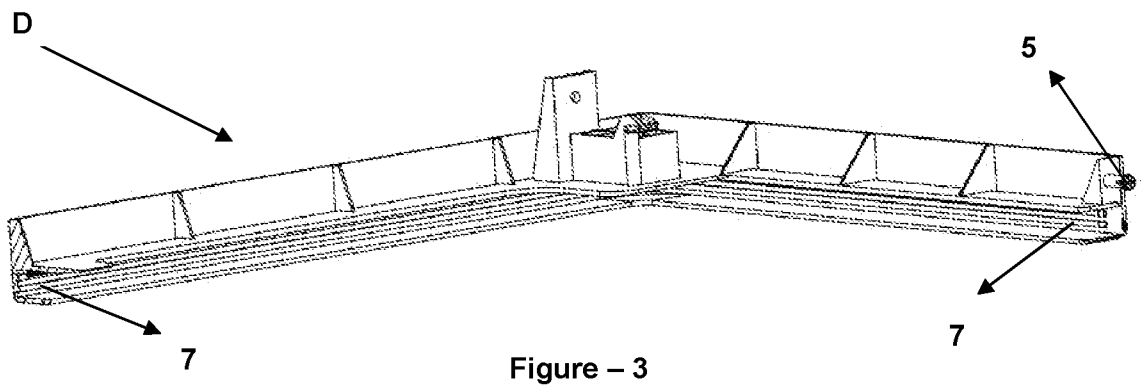
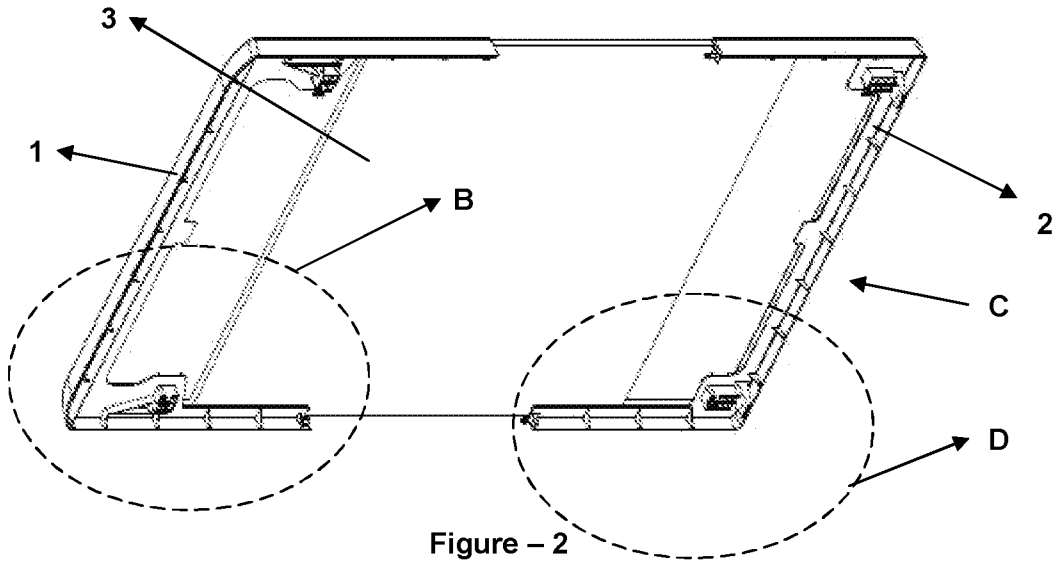


