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(54) **Protective device for stove tops**

Sicherheitseinrichtungen an Kochstellenoberteilen

Dispositif de protection pour dessus de cuisinières

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Description

[0001] As expressed in the title of the present specification, the present invention refers to a protective device for stove tops, whose purpose consists of establishing thermal protection on the surface of a stove top that has the heat sources for cooking, thermal protection that prevents the overheating of the surface of the stove top and the subsequent wear thereof.

BACKGROUND OF THE INVENTION

[0002] In gas and/or electric home appliances such as stoves and worktops, there is a glass, vitroceramic or sheet metal top, in which are provided the corresponding through holes for the heat sources, such as gas burners and/or electric plates and that are surrounded by some ornamental elements that cover said holes and in which the automatic lighting, control elements, etc. may be located.

[0003] It happens that on many occasions special vessels that differ from normal ones, due to the material which they are made out of or due to the dimensions thereof, are used to make specific dishes. Hence, for example, iron or aluminum roasting grills, clay vessels, or any other vessel with a relatively large diameter compared to the diameter of the heat source and this use in vessels of this type, produces overheating of the surface of the stove top, which may lead to wear of the stove top and even breaking thereof.

[0004] In order to avoid these inconveniences different solutions that we are going to set forth hereinafter have been foreseen.

[0005] One of these solutions consists of some supplementary grills, that are superimposed upon the conventional grill, in such a way that the cooking vessel rests on this supplementary grill, in such a way that the distance between the heat source and the bottom of the vessel increases.

[0006] Aside from the fact that this system does not totally eliminate overheating, problems arise regarding storage of the supplementary grill, efficiency of the heat source and a certain instability regarding the support of the vessel.

[0007] Another known solution consists of increasing the diameter of the hole through which the heat sources passes in order to increase the radial distance between said stove top surface and the heat source. This also requires the increase of the diameter of the closing ornamental elements, thus posing aesthetic problems of the stove top and even problems for cleaning the same.

DESCRIPTION OF THE INVENTION

[0008] In order to avoid the inconveniences indicated in the previous sections, the invention consists of an element for thermal protection that is placed around the heat source for the cooking vessel, in such a way that this protective thermal element reflects the generated heat, reducing the heating of the surface of the stove top, said element for thermal protection comprising a plate that may have any type of shape, such as for example, circular, rectangular, quadrangular, etc. and may be made out of any type of material, such as for example, aluminum, stainless steel, plastic, glass, wood, etc. and said protective element has a hole for the passing of the heat source.

[0009] In any case, the plate is provided to reflect the generated heat and to eliminate or reduce the overheating that is generated in the use of vessels that due to their nature or dimensions cause this overheating.

[0010] The plate rests directly on the surface of the glass, sheet metal or vitroceramic stove top and may be flat or may have some small stubs for its support on said stove top surface.

[0011] It has been provided, in accordance with a particularity of the invention, that said plate has a flat outside area and an inside area with a certain recess, where there is the through hole for the heat source, in such a way that said protective thermal plate rests on the stove top, covering and protecting the surface area close to the heat source and even covering, totally or partially, the ornamental element that may exist around said source.

[0012] Upon this element for thermal protection the grill of the heat source is placed, that rests on said protective piece.

[0013] In accordance with another particularity of the invention, it has been provided for that the plate for thermal protection presents on its periphery, has some radial crevices, in which the support legs of the grill are located, once the grill has been placed in order to function as the support of the vessel. In this case, the grill rests on the surface itself of the stove top, whereby the element for thermal protection is immobilized in its protective position.

[0014] The device allows rapid adaptation thereof to the heat source that is going to be used to heat a vessel, in such a way that the overheating that is generated by the use of this vessel is eliminated or reduced, whereby in this way wear of the surface of the stove top surface is avoided and even the breaking thereof is avoided.

[0015] Hereinafter to provide a better understanding of this specification and forming an integral part of the same, some figures in which the object of the invention has been represented with an illustrative and non-restrictive manner are accompanied.

BRIEF DESCRIPTION OF THE FIGURES

[0016]

Figure 1 represents a plan view of device for thermal protection object of the invention.

