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(54) **Gas burner unit and cooking top**

Gasbrenner und Kochfeld

Brûleur à gaz et table de cuisson

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Description

[0001] The present invention refers to a burner unit and to a domestic gas cook top.

[0002] As known, a gas cook top comprises a support and containment structure having an upper wall with a visible surface facing upwards, a support grating arranged on the visible surface that defines a plane on which to rest containers to be heated, for example pans, and one or more combustible gas burners configured to generate a series of flames in the gap between the visible surface and the support plane to heat the containers supported by the support grating.

[0003] The burners for known gas cook tops usually comprise a main gas supply duct able to be connected with an external combustible gas source, for example with the gas supply network or with a gas cylinder. One or more burner units are connected to the main duct through one or more partial gas ducts, respectively. Each of the partial gas ducts has an adjustment valve (usually called gas tap) associated with it, which is configured to adjust the passage of gas through the partial duct between a closed position and a maximum open position. Apart from the adjustment valve there is a safety valve to interrupt the passage of gas through the partial duct in response to a signal indicating an irregular operation of the burner unit. Such a safety valve can be arranged upstream or downstream of the adjustment valve (with reference to the flow direction of the gas from the main duct to the burner unit) or integrated in the valve body of the adjustment valve.

[0004] In known domestic gas cook tops, the burner is a non-aerated burner or an atmospheric air burner (called induced air burner), in which there is a venturi tube mixer arranged in the partial duct upstream of the burner unit and suitable for sucking an amount of primary air in the partial gas flow. For efficient burning it is necessary for there to be a further volume of secondary air that is drawn by the flames themselves in the gap between the support plane (bottom of the pan) and the visible surface of the upper wall.

[0005] In order to obtain the most complete possible burning it is necessary to have a large amount of secondary air and, consequently, such a gap must have a minimum free height (currently about 35 mm) in order to just meet the standards regarding reduction of emissions, in particular CO and CO₂. Consequently, the cook tops of the prior art are undesirably bulky and do not meet the needs of users who are ever more aware of environmental sustainability, the impact on health and the design of their household appliances and furnishings.

[0006] European patent application EP2072901A describes a domestic gas cook top with an upper wall having a visible surface, a burner unit arranged at the upper wall and configured so as to generate flames in the space between the visible surface and a pan support plane, a gas feeding system configured to feed a flow of gas to the burner unit, as well as a forced suction group suitable

for sucking a volume of secondary air and feeding it to the burner unit.

[0007] A burner unit for a gas cook top is also known from FR2618881A2, which discloses the preamble of claim 1. Although such a known solution allows a drastic reduction in CO and CO₂ emissions and a reduction in the distance between the support plane (bottom of the pan) and the visible surface to allow innovative design solutions, the flame itself can be unstable and small relative movements of the individual components of the burner unit can result in effects of instability of the flame.

[0008] The purpose of the present invention is therefore to provide a burner unit and a domestic gas cook top, having characteristics such as to obviate at least some of the drawbacks quoted with reference to the prior art.

[0009] Within the main purpose, a particular purpose of the present invention is to propose a burner unit and a domestic gas cook top that ensure high stability of the flame and a reliable and precise feeding of the secondary air to the flame itself.

[0010] A further purpose of the present invention is to configure the burner unit and the cook top so that, in operative conditions, the burner unit and the system for feeding secondary air are always completely and correctly assembled.

[0011] These and other purposes are accomplished through a burner unit according to claim 1 and through a domestic gas cook top according to claim 11.

[0012] Advantageous embodiments are the object of the dependent claims.

[0013] In order to better understand the present invention and appreciate its advantages, some embodiments thereof will be described hereafter as an example and not for limiting purposes, with reference to the attached figures, in which:

figure 1 is a perspective view of a gas cook top according to an embodiment of the invention;

figure 2 is a horizontal section view of the cook top in figure 1;

figure 3 is a section view of a part of a cook top according to an embodiment;

figure 4 is a perspective section view of a burner unit of the cook top in figure 3;

figures 5A-5C illustrate a component of the cook top in a side view, a perspective view and from above, respectively;

figure 5D is a section view according to the line V-V in figure 5B.

[0014] With reference to the figures, a domestic gas cook top is wholly indicated with reference numeral 1. The cook top 1 comprises a support and containment structure 2 with an upper wall 3 that has a visible surface 4. At the upper wall 3 there are one or more resting members 5 that support the containers to be heated, for example pans, pots, coffee makers, etc., and define a sup-

port plane 6 thereof on the side of the visible surface 4 of the upper wall 3. One or more burner units 7 are arranged at the upper wall 3, preferably partially projecting and partially inserted in such an upper wall. The burner units 7 are configured so as to generate flames in a space 8 between the visible surface 4 and the support plane 6 that during use corresponds with the plane of the bottom of the pan. The gas cook top 1 also comprises a gas feeding system 30 supported by the support and containment structure 2 and configured to be able to feed a flow of gas 34 possibly premixed with primary air 35 (Figure 3) to the burner unit 7.

[0015] The gas cook top also comprises a forced ventilation group with an electrical blower 9 suitable for sucking in a volume of secondary air 10 through a suction opening formed in the support and containment structure 2 and for conveying such secondary air 10 in a ventilation duct 11 that extends in the support structure 2 (at least partially, preferably completely) under the visible surface 4. In other words, the ventilation duct 11 preferably extends on a lower side 12 of the upper wall 3 opposite the visible surface 4.

[0016] The ventilation duct 11 connects the electric ventilator 9 with the burner unit 7 so as to be able to feed the volume of secondary air 10 to the latter.

