(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 2 711 635 B1

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
11.03.2020 Bulletin 2020/11

(51) Int Cl.:
F24C 7/06 *(2006.01)*

(21) Application number: **12197153.5**

(22) Date of filing: **14.12.2012**

(54) **Cooking oven with heating element**

Backofen mit Heizelement

Four de cuisson avec élément de chauffage

(84) 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

(30) Priority: **31.08.2012 EP 12182603**

(43) Date of publication of application:
26.03.2014 Bulletin 2014/13

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EP 2 711 635 B1

Printed by Jouve, 75001 PARIS (FR)

Description

[0001] The present invention relates to a cooking oven comprising an oven muffle having muffle walls which define a cooking chamber and at least one heating element which is fixed to at least one of the muffle walls by means of at least one fixing element according to the preamble of claim 1.

[0002] Known cooking ovens comprise a cooking chamber being defined by the walls of an oven muffle. For providing the cooking chamber with thermal energy, heating elements are provided within and/or outside of the cooking chamber. Usually the heating elements are arranged in a certain distance to the oven muffle walls. In the case of a heating element which is provided within the cooking chamber, the heating element can be guided at least partly through the oven muffle walls, such that the heating section of the heating element extends within the interior side of the oven muffle.

[0003] Furthermore usual is that the oven muffle is assembled from several muffle parts manufactured in deep-drawing processes and cutting processes, wherein the muffle parts are welded together afterwards. Due to the deep-drawing, cutting and - if applicable - enamelling processes the muffle parts are manufactured within relatively large tolerances which cause a certain bandwidth of geometrical variations from oven muffle to oven muffle. Said geometrical variations cause difficulties in subsequent manufacturing steps such as mounting and/or installation of a heating element.

[0004] DE 195 22 545 A1 discloses a microwave oven including a flat electric heating element. The heating element is pivoting inside the oven cavity, so that the heating element is arrangeable either horizontally below a top wall of the oven cavity or vertically in front of a rear wall of the oven cavity. A connector encloses the terminal ends of the heating element. The connector is pivoting within a supporting device formed as a cylinder barrel. The supporting device is attached at an outer side of the oven cavity wall and covers an aperture in said oven cavity wall.

[0005] US 3,296,417 discloses a sheathed electric heating element for removable connection to an apertured wall of an oven cavity. A mounting plate is adapted to be secured over the aperture in the oven wall. A hinged plate is positioned over window means formed in the mounting plate. Parallel spaced tabs are formed on the mounting plate and extend rearwards thereof, wherein each tab is formed with a slotted opening having a reduced entrance. The tabs support the hinge plate. The terminal ends of the sheathed electric heating element are fixed within a pair of openings formed in the hinge plate.

[0006] EP 0 523 324 A2 discloses a support device for a heating element in a baking oven, in particular in a microwave baking oven. A bolt penetrating the oven wall is supported at the outer side of said oven wall. At the inner side of the oven wall a carrying element for the heating element and a bracing element are tensed up at the bolt, wherein the bracing element is braced with and in contact with the bolt. The bolt and the bracing element prevent a microwave leakage, when thermal expansion occurs.

[0007] DE 94 11 320 U1 discloses a baking oven including a flat electric heating element. The heating element is pivoting inside the oven cavity, so that the heating element can be hinged down for cleaning purposes. The heating element includes elastic portions allowing that the heating element can be hinged down, since the shoring of the heating element is annihilated within said elastic portions. Further, the elastic portions allow a limited displacement of the heating element. A rigid portion of the heating element is fixable at the front side of the rear wall, wherein the elastic portions are arranged behind said rear wall in the fixed state of the heating element. The heating element is pivoting in the non-fixed state of the rigid portion.

[0008] US 3,334,215 discloses a domestic appliance. An oven liner is movable for cleaning purposes. A flat electric heating element above the bottom of the oven liner is pivotable between a horizontal and a raised position. The heating element is supported on a rear wall of the oven liner by a hinge arrangement. A first hinge member is fastened by screws to the rear wall of the oven liner. The first hinge member includes an elongated upper slot and a lower notch. A second hinge member matches with the first hinge member. An S-shaped offset tang of the second hinge member interlocks with the slot of the first hinge member. The second hinge member carries terminal ends of the heating element. A detent bracket includes a first and second stop section separated by a rib. The first stop section retains the heating element in the horizontal position, while the second stop section retains the heating element in the raised position.

[0009] It is an object of the present invention to provide a cooking oven wherein the negative effect of the geometrical variations of the oven muffle on the mounting and/or installation of a heating element is reduced. In particular, it is an object of the invention to avoid a gap between the muffle and the fixation of the heating element, that could cause problems with condensation and energy loss.

[0010] The solution to achieve that object is achieved by a cooking oven according to the indicating statement of claim 1, wherein at least one resilient element is provided which applies a force to the heating element pulling said fixing element against said embossing, wherein the fixing element is a fixation flange and arranged within a deepened section formed by the embossing in said muffle wall, and wherein the fixation flange comprises a form corresponding to the form of the embossing.

[0011] The main idea of the present invention is to compensate the variations of the geometry muffle part to which the heating element shall be mounted by providing an embossing which acts as a supporting structure or resting structure for the fixing element. Thus, a precise

structure is produced to which the heating element can be mounted. The position of the heating element within the oven muffle, in particular relative to the muffle walls, can be reproduced within the given tolerance window. The use of resilient elements, such as spiral springs, allows a quick and easy installation and dismounting of the heating element. Particularly advantageous is that the heating element can be moved inside of the cooking chamber, e.g. to attach the heating element to another fixing element, wherein the resilient elements fix the heating element to the rear wall and allows the movement at the same time.

