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(54) **COOKING DEVICE**

KOCHVORRICHTUNG

DISPOSITIF DE CUISSON

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Description

BACKGROUND

[0001] The present disclosure relates to a cooking device.

[0002] Cooking devices are used for heating foods using a heat source such as a burner that generates heat by burning a gaseous fuel. Such a burner includes a plurality of flame holes for burning a gaseous fuel, and the flame holes are spaced a predetermined distance from each other.

DISCUSSION OF THE STATE OF THE ART

[0003] EP 0 299 394 A1 describes a gas heating cooker to be used as a grill or an oven, wherein the blow-off air current of the blowing apparatus blows along the flames of the lower burner to get the hot current to reach far. EP 0 299 394 A1 discloses the preamble of claim 1.

SUMMARY

[0004] Embodiments provide a cooking device that is configured to uniformly heat food.

[0005] According to the invention, a cooking device includes: a cavity providing a cooking chamber; and a burner in the cavity, the burner heating food in the cooking chamber, and the burner includes: a supply part supplying a gaseous fuel mixed with air; and a combustion part that burns the mixed gaseous fuel and having an open curve shape.

[0006] The details of one or more embodiments are set forth in the accompanying drawings and the description below. Other features will be apparent from the description and drawings, and from the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007]

Fig. 1 is a perspective view illustrating a cooking device according to an embodiment.

Fig. 2 is a perspective view illustrating an oven burner and a reflector of the cooking device of Fig. 1.

Fig. 3 is a bottom view illustrating the oven burner of Fig. 2.

Fig. 4 is a side view illustrating flame holes of the oven burner of Fig. 2.

Fig. 5 is a bottom view illustrating an oven burner according to another embodiment, which is not part of the present invention.

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0008] Reference will now be made in detail to the embodiments of the present disclosure, examples of which are illustrated in the accompanying drawings.

[0009] Fig. 1 is a perspective view illustrating a cooking device 1 according to an embodiment, and Fig. 2 is an exploded perspective view illustrating an oven burner 500 and a reflector 600 of the cooking device 1.

[0010] Referring to Figs. 1 and 2, the cooking device 1 includes a cook top part 100, an oven part 200, a drawer part 300, and a control part 400.

[0011] The cook top part 100, the oven part 200, and the drawer part 300 are disposed at upper, middle, and lower regions of a main body 10 of the cooking device 1, respectively. The control part 400 is disposed on the top of the main body 10 at a rear edge portion corresponding to a rear side of the cook top part 100.

[0012] In more detail, the cook top part 100 includes a plurality of cook-top burners 110. Each of the cook-top burners 110 can generate a flame by burning a gaseous fuel to directly heat a container in which food is placed. A plurality of knobs 120 are disposed on a front end portion of the cook top part 100. The knobs 120 are used to close, open, or adjust valves (not shown) for starting, stopping, or adjusting supply of a gaseous fuel to the cook-top burners 110.

[0013] The oven part 200 includes a cavity 210 that provides a cooking chamber 211 for cooking food. The oven burner 500 is disposed in the cavity 210 to heat food in the cooking chamber 211. The reflector 600 above the oven burner 500 is also disposed in the cavity 210. Other than the oven burner 500, an additional heat source (not shown) may be provided within or without the cavity 210 to heat food in the cooking chamber 211.

[0014] The cooking chamber 211 can be selectively closed and opened by using a door 220. The door 220 is a pull-down door of which the top end can be rotated up and down about the lower end. A handle 221 is provided on a front upper portion of the door 220 so that a user can easily rotate the door 220 using the handle 221.

[0015] A container in which food is contained can be stored in the drawer part 300 at a predetermined temperature. The drawer part 300 includes a drawer 310 in which a container can be placed.

[0016] A manipulation signal can be input (generated) through the control part 400 for operating the cooking device 1, specifically, at least one of the cook top part 100, the oven part 200, and the drawer part 300. In addition, the control part 400 displays information about operational conditions of the cooking device 1.

[0017] The oven burner 500 is disposed on an inner upper side of the cavity 210. The oven burner 500 is used to burn a gaseous fuel to directly heat food placed in the cooking chamber 211 by radiant heat.

[0018] Fig. 3 is a bottom view illustrating the oven burner 500. Fig. 4 is a side view illustrating flame holes 541 of the oven burner 500.

[0019] Referring to Figs. 2 to 4, the oven burner 500 includes a supply part 510 supplying a gaseous fuel mixed with air, and a tubular combustion part 520 having an end connected to the supply part 510 to burn the mixed gaseous fuel supplied from the supply part 510.

[0020] The supply part 510 provides the combustion part 520 with a gaseous fuel supplied from a nozzle (not shown), and air supplied together with the gaseous fuel. The supply part 510 may pass through a sidewall of the cavity 210, or the nozzle may pass through the sidewall of the cavity 210. The supply part 510 is aligned with the nozzle in the state where the supply part 510 is spaced apart from the nozzle.

[0021] The combustion part 520 is horizontally disposed within the cavity 210. The combustion part 520 includes first through fourth straight portions 521, 522, 523, and 524, and first through third connection portions 531, 532, and 533 that connect the first through fourth straight portions 521, 522, 523, and 524 to each other.

[0022] The first through fourth straight portions 521, 522, 523, and 524 are parallel to each other.