[0017] The resting members 5 can be formed in one piece with the upper wall 3 that can preferably be made from cast iron or stainless steel.

[0018] Part of the burner unit 7 can also be formed in one piece with the upper wall 3.

[0019] In accordance with an embodiment, part of the burner unit 7 or the entire burner unit 7 can be made as a preassembled group (Fig. 4) initially separate from and then connected to the upper wall 3, and possibly from a different material with respect to the material of the upper wall 3, in particular aluminium.

[0020] The burner unit(s) 7 comprise a burner plate 13 with a substantially annular shape that defines a plurality of gas outlet holes 14 and a base portion 15 that forms a gas distribution chamber 16 in communication with the gas feeding system 30 and with the gas outlet holes 14, as well as an air distribution chamber 17 separate from the gas distribution chamber 16 and in communication with the ventilation duct 11 and with one or more air openings 36 separate and spaced from the gas outlet openings 14.

[0021] In accordance with an embodiment, the gas distribution chamber 16 has an annular shape delimited from above by the burner plate 13 with the gas outlet holes 14, at the side by an outer circumferential wall 37 equipped with a side opening 38 for connecting with the gas feeding system 30 and by an inner tubular wall 39, as well as from below by a bottom wall 40 opposite the burner plate 13.

[0022] The air distribution chamber 17 can be formed inside the gas distribution chamber 16 and, preferably, coaxial with the latter. In particular, the air distribution chamber 17 is delimited from above by an air diffuser 41

that at least partially defines the air openings 36, at the side by the tubular wall 39 and from below by the bottom wall 40 opposite the air openings 36.

[0023] Advantageously, the bottom wall 40 forms one or more holes 42 for the entry of the secondary air into the air distribution chamber 17.

[0024] In accordance with an important aspect of the present invention, the air diffuser 41 has an upper portion 43 that, together with the burner plate 13, defines the aforementioned air openings 36, as well as a positioning stem 44 that projects from the upper portion 43 in the air distribution chamber 17 and that is received through shape coupling in a diffuser seat 45 formed in the bottom wall 40.

[0025] This ensures a certain, precise and reliable positioning of the air diffuser 41 and therefore a correct and homogeneous secondary air flow to the flame.

[0026] In accordance with an embodiment, the positioning stem 44 and the diffuser seat 45 embody a sliding coupling along a single axis 46 through mutual insertion, preferably along an axis 46 that is concentric and, preferably substantially coaxial with axes of symmetry of the air and gas distribution chambers 17, 16. In particular, the diffuser seat 45 forms a hole suitable for receiving a free end of the positioning stem 44, but allowing its extraction for easy cleaning or maintenance of the burner unit.

[0027] The air diffuser 41 is mushroom shaped and the upper portion 43 has a lower surface 47 facing towards the inside of the air distribution chamber 17 and that rests on a radially inner edge of the burner plate 13 so as to define, together with the latter, the aforementioned air openings 36. The lower surface 47 of the air diffuser 41 is inclined so as to direct the secondary air flow radially outwards and upwards (in other words towards the support plane 6) so as to meet the flames at a certain distance from the gas outlet holes 14.

[0028] Advantageously, the burner plate 13 forms an annular projection 48 or a projection formed by sections extended along a circle between the gas outlet holes 14 and the air openings 36, so as to deviate the secondary air flow (downstream of the air openings 36) further upwards in the area of the flame.

[0029] In accordance with an embodiment, at least one burner unit 7 comprises a rest reducer 49, for example a cross-shaped frame, for example made from cast iron or stainless steel, able to be positioned above the burner plate 13 so as to make a support plane for small pans, for example with diameters of less than 120 mm. Such a rest reducer 49 is advantageously connected with the upper portion 43 of the air diffuser 41. In this way, a removal of the rest reducer 49 from the burner unit 7 makes the burner unit unusable, thus ensuring a correct and complete assembly (and the presence of the rest reducer) of the cook top in operative conditions.

[0030] For the connection between the air diffuser 41 and the rest reducer 49, the upper portion 43 has a hole 51 to receive a connection screw and the positioning stem

44 has an open tubular portion 50 to facilitate access to the screw through a screwdriver.

[0031] The gas feeding system 30 of the cook top 1 comprises a main duct 31 for feeding gas that can be connected with an external combustible gas source. One or more partial ducts 32 connect the main duct 31 with each of the burner units 7 and an adjustment valve 33 associated with the partial duct 32 allows adjustment, preferably continuous, of the passage of gas through the partial duct 32 between a closed position and a maximum open position.

[0032] As already stated earlier, in the partial duct 32 there can be air supply means configured so that, during operation, the flow of gas 34 in the partial duct draws a first volume of primary comburent air 35. The air supply means for example comprise a venturi tube device 52 with a passage for the gas having a portion with throttled section and one or more passages for the primary air 35 that open out close to the portion with throttled section, so that the gas acts as a driving fluid to take the volume of primary air into the partial gas flow 34.

[0033] In the case in which the aforementioned primary air supply means are foreseen, the forced suction group 9 is advantageously configured to suck up the secondary air 10 from a different area than the area of the suction of the primary air.

[0034] A control unit 53 controls the forced suction group 9 in response to an actuation of the adjustment valve 33, so as to activate the forced flow of secondary air at the same time as gas is fed to the burner unit 7.

[0035] The domestic gas cook top 1 has numerous advantages. Thanks to the configuration of the air diffuser and to its positioning through shape connection on the bottom of the burner unit, the flow of secondary air is distributed homogeneously and conveyed precisely and reliably to the flame. In this way it is ensured that there is high flame stability even in the case of great reductions of the height of the space 8 between the visible surface 4 and the bottom of the pan.