Figure - 1



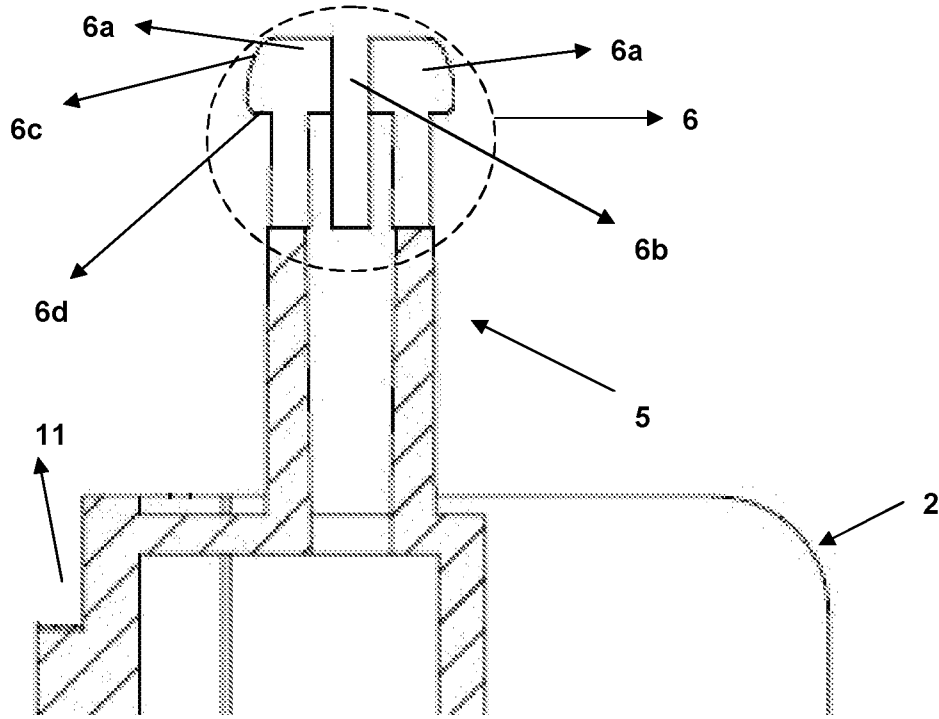


Figure - 5