[0023] The supply part 510 is connected to the first straight portion 521. The supply part 510 may extend along the first straight portion 521 or be tilted from the first straight portion 521. In the present embodiment, the supply part 510 is disposed along the first straight portion 521.

[0024] The first connection portion 531 connects a first end of the first straight portion 521 to a first end of the second straight portion 522. The second connection portion 532 connects a first end of the third straight portion 523 to a second end of the second straight portion 522. The third connection portion 533 connects a second end of the third straight portion 523 to the fourth straight portion 524.

[0025] Thus, the tubular combustion part 520 is bent at a plurality of times in a zigzag shape or S-shape as a whole. The fourth straight portion 524, at which a mixed gaseous fuel finally arrives, has a closed end.

[0026] That is, the combustion part 520 has an open curve shape that is opposite to a loop shape (closed curve shape) in the present embodiment.

[0027] Although the combustion part 520 includes the first through fourth straight portions 521, 522, 523, and 524, and the first through third connection portions 531, 532, and 533 in the present embodiment, the combustion part 520 may include two straight portions and a single connection portion.

[0028] The first through third connection portions 531, 532, and 533 may be round to improve the flow of a mixed gaseous fuel in the first through third connection portions 531, 532, and 533. Thus, the first through third connection portions 531, 532, and 533 may be called curve portions.

[0029] Both sides of each of the first through fourth straight portions 521, 522, 523, and 524 are provided with first through fourth flame holes 541, 542, 543, and 544 that are spaced apart from each other.

[0030] Along the flow path of a mixed gaseous fuel, the first straight portion 521 is closer to the combustion part 520 than the fourth straight portion 524. Thus, flames generated from the first through fourth flame holes 541, 542, 543, and 544 may decrease from the first straight portion 521 toward the fourth straight portion 524.

[0031] Thus, the fourth flame holes 544 are greater than the third flame holes 543, and the third flame holes 543 are greater than the second flame holes 542, and the second flame holes 542 are greater than the first flame holes 541, so as to uniformly generate flames at the first through fourth straight portions 521, 522, 523, and 524.

[0032] Alternatively, the first and second flame holes 541 and 542 may be the same in size, and the third and fourth flame holes 543 and 544 may be the same in size, and the third flame holes 543 may be greater than the second flame holes 542.

[0033] That is, according to the present embodiment, distant one of the flame holes 541 through 544 along the flow path of a mixed gaseous fuel from the supply part 510 may be greater than close one thereof to the supply part 510.

[0034] Thus, even when the amount of a mixed gaseous fuel provided to the fourth straight portion 524 is less than that of the first straight portion 521, since the fourth flame holes 544 are greater than the first flame holes 541, flames at the first through fourth flame holes 541, 542, 543, and 544 are uniform.

[0035] The first through third connection portions 531, 532, and 533 are respectively provided with first through third flame holes 545, 546, and 547 to transfer flames between adjacent two of the first through fourth straight portions 521, 522, 523, and 524. The first through third flame holes 545, 546, and 547 may be disposed on first sides of the first through third connection portions 531, 532, and 533, respectively. Alternatively, the first through third flame holes 545, 546, and 547 may be disposed on both sides of the first through third connection portions 531, 532, and 533, respectively.

[0036] Each of the first through third connection portions 531, 532, and 533 includes inner and outer connection portions 535 and 536. For example, the first through third flame holes 545, 546, and 547 may be provided to the inner connection portions 535. In this case, the number of the first through third flame holes 545, 546, and 547 is less than that when providing the first through third flame holes 545, 546, and 547 to the outer connection portions 536.

[0037] A distance between each group of the first through third flame holes 545, 546, and 547 is greater than a distance between each group of the first through fourth flame holes 541, 542, 543, and 544 to prevent interference between flames generated from the first through third flame holes 545, 546, and 547.

[0038] According to the present embodiment, the single combustion part 520 is bent at one or more times, flame areas are increased. Particularly, since the combustion part 520 is bent in a zigzag shape, food can be uniformly heated.

[0039] Flames are uniformly generated at the first through fourth straight portions 521, 522, 523, and 524 by varying the sizes of the first through fourth flame holes 541, 542, 543, and 544 according to the distance from

the supply part 510.

[0040] Although the combustion part 520 includes the first through fourth straight portions 521, 522, 523, and 524, and the first through third connection portions 531, 532, and 533 in the present embodiment, in another embodiment, which is not part of the present invention, the combustion part 520 may be round as a whole.

[0041] Referring to Fig. 4, the oven burner 500 includes a lower case 501 and an upper case 502, and the first flame holes 541 are exemplified. Hereinafter, the reference numerals of the second through fourth flame holes 542, 543, and 544 will be omitted.

[0042] For example, the lower case 501 may be coupled to the upper case 502 through a screw. Alternatively, the lower case 501 may be coupled to the upper case 502 through a rivet. However, the coupling of the lower case 501 and the upper case 502 is not limited thereto. Thus, the the lower case 501 and the upper case 502 coupled to each other form the tubular combustion part 520.

[0043] At least one of the lower case 501 and the upper case 502 is provided with a plurality of flame hole forming regions 505 for forming the flame holes 541. In the present embodiment, the lower case 501 is provided with the flame hole forming regions 505.

[0044] The flame hole forming regions 505 are formed by partially processing the lower case 501. Adjacent two of the flame hole forming regions 505 are connected through a connection region 504.