[0036] The high flame stability in turn contributes to more complete combustion, as well as a reduction in CO and CO₂ emissions for the same thermal power of the burner unit.

[0037] Of course, a person skilled in the art can bring further modifications and variants to the burner unit and to the domestic gas cook top according to the present invention, in order to satisfy contingent and specific requirements, all of which are in any case covered by the scope of protection of the invention, as defined by the following claims.

Claims

1. Burner unit (7) for a gas cook top (1), said burner unit (7) comprising:

- a gas distribution chamber (16) connectable

with a gas feeding system (30) for the cook top (1), said gas distribution chamber (16) being covered by a burner plate (13) that defines gas outlet holes (14),

- an air distribution chamber (17) separate from the gas distribution chamber (16) and connectable to a forced ventilation group (11) of the cook top (1), the air distribution chamber (17) being covered by an air diffuser (41) that at least partially defines one or more air outlet openings (36) spaced from the gas outlet openings (14),

in which the air diffuser (41) is mushroom shaped and comprises an upper portion (43) that at least partially defines the air outlet openings (36) and a positioning stem (44) projecting from the upper portion (43) into the air distribution chamber (17) and that is received through shape coupling in a diffuser seat (45) formed in a bottom wall (40) of the air distribution chamber (17) opposite the air outlet openings (36),

characterized in that the upper portion (43) of said air diffuser (41) has a lower surface (47) facing towards the inside of the air distribution chamber (17) and resting on a radially inner edge of the burner plate (13) so as to jointly define the air openings (36) in a region radially closer to an axis (46) of the stem (44) with respect to the gas outlet holes (14), and **in that** said lower surface (47) of the air diffuser (41) is inclined so as to direct a secondary air flow coming from the forced ventilation group radially outwards and upwards away from the burner unit (7) so as to meet the flames at a certain distance from the gas outlet holes (14).

2. Burner unit (7) according to claim 1, wherein the gas distribution chamber (16) has an annular shape defined by said burner plate (13), by an outer circumferential wall (37) equipped with a side opening (38) for connection with the gas feeding system (30), by an inner tubular wall (39), as well as by a bottom wall (40) opposite the burner plate (13), wherein the air distribution chamber (17) is formed inside the gas distribution chamber (16) and is defined by said air diffuser (41), by the tubular wall (39) and by the bottom wall (40) opposite the air openings (36), wherein said bottom wall (40) forms one or more holes (42) for the communication of the air distribution chamber (17) with the forced ventilation group (11).
3. Burner unit (7) according to any one of the previous claims, wherein said positioning stem (44) and the diffuser seat (45) make a sliding coupling along a single axis (46) through mutual insertion.
4. Burner unit (7) according to the previous claim, wherein said axis (46) is concentric with the air and

gas distribution chambers (17, 16).

5. Burner unit (7) according to any one of the previous claims, wherein the diffuser seat (45) forms a hole suitable for extractably receiving a free end of the positioning stem (44). 5
6. Burner unit (7) according to any one of the previous claims, comprising an annular projection (48) between the gas outlet holes (14) and the air openings (36). 10
7. Burner unit (7) according to any one of the previous claims, comprising a rest reducer (49) able to be positioned above the burner plate (13) so as to make a support plane for small pans, said rest reducer (49) being connected with the upper portion (43) of the air diffuser (41). 15
8. Burner unit (7) according to the previous claim, wherein the upper portion (43) of the air diffuser (41) forms a hole (51) that receives a connection screw and the positioning stem (44) forms an open tubular portion (50) to facilitate access to the screw. 20
9. Burner unit (7) according to any one of the previous claims, wherein the entire burner unit (7) is made as a preassembled group that can be connected to an upper wall (3) of the cook top (1). 25
10. Burner unit (7) according to any one of the previous claims, wherein the burner unit (7) is made substantially from aluminium. 30
11. Domestic gas cook top (1) comprising: 35
 - one or more burner units (7) according to any one of the previous claims,
 - a gas feeding system (30, 31, 32, 33) configured to feed a flow of gas (34) to said burner unit (7), 40
 - a forced ventilation group (9, 11) suitable for sucking in a secondary volume of air (10) and feeding said secondary air flow (10) to said burner unit (7), 45
12. Domestic gas cook top (1) according to claim 11, comprising: 50
 - a support and containment structure (2) with an upper wall (3) having a visible surface (4),
 - one or more resting members (5) arranged at said upper wall (3) and defining a support plane (6) for the containers to be heated, said support plane (6) being on the side of the visible surface (4) of the upper wall (3), 55

wherein said one or more burner units (7) are ar-

ranged at said upper wall (3) and configured so as to generate flames in the space (8) between said visible surface (4) and said support plane (6).