[0012] In an advantageous embodiment of the invention, said fixing element is a substantially flat fixation flange.

[0013] A fixation flange is easily mounted to the heating element. A flat flange can be in planar contact to the embossing and, thus, provide structural stability for the heating element.

[0014] In a further advantageous embodiment of the invention, said muffle wall has at least one recess through which said heating element extends into the cooking chamber.

[0015] Particularly advantageous is this solution for an embodiment having a recess through which said heating element extends. In the manufacturing process, the recess is cut out and due to the process forces, the cut edges of the recess can be bent or have unintended variations of geometry. In this case, the embossing can stabilize the edges of recess and keep the recess within a defined tolerance window. The bending of the cut edges of the recess is minimized.

[0016] In a particular advantageous embodiment of the invention, said recess is arranged in a central portion of said embossing.

[0017] The effect to keep the cut edges of the recess in a very small tolerance window is particularly achieved, when the recess is arranged in a central portion of said embossing.

[0018] In a further advantageous embodiment of the invention, said fixing element rests against said embossing in a planar manner, preferably forming a substantially air tight connection.

[0019] A planar connection of the fixing element with the embossing results in an advantageous stable and air tight connection. Thus, fumes or heat cannot evade from the cooking chamber to the exterior.

[0020] In a further advantageous embodiment of the invention, the fixing element is arranged on and/or in contact with a projecting side formed by the embossment in said muffle wall. Thus, a defined support structure for the fixation element is created. That fixation arrangement is advantageous for cleaning purposes, because accumulation of fat or grease in the fixation element is impeded.

[0021] According to the invention, the fixing element is arranged within a deepened section formed by the embossment in said muffle wall.

[0022] In that way, the fixation element and the heating element attached thereto, can be placed in their intended mounting position very easy, due to the form closure provided between fixation element and muffle wall. A kind of a labyrinth seal is established in such way, that evasion of fumes and heat are minimized.

[0023] According to a further advantageous embodiment of the invention, said embossing is embossed towards the interior of the cooking chamber.

[0024] Thus, the heating element can be positioned slightly displaced in direction to the cooking chamber. The heat transfer of the heating element occurs, consequently, in a more central section of the cooking chamber, resulting a more economic heating of the cooking chamber.

[0025] According to a further advantageous embodiment of the invention said embossing is embossed towards a direction opposite to the interior of the cooking chamber.

[0026] Thus, it is possible to arrange the embossing and the fixation element closer to the heat insulation of the muffle.

[0027] In a further advantageous embodiment of the invention said muffle wall comprises a first interior surface (15a) and that said embossing comprises a second interior surface, wherein a distance is provided between said first interior surface and said second interior surface.

[0028] A value for the distance between the different interior surfaces can be determined which can be advantageously adapted to the dimensions or thickness of the fixation element. First interior surface and second interior surface might be parallel to each other, but it is also possible, that the first and second interior surface intersect.

[0029] According a further advantageous embodiment of the invention, the distance can be equal or smaller or larger than the thickness of the fixing element. In a preferred embodiment of the invention, the distance is equal or smaller than the thickness of the fixing element. Thus, heat transfer from the heating element via the fixing element to the muffle wall can be minimized. Further, in such way, the embossing provides only small condensation surfaces. Thus, condensation on the fixation arrangement is reduced.

[0030] The use of resilient elements, such as spiral springs, allows a quick and easy installation and deinstallation of the heating element. Particularly advantageous is that the heating element can be moved inside of the cooking chamber, e.g. to attach the heating element to another fixing element, wherein the resilient elements fixes the heating element to the rear wall and allows the movement at the same time.

[0031] In a further advantageous embodiment of the invention said flange is screwed to said muffle wall.

[0032] The fixing flange can be secured to the muffle wall by screwing it thereto in a last step of the installation, when all further movement of the heating element shall be prevented.

[0033] In a further advantageous embodiment of the invention the embossing is formed substantially rectan-

gular and has lateral embossing edges and longitudinal embossing edges which are interconnected to each other via rounded corners.

[0034] Alternatively and also advantageous, the embossing is formed substantially rectangular and has lateral embossing edges which are formed semi-circular.

[0035] Thus, it is possible, to install different types of heating elements to the muffle. The fixation elements can be adapted to the form of the embossing, wherein each type of heating element has one specific kind of fixation element. The worker, therefore, can understand by the form of the embossing which type of heating element shall be installed and is impeded to install the wrong one due to not fitting forms.

[0036] The present invention will be described in further detail with reference to the drawings, in which

FIG 1 illustrates a perspective view of a top part of an oven muffle according to the present invention;

FIG 2 illustrates a sectional side view a top part of an oven muffle according to the present invention;

FIG 3 illustrates a detailed sectional side view of a top part of an oven muffle according to an example which is not part of the present invention;

FIG 4 illustrates a detailed sectional side view of a top part of an oven muffle according to an embodiment of the present invention;

FIG 5 illustrates a rear view of a top part of an oven muffle according to the present invention;

FIG 6 illustrates a rear view of a top part of an oven muffle according to a further alternative embodiment of the present invention;

[0037] FIG 1 illustrates a perspective view of an upper part of an oven muffle 1. The oven muffle 1 has a top part 2 which comprises a top wall section 2a and a rear wall section 2b. The top part 2 can also have lateral wall sections and/or a front wall section (not shown). In a central section of the rear wall section 2b, an embossing 4 is provided. A recess 3 is provided in the embossed section of the rear wall section by removing material from there. Lateral from the recess 3, fastening holes 5 are formed. A connection flange 17 is bent off rectangular from the rear wall section 2b forms a rearward and lower end section of the top part 2. A rear part 11 of the oven muffle 1 connected to the top part 2, e.g. by a welding connection.