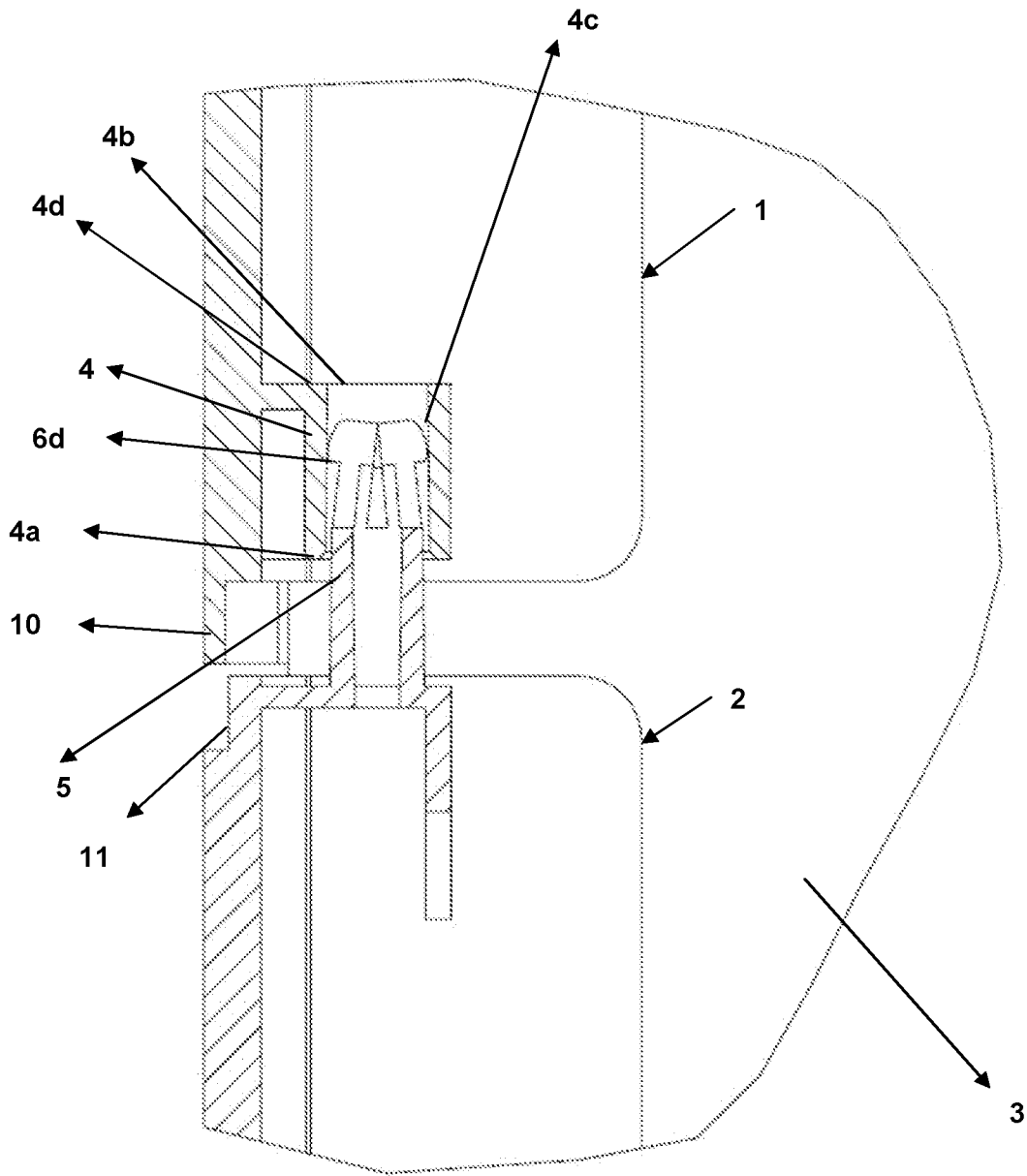


Figure - 6