Figure 2 is a profile view of the object of figure 1.

Figure 3 shows a plan view of a protective element

in accordance with the invention, with another shape.

Figure 4 corresponds to a profile view of the protective element represented in figure 3.

Figures 5 to 8 correspond to perspective views of the assembly of an element for thermal protection of a stove top, for use of a vessel for specific cooking preparations.

DESCRIPTION OF AN EMBODIMENT OF THE INVENTION

[0017] Hereinafter a description is made of several embodiments, making reference to the numbering used in the figures.

[0018] The device for thermal protection object of the invention, has the purpose of protecting against overheating of surfaces of stove tops (1) that have heat sources (2), generally gas burners and/or electric plates. Around these heat sources (2), some ornamental elements (3) can be located that may form part of the surface of the stove top (1) or may be supplementary elements, and that close the through hole provided for in the stove top (1) for the passing of the corresponding heat source (2), upon which the grill (4) of the cooking vessel is located.

[0019] The surface of the stove top (1) is made out of tempered glass, vitroceramic or sheet metal and in the use of normal cooking vessels, no problem is created, since said vessel rests on the corresponding grill (4) and the heat source carries out the heating, without the production of any overheating of the surface of the stove top (1).

[0020] However, in the case of using specific vessels to prepare specific dishes, such as for example, iron or aluminum roasting grills, clay vessels or any vessel with a large diameter with regard to the diameter of the heat source, by reflection of the heat in the vessel itself an overheating effect is produced that causes wear of the stove stop surface, close to the heat source, and even the breaking of the stove top.

[0021] In order to avoid this overheating, inclusion of a plate (5) in the heat source to be used for heating of a vessel has been provided for, in accordance with the invention. This plate may have any type of shape, as in the case of figures 1 to 8, which is of the circular type, but it may likewise have another shape, such as for example, quadrangular, rectangular, oval, etc.

[0022] The plate (5) is preferably of a metal nature, such as of aluminum, stainless steel, etc., but it may likewise be of another type of material, such as for example, plastic, glass, wood, etc.

[0023] This plate (5) is located around the heat source (2), having a hole (8) through which the heat source (2) passes, said plate (5) resting on the stove top (1) surface close to the heat source.

[0024] The plate (5) may be flat or may include some small support stubs (not represented) or may even have the shapes that appear in figures 1 to 4.

[0025] In the case of figures 1 and 2, there is a representation of a protective plate (5) that has a flat outside area (6) and a recessed inside area (7) with regard to the area (6) and in which is formed the through hole (8) for the corresponding heat source (2) where the protective thermal plate (5) is going to be assembled. In this way, when the protective thermal element (5) is placed on the stove top surface (1), the part of the stove top (1) surface that is close to the heat source is protected and likewise, totally or partially, the ornamental element (3) that is normally placed around the source (2), raising from the surface (1).

[0026] In this case, the grill (4) where the vessel is going to rest, rests directly on said protective plate (5).

[0027] Figures 3 and 4 represent another shape of the protective plate (5), which likewise has a flat outside area (6) and a recessed inside area (7) where the through hole (8) for the heat source (2) is formed. Unlike the plate shown in figures 1 and 2, in this case in the flat outside area (6), some radial crevices or windows (9) have been provided for, in accordance with the support legs of the grill (4), in such a way that when said protective plate (5) is placed for thermal protection of the stove top (1) surface, the support legs of the grill (4) are placed in said crevices (9), in such a way that in this position, the plate (5) is immobilized.

[0028] In any of these cases, whether the plate (5) is as shown in figures 1 to 4, is totally flat or whether it has some support stubs, this plate (5) is placed around the heat source (2), resting on the stove top surface close to the heat source, in such a way that heat is reflected and hence the overheating generated by a vessel placed on said heat source is thus eliminated or reduced.

[0029] In some cases, it is possible to use for the stove top (1) surface, a single protective thermal plate that covers the entire surface of the stove top (1) and in this case the protective plate (5) will have the corresponding through holes for all the heat sources (2), irrespective of the use of one source or the other.