[0038] FIG 2 illustrates a sectional side view a top region of the oven muffle 1. As can be seen, the oven muffle 1 is formed by the top part 2 and a rear part 11 being joined in a fixation region 12. Usually, further parts (not shown), forming lateral walls and a bottom wall are provided and, together with the top part 2 and the rear part 11, delimit a cavity that forms a cooking chamber 13, wherein foodstuff to be cooked can be placed.

[0039] Inside of the cooking chamber 13, a heating element 6 is placed for heating up the cooking chamber 13. Besides the heating element 6, other heating elements in different configurations can be provided. The heating element 6 comprises a heating wire 7, being connected to electrical terminals 10 for providing energy supply to the heating wire 7. The heating wire 7 is encompassed by a fixing element such as a fixation flange 8, wherein one or more resilient elements 9 can be provided for fastening the heating element 6 to the oven muffle 1 by cooperating with the fixation flange 8. A fixing element shall be understood as an element that supports or fixes the heating element on an oven muffle wall or as an element that cooperates or interacts with another element, e.g. a resilient element or screws or the like, to support or to fix the heating element on the oven muffle wall. The fixation flange 8 is firmly fixed to the heating wire 7. Besides a fixation flange 8, also other fixation elements could be provided, such as fixation discs or fixation rods.

[0040] FIG 3 illustrates a detailed sectional side view of a top part 2 of an oven muffle 1. The heating wire 7 is guided through the recess 3 formed in the rear wall section 2b. The recess 3 is provided in the region of the embossing 4 and has cutting edges 16. The embossing 4 is embossed in a direction towards the interior of the cooking chamber 13. Thus, the embossing 4 forms a second interior surface 15b which extends in a plane different from a plane in which a first interior surface 15a extends, wherein the first interior surface 15a is formed by the rear wall section 2b or by the rear part 11 of the oven muffle 1. In the shown embodiment the planes wherein first interior surface 15a and second interior surface 15b extend are substantially parallel to each other. However, it is also possible that the planes intersect.

[0041] Further, on the rear side of the oven muffle 1, the embossing 4 forms a second exterior surface 14b which extends in a plane different from the plane wherein a first exterior surface 14a extends that is formed by the rear wall section 2b or the rear part 11 of the oven muffle 1. First exterior surface 14a and second exterior surface 14b are exterior surfaces of the oven muffle 1. The embossing forms a deepening on the exterior side of the oven muffle 1 and a projection on the interior side of the oven muffle 1.

[0042] Thus, a distance a is defined between the second exterior surface 14b and the first interior surface 15a, or their planes, respectively. The distance a can be smaller than the thickness of the rear wall section 2b or it can be larger than the thickness of the rear wall section 2b. The value of the distance a can be adapted to the length of the heating element 6 or heating wire 7. Another possibility is that the value of distance a corresponds to the dimension or the thickness, respectively, of the fixation flange 8.

[0043] The second interior surface 15b forms a contact surface or support surface for the fixation flange 8. The

fixation flange 8 can rest against the second interior surface 15b in a laminar or planar manner, providing an air-tight connection between the heating element 6 and the oven muffle 1. In other words, the recess 3 through which the heating element 6 is guided into the cooking chamber 13 is closed air-tight by means of the fixation flange 8 resting against the second interior surface 15b. The resilient element 9 secures the heating element 6 by providing a force that pulls the heating element 6 and the fixation flange 8 against the second interior surface 15b. Advantageously, the planar extension of the embossing 4 is substantially as large as the planar extension of the fixation flange 8.

[0044] FIG 4 illustrates a detailed sectional side view of a top part of an oven muffle according to the present invention. In this embodiment, the embossing 4 is embossed in a direction towards a direction opposite to the interior of the cooking chamber 13. The fixation flange 8 is arranged within the deepening formed by the embossing 4. A distance b is defined between the second exterior surface 14b and the first interior surface 15a, or their planes, respectively, and being a value for the deepness of the embossing 4. Advantageously, the embossing 4 is formed such that the value of b is slightly less than the thickness of the fixation flange 8. According to the invention, the fixation flange 8 comprises a form corresponding to the form of the embossing 4, thereby establishing an advantageous fixation. In general, the fixation flange 8 could be arranged on the exterior side of the muffle wall 2b or on the interior side of the muffle wall 2b. The embossing forms a deepening on the interior side of the oven muffle 1 and a projection on the exterior side of the oven muffle 1.

[0045] FIG 5 illustrates a rear view of a top part 2 of an oven muffle 1. The rear wall section 2b of the top part 2 comprises the embossing 4. The embossing 4 has a substantially rectangular form with lateral embossing edges 4a and longitudinal embossing edges 4b and with rounded corner sections interconnecting the lateral embossing edges 4a with the respective longitudinal embossing edges 4b.

[0046] In a center region of the embossing 4, the recess 3 is arranged. The recess 3 is delimited by its cut edge 16. The heating element 6 is guided through the recess 3. Resilient elements 9, e.g. spiral springs, are provided in lateral sections of the embossing 4. The heating element 6 abuts with its fixation flange 8 against the interior side of the oven muffle 1 and is fixed in its position by the resilient elements 9 which pull the fixation flange 8 against the interior wall of the rear wall section 2b. The fixation flange 8 is therefore larger than the recess 3 having a circumferential line that can be seen as a dashed line in the figure. More precisely, the fixation flange 8 abuts against the second interior surface 15b.

[0047] The recess 3 and the embossing 4 can be produced in one manufacturing step by embossing and die cutting, either in one manufacturing step or in two separate steps. The resulting edges of recess 16 are even more advantageous when the recess 3 and embossing 4 are produced in one manufacturing step, because in this case, the bending or deformation of the cut edges of recess 16 is minimized.

