

(12)

EUROPEAN PATENT APPLICATION

(43)

Date of publication:
03.10.2012 Bulletin 2012/40

(51)

Int Cl.:
F24C 15/08 (2006.01) F24C 15/10 (2006.01)

(21)

Application number: 11002663.0

(22)

Date of filing: 31.03.2011

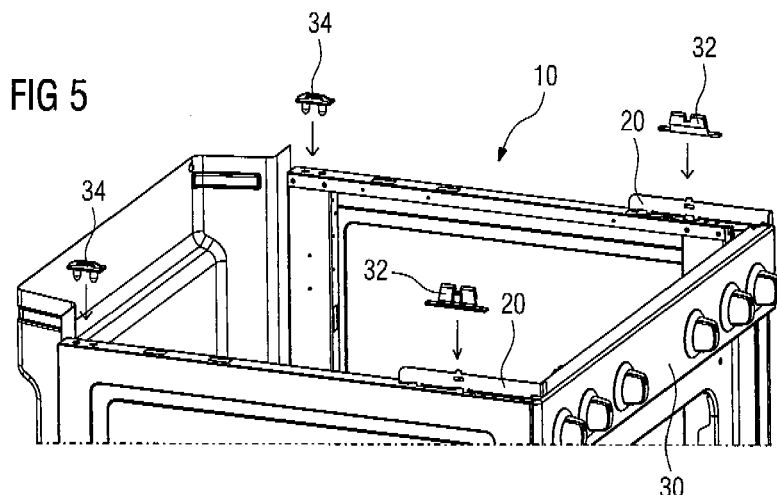
<div>(84)</div> <div> Designated Contracting States: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR Designated Extension States: BA ME </div>	<div>(72)</div> <div> Inventors: • Echtler, Werner 90763 Fürth (DE) • Böckler, Andreas 91541 Rothenburg o. d. Tauber (DE) </div>
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(54)

A cooking device with a chassis and a cooking hob

(57)

The present invention relates to a cooking device with at least one chassis (10) and at least one cooking hob (36, 38, 40). The chassis (10) includes two side walls (12), a front wall or front frame (14) and rear wall (16) or rear frame. Each the side wall (12) comprises an upper border (18) formed as flange. A hinge bracket (20) is detachably fixed or fixable on a front portion of each upper border (18). A control panel (30) is detachably fixed or fixable at the hinge brackets (20). A protection box (36) forms a lower part of the cooking hob and is detachably arranged or arrangeable on the chassis (10). The protection box (36) is clamped or clampable between the hinge brackets (20) and the rear wall (16) or rear frame. At least two front fixing elements (32) are detachably fixed or fixable on the hinge brackets (20). At least two rear fixing elements (34) are detachably fixed or fixable on the rear portions of the upper border (18). A hob frame (40) is detachably arranged or arrangeable on the front fixing elements (32) and on the rear fixing elements (34).



Description

[0001] The present invention relates to a cooking device with at least one chassis and at least one cooking hob.

[0002] A cooking device includes a number of connecting elements in order to fix the cooking hob and further component on the chassis. Usually, said connecting elements are relative large and need much material.

[0003] It is an object of the present invention to provide a cooking device with at least one chassis and at least one cooking hob, wherein the connecting elements for the cooking hob are relative small-size and the material consumption for said connecting elements is small.

[0004] The object of the present invention is achieved by the cooking device according to claim 1.

[0005] The present invention relates to a cooking device with at least one chassis and at least one cooking hob, wherein:

- the chassis includes two side walls, a front wall or front frame and rear wall or rear frame,
- each the side wall comprises an upper border formed as flange,
- a hinge bracket is detachably fixed or fixable on a front portion of each upper border (18),
- a control panel is detachably fixed or fixable at the hinge brackets,
- a protection box forms a lower part of the cooking hob and is detachably arranged or arrangeable on the chassis,
- the protection box is clamped or clampable between the hinge brackets and the rear wall or rear frame,
- at least two front fixing elements are detachably fixed or fixable on the hinge brackets,
- at least two rear fixing elements are detachably fixed or fixable on the rear portions of the upper border, and
- a hob frame is detachably arranged or arrangeable on the front fixing elements and on the rear fixing elements.