[0045] When the lower case 501 is coupled to the upper case 502, a gap 508 for transferring a flame is disposed between at least adjacent two of the flame holes. That is, the lower case 501 is spaced apart from the upper case 502 except for a region where the upper case 502 is coupled to the lower case 501. To space the lower case 501 apart from the upper case 502, a gap forming region 503 may be provided to the upper case 502. When the upper case 502 is provided with the flame hole forming regions 505, the gap forming region 503 may be provided to the lower case 501.

[0046] That is, when the lower case 501 is coupled to the upper case 502, the connection region 504 is spaced apart from the gap forming region 503 that faces the connection region 504.

[0047] The vertical distance of the gap 508 is less than those of the flame holes 541.

[0048] According to the present embodiment, the gap 508 efficiently transfers a flame between at least adjacent two of the flame holes.

[0049] Particularly, even when the oven burner 500 is in a low operation mode (where flames are weak), flames can be efficiently transferred between the flame holes.

[0050] Since a flame is efficiently transferred between the flame holes, flame intensities (flame hole load) of the flame holes are substantially uniform, so as to uniformly heat food.

[0051] The reflector 600 may be disposed between a ceiling 212 of the cavity 210 and the oven burner 500.

[0052] When a gaseous fuel is burned at the oven burner 500, the reflector 600 reflects flames and heat downwardly toward food placed in the cooking chamber 211. In addition, combustion gas generated while burning a gaseous fluid at the oven burner 500 is introduced upwardly between the ceiling 212 of the cooking chamber 211 and the top of the reflector 600 by the reflector 600.

[0053] Referring again to Fig. 1 and 2, the reflector 600 includes a reflection part 610, exhaust parts 620, cover parts 640, and fixing flanges 630. The reflection part 610 includes first connection surfaces 611, oblique surfaces 613, and second connection surfaces 615.

[0054] Each of the first connection surfaces 611 has a predetermined lateral width and is located directly above the combustion part 520. The number of the first connection surfaces 611 is determined according to the number of the straight portions. The oblique surfaces 613 are sloped upwardly from ends of the first connection surfaces 611 at a predetermined angle. The second connection surface 615 is disposed between neighboring two of the oblique surfaces 613 to connect ends of the oblique surfaces 613. When a gaseous fuel is burned at the oven burner 500, combustion gas is collected in a space formed by the second connection surface 615 and two oblique surfaces 613 connected to the second connection surface 615.

[0055] The fixing flanges 630 are disposed on corners of the top surface of the reflection part 610. The fixing flanges 630 are used to fix the reflection part 610 to the ceiling 212 of the cooking chamber 211. The fixing flanges 630 may be formed at the corners of the reflection part 610 by partially cutting and upwardly bending the first connection surfaces 611 and the oblique surfaces 613.

[0056] When a gaseous fuel is burned at the oven burner 500, combustion gas is collected between the oven burner 500 and the reflection part 610, that is, in spaces formed by the second connection surfaces 615 and the oblique surfaces 613 connected to the second connection surfaces 615. Then, the combustion gas is discharged to a space between the ceiling 212 of the cooking chamber 211 and the reflection part 610 through the exhaust parts 620. For this end, the exhaust parts 620 are formed into an elongated shape by partially cutting out the second connection surfaces 615 in a front-to-back direction.

[0057] Furthermore, owing to the cover parts 640, combustion gas generated by combustion of gas at the oven burner 500 can be uniformly distributed through the space between the top surface of the reflector 600 and the ceiling 212 of the cooking chamber 211.

[0058] For this end, the cover parts 640 have a plate shape with a size corresponding to the size of the exhaust parts 620. The cover parts 640 are disposed directly above the exhaust parts 620. Owing to this structure, flames and heat generated by combustion of gas at the oven burner 500 are not transferred through the exhaust parts 620 to the space between the top surface of the

reflector 600 and the ceiling 212 of the cooking chamber 211 but are reflected by the cover parts 640 downwardly toward the inside of the cooking chamber 211. In addition, combustion gas discharged through the exhaust parts 620 can be uniformly distributed forward, backward, leftward, and/or rightward by the cover parts 640.

[0059] Fixing ribs are provided at front and rear end portions of each cover part 640. The fixing ribs are provided to fix the cover part 640 to the reflection part 610. In the present embodiment, the fixing ribs have an approximate L-shape and disposed at the front and rear end portions of each cover part 640. For example, the fixing ribs and the cover part 640 may be formed in one piece. Furthermore, the cover part 640 and the reflector 600 may be formed in one piece. In this case, the exhaust part 620 and the cover part 640 may be formed by forming two parallel lines in the second connection surface 615 in the length direction of the second connection surface 615, by cutting the second connection surface 615 along the parallel lines, and by upwardly bending a portion of the second connection surface 615 disposed between the parallel lines.

[0060] Hereinafter, operation of the cooking device 1 will now be described.

[0061] A user can input a manipulation signal by using the control part 400 for cooking food using the oven part 200. If a manipulation signal is input through the control part 400, the oven burner 500 is operated to cook food in the cooking chamber 211.

[0062] In detail, gas and air are supplied to the oven burner 500, and flames are generated by combustion of the gas and air. Then, food is cooked in the cooking chamber 211 by flames and heat generated at the oven burner 500. At this time, the reflector 600 reflects flames and heat generated by combustion of gas at the oven burner 500, toward the food placed in the cooking chamber 211.