[0048] FIG 6 illustrates a rear view of a top part 2 of an oven muffle 1 having a different configuration. The heating element 6 has four electric terminals 10 which are provided in a row. The embossing 4 has lateral embossing edges 4a and longitudinal embossing edges 4b, wherein the lateral embossing edges 4a are formed as semicircles. Thus, the embossing 4 is adapted to the form of the resilient elements 9 provided as spiral springs. Further, in such configuration, the form of the embossing 4 corresponds to the form of recess 3. In other words, the lateral embossing edges 4a have a form that corresponds to the form of the lateral sections of the recess 3. In this way, the force applied from the resilient elements 9 to the fixation flange 8 is transferred in an optimized way via the geometry of the embossing 4. Consequently, the contact of the fixation flange 8 with the embossing 4, in particular with the contact surface of the embossing 4, is provided in an advantageous planar and air tight manner.

[0049] It is possible, that different fixation flanges 8 can be adapted to the different forms of different embossing 4. E Each type of heating element 6 has one specific kind of fixation element. The worker, therefore, can understand by the form of the embossing 4 which type of heating element 6 shall be installed and is impeded to install the wrong one due to not fitting forms.

List of reference numerals

[0050]

1	oven muffle
2	top part
2a	top wall section
2b	rear wall section
3	recess
4	embossing
4a	lateral embossing edge
4b	longitudinal embossing edge
5	fastening holes
6	heating element
7	heating wire
8	fixation flange
9	resilient element
10	electric terminal
11	rear part
12	fixation region
13	cooking chamber
14a	first exterior surface
14b	second exterior surface
15a	first interior surface
15b	second interior surface
16	edge of recess
17	connection flange

a, b distances

Claims

1. Cooking oven comprising an oven muffle (1) having muffle walls (2a, 2b) which define a cooking chamber (13) and at least one heating element (6) which is fixed to at least one of the muffle walls (2a, 2b) by means of at least one fixing element (8), said at least one muffle wall (2a, 2b) is provided with at least one embossing (4), wherein said fixing element (8) rests against said embossing (4), **characterized in that** at least one resilient element (9) is provided which applies a force to the heating element (6) pulling said fixing element (8) against said embossing (4), wherein the fixing element (8) is a fixation flange (8) and arranged within a deepened section formed by the embossing (4) in said muffle wall (2a, 2b), and wherein the fixation flange (8) comprises a form corresponding to the form of the embossing (4).

2. Cooking oven according to claim 1, **characterized in that** said fixing element is a substantially flat fixation flange (8) .

3. Cooking oven according to one of the preceding claims, **characterized in that** said muffle wall (2a, 2b) has at least one recess (3) through which said heating element (6) extends into the cooking chamber (13).

4. Cooking oven according to claim 3, **characterized in that** said recess (3) is arranged within said embossing (4).

5. Cooking oven according to one of the preceding claims, **characterized in that** said fixing element (8) rests against said embossing (4) in a planar manner, preferably forming a substantially air tight connection.

6. Cooking oven according to one of the preceding claims, **characterized in that** said embossing (4) is embossed towards the interior of the cooking chamber (13).

7. Cooking oven according to one of the claims 1 to 5, **characterized in that** said embossing (4) is embossed towards a direction opposite to the interior of the cooking chamber (13) .

8. Cooking oven according to one of the preceding claims, **characterized in that** said muffle wall (2a, 2b) comprises a first interior surface (15a) and that said embossing (4) comprises a second interior surface (15b), wherein a distance (a, b) is provided between said first interior surface (15a) and said second interior surface (15a).

9. Cooking oven according to claim 8, **characterized in that** the distance (a, b) is equal or smaller or larger than the thickness of the fixing element (8).

10. Cooking oven according to one of the preceding claims, **characterized in that** said fixing element (8) is screwed to said muffle wall (2a, 2b).

11. Cooking oven according to one of the preceding claims, **characterized in that** the embossing (4) is formed substantially rectangular and has lateral embossing edges (4a) and longitudinal embossing edges (4b) which are interconnected to each other via rounded corners.

12. Cooking oven according to one of the claims 1 to 10, **characterized in that** the embossing (4) is formed substantially rectangular and has lateral embossing edges (4a) which are formed semi-circular.

Patentansprüche

1. Backofen, umfassend eine Ofenmuffel (1) mit Muffelwänden (2a, 2b), die eine Garkammer (13) definieren, und mindestens ein Heizelement (6), das an mindestens einer der Muffelwände (2a, 2b) über mindestens ein Befestigungselement (8) befestigt ist, wobei die mindestens eine Muffelwand (2a, 2b) mindestens eine Prägung (4) aufweist, wobei das Befestigungselement (8) an der Prägung (4) anliegt, **dadurch gekennzeichnet, dass** mindestens ein nachgiebiges Element (9) bereitgestellt ist, das das Heizelement (6) mit einer Kraft beaufschlagt, die das Befestigungselement (8) gegen die Prägung (4) zieht, wobei das Befestigungselement (8) ein Befestigungsflansch (8) ist und innerhalb eines vertieften Abschnitts angeordnet ist, der von der Prägung (4) in der Muffelwand (2a, 2b) gebildet wird, und wobei der Befestigungsflansch (8) eine Form umfasst, die der Form der Prägung (4) entspricht.

2. Backofen nach Anspruch 1, **dadurch gekennzeichnet, dass** das Befestigungselement ein im Wesentlichen flacher Befestigungsflansch (8) ist.

3. Backofen nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Muffelwand (2a, 2b) mindestens eine Aussparung (3) aufweist, durch die sich das Heizelement (6) in die Garkammer (13) erstreckt.

4. Backofen nach Anspruch 3, **dadurch gekennzeichnet, dass** die Aussparung (3) innerhalb der Prägung (4) angeordnet ist.