[0006] The main idea of the present invention is, that only a few connecting elements are required for fixing the cooking hob on the chassis. The hinge brackets have a relative simple structure and are provided for holding the control panel as well as the protection box and the hob frame. The front fixing elements and the rear fixing elements have also simple structures.

[0007] According to a preferred embodiment of the present invention at least one heating element is detachably or permanently arranged or arrangeable in the protection box. For example, the heating element is a radial heater.

[0008] The hinge bracket may include at least one lower tap inserted in or insertable into a slot in the upper border.

[0009] Further, the hinge bracket may include at least

one upper tap for receiving or supporting the front fixing element.

[0010] Additionally, the hinge bracket may include at least one horizontal front tap for receiving or supporting the control panel.

[0011] Moreover, the hinge bracket may include at least one vertical front tap for supporting a front side of the hob frame.

[0012] In particular, the front fixing elements are provided for centring the hob frame along an elongated direction.

[0013] In a similar way, the rear fixing elements may be provided for centring the hob frame along a cross direction. Preferably, the rear fixing element may comprise at least two lug inserted in or insertable into a hole in the upper border.

[0014] Novel and inventive features of the present invention are set forth in the appended claims.

[0015] The present invention will be described in further detail with reference to the accompanied drawings, in which

FIG 1 illustrates a perspective view of an upper portion of a chassis with two hinge brackets for a cooking device according to a preferred embodiment of the present invention,

FIG 2 illustrates a detailed perspective view of a hinge bracket at the chassis of the cooking device according to the preferred embodiment of the present invention,

FIG 3 illustrates a perspective view of the upper portion of the chassis with the hinge brackets and a control panel according to the preferred embodiment of the present invention,

FIG 4 illustrates a detailed perspective view of the upper portion of the chassis with the hinge bracket and the control panel according to the preferred embodiment of the present invention,

FIG 5 illustrates a perspective view of the upper portion of the chassis with the hinge brackets, the control panel, two front fixing elements and two rear fixing elements according to the preferred embodiment of the present invention,

FIG 6 illustrates a perspective view of the upper portion of the chassis with the hinge brackets, the control panel, the fixing elements and a protection box according to the preferred embodiment of the present invention,

FIG 7 illustrates a detailed top view of the upper front portion of the chassis with the hinge bracket, the control panel and the protection box ac-

cording to the preferred embodiment of the present invention,

FIG 8 illustrates a detailed perspective view of the upper rear portion of the chassis with the protection box according to the preferred embodiment of the present invention,

FIG 9 illustrates a perspective view of the upper portion of the chassis with radiant heating elements, a hob frame and the protection box according to the preferred embodiment of the present invention,

FIG 10 illustrates a perspective view of the upper portion of the chassis with the radiant heating elements, the hob frame and the protection box according to the preferred embodiment of the present invention,

FIG 11 illustrates a detailed perspective view of the upper front portion of the chassis with the hinge bracket and the hob frame according to the preferred embodiment of the present invention, and

FIG 12 illustrates a detailed perspective view of the upper rear portion of the chassis with the element and the hob frame according to the preferred embodiment of the present invention.

[0016] FIG 1 illustrates a perspective view of an upper portion of a chassis 10 with two hinge brackets 20 for a cooking device according to a preferred embodiment of the present invention.

[0017] The chassis 10 includes two side walls 12, a front frame 14 and a rear wall 16. Each side wall 12 includes an upper border 18. On a front portion of each upper border 18 an elongated hinge bracket 20 is installed. The hinge bracket 20 formed as an L-shaped profile section. The length of said hinge bracket 20 is about one-third of the length of the upper border 18.

[0018] FIG 2 illustrates a detailed perspective view of a hinge bracket 20 at the chassis 10 of the cooking device according to the preferred embodiment of the present invention.

[0019] The hinge bracket 20 comprises two lower taps 22, an upper tap 24, a horizontal front tap 26 and a vertical front tap 28. The lower taps 22 of the hinge bracket 20 are inserted in corresponding slots of the upper border of the side wall 12 in order to fasten the hinge bracket 20 on the side wall 12 of the chassis 10.

[0020] FIG 3 illustrates a perspective view of the upper portion of the chassis 10 with the hinge brackets 20 and a control panel 30 according to the preferred embodiment of the present invention. FIG 3 shows the installation of the control panel 30 at the chassis 10.