Claims

1. Protective device for stove tops, wherein the surface of the stove top (1), made of glass, vitroceramic or of sheet metal, has through holes for heat sources (2), whether they are of gas and/or electric and, **characterized in that** the protective device rests directly on the surface of the stove top (1) and is placed around the heat source, in such a way that overheating of the surface of the stove top (1) produced by placement of a cooking vessel on the heat source is eliminated or reduced by said plate placed around said source, said plate constituting an element for thermal protection against said overheating.

2. Protective device for stove tops, according to claim 1, **characterized in that** the protective device (5) has a flat outside area (6) and an inside area (7) that is recessed with regard to the outside area (6) and wherein is formed a through hole (8) of the corresponding heat source (2), in such a way that said plate (5) carries out the thermal protection of the stove top (1) surface close to said heat source (2), covering, totally or partially, an ornamental element (3) that is placed around said source (2).

3. Protective device for stove tops, according to claim 1, **characterized in that** the protective device (5) has on its outside contour some radial crevices or openings (9), in which are located, when said protective thermal device (5) is placed around the heat source (2), some support legs of a grill (4) corresponding to said source (2).

Patentansprüche

1. Sicherheitseinrichtung an Kochstellenoberteilen, wobei die Oberfläche des Kochstellenoberteils (1), das aus Glas, Vitrokeramik oder Blech besteht, Durchgangsöffnungen für gas- und/oder elektrisch betriebene Wärmequellen (2) aufweist, und **dadurch gekennzeichnet, dass** die Sicherheitseinrichtung unmittelbar auf der Oberfläche des Kochstellenoberteils (1) ruht und um die Wärmequelle herum angeordnet ist, dergestalt, dass ein Überhitzen der Oberfläche des Kochstellenoberteils (1), wozu es kommen kann, wenn ein Kochgefäß auf die Wärmequelle gestellt wird, durch die um die Wärmequelle herum angeordnete Platte vermieden oder verringert wird, wobei die Platte ein Element für den Wärmeschutz gegen ein solches Überhitzen darstellt.

2. Sicherheitseinrichtung an Kochstellenoberteilen nach Anspruch 1, **dadurch gekennzeichnet, dass** die Sicherheitseinrichtung (5) einen flachen Außenbereich (6) und einen relativ zum Außenbereich (6) versetzten Innenbereich (7) aufweist, wobei in der Sicherheitseinrichtung (5) eine Durchgangsöffnung (8) für die entsprechende Wärmequelle (2) ausgebildet ist, dergestalt, dass die Platte (5) den Wärmeschutz für die nahe der Wärmequelle (2) befindliche Oberfläche des Kochstellenoberteils (1) bewirkt und dabei ein Zierelement (3), das um die Wärmequelle (2) herum angeordnet ist, ganz oder teilweise bedeckt.

3. Sicherheitseinrichtung an Kochstellenoberteilen nach Anspruch 1, **dadurch gekennzeichnet, dass** die Sicherheitseinrichtung (5) entlang ihrer Peripherie einige radiale Aussparungen oder Öffnungen (9) aufweist, in die, wenn die Wärmeschutzeinrichtung (5) um die Wärmequelle (2) herum angeordnet wird, einige Tragfüße des Rosts (4) gesetzt werden, welcher der Wärmequelle (2) entspricht.

Revendications

1. Dispositif de protection pour dessus de cuisinières, dans lequel la surface du dessus de cuisinière (1) constituée de verre, de vitrocéramique ou de tôle métallique comporte des trous traversants destinés à des sources de chaleur (2), qu'elles soient de gaz et/ou électriques et **caractérisé en ce que** le dispositif de protection repose directement sur la surface du dessus de cuisinière (1) et est placé autour de la source de chaleur, de telle sorte qu'une surchauffe de la surface du dessus de cuisinière (1), engendrée par la mise en place d'un récipient de cuisson sur la source de chaleur, est éliminée ou réduite par ledit dispositif placé autour de ladite source, ledit dispositif constituant un élément de protection thermique contre ladite surchauffe.