5. Backofen nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** das Befestigungselement (8) an der Prägung (4) ebenflächig anliegt, vorzugsweise eine im Wesentlichen luftdichte Verbindung bildend.

6. Backofen nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Prägung (4) zum Innenraum der Garkammer (13) geprägt ist.

7. Backofen nach einem der Ansprüche 1 bis 5, **dadurch gekennzeichnet, dass** die Prägung (4) zu einer Richtung, die dem Innenraum der Garkammer (13) entgegengesetzt ist, geprägt ist.

8. Backofen nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Muffelwand (2a, 2b) eine erste Innenfläche (15a) umfasst und dass die Prägung (4) eine zweite Innenfläche (15b) umfasst, wobei ein Abstand (a, b) zwischen der ersten Innenfläche (15a) und der zweiten Innenfläche (15a) bereitgestellt ist.

9. Backofen nach Anspruch 8, **dadurch gekennzeichnet, dass** der Abstand (a, b) gleich oder kleiner oder größer als die Dicke des Befestigungselements (8) ist.

10. Backofen nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** das Befestigungselement (8) an der Muffelwand (2a, 2b) festgeschraubt ist.

11. Backofen nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Prägung (4) im Wesentlichen rechteckig ausgebildet ist und seitliche Prägekanten (4a) und längliche Prägekanten (4b) aufweist, die über abgerundete Ecken miteinander verbunden sind.

12. Backofen nach einem der Ansprüche 1 bis 10, **dadurch gekennzeichnet, dass** die Prägung (4) im Wesentlichen rechteckig ausgebildet ist und seitliche Prägekante (4a) aufweist, die halbkreisförmig ausgebildet sind.

Revendications

1. Four de cuisson comprenant un moufle de four (1) ayant des parois de moufle (2a, 2b) qui définissent une chambre de cuisson (13) et au moins un élément chauffant (6) qui est fixé sur au moins une des parois de moufle (2a, 2b) au moyen d'au moins un élément de fixation (8), ladite au moins une paroi de moufle (2a, 2b) étant pourvue d'au moins un gaufrage (4), ledit élément de fixation (8) reposant contre ledit gaufrage (4),

caractérisé en ce que

au moins un élément élastique (9) est fourni, lequel exerce une force sur l'élément chauffant (6) tirant ledit élément de fixation (8) contre ledit gaufrage (4), l'élément de fixation (8) étant une bride de fixation (8) et étant disposé à l'intérieur d'une section creusée formée par le gaufrage (4) dans ladite paroi de moufle (2a, 2b), et la bride de fixation (8) comprenant une forme correspondant à la forme du gaufrage (4).

2. Four de cuisson selon la revendication 1, **caractérisé en ce que** ledit élément de fixation est une bride de fixation (8) sensiblement plate.

3. Four de cuisson selon l'une des revendications précédentes, **caractérisé en ce que** ladite paroi de moufle (2a, 2b) a au moins un évidement (3) à travers lequel ledit élément chauffant (6) s'étend dans la chambre de cuisson (13).

4. Four de cuisson selon la revendication 3, **caractérisé en ce que** ledit évidement (3) est disposé à l'intérieur dudit gaufrage (4).

5. Four de cuisson selon l'une des revendications précédentes, **caractérisé en ce que** ledit élément de fixation (8) repose contre ledit gaufrage (4) de manière plane, de préférence en formant une liaison sensiblement étanche à l'air.

6. Four de cuisson selon l'une des revendications précédentes, **caractérisé en ce que** ledit gaufrage (4) est gaufré vers l'intérieur de la chambre de cuisson (13).

7. Four de cuisson selon l'une des revendications 1 à 5, **caractérisé en ce que** ledit gaufrage (4) est gaufré vers une direction opposée à l'intérieur de la chambre de cuisson (13).

8. Four de cuisson selon l'une des revendications précédentes, **caractérisé en ce que** ladite paroi de moufle (2a, 2b) comprend une première surface intérieure (15a) et **en ce que** ledit gaufrage (4) comprend une seconde surface intérieure (15b), une distance (a, b) existant entre ladite première surface intérieure (15a) et ladite seconde surface intérieure (15a).

9. Four de cuisson selon la revendication 8, **caractérisé en ce que** la distance (a, b) est égale ou inférieure ou supérieure à l'épaisseur de l'élément de fixation (8).

10. Four de cuisson selon l'une des revendications précédentes, **caractérisé en ce que** ledit élément de fixation (8) est vissé à ladite paroi de moufle (2a, 2b).

11. Four de cuisson selon l'une des revendications précédentes, **caractérisé en ce que** le gaufrage (4) est formé de manière sensiblement rectangulaire et a des bords de gaufrage latéraux (4a) et des bords de gaufrage longitudinaux (4b) qui sont reliés entre eux par des coins arrondis.

12. Four de cuisson selon l'une des revendications 1 à 10, **caractérisé en ce que** le gaufrage (4) est formé de manière sensiblement rectangulaire et a des bords de gaufrage latéraux (4a) qui sont formés de manière semi-circulaire.