[0021] FIG 4 illustrates a detailed perspective view of

the upper portion of the chassis 10 with the hinge bracket 20 and the control panel 30 according to the preferred embodiment of the present invention. FIG 4 clarifies the fastening of the control panel 30 at the chassis 10.

[0022] FIG 4 shows the terminated installation of the control panel 30 at the chassis 10. An upper boarder of the control panel 30 is inserted between the horizontal front tap 26 and the vertical front tap 28 of each hinge brackets 20. A bottom side of the upper boarder of the control panel 30 is supported by the large-area sides of the horizontal front taps 26.

[0023] FIG 5 illustrates a perspective view of the upper portion of the chassis 10 with the hinge brackets 20, the control panel 30, two front fixing elements 32 and two rear fixing elements 34 according to the preferred embodiment of the present invention.

[0024] In FIG 5 the front fixing elements 32 and rear fixing elements 34 are shown above their designated positions. Each front fixing element 32 is provided for the installation on the corresponding hinge bracket 20. Each fixing element 34 is provided for the installation on a rear portion of the upper border 18 of the corresponding side wall 12.

[0025] FIG 6 illustrates a perspective view of the upper portion of the chassis 10 with the hinge brackets 20, the control panel 30, the fixing elements 32 and 34 and a protection box 36 according to the preferred embodiment of the present invention.

[0026] In FIG 6 the fixing elements 32 and 34 are attached on the upper borders 18 of the side walls 12. The front fixing elements 32 are clamped on the vertical profile parts of the hinge brackets 20. The rear fixing elements 34 comprises two lugs in each case. Said lugs are inserted in corresponding holes in the upper borders 18 of the side walls 12.

[0027] Further, a protection box 36 is shown in FIG 6. Said protection box 36 is provided as a top wall of the chassis 10. FIG 6 shows the protection box 36 before its installation on the chassis 10.

[0028] FIG 7 illustrates a detailed top view of the upper front portion of the chassis 10 with the hinge bracket 20, the control panel 30 and the protection box 36 according to the preferred embodiment of the present invention. The protection box 36 is supported by the vertical profile section of the hinge bracket 20.

[0029] FIG 8 illustrates a detailed perspective view of the upper rear portion of the chassis 10 with the protection box 36 according to the preferred embodiment of the present invention.

[0030] FIG 9 illustrates a perspective view of the upper portion of the chassis 10 with radiant heating elements 38, a hob frame 40 and the protection box 36 according to the preferred embodiment of the present invention.

[0031] Four radiant heating elements 38 are arranged within the protection box 36. In FIG 9 the hob frame 40 is just fastened on the chassis 10. The hob frame 40 is slid backwards along the hinge brackets 20. Then the rear portion of the hob frame 40 is pushed down.

[0032] FIG 10 illustrates a perspective view of the upper portion of the chassis 10 with the radiant heating elements 38, the hob frame 40 and the protection box 36 according to the preferred embodiment of the present invention. In FIG 10 the hob frame 40 is installed on the chassis 10.

[0033] FIG 11 illustrates a detailed perspective view of the upper front portion of the chassis 10 with the hinge bracket 20 according to the preferred embodiment of the present invention.

[0034] The front fixing elements 32 on the hinge brackets 20 are provided to centre the hob frame 40 along the cross direction. The vertical front taps 28 of the hinge brackets 20 are provided for holding the hob frame 40 along the longitudinal direction, i.e. the direction from the front side to the rear side.

[0035] FIG 12 illustrates a detailed perspective view of the upper rear portion of the chassis 10 with the rear fixing element 34 and the hob frame 40 according to the preferred embodiment of the present invention. The rear fixing element 34 fix the hob frame 40 along the longitudinal direction.

[0036] Although an illustrative embodiment of the present invention has been described herein with reference to the accompanying drawings, it is to be understood that the present invention is not limited to that precise embodiment, and that various other changes and modifications may be affected therein by one skilled in the art without departing from the scope or spirit of the invention. All such changes and modifications are intended to be included within the scope of the invention as defined by the appended claims.