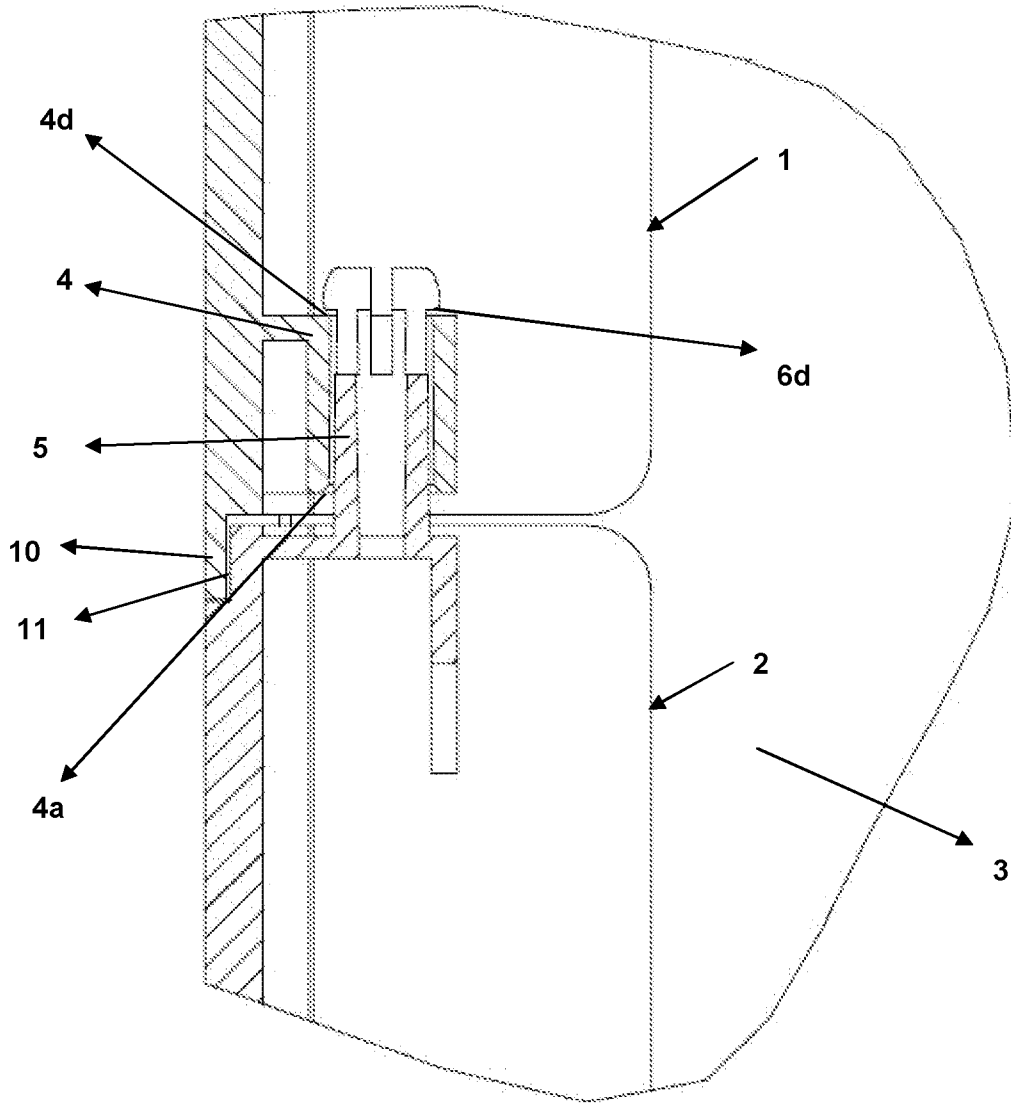
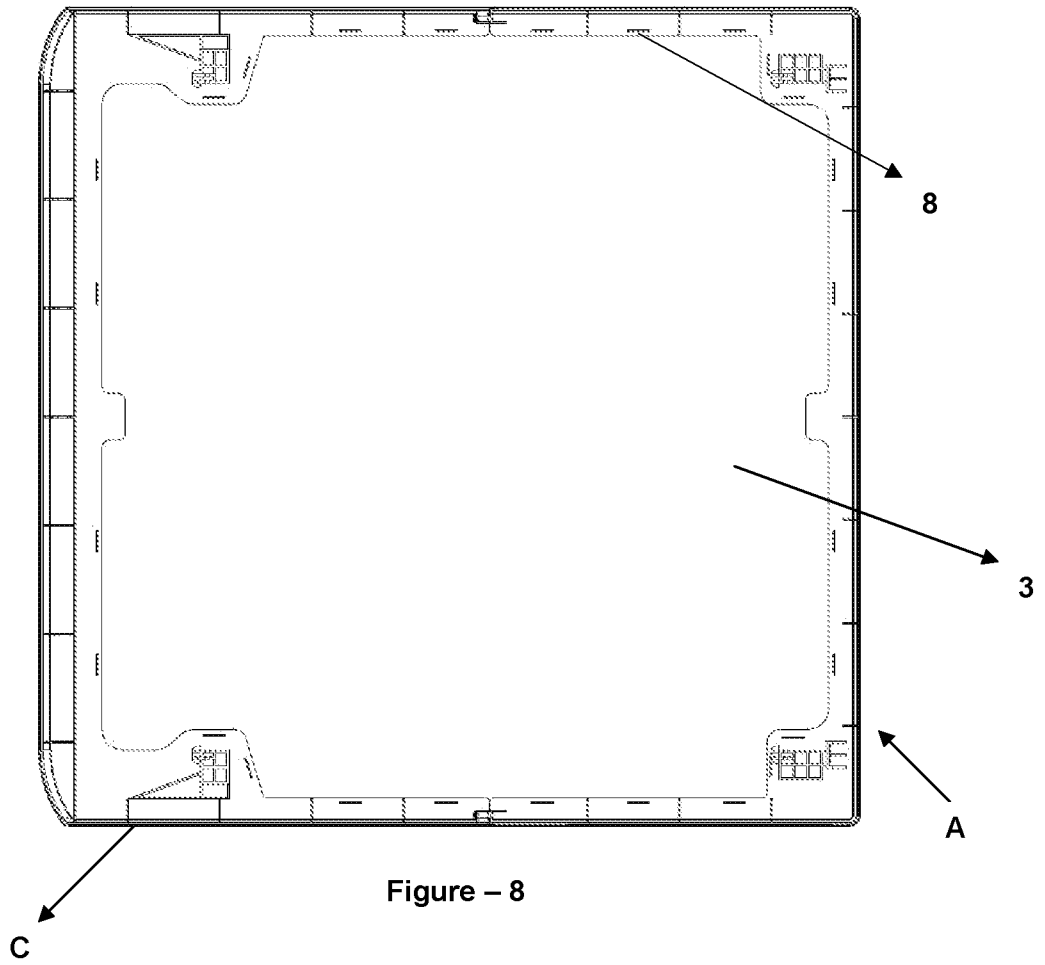