[0063] Meanwhile, combustion gas generated as a result of combustion of gas at the oven burner 500 is guided to the space between the ceiling 212 of the cooking chamber 211 and the reflector 600 through the reflector 600. In more detail, the combustion gas is collected at the space formed by the second connection surface 615 and two oblique surfaces 613 connected to the second connection surface 615. Then, the collected combustion gas flows upward, that is, to the space between the ceiling 212 of the cooking chamber 211 and the reflection part 610 through the exhaust part 620.

[0064] Fig. 5 is a bottom view illustrating an oven burner 600 according to another embodiment, which is not part of the present invention.

[0065] Hereinafter, the oven burner 600 will now be described. A description of the same parts as the previous embodiment will be omitted.

[0066] Referring to Fig. 5, the oven burner 600 includes first and second tubular combustion parts 610 and 620 that may be parallel to the bottom of the cavity 210 of Fig. 1.

[0067] Particularly, the first combustion part 610 has

at least one straight portion. In the present embodiment, the first combustion part 610 has a straight shape as a whole.

[0068] The first combustion part 610 extends in a back-and-forth direction of the cavity 210 with the oven burner 600 installed. The oven part 200 of Fig. 1 includes the nozzle (not shown) supplying gas to the first combustion part 610. For example, the nozzle may pass through the sidewall of the cavity 210, and be aligned with the first combustion part 610 in the state of being apart from the nozzle.

[0069] The first combustion part 610 may be disposed on the line halving the ceiling 212 of Fig. 1 of the cook chamber 211 of Fig. 1. The rear end of the first combustion part 610 is adjacent to the rear end of the ceiling 212, and the front end of the first combustion part 610 is disposed in the middle of the ceiling 212.

[0070] A passage (not shown) is disposed in the first combustion part 610 to mix a supplied gaseous fuel and air. Both sides of the first combustion part 610 are provided with a plurality of flame holes 612.

[0071] A mixed gaseous fuel flowing in the passage of the first combustion part 610 is burned at the flame holes 612.

[0072] The second combustion part 620 has an open curve shape that is partially open. The second combustion part 620 may be symmetrical with respect to the line halving the ceiling 212.

[0073] An opening of the second combustion part 620 faces the front side of the cook chamber 211.

[0074] A passage (not shown) is disposed in the second combustion part 620 to communicate with the passage of the first combustion part 610. That is, a mixed gaseous fuel flowing in the passage of the first combustion part 610 is supplied to the passage of the second combustion part 620. The mixed gaseous fuel supplied from the first combustion part 610 is branched to both sides of the second combustion part 620.

[0075] That is, the second combustion part 620 includes a distribution part 621 receiving a mixed gaseous fuel supplied from the first combustion part 610, and first and second branches 622 and 623 that are separated at the distribution part 621. The first and second branches 622 and 623 respectively have first ends that are connected to the distribution part 621, and second ends that are closed and spaced apart from each other.

[0076] The first and second branches 622 and 623 each may have at least one round portion. Alternatively, the second combustion part 620 may have at least one straight portion, as a whole (not shown).

[0077] The first and second branches 622 and 623 each includes an outer part 624 and an inner part 625. A mixed gaseous fuel flows between the outer part 624 and the inner part 625.

[0078] The outer part 624 includes a plurality of outer flame holes 626 that are spaced apart from each other. The inner part 625 includes a plurality of inner flame holes that include a plurality of first flame holes 627 and a plu-

ality of second flame holes 628.

[0079] The first flame holes 627 are disposed in straight portions of the inner parts 625, and the second flame holes 628 are disposed in curve portions of the inner parts 625. A distance between the second flame holes 628 is greater than a distance between the first flame holes 627 to prevent flame interference in the curve portion of the inner part 625.

[0080] The distance between the first flame holes 627 is the same as a distance between the outer flame holes 626 of the outer parts 624.

[0081] According to the present embodiment, the first combustion part functions as the supply part of the previous embodiment. In addition, the supply part of the previous embodiment may be provided with flame holes, so that the supply part can function as combustion part.

[0082] According to the embodiments, since the single combustion part is bent at a plurality of times, flame areas are increased. Particularly, since the combustion part is bent in a zigzag shape, food can be uniformly heated.

[0083] Flames are uniformly generated at the straight portions by varying sizes of the flame holes according to the distance from the supply part.

Claims

1. A cooking device (1) comprising
a cavity (210) providing a cooking chamber (211);
and
a burner (500) provided in the cavity (210) to heat food in the cooking chamber (211),
wherein the burner (500) comprises:

a supply part (510) supplying a gaseous fuel mixed with air; and
at least one tubular combustion part (520) that burns the mixed gaseous fuel; the at least one tubular combustion part (520) has an open curve shape with a first end receiving the mixed gaseous fuel and the other end closed,
wherein the at least one combustion part (520) comprises:

a plurality of straight portions (521, 522, 523, 524) spaced apart from each other;
and
one or more connection portions (531, 532, 533) connecting the straight portions (521, 522, 523, 524)

wherein the straight portions (521, 522, 523, 524) are in parallel with each other and the connection portion (531, 532, 533) is round,
wherein each of the straight portions (521, 522, 523, 524) is provided with a plurality of flame holes (541, 542, 543, 544) for generating flames,
characterized in that

the flame hole (541, 542, 543, 544) of the straight portion (521, 522, 523, 524) distant from the supply part (510) along a flow path of the mixed gaseous fuel is greater than the flame hole (541, 542, 543, 544) of the straight portion (521, 522, 523, 524) close to the supply part (510) along the flow path of the mixed gaseous fuel,
that the connection portion (531, 532, 533) including inner connection portions (535) and out connection portions (536), wherein the inner connection portion (535) comprises a plurality of flame holes (545, 546, 547) that transfers a flame between adjacent two of the straight portions, and
that a distance between the flame holes (545, 546, 547) of the connection portion (531, 532, 533) is greater than a distance between the flame holes (541, 542, 543, 544) of the straight portion (521, 522, 523, 524).