List of reference numerals

[0037]

10	chassis
12	side wall
14	front frame
16	rear wall
18	upper border of the side wall 12
20	hinge bracket
22	lower tap of the hinge bracket 20
24	upper tap of the hinge bracket 20
26	horizontal front tap of the hinge bracket 20
28	vertical front tap of the hinge bracket 20
30	control panel

32	front fixing element
34	rear fixing element
36	protection box
38	radiant heating element
40	hob frame

Claims

1. A cooking device with at least one chassis (10) and at least one cooking hob (36, 38, 40), wherein:
 - the chassis (10) includes two side walls (12), a front wall or front frame (14) and rear wall (16) or rear frame,
 - each the side wall (12) comprises an upper border (18) formed as flange,
 - a hinge bracket (20) is detachably fixed or fixable on a front portion of each upper border (18),
 - a control panel (30) is detachably fixed or fixable at the hinge brackets (20),
 - a protection box (36) forms a lower part of the cooking hob and is detachably arranged or arrangeable on the chassis (10),
 - the protection box (36) is clamped or clampable between the hinge brackets (20) and the rear wall (16) or rear frame,
 - at least two front fixing elements (32) are detachably fixed or fixable on the hinge brackets (20),
 - at least two rear fixing elements (34) are detachably fixed or fixable on the rear portions of the upper border (18), and
 - a hob frame (40) is detachably arranged or arrangeable on the front fixing elements (32) and on the rear fixing elements (34).
2. The cooking device according to claim 1, **characterized in, that** at least on heating element (38) is detachably or permanently arranged or arrangeable in the protection box (36).
3. The cooking device according to claim 1 or 2, **characterized in, that** the hinge bracket (20) includes at least one lower tap (22) inserted in or insertable into a slot in the upper border (18).
4. The cooking device according to claim 2 and 3, **characterized in, that** the hinge bracket (20) includes at least one upper tap (24) for receiving or supporting the front fixing element (32).

5. The cooking device according to any one of the preceding claims,
characterized in, that
the hinge bracket (20) includes at least one horizontal front tap (26) for receiving or supporting the control panel (30). 5
6. The cooking device according to any one of the preceding claims,
characterized in, that 10
the hinge bracket (20) includes at least one vertical front tap (28) for supporting a front side of the hob frame (40).
7. The cooking device according to any one of the preceding claims, 15
characterized in, that
the front fixing elements (34) are provided for centring the hob frame along an elongated direction. 20
8. The cooking device according to any one of the preceding claims,
characterized in, that
the rear fixing elements (34) are provided for centring the hob frame along a cross direction. 25
9. The cooking device according to any one of the preceding claims,
characterized in, that
the rear fixing element (34) comprises at least two lug inserted in or insertable into a hole in the upper border (18). 30