Figure - 7



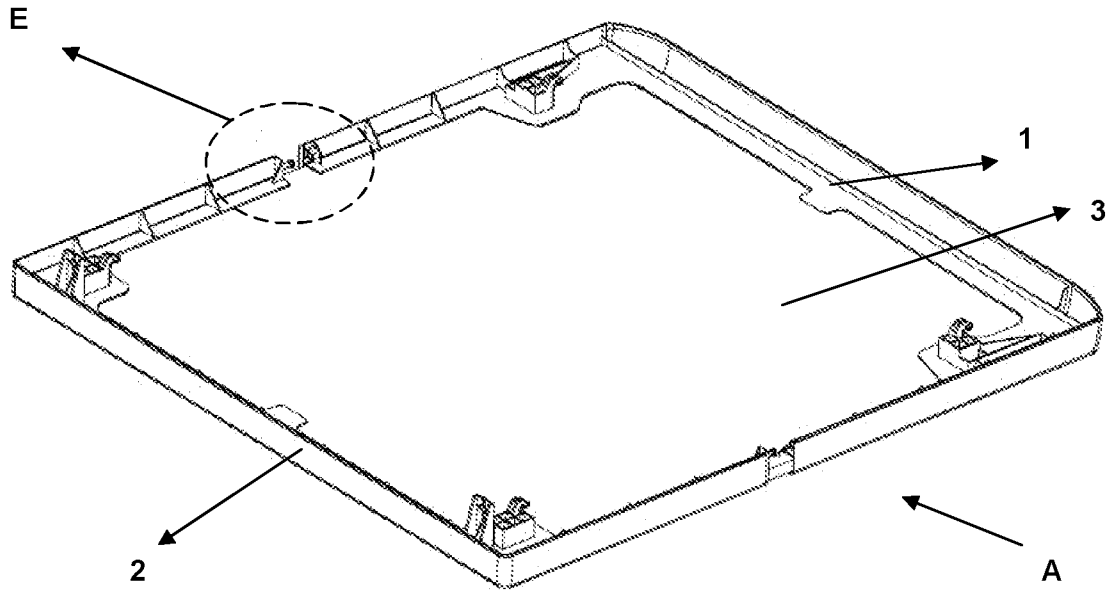


Figure - 9

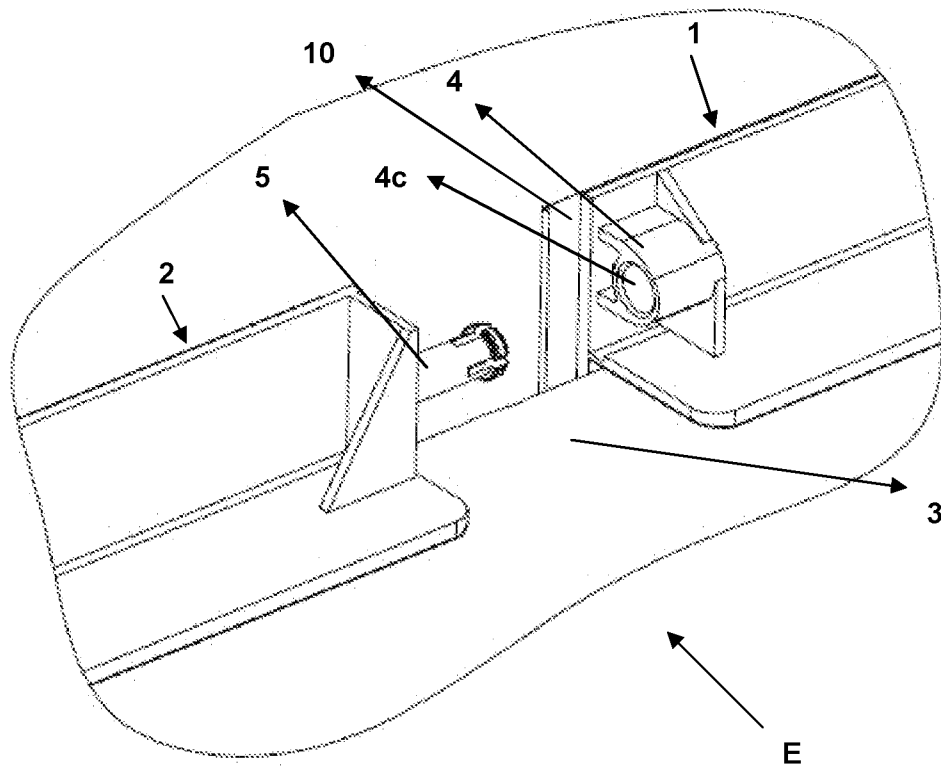


Figure - 10

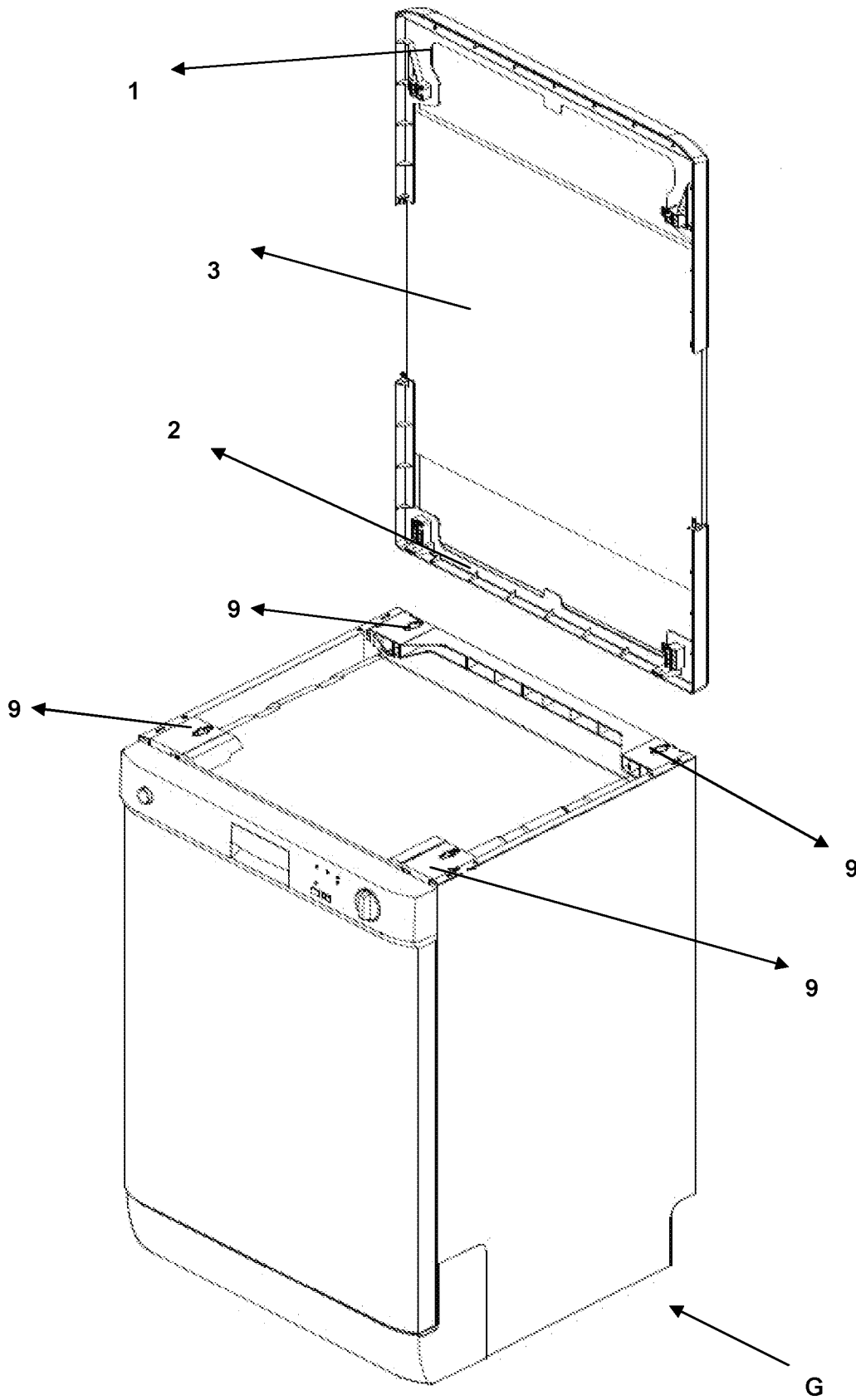


Figure - 11

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2011/065299

A. CLASSIFICATION OF SUBJECT MATTER
INV. A47L15/42
ADD.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
A47L D06F A47B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 530 133 A3 (FAINI SPA [IT]) 20 January 1984 (1984-01-20)	1-7,12, 13
Y	the whole document	8-11,14
Y	----- US 2005/178163 A1 (KIM JAE K [KR] ET AL KIM JAE KYUM [KR] ET AL) 18 August 2005 (2005-08-18) cited in the application	8-11,14
A	page 1, paragraph 11 - paragraph 17 page 2, paragraph 31 - page 4, paragraph 50 figures 3-6 ----- -/--	1

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "&" document member of the same patent family

Date of the actual completion of the international search 12 December 2011	Date of mailing of the international search report 21/12/2011
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Redel sperger, C

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2011/065299

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 297 01 537 U1 (HANS WERNER DUEPREE & CO [DE]) 25 June 1998 (1998-06-25) page 2, line 1 - line 14 page 3, line 6 - line 9 page 5, line 16 - page 7, line 24 figures 1-7 -----	1-5,7, 9-11,13, 14
A	FR 2 571 946 A3 (ZANUSSI ELETTRODOMESTICI [IT]) 25 April 1986 (1986-04-25) abstract figures 1,2 -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/EP2011/065299

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