2. Dispositif de protection pour dessus de cuisinières selon la revendication 1, **caractérisé en ce que** le dispositif de protection (5) présente une surface extérieure plate (6) et une surface intérieure (7) qui est enfoncée par rapport à la surface extérieure (6) et dans lequel est formé un trou traversant (8) de la source de chaleur (2) correspondante, de telle sorte que ladite plaque (5) procure la protection thermique de la surface du dessus de cuisinière (1), au voisinage de ladite source de chaleur (2), en recouvrant totalement ou partiellement un élément décoratif (3) qui est placé autour de ladite source (2).

3. Dispositif de protection pour dessus de cuisinières selon la revendication 1, **caractérisé en ce que** le dispositif de protection (5) comporte sur son contour extérieur, quelques cavités ou ouvertures radiales (9) dans lesquelles sont positionnés, lorsque ledit dispositif de protection thermique (5) est placé autour de la source de chaleur (2), des pieds de support d'une grille (4) correspondant à ladite source (2).

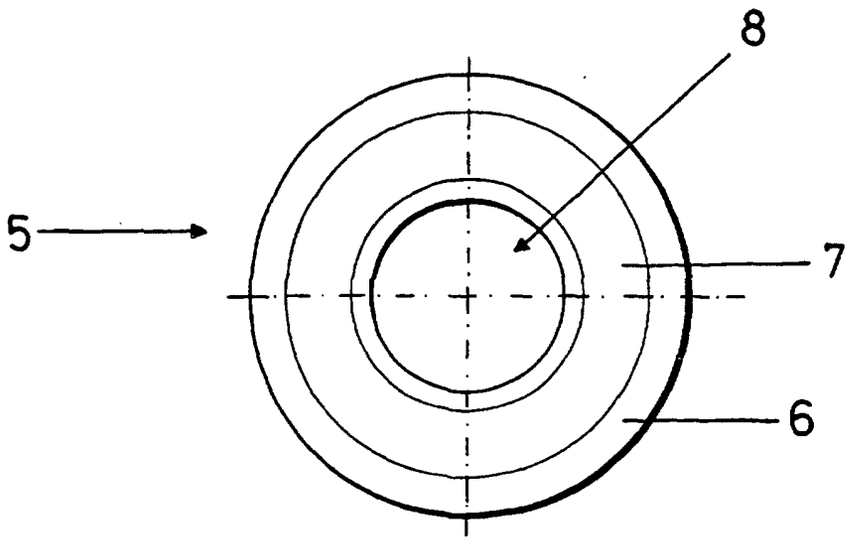