Patentansprüche

1. Brennereinheit (7) für ein Gaskochfeld (1), wobei die Brennereinheit (7) umfasst:
 - eine Gasverteilungskammer (16), welche mit einem Gaszufuhrsystem (30) für das Kochfeld (1) verbindbar ist, wobei die Gasverteilungskammer (16) mittels einer Brennerplatte (13) abgedeckt ist, welche Gasauslasslöcher (14) definiert,
 - eine Luftverteilungskammer (17), welche von der Gasverteilungskammer (16) getrennt und mit einer Zwangsbelüftungsgruppe (11) des Kochfelds (1) verbindbar ist, wobei die Luftverteilungskammer (17) mittels eines Luftverteilers (41) abgedeckt ist, welcher wenigstens teilweise ein oder mehrere von den Gasauslassöffnungen (14) beabstandete Luftauslassöffnungen (36) definiert,

wobei der Luftverteiler (41) pilzförmig ist und einen oberen Abschnitt (43), welcher die Luftauslassöffnungen (36) zumindest teilweise definiert, und einen Positionierschaft (44) umfasst, welcher von dem oberen Abschnitt (43) in die Luftverteilungskammer (17) hineinragt und welcher durch eine Formkoppelung in einem Verteilersitz (45) aufgenommen ist, welcher in einer Bodenwand (40) der Luftverteilerkammer (17) gegenüber den Luftauslassöffnungen (36) ausgebildet ist,

dadurch gekennzeichnet, dass der obere Abschnitt (43) des Luftverteilers (41) eine untere Fläche (47) aufweist, welche in Richtung des Inneren der Luftverteilungskammer (17) weist und an einem radial inneren Rand der Brennerplatte (13) aufliegt, um die Luftöffnungen (36) in einem einer Achse (46) des Schaftes (44) in Bezug auf die Gasauslasslöcher (14) radial näheren Bereich gemeinsam zu definieren,

und dass die untere Fläche (47) des Luftverteilers (41) geneigt ist, um eine von der Zwangsbelüftungsgruppe kommende sekundäre Luftströmung radial nach außen und nach oben von der Brennereinheit (7) derart weg zu leiten, dass sie bei einem bestimmten Abstand von den Gasauslasslöchern (14) auf die Flammen trifft.
2. Brennereinheit (7) nach Anspruch 1, wobei die Gasverteilungskammer (16) eine Ringform aufweist, welche durch die Brennerplatte (13), durch eine mit einer Seitenöffnung (38) für eine Verbindung mit dem Gaszufuhrsystem (30) ausgestattete äußere Um-

fangswand (37), durch eine innere rohrförmige Wand (39) sowie durch eine Bodenwand (40) gegenüber der Brennerplatte (13) definiert ist, wobei die Luftverteilerkammer (17) im Inneren der Gasverteilerkammer (16) ausgebildet ist und durch den Luftverteiler (41), durch die rohrförmige Wand (39) und durch die Bodenwand (40) gegenüber den Luftöffnungen (36) definiert ist, wobei die Bodenwand (40) ein oder mehrere Löcher (42) für die Kommunikation der Luftverteilerkammer (17) mit der Zwangsbelüftungsgruppe (11) ausbildet.

3. Brenneinheit (7) nach einem der vorhergehenden Ansprüche, wobei der Positionierschaft (44) und der Verteilersitz (45) eine Schiebekupplung entlang einer einzigen Achse (46) durch gegenseitiges Einsetzen bilden.
4. Brenneinheit (7) nach dem vorhergehenden Anspruch, wobei die Achse (46) zu der Luft- und der Gasverteilerkammer (17, 16) konzentrisch ist.
5. Brenneinheit (7) nach einem der vorhergehenden Ansprüche, wobei der Verteilersitz (45) ein Loch ausbildet, welches für ein ausziehbares Aufnehmen eines freien Endes des Positionierschafts (44) geeignet ist.
6. Brenneinheit (7) nach einem der vorhergehenden Ansprüche, umfassend einen Ringvorsprung (48) zwischen den Gasauslasslöchern (14) und den Luftöffnungen (36).
7. Brenneinheit (7) nach einem der vorhergehenden Ansprüche, umfassend eine Auflageverkleinerung (49), welche oberhalb der Brennerplatte (13) positioniert werden kann, um eine Trägerebene für kleine Pfannen/Töpfe zu bilden, wobei die Auflageverkleinerung (49) mit dem oberen Abschnitt (43) des Luftverteilers (41) verbunden ist.
8. Brenneinheit (7) nach dem vorhergehenden Anspruch, wobei der obere Abschnitt (43) des Luftverteilers (41) ein Loch (51) ausbildet, welches eine Verbindungsschraube aufnimmt, und der Positionierschaft (44) einen offenen rohrförmigen Abschnitt (50) ausbildet, um einen Zugang zu der Schraube zu erleichtern.
9. Brenneinheit (7) nach einem der vorhergehenden Ansprüche, wobei die gesamte Brenneinheit (7) als eine vormontierte Gruppe gebildet ist, welche mit einer oberen Wand (3) des Kochfelds (1) verbunden werden kann.
10. Brenneinheit (7) nach einem der vorhergehenden Ansprüche, wobei die Brenneinheit (7) im Wesentlichen aus Aluminium hergestellt ist.

11. Hausgaskochfeld (1), umfassend:

- eine oder mehrere Brenneinheiten (7) nach einem der vorhergehenden Ansprüche,
- ein Gaszufuhrsystem (30, 31, 32, 33), welches dazu eingerichtet ist, der Brenneinheit (7) einen Strom von Gas (34) zuzuführen,
- eine Zwangsbelüftungsgruppe (9, 11), welche zum Einsaugen eines sekundären Luftvolumens (10) und zum Zuführen des sekundären Luftstroms (10) zu der Brenneinheit (7) geeignet ist.

12. Hausgaskochfeld (1) nach Anspruch 11, umfassend:

- eine Träger- und Eingrenzungsstruktur (2) mit einer oberen Wand (3), welche eine sichtbare Fläche (4) aufweist,
- ein oder mehrere Auflageelemente (5), welche an der oberen Wand (3) angeordnet sind und eine Trägerebene (6) für die zu erwärmenden Behälter definiert, wobei sich die Trägerebene (6) an der Seite der sichtbaren Fläche (4) der oberen Wand (3) befindet,

wobei die eine oder die mehreren Brenneinheiten (7) an der oberen Wand (3) angeordnet sind und eingerichtet sind, um Flammen in dem Raum (8) zwischen der sichtbaren Fläche (4) und der Trägerebene (6) zu erzeugen.