2. A cooking device (1) according to claim 1, wherein the at least one combustion part (520) has a first end connected to the supply part (510).
3. A cooking device (1) according to any one of the preceding claims, wherein the supply part (510) is provided with one or more flame holes (541, 542, 543, 544).
4. A cooking device (1) according to any one of the preceding claims, wherein the combustion part (520) of the burner (500) is disposed horizontally in the cavity (210).
5. A cooking device (1) according to any one of the preceding claims, further comprising a reflector (600) that is disposed between a ceiling of the cavity (210) and the burner (500) to reflect heat generated from the burner (500) to food within the cooking chamber (211).

Patentansprüche

1. Kochvorrichtung (1), die Folgendes umfasst:

einen Hohlraum (210), der eine Kochkammer (211) bereitstellt; und
einen Brenner (500), der in dem Hohlraum (210) vorgesehen ist, um Nahrungsmittel in der Kochkammer (211) zu erhitzen, wobei der Brenner (500) Folgendes umfasst:

ein Zufuhrteil (510), das einen gasförmigen Brennstoff, der mit Luft gemischt ist, zuführt; und
wenigstens ein rohrförmiges Verbrennungsteil (520), das den gemischten gas-

förmigen Brennstoff verbrennt; wobei das wenigstens eine rohrförmige Verbrennungsteil (520) eine offene gebogene Form aufweist, wovon ein erstes Ende den gemischten gasförmigen Brennstoff aufnimmt und das andere Ende geschlossen ist,

wobei das wenigstens eine Verbrennungsteil (520) Folgendes umfasst:

mehrere gerade Abschnitte (521, 522, 523, 524), die voneinander beabstandet sind; und
einen oder mehrere Verbindungsabschnitte (531, 532, 533), die die geraden Abschnitte (521, 522, 523, 524) verbinden,

wobei die geraden Abschnitte (521, 522, 523, 524) parallel zueinander liegen und wobei der Verbindungsabschnitt (531, 532, 533) gerundet ist,

wobei jeder der geraden Abschnitte (521, 522, 523, 524) mit mehreren Flammenlöchern (541, 542, 543, 544) zum Erzeugen von Flammen versehen ist,

dadurch gekennzeichnet, dass

das Flammenloch (541, 542, 543, 544) des geraden Abschnitts (521, 522, 523, 524) entfernt von dem Zufuhrteil (510) entlang eines Strömungspaths des gemischten gasförmigen Brennstoffs größer als das Flammenloch (541, 542, 543, 544) des geraden Abschnitts (521, 522, 523, 524) direkt an dem Zufuhrteil (510) entlang des Strömungspaths des gemischten gasförmigen Brennstoffs ist,

der Verbindungsabschnitt (531, 532, 533) innere Verbindungsabschnitte (535) und äußere Verbindungsabschnitte (536) umfasst, wobei die inneren Verbindungsabschnitte (535) mehrere Flammenlöcher (545, 546, 547) umfassen, die eine Flamme zwischen zwei aneinander angrenzenden der geraden Abschnitte übertragen, und

ein Abstand zwischen den Flammenlöchern (545, 546, 547) des Verbindungsabschnitts (531, 532, 533) größer als ein Abstand zwischen den Flammenlöchern (541, 542, 543, 544) des geraden Abschnitts (521, 522, 523, 524) ist.

2. Kochvorrichtung (1) nach Anspruch 1, wobei das wenigstens eine Verbrennungsteil (520) ein erstes Ende aufweist, das mit dem Zufuhrteil (510) verbunden ist.

3. Kochvorrichtung (1) nach einem der vorhergehenden Ansprüche, wobei das Zufuhrteil (510) mit einem oder mehreren Flammenlöchern (541, 542, 543, 544) versehen ist.

4. Kochvorrichtung (1) nach einem der vorhergehenden Ansprüche, wobei das Verbrennungsteil (520) des Brenners (500) in dem Hohlraum (210) horizontal angeordnet ist.

5. Kochvorrichtung (1) nach einem der vorhergehenden Ansprüche, die ferner einen Reflektor (600) umfasst, der zwischen einer Decke des Hohlraums (210) und dem Brenner (500) angeordnet ist, um Hitze, die von dem Brenner (500) erzeugt wird, auf Nahrungsmittel in der Kochkammer (211) zu reflektieren.