FIG.1

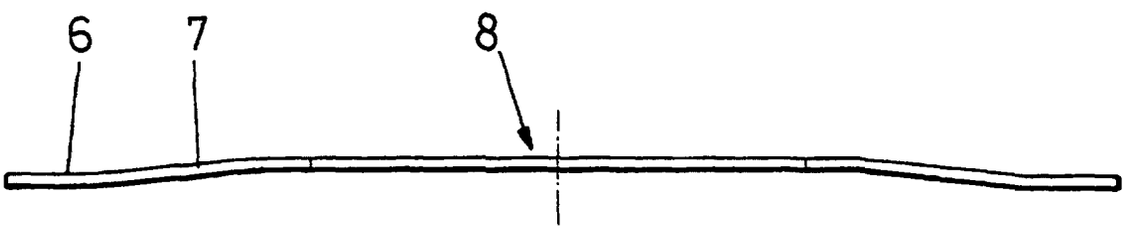

FIG.2

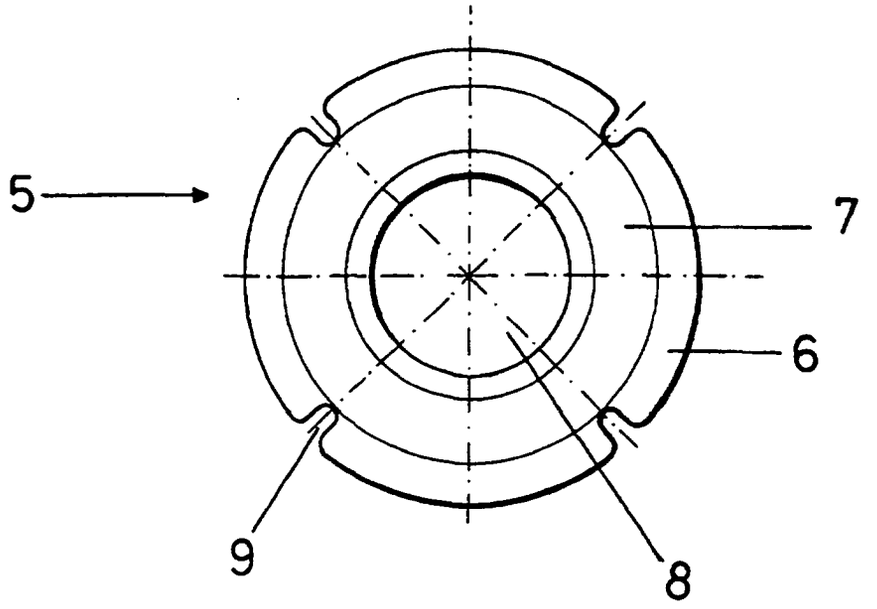

FIG. 3

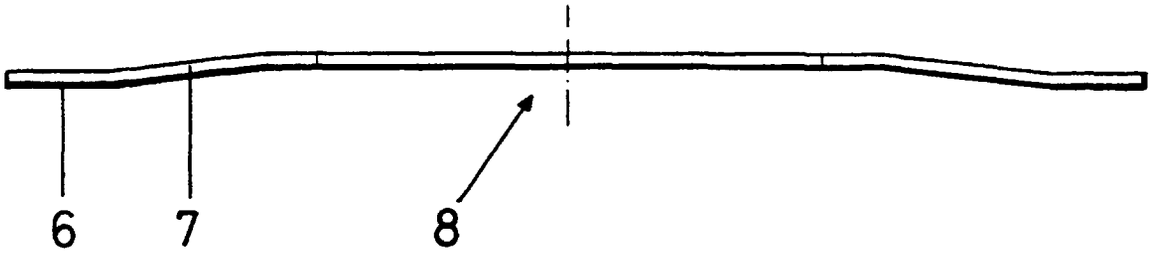

FIG. 4

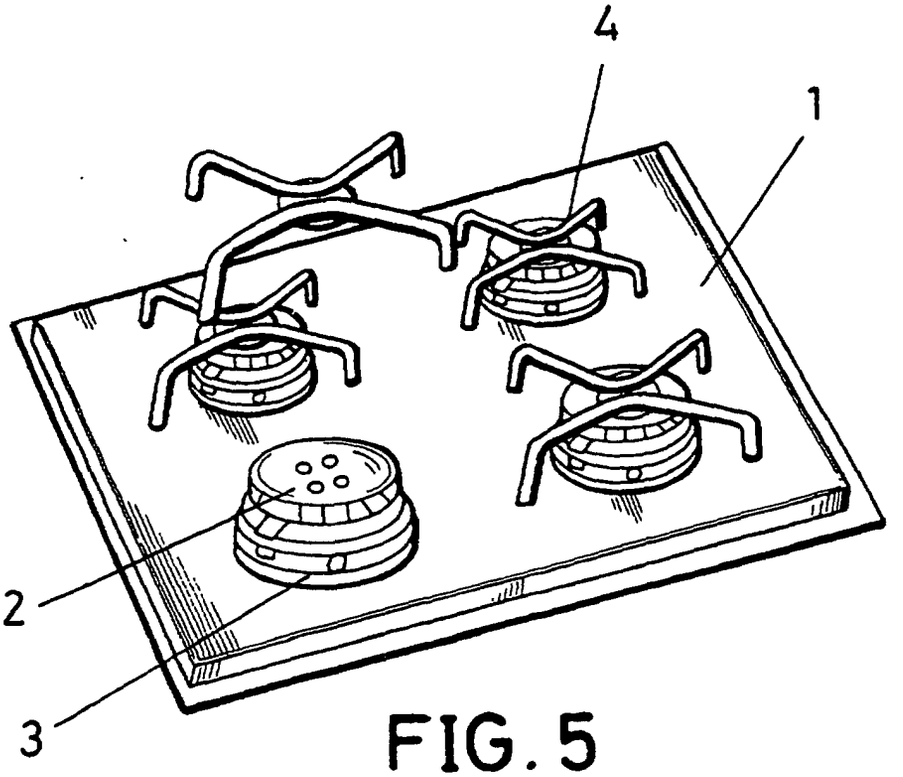

FIG. 5

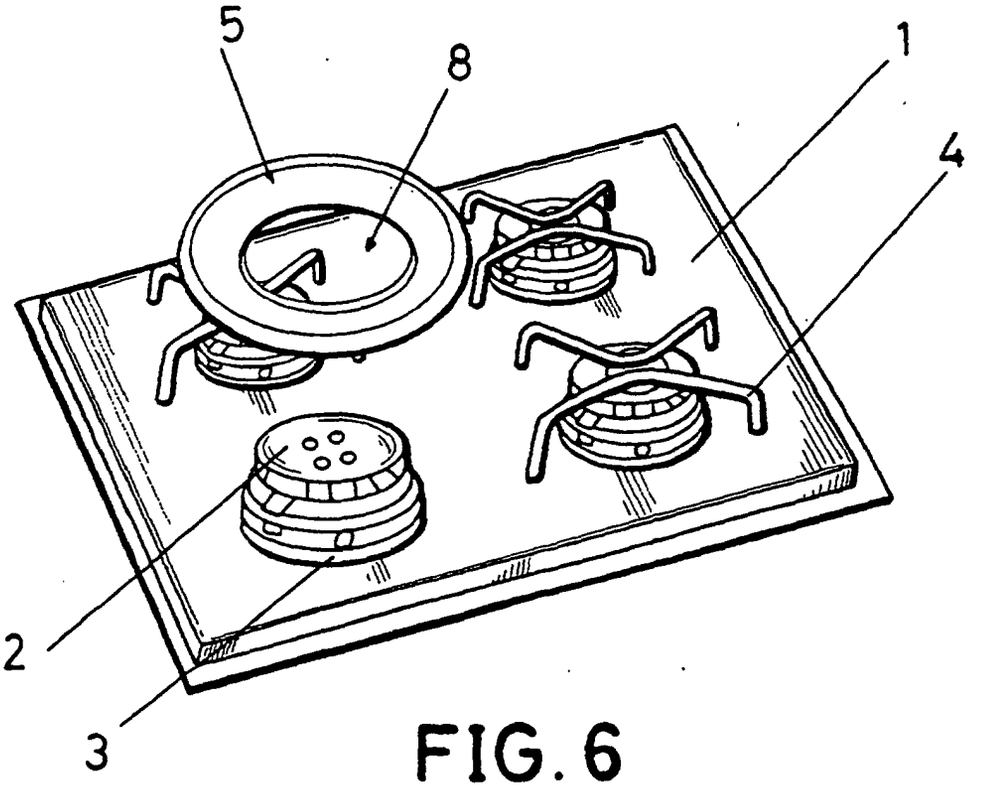

FIG. 6

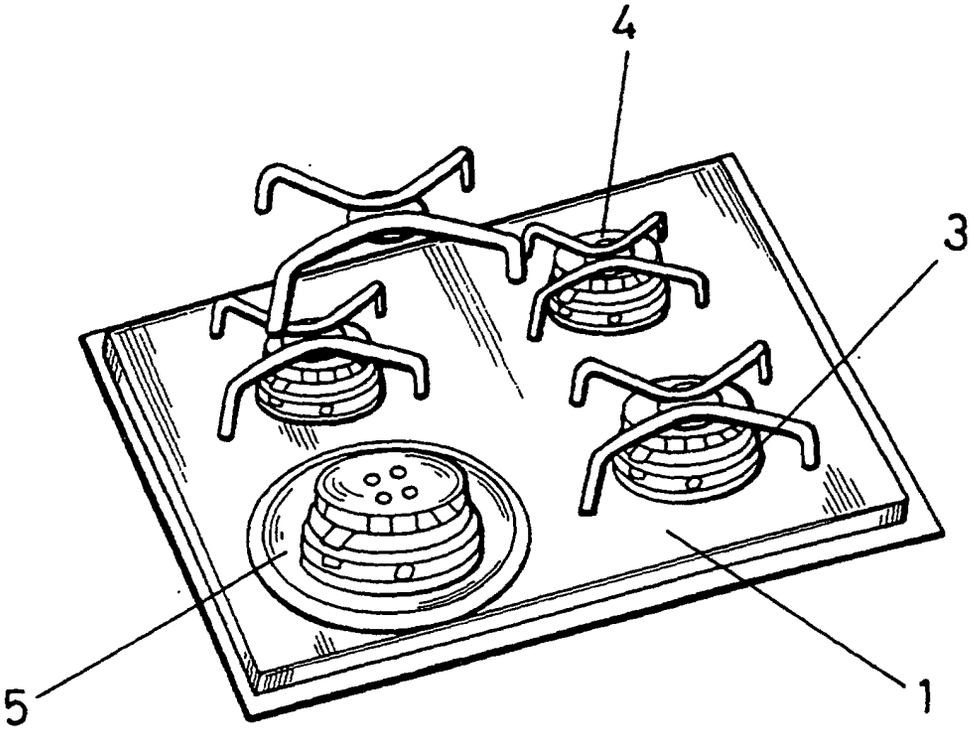

FIG. 7

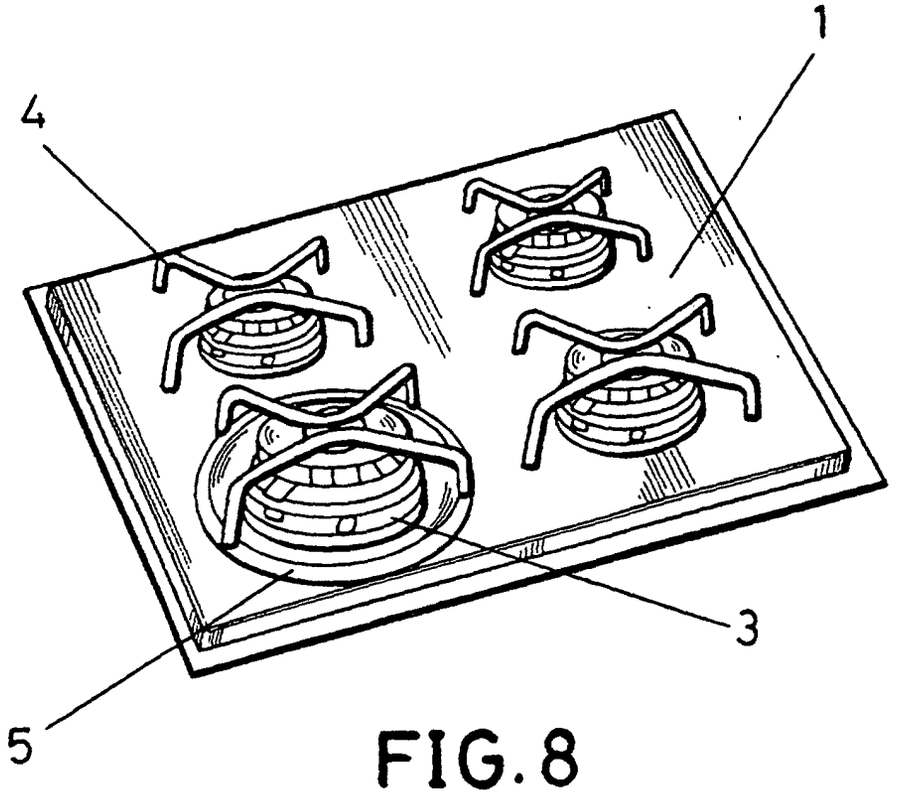

FIG. 8