Revendications

1. Unité de brûleur (7) pour une table de cuisson (1) au gaz, ladite unité de brûleur (7) comprenant :

- une chambre de distribution de gaz (16) pouvant être raccordée à un système d'alimentation en gaz (30) pour la table de cuisson (1), ladite chambre de distribution de gaz (16) étant couverte d'une plaque de brûleur (13) qui définit des trous de sortie de gaz (14),
- une chambre de distribution d'air (17) séparée de la chambre de distribution de gaz (16) et pouvant être raccordée à un groupe de ventilation forcée (11) de la table de cuisson (1), la chambre de distribution d'air (17) étant couverte d'un diffuseur d'air (41) qui définit au moins partiellement une ou plusieurs ouvertures de sortie d'air (36) espacées des ouvertures de sortie de gaz (14),

dans laquelle le diffuseur d'air (41) est en forme de champignon et comprend une portion supérieure (43) qui définit au moins partiellement les ouvertures de sortie d'air (36) et une tige de positionnement (44) faisant saillie de la portion supérieure (43) dans la

- chambre de distribution d'air (17) et qui est reçue par accouplement de forme dans un siège de diffuseur (45) formé dans une paroi basse (40) de la chambre de distribution d'air (17) opposée aux ouvertures de sortie d'air (36),
- caractérisée en ce que** la portion supérieure (43) dudit diffuseur d'air (41) a une surface inférieure (47) en regard vers l'intérieur de la chambre de distribution d'air (17) et appuyant sur un bord radialement intérieur de la plaque de brûleur (13) de façon à définir conjointement les ouvertures d'air (36) dans une région radialement plus près d'un axe (46) de la tige (44) par rapport aux trous de sortie de gaz (14), et **en ce que** ladite surface inférieure (47) du diffuseur d'air (41) est inclinée de façon à diriger un flux d'air secondaire provenant du groupe de ventilation forcée radialement vers l'extérieur et vers le haut à distance de l'unité de brûleur (7) de façon à rencontrer les flammes à une certaine distance des trous de sortie de gaz (14).
2. Unité de brûleur (7) selon la revendication 1, dans laquelle la chambre de distribution de gaz (16) a une forme annulaire définie par ladite plaque de brûleur (13), par une paroi circonférentielle extérieure (37) équipée d'une ouverture de côté (38) pour se raccorder au système d'alimentation en gaz (30), par une paroi tubulaire intérieure (39), ainsi que par une paroi basse (40) opposée à la plaque de brûleur (13), dans laquelle la chambre de distribution d'air (17) est formée à l'intérieur de la chambre de distribution de gaz (16) et est définie par ledit diffuseur d'air (41), par la paroi tubulaire (39) et par la paroi basse (40) opposée aux ouvertures d'air (36), dans laquelle ladite paroi basse (40) forme un ou plusieurs trous (42) pour faire communiquer la chambre de distribution d'air (17) avec le groupe de ventilation forcée (11).
 3. Unité de brûleur (7) selon l'une quelconque des revendications précédentes, dans laquelle ladite tige de positionnement (44) et le siège de diffuseur (45) réalisent un accouplement coulissant selon un axe unique (46) par insertion mutuelle.
 4. Unité de brûleur (7) selon la revendication précédente, dans laquelle ledit axe (46) est concentrique avec les chambres de distribution d'air et de gaz (17, 16).
 5. Unité de brûleur (7) selon l'une quelconque des revendications précédentes, dans laquelle le siège de diffuseur (45) forme un trou approprié pour recevoir de façon extractive une extrémité libre de la tige de positionnement (44).
 6. Unité de brûleur (7) selon l'une quelconque des revendications précédentes, comprenant une saillie annulaire (48) entre les trous de sortie de gaz (14) et les ouvertures d'air (36).
 7. Unité de brûleur (7) selon l'une quelconque des revendications précédentes, comprenant un réducteur d'appui (49) capable d'être positionné au-dessus de la plaque de brûleur (13) de façon à réaliser un plan de support pour des petites casseroles ou poêles, ledit réducteur d'appui (49) étant raccordé à la portion supérieure (43) du diffuseur d'air (41).
 8. Unité de brûleur (7) selon la revendication précédente, dans laquelle la portion supérieure (43) du diffuseur d'air (41) forme un trou (51) qui reçoit une vis de raccordement et la tige de positionnement (44) forme une portion tubulaire ouverte (50) pour faciliter l'accès à la vis.
 9. Unité de brûleur (7) selon l'une quelconque des revendications précédentes, dans laquelle l'unité de brûleur (7) entière est réalisée sous forme de groupe pré-assemblé qui peut être raccordé à une paroi supérieure (3) de la table de cuisson (1).
 10. Unité de brûleur (7) selon l'une quelconque des revendications précédentes, dans laquelle l'unité de brûleur (7) est réalisée sensiblement à partir d'aluminium.
 11. Table de cuisson (1) à gaz domestique comprenant :
 - une ou plusieurs unités de brûleur (7) selon l'une quelconque des revendications précédentes,
 - un système d'alimentation en gaz (30, 31, 32, 33) configuré pour alimenter ladite unité de brûleur (7) en un flux de gaz (34),
 - un groupe de ventilation forcée (9, 11) adapté pour aspirer un volume d'air secondaire (10) et alimenter ladite unité de brûleur (7) en ledit flux d'air secondaire (10).
 12. Table de cuisson (1) à gaz domestique selon la revendication 11, comprenant :
 - une structure de support et de confinement (2) dotée d'une paroi supérieure (3) ayant une surface visible (4),
 - un ou plusieurs organes d'appui (5) agencés au niveau de ladite paroi supérieure (3) et définissant un plan de support (6) pour les récipients à chauffer, ledit plan de support (6) étant sur le côté de la surface visible (4) de la paroi supérieure (3),
 dans laquelle lesdites une ou plusieurs unités de brûleur (7) sont agencées au niveau de ladite paroi supérieure (3) et configurées de façon à générer des flammes dans l'espace (8) entre ladite surface visible (4) et ledit plan de support (6).