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FIG 1

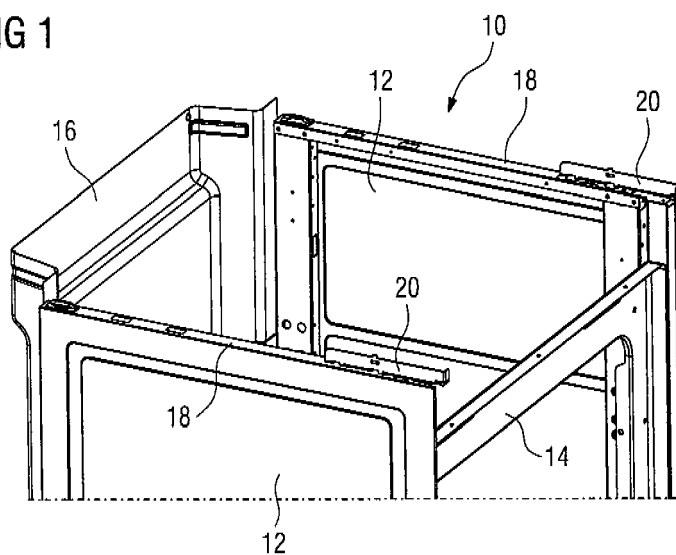
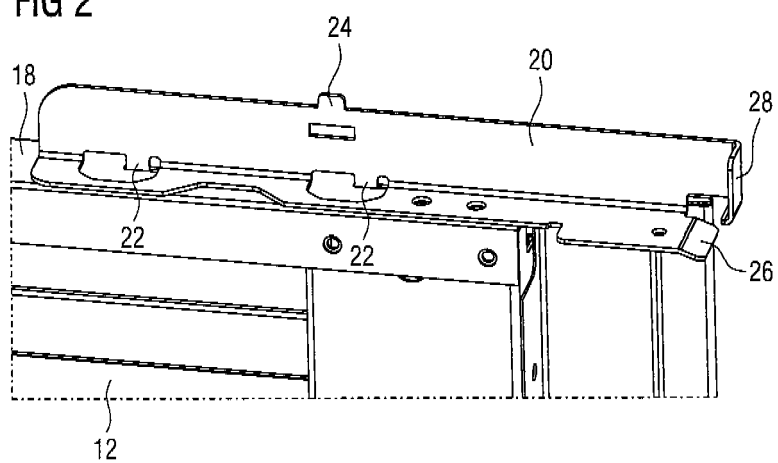
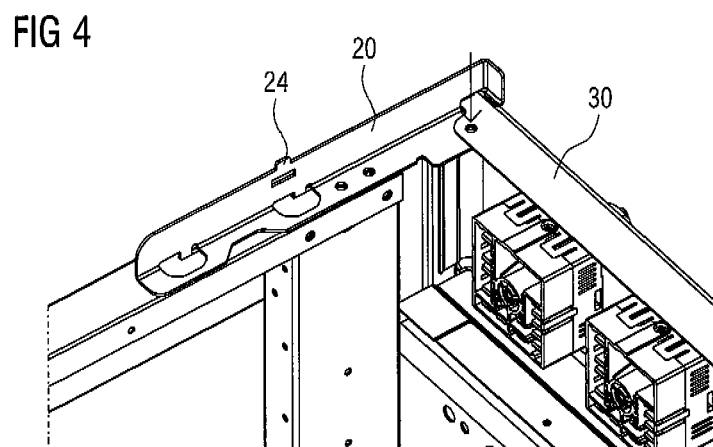
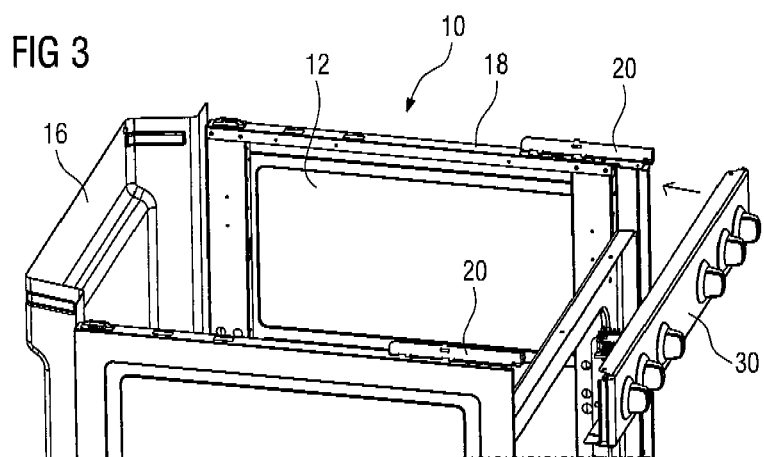
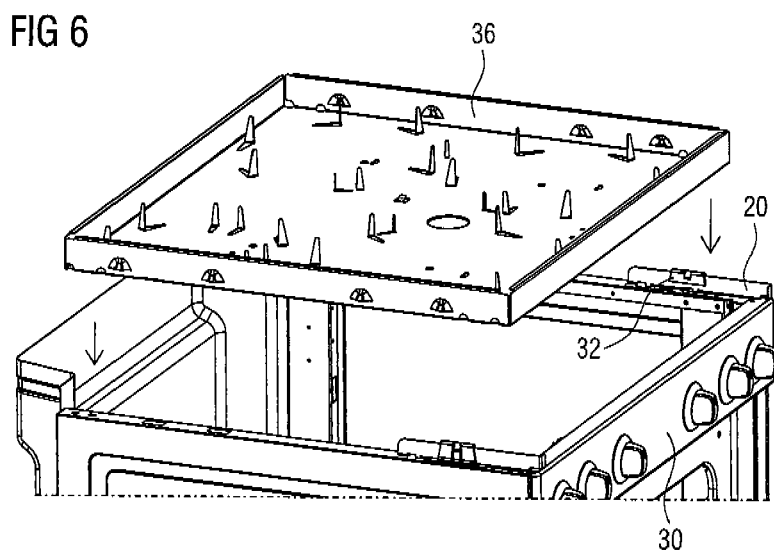
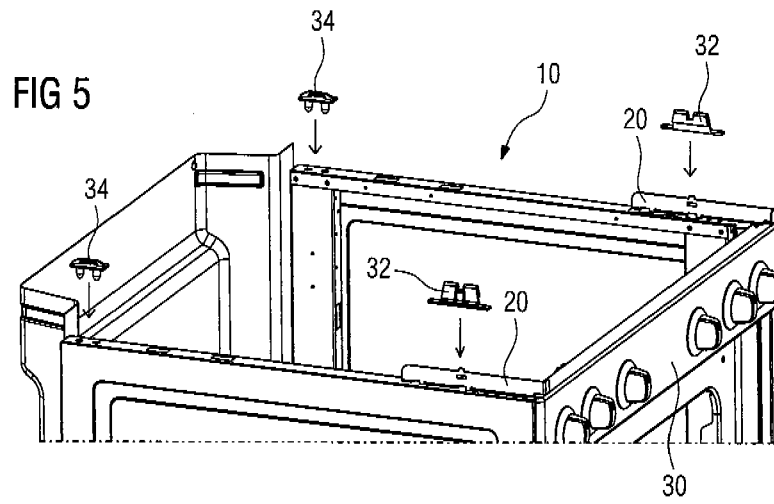