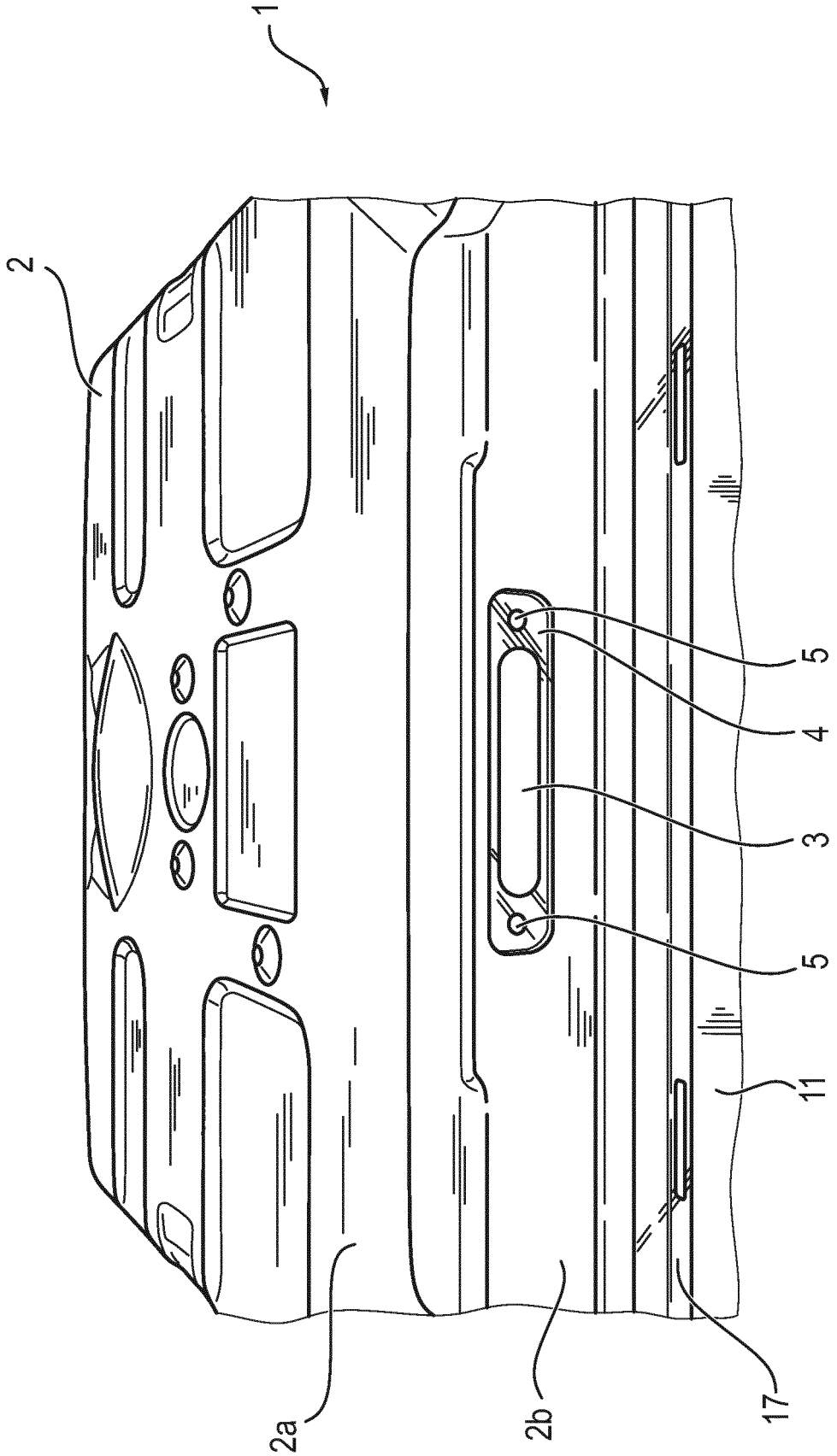

FIG. 1

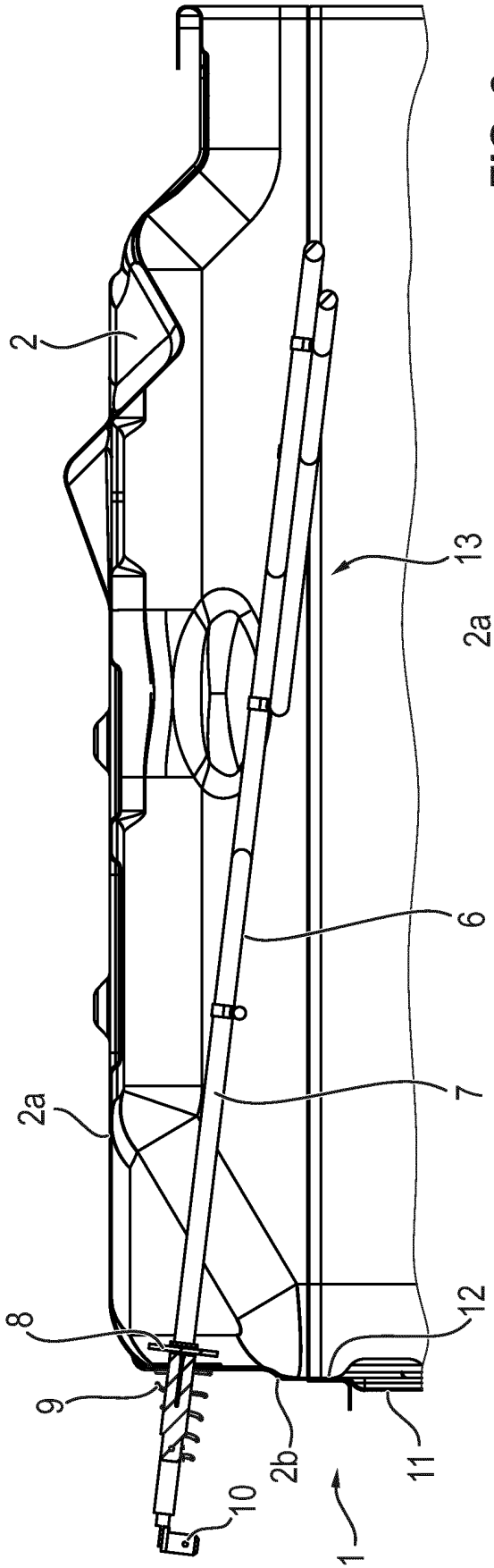

FIG. 2

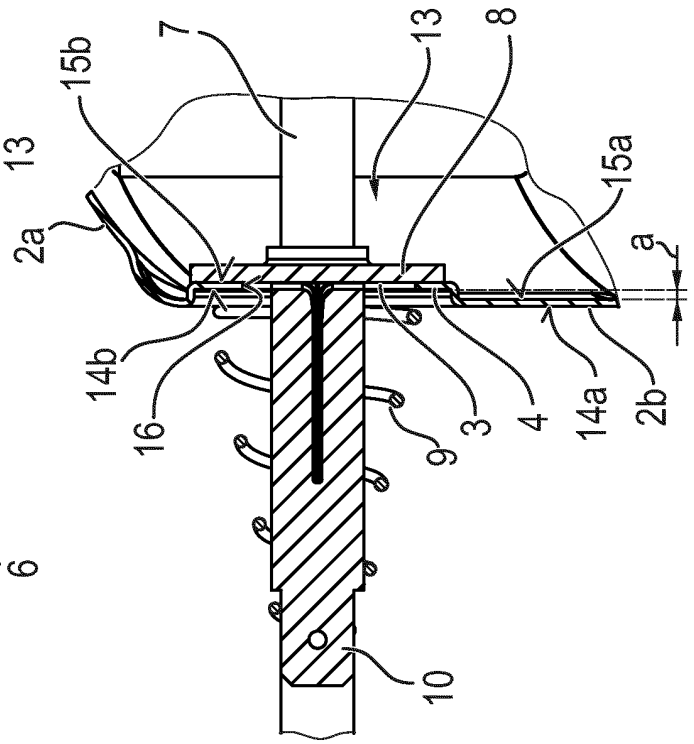

FIG. 3