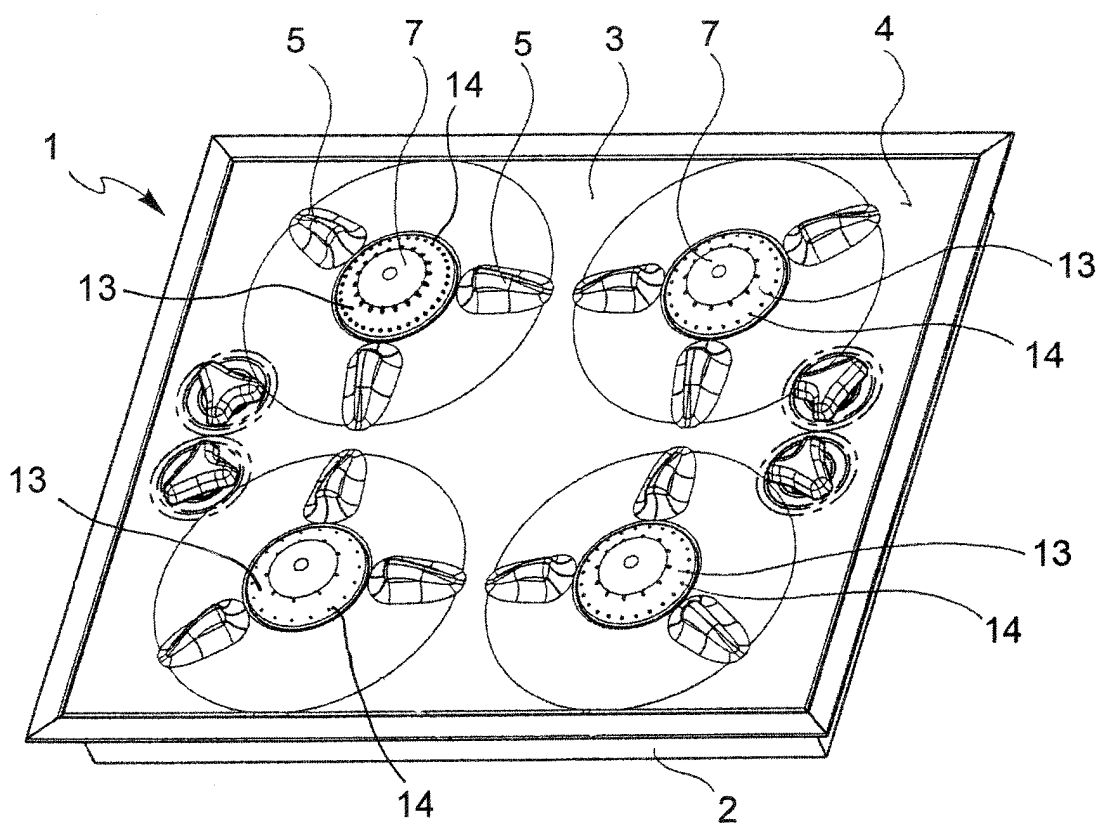


FIG. 1

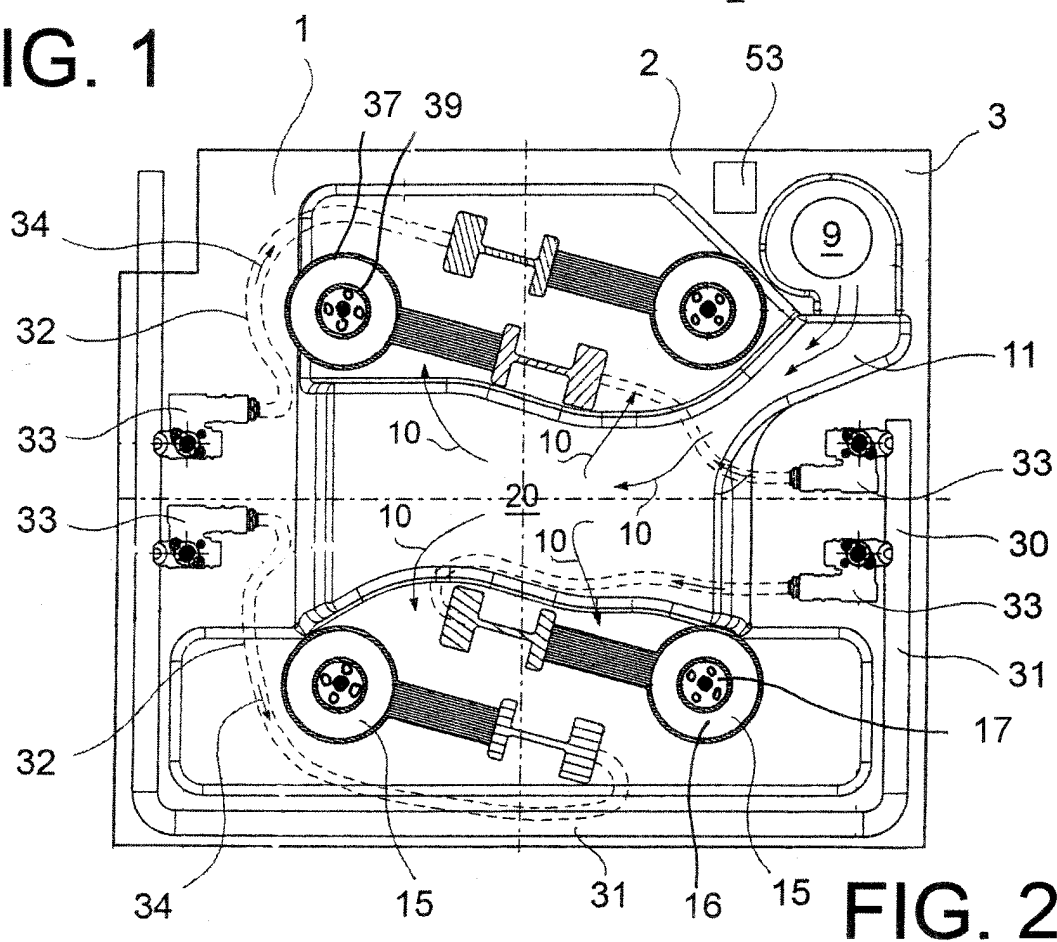


FIG. 2

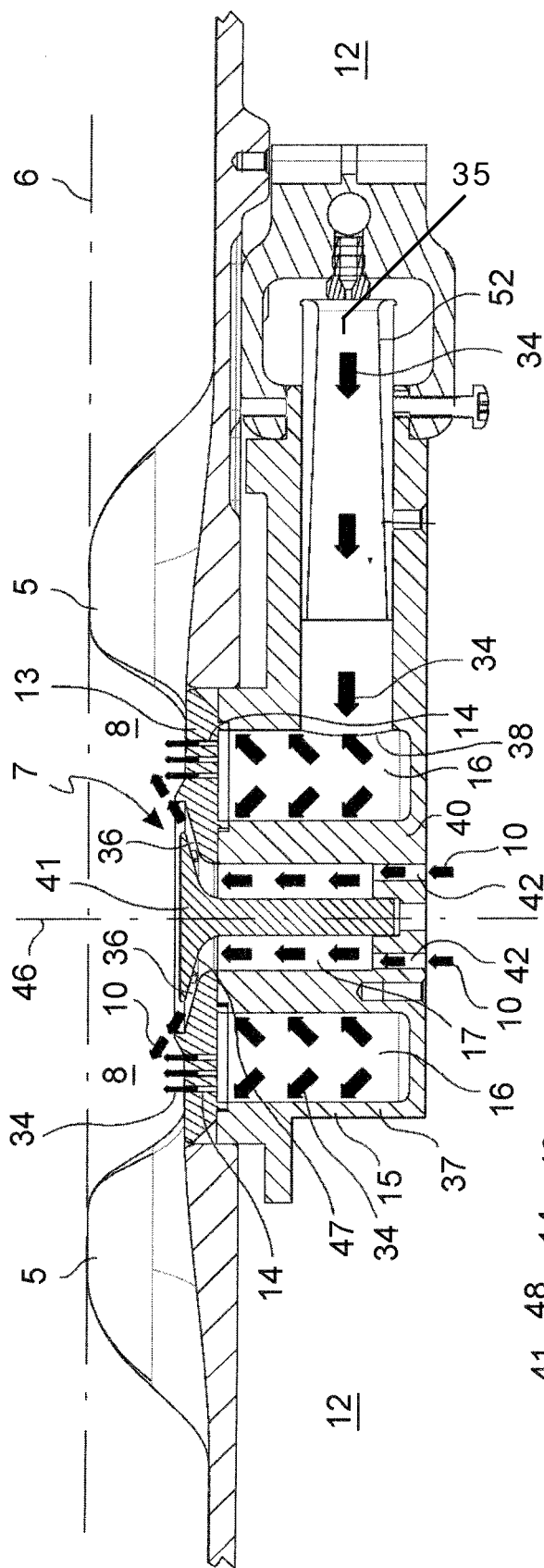


FIG. 3