Revendications

1. Dispositif de cuisson (1) comprenant une cavité (210) constituant une chambre de cuisson (211) ; et
un brûleur (500) prévu dans la cavité (210) pour chauffer de la nourriture dans la chambre de cuisson (211),
dans lequel brûleur (500) comprend :

une partie d'alimentation (510) alimentant un combustible gazeux mélangé avec de l'air ; et
au moins une partie de combustion tubulaire (520) qui brûle le mélange de combustible gazeux, ladite au moins une partie de combustion tubulaire (520) ayant une forme incurvée ouverte, avec une première extrémité recevant le mélange de combustible gazeux, et l'autre extrémité fermée,
dans lequel ladite au moins une partie de combustion (520) comprend :

une pluralité de portions rectilignes (521, 522, 523, 524) distantes les unes des autres ; et
une ou plusieurs portions de connexion (531, 532, 533) connectant les portions rectilignes (521, 522, 523, 524),

dans lequel les portions rectilignes (521, 522, 523, 524) sont en parallèle les unes aux autres et la portion de connexion (531, 532, 533) est ronde,

dans lequel chacune des portions rectilignes (521, 522, 523, 524) est dotée d'une pluralité de trous à flamme (541, 542, 543, 544) pour générer des flammes,

caractérisé en ce que

le trou à flamme (541, 542, 543, 544) de la portion rectiligne (521, 522, 523, 524) distant de la partie d'alimentation (510) le long d'un chemin d'écoulement du mélange de combustible gazeux est plus grand que le trou à flamme (541, 542, 543, 544) de la portion rectiligne (521, 522, 523, 524) proche de la partie d'alimentation

(510) le long du chemin d'écoulement du mélange de combustible gazeux,

en ce que la portion de connexion (531, 532, 533) inclut des portions de connexion internes (535) et des portions de connexion externes (536), dans lequel la portion de connexion interne (535) comprend une pluralité de trous à flamme (545, 546, 547) qui transfèrent une flamme entre deux portions rectilignes adjacentes, et **en ce qu'**une distance entre les trous à flamme (545, 546, 547) de la portion de connexion (531, 532, 533) est plus grande qu'une distance entre les trous à flamme (541, 542, 543, 544) de la portion rectiligne (521, 522, 523, 524).

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2. Dispositif de cuisson (1) selon la revendication 1, dans lequel ladite au moins une partie de combustion (520) présente une première extrémité connectée à la partie d'alimentation (510).

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3. Dispositif de cuisson (1) selon l'une quelconque des revendications précédentes, dans lequel la partie d'alimentation (510) est dotée d'un ou de plusieurs trous à flamme (541, 542, 543, 544).

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4. Dispositif de cuisson (1) selon l'une quelconque des revendications précédentes, dans lequel la partie de combustion (520) du brûleur (500) est agencée horizontalement dans la cavité (210).

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5. Dispositif de cuisson (1) selon l'une quelconque des revendications précédentes, comprenant en outre un réflecteur (600) qui est agencé entre un plafond de la cavité (210) et le brûleur (500) pour réfléchir la chaleur générée depuis le brûleur (500) vers de la nourriture à l'intérieur de la chambre de cuisson (211).

