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(54) **Double compartment oven**

(57) A double compartment household oven consisting of a housing (1), whereby the lateral internal walls (2) of the oven compartment (3) have optional supports (4) for trays (a) or grids (b) for positioning of a dish, is designed in a way that on the bottom (5) and the top (6) of the oven compartment (3) there are two guides (7) for

guiding and holding a separation wall (8) in its position, said wall being heat insulated and equipped on both lateral surfaces with supports (4), the same as the walls (2), whereby the front edge (9) of the separation wall (8) is intended to be in tight contact with each door wing (10) separately.

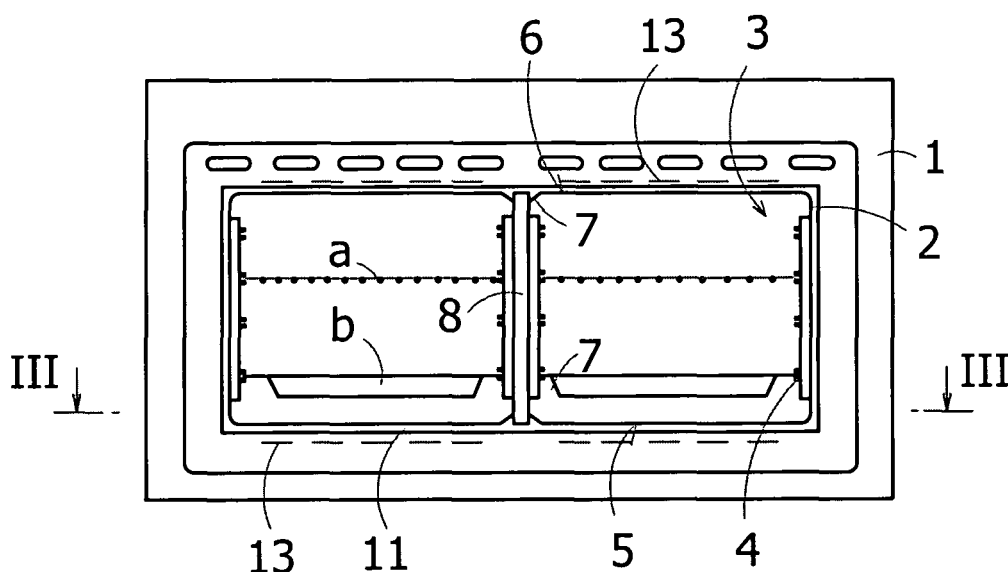


Fig.2

Description

Object of Invention

[0001] The object of the present invention is a double compartment oven either stand-alone or built into an optional stove.

Technical Problem

[0002] The technical problem solved by the present invention is how to design such oven to allow heat treatment of food pieces of different sizes in an energetically favourable mode, or to allow simultaneous heat treatment of two various meals requiring two different heat and time modes of heat treatment.

Prior Art

[0003] A known stove of this type (especially in the countries preparing the English type of breakfast) comprises two electric ovens of various heights positioned one on the other and having the same ground floor surface. Each oven is operated independently. The higher oven is meant for the cooking of meat, bread, pastry and the like, whereas the lower oven is intended for heat treatment of ham and eggs. Due to its smaller volume, it is substantially more energy saving. The largest object to be put into the oven is defined by the size of the interior of the larger oven.

[0004] There is a need for heat treatment of larger pieces of food, lamb for instance. No kitchen oven is known for such cases, the only possibility is to use large appliances outside a household.

[0005] If known kitchen ovens were increased in dimensions in order to receive larger meal pieces, which are not very often cooked or baked in a household, we would obtain a useful oven, yet energetically not economic.

[0006] The objective of the invention was therefore to design a totally new oven without said disadvantages.

Solution to the Technical Problem

[0007] The described technical problem is solved by the oven of the invention having a substantial characteristic in a detachable upright separation wall separating the oven compartment into two parts, and a double door. The door wings are in tight contact on the front edge of the oven and also on the front edge of the detachable upright separation wall. When the separation wall is set in place, the door wings, preferably their free upright edges, are tightly closed on the front edge of the separation wall, each oven compartment can be used separately. The arrangement of heating elements and control thereof also allows separate setting of heat and time of each oven compartment. Due to separate use of each oven compartment, the oven is used in a more economical and

time saving way.

[0008] When the separation wall is detached, the entire interior of the oven can be used for larger meal pieces. The controls are intended for such use as well, the temperature and time of heat treatment are set in one step for the whole oven.

[0009] The essence of the invention will now be described in more detail with a description of one embodiment and the enclosed drawings, wherein

Fig. 1 shows a front view of an open oven of the invention without a separation wall,

Fig. 2 shows a front view of an open oven of the invention with a separation wall; and

Fig. 3 shows a cross-section of the oven of the invention along the line III-III from Fig. 2.