FIG 2







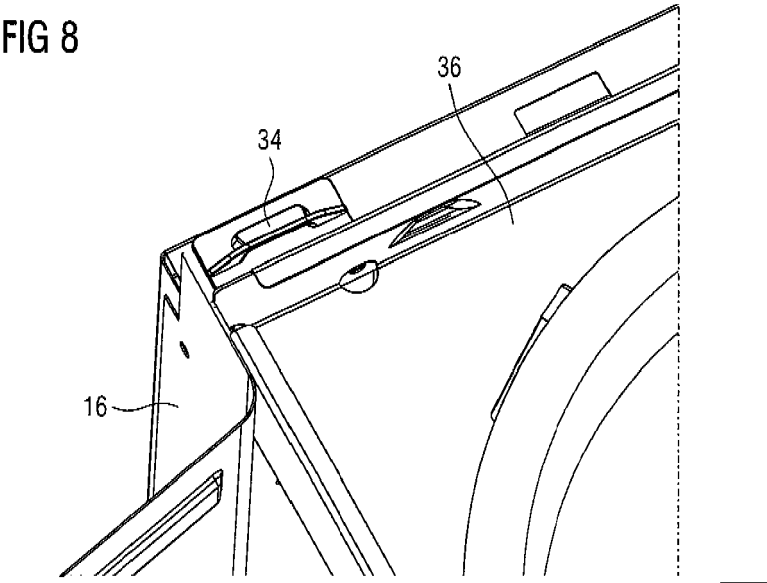
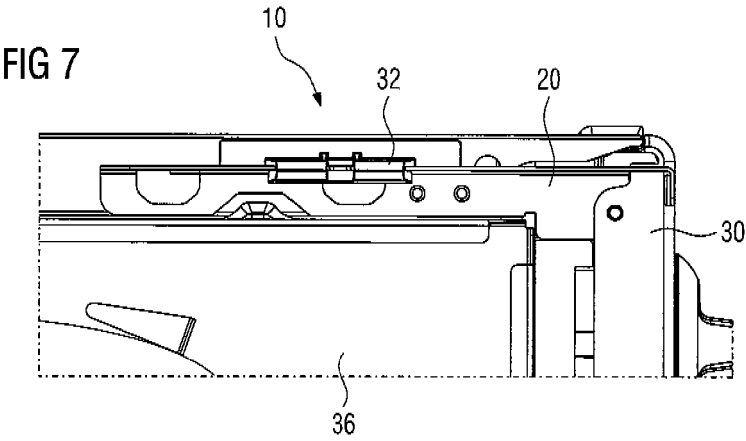