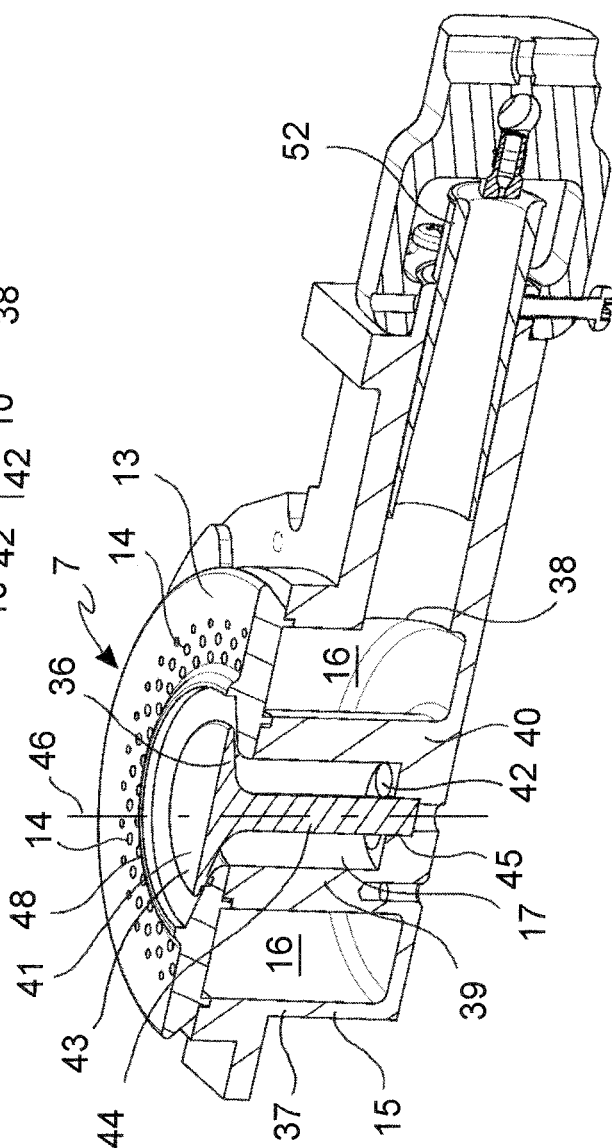


FIG. 4

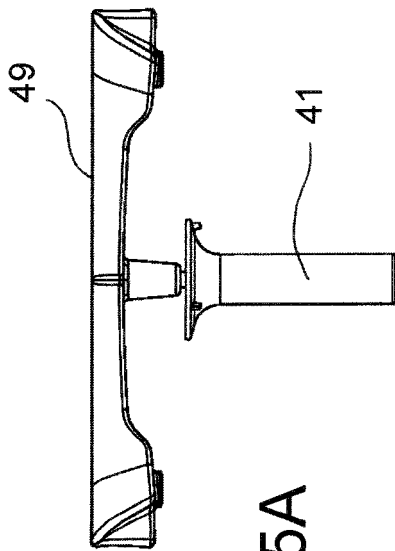


FIG. 5A

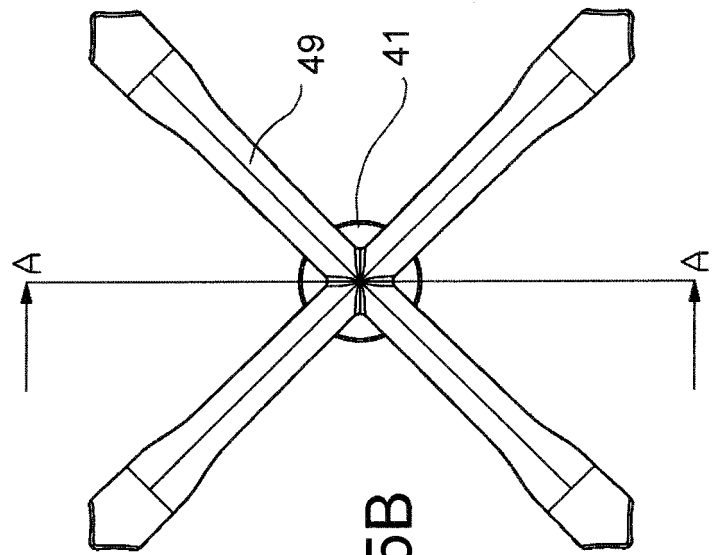


FIG. 5B