[0010] The double compartment household oven consists of a housing 1 of a known type, whereby the lateral internal walls 2 of the oven compartment 3 have supports 4 for trays a and/or grids b for positioning of a dish, whereby on the bottom 5 and the top 6 of the oven compartment 3 there are two guides 7 shaped like grooves or two equidistant ribs for guiding and holding a separation wall 8 in its position, said wall being heat insulated and equipped on both lateral surfaces with supports 4, the same as the walls 2.

[0011] The separation wall 8 is preferably of a stand-alone type and only led in guides 7. Its front edge 9 is intended to be in tight contact with both door wings 10 or rather with each wing separately.

[0012] Door wings 10 are designed in a way that each separately tightly leans against the front edge 11 of the oven housing 1 and also on the front edge 9 of the separation wall 8. Sealing between the door wings 10 and the front edge 11 of the housing 1 and the front edge 9 of the separation wall 8 is done with gaskets 12 of a known type.

[0013] Heating elements 13 are positioned separately on the bottom 6 and/or the top 7 of each oven compartment 3 either on the internal and/or external side of the oven compartment 3.

[0014] Oven controls, like temperature height and the duration of work temperature within the oven or in each compartment thereof, are conceived separately and with an optional known control unit. The heating elements are also optional and known.

[0015] Moreover, the oven can also contain further elements additionally defining or improving heat treatment of food, e.g. ventilation with the exhaust of gases emerging during heat treatment. The oven has means for the lowering of external temperature of the door and the area around the door. The door may have an inspection glass or is full.

[0016] Door wings are equipped with optional grips and hinges.

[0017] All said amendments and also other possible not mentioned amendments do not circumvent the es-

sence of the invention, defined in the appended patent claims.

Claims

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1. A double compartment household oven consisting of a housing (1), whereby the lateral internal walls (2) of the oven compartment (3) have optional supports (4) for trays (a) or grids (b) for positioning of a dish, **characterised in that** on the bottom (5) and the top (6) of the oven compartment (3) there are two guides (7) for guiding and holding a separation wall (8) in its position, said wall being heat insulated and equipped on both lateral surfaces with supports (4), the same as the walls (2), whereby the front edge (9) of the separation wall (8) is intended to be in tight contact with each door wing (10) separately. 10
2. The double compartment household oven according to claim 1, **characterised in that** the guides (7) shaped like grooves or two equidistant ribs. 15
3. The double compartment household oven according to claims 1 and 2, **characterised in that** the separation wall (8) is of a stand-alone type and only led in guides (7). 20
4. The double compartment household oven according to claims 1 to 3, **characterised in that** door wings (10) are designed in a way that each separately tightly leans against the front edge (11) of the housing (1) and also on the front edge (9) of the separation wall (8). 25
5. The double compartment household oven according to claims 1 to 4, **characterised in that** sealing between the door wings (10) and the front edge (11) of the housing (1) and the front edge (9) of the separation wall (8) is done with gaskets (12). 30
6. The double compartment household oven according to claims 1 to 5, **characterised in that** heating elements (13) are positioned separately on the bottom (6) and/or the top (7) of each oven compartment (3) either on the internal and/or external side of the oven compartment (3). 35

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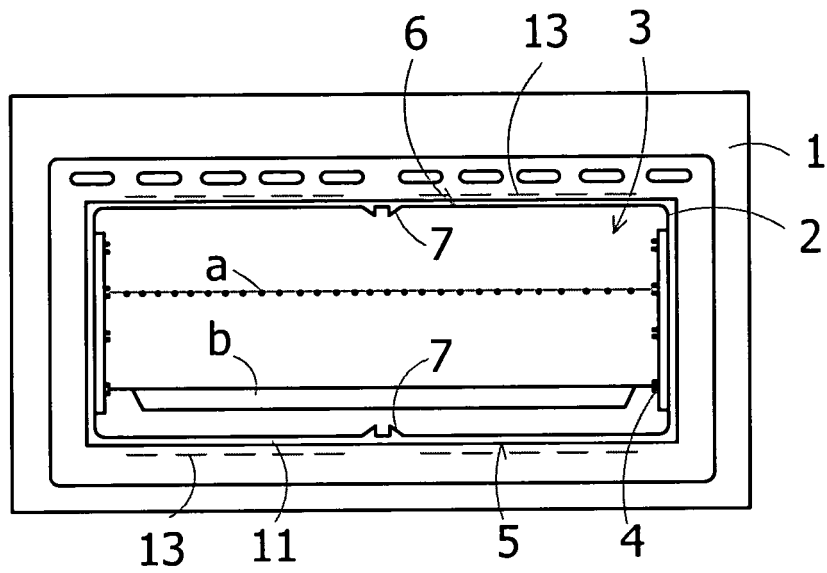