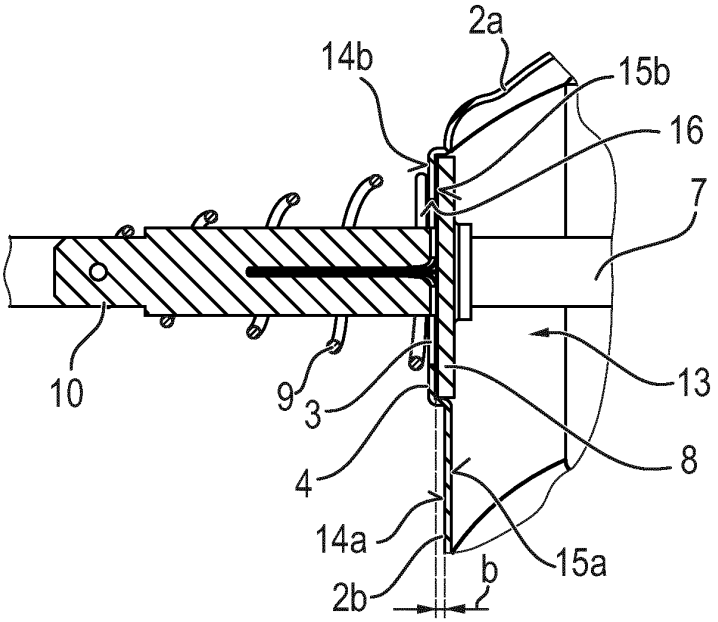
2a
14b
15b
16
7
10
9
3
13
4
8
14a
15a
2b
b

FIG. 4

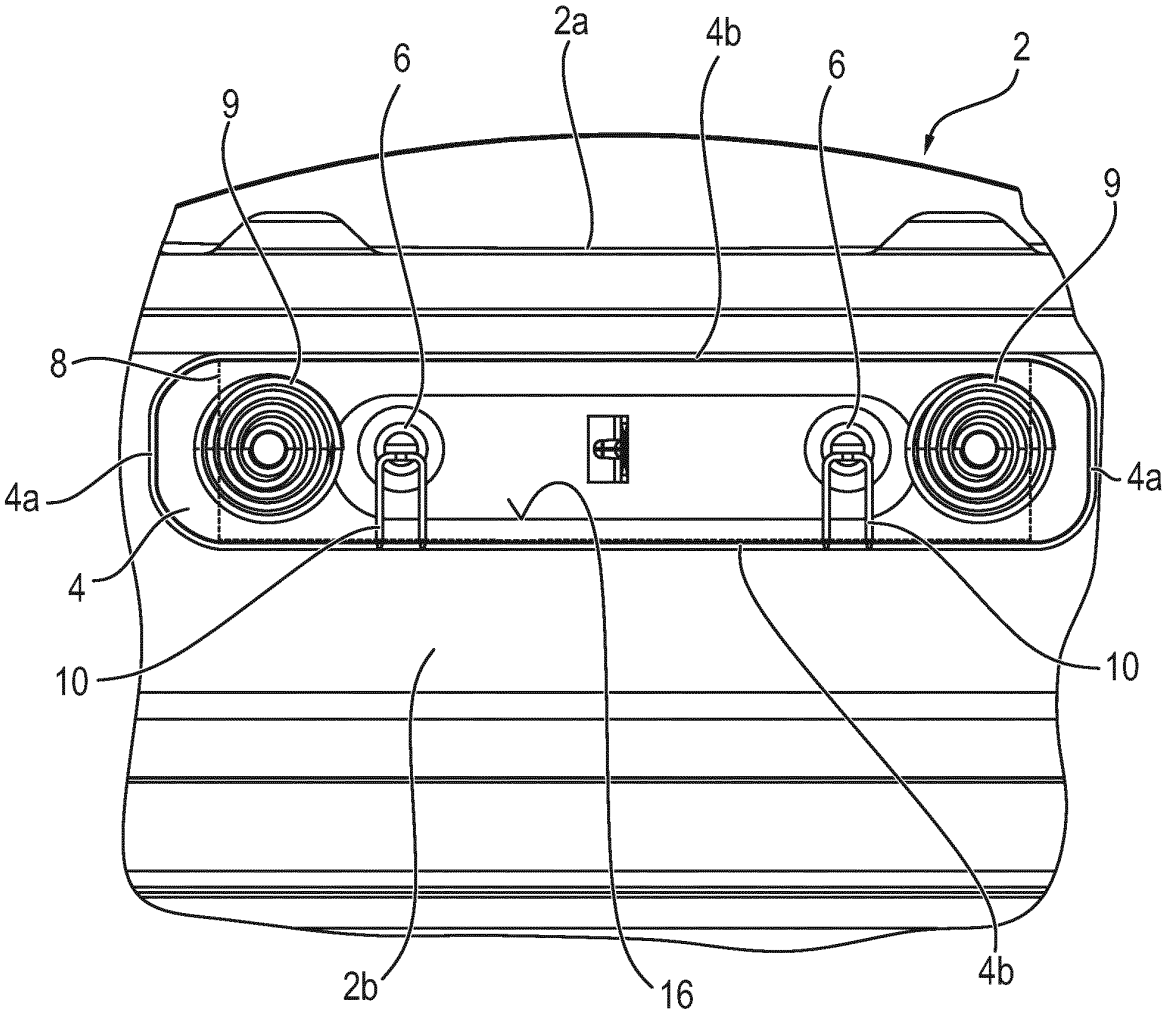
2a
4b
6
6
2
9
9
8
4a
4a
4
10
10
2b
16
4b