FIG 9

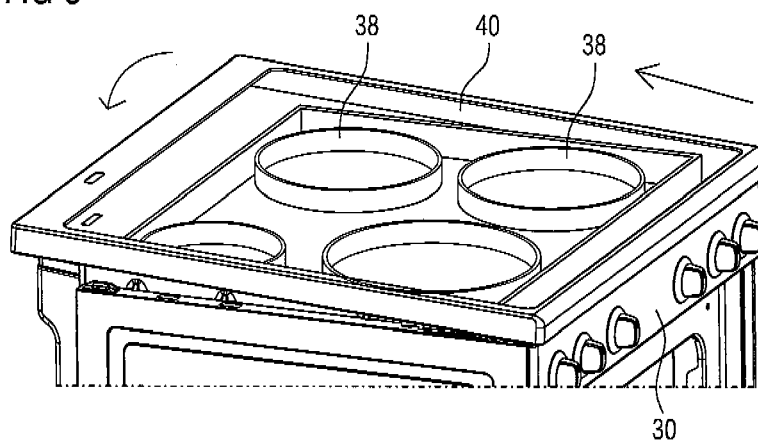


FIG 10

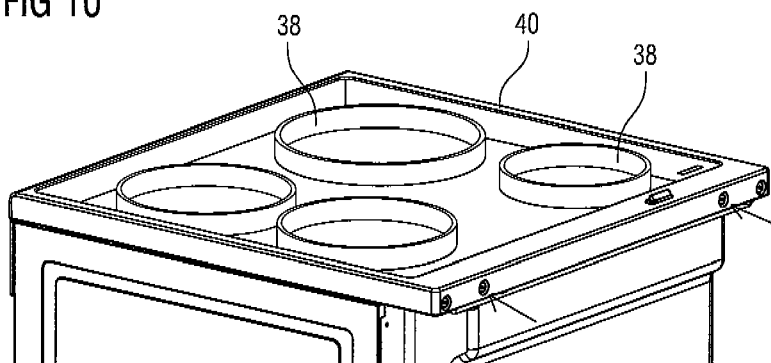


FIG 11

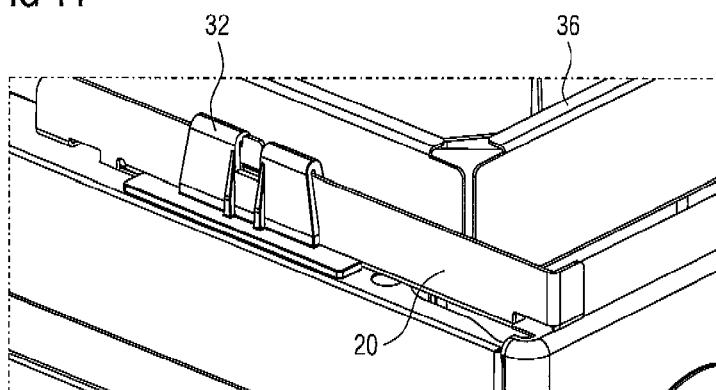
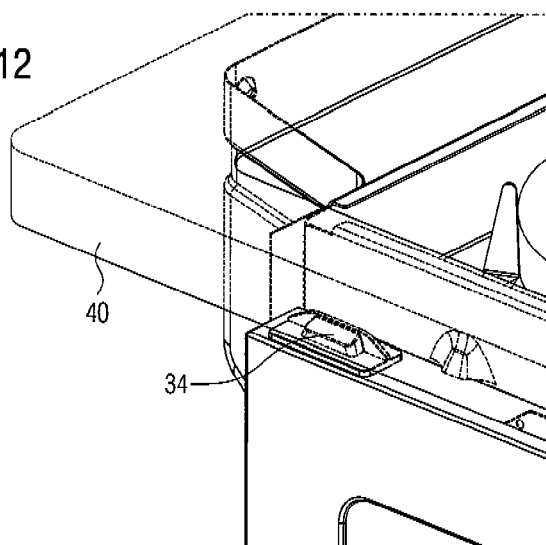


FIG 12





EUROPEAN SEARCH REPORT

Application Number
EP 11 00 2663

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	EP 1 990 583 A1 (ELECTROLUX HOME PROD CORP [BE]) 12 November 2008 (2008-11-12) * figures 1,2,6 *	1-9	INV. F24C15/08 F24C15/10
Y	GB 2 217 001 A (ELECTROLUX AB [SE]) 18 October 1989 (1989-10-18) * figure 1 *	1-9	
			TECHNICAL FIELDS SEARCHED (IPC)
			F24C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 2 September 2011	Examiner Adant, Vincent
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

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EPO FORM 1503 03.02 (P04C01)

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

EP 11 00 2663

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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02-09-2011

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1990583	A1	12-11-2008	NONE

GB 2217001	A	18-10-1989	NONE