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Fig. 1

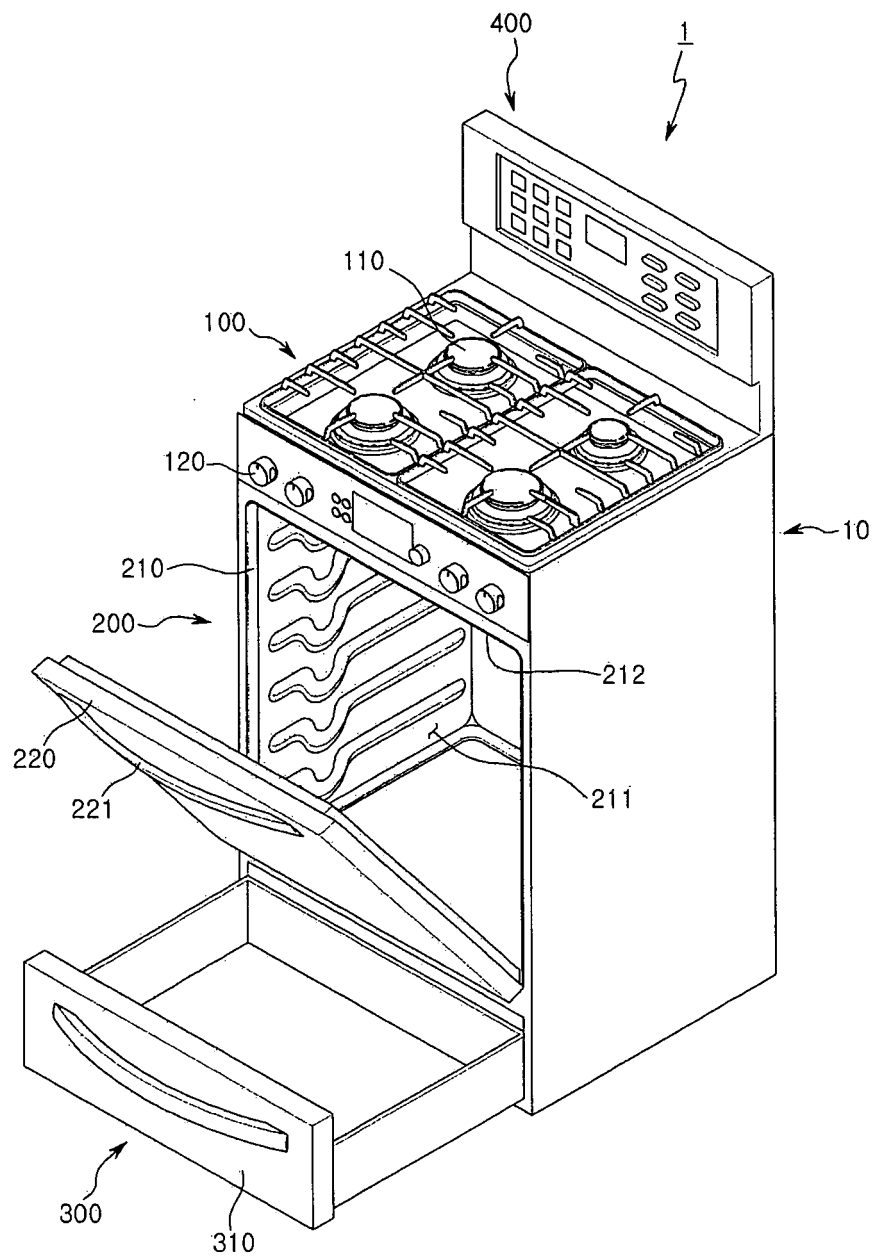


Fig. 2

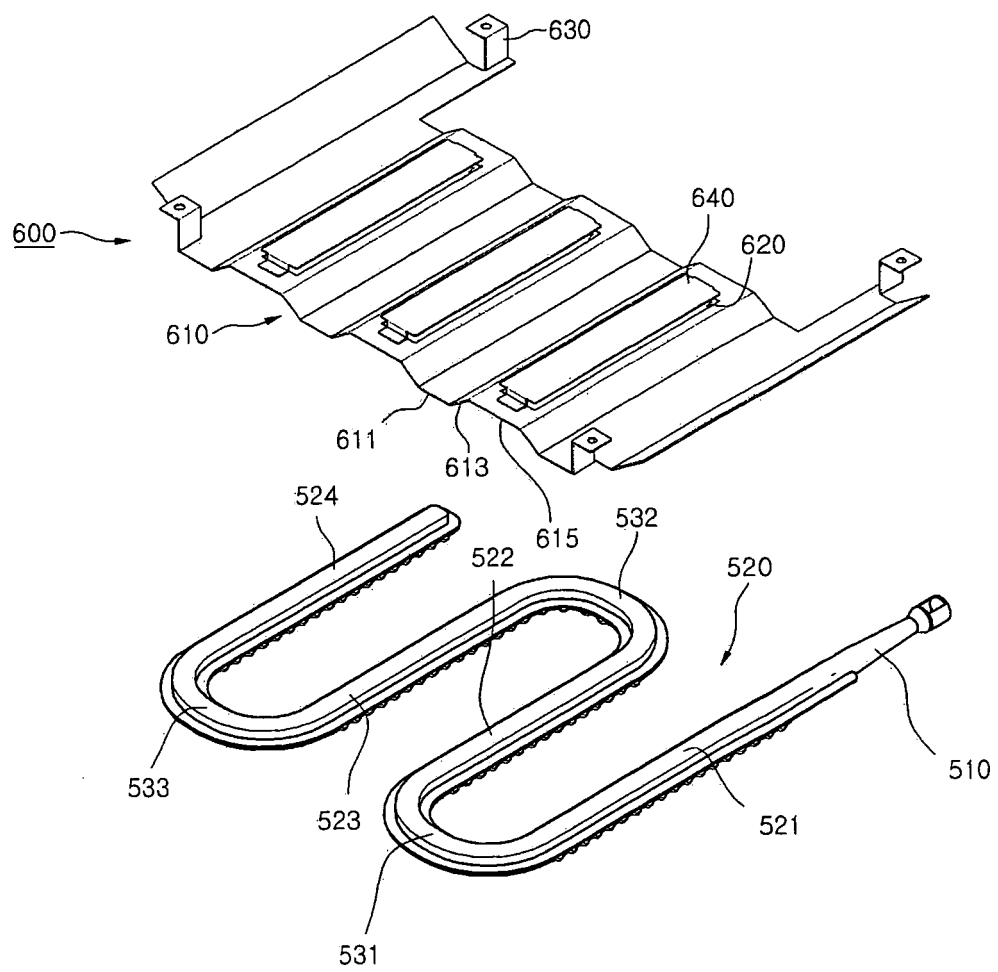


Fig. 3

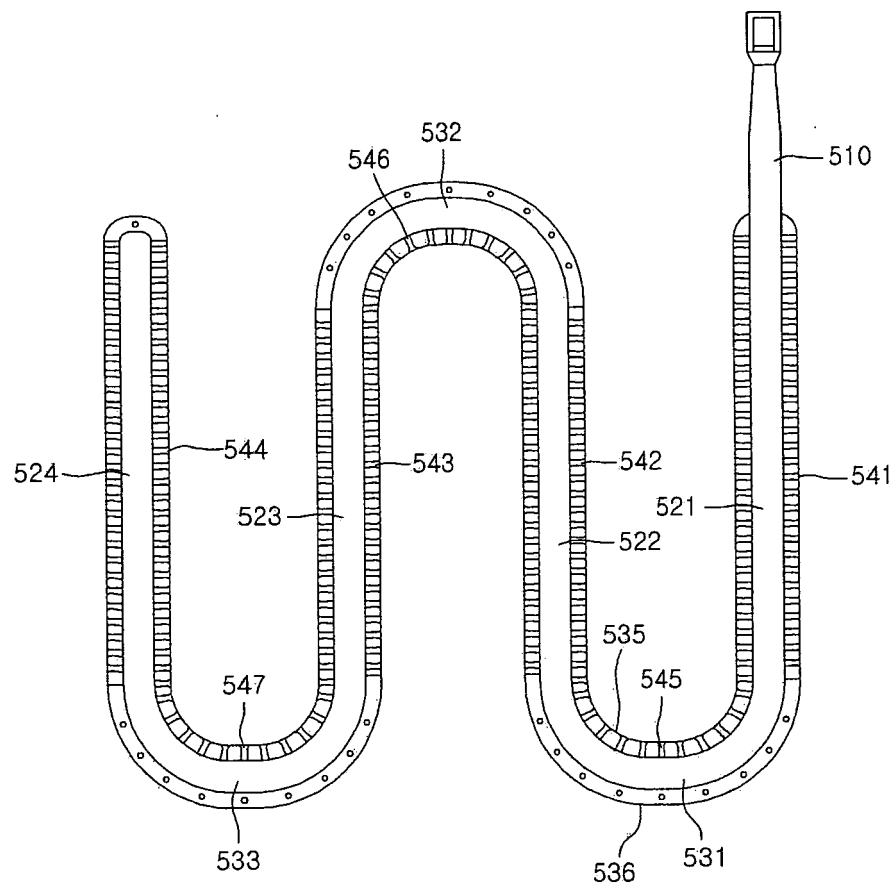