Fig.1

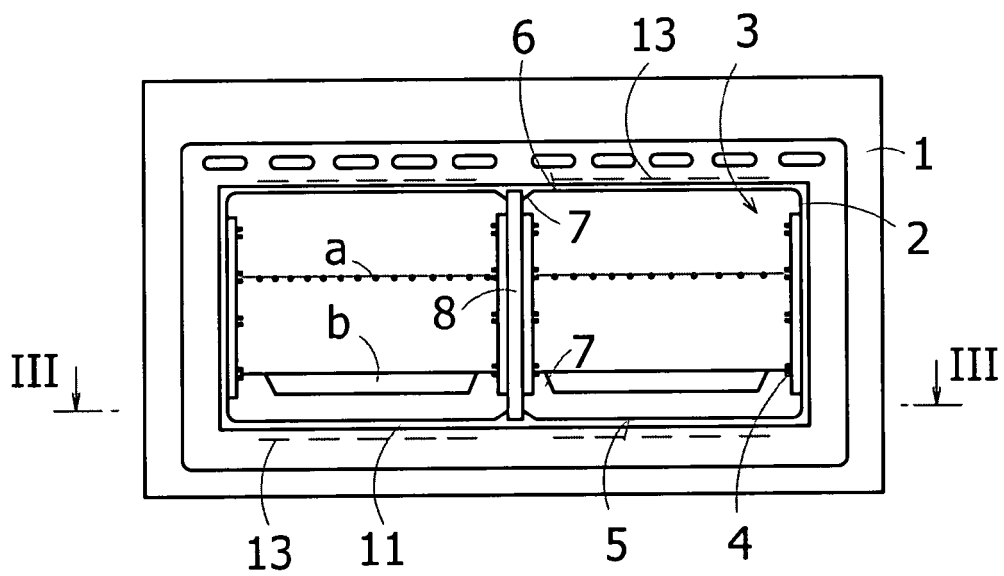


Fig.2

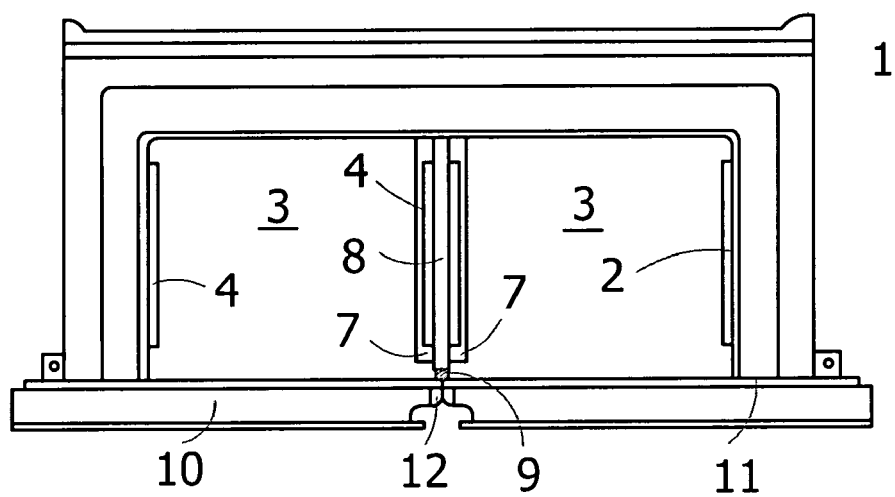


Fig.3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 05 46 8017

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2 478 526 A (DANFORD ROY E) 9 August 1949 (1949-08-09)	1,3,4,6	INV. F24C15/16
Y	* column 1, line 41 - column 2, line 52; figures *	2	
X	US 2 625 928 A (GOULD BYRON C) 20 January 1953 (1953-01-20) * the whole document *	1,3,4,6	
X	US 2 790 886 A (FRY MILLARD E) 30 April 1957 (1957-04-30) * the whole document *	1,3,4,6	
Y	US 1 398 725 A (KNEIER JOSEPH) 29 November 1921 (1921-11-29) * page 1, line 90 - line 102; figures 2,3 *	2	
X	US 518 903 A (STONE, LAURA) 24 April 1894 (1894-04-24) * the whole document *	1,3,4,6	TECHNICAL FIELDS SEARCHED (IPC) F24C
X	US 1 109 263 A (TAYLOR HERBERT) 1 September 1914 (1914-09-01) * the whole document *	1,3,6	
A	US 3 906 849 A (WILLIAMS ET AL) 23 September 1975 (1975-09-23) * figures *	1	
A	US 5 618 458 A (THOMAS ET AL) 8 April 1997 (1997-04-08) * figure 2 *	1	
A	US 2 994 760 A (PECORARO RALPH R ET AL) 1 August 1961 (1961-08-01)	1	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 3 May 2006	Examiner Verdoodt, L
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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EPO FORM 1503 03.82 (P04C01)

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

EP 05 46 8017

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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03-05-2006

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2478526	A	09-08-1949	NONE	
US 2625928	A	20-01-1953	NONE	
US 2790886	A	30-04-1957	NONE	
US 1398725	A	29-11-1921	NONE	
US 518903	A		NONE	
US 1109263	A		NONE	
US 3906849	A	23-09-1975	NONE	
US 5618458	A	08-04-1997	AU 703526 B2 AU 1799395 A FR 2719890 A1	25-03-1999 16-11-1995 17-11-1995
US 2994760	A	01-08-1961	NONE	