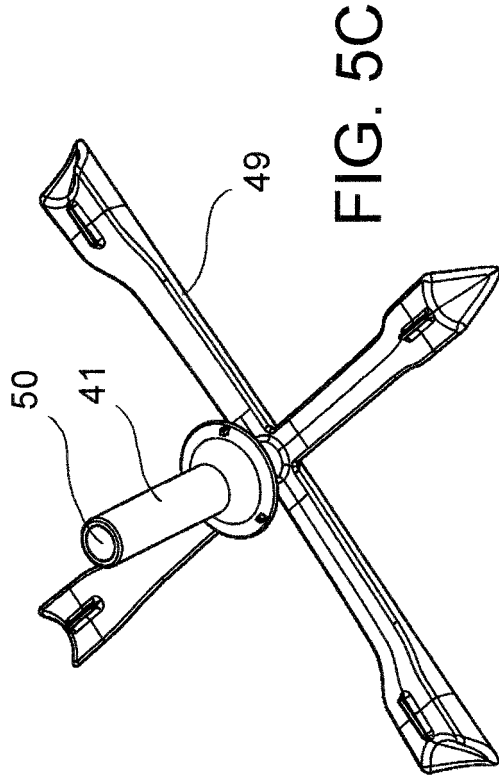


FIG. 5C

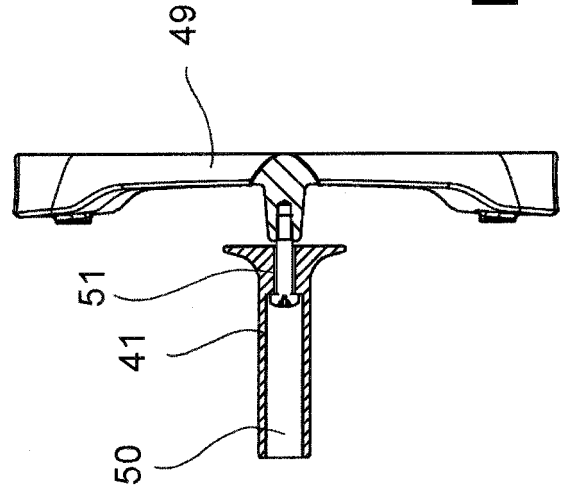


FIG. 5D

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