Fig. 4

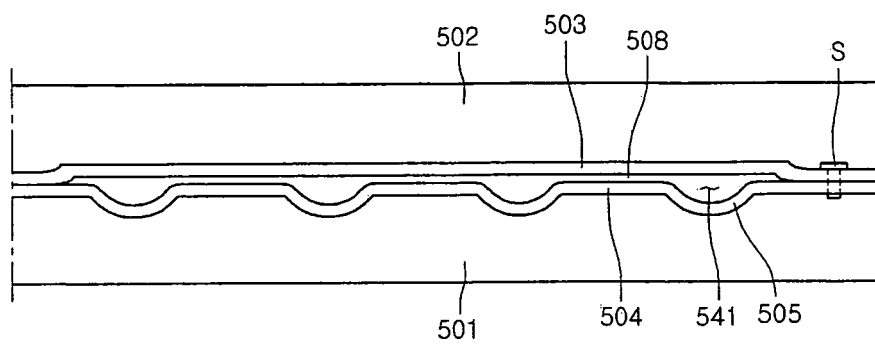
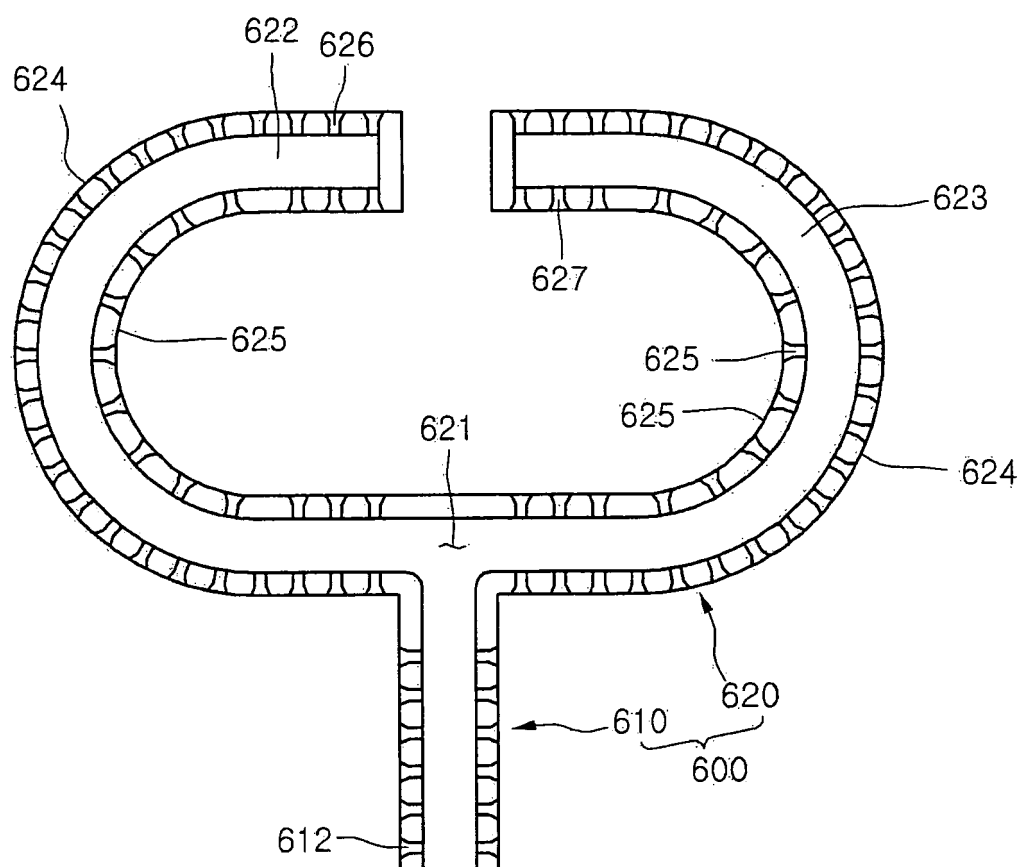


Fig. 5



REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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