FIG. 5

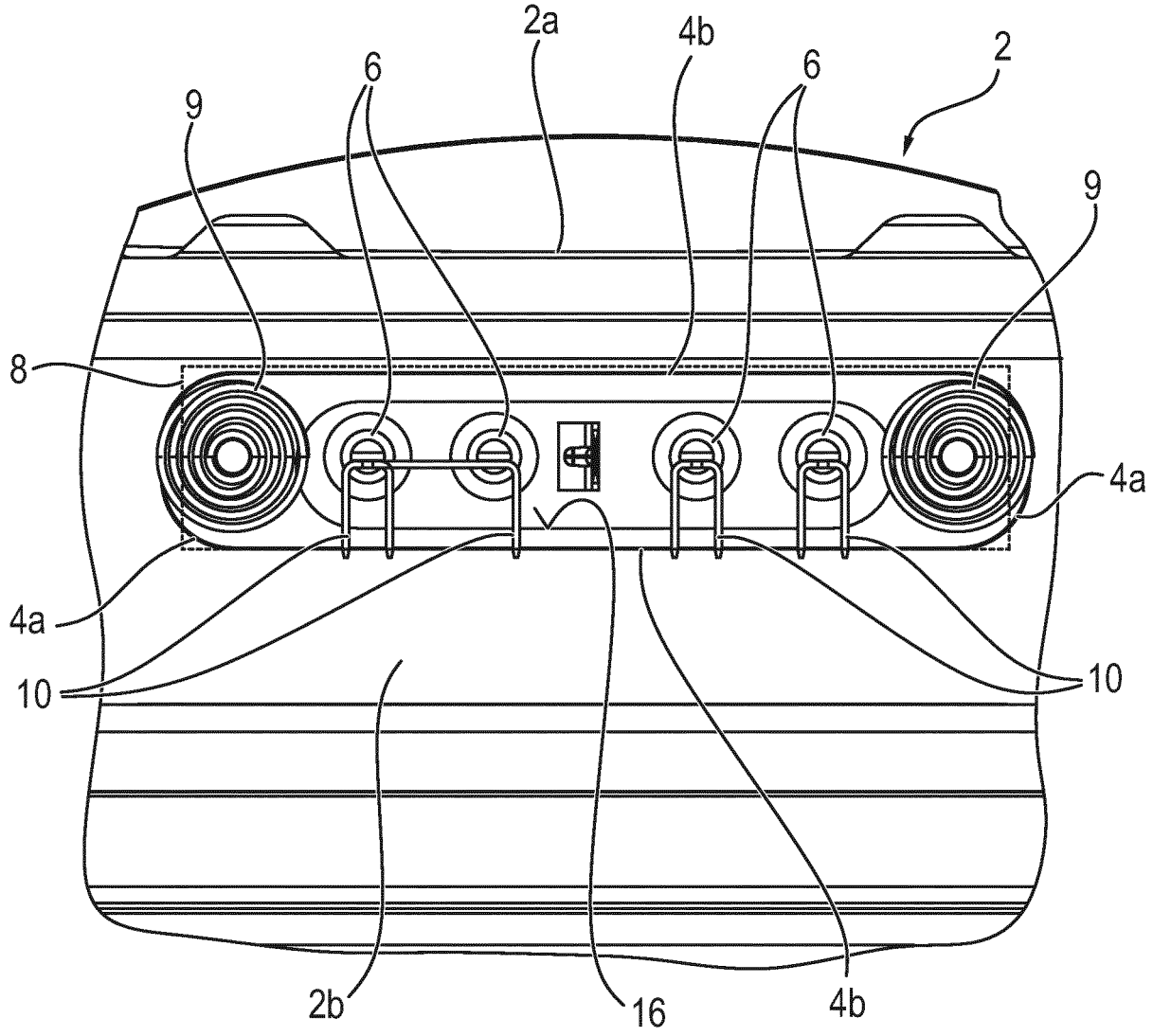

FIG. 6

REFERENCES CITED IN THE DESCRIPTION

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