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54 **Cooking plateau with integrated functions.**

57 Cooking plateau for a gas device, consisting of one plate-shaped part of a heat-resistant material, in which various facilities are integrated: the upper surface has one or more recessions for catching food; the burner housings and the pan supports constitute a single part therewith, as do, preferably the hinges for the cover, the assembly plates for the taps, the

assembly points for the spark transformer and the assembly points for the attachment clamps of the plateau.

The plateau can consist of a heat-resistant plastic or of aluminium.

The invention also contains methods for the manufacture of such plateaus.

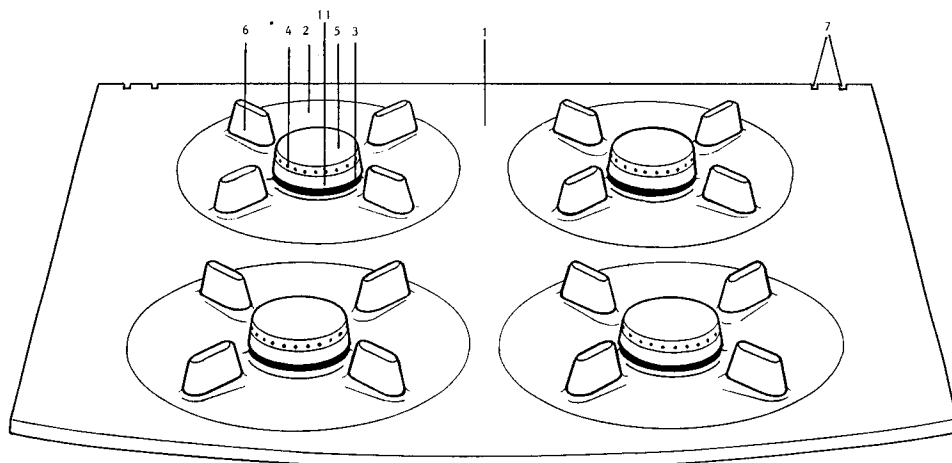


FIGURE 1

The invention relates to a cooking plateau for a gas device, in which the following functions are achieved:

- food and the like is caught;
- the burners are connected to gas supplies present under the plateau;
- pans and the like are supported when they are located above the burners.

In the case of customary gas devices each of the said functions is achieved as a result of measures which are specially equipped therefor; the three measures concerned cooperate with one another in and around the cooking plateau. Those measures are:

- a plate-shaped part with a sunken upper surface which serves as a catching area for food and the like. Such a plate consists of drawn steel, which is generally enamelled in order to promote its resistance to chemicals and to high temperatures, and to promote its scratch-resistance and in order to give it a desired colour. The part is equipped with openings through which, when in use, the burners protrude from the under-side, which when in use are connected to gas supply lines which open-up under the plate-shaped part. They protrude through the plate-shaped part from the under-side with their burner housings. A cover is located on a burner housing, which is equipped with lateral openings for the out-flow of the gas/air mixture which is to be ignited;
- pan supports, which are situated around the burners and on which, when in use, pans and the like can be placed, so that they are located above the burners. These cast iron and/or hoop steel pan supports are generally parts of the frame or frame parts which are situated above the plate-shaped part. As in the case of the plate-shaped part they are generally enamelled. Such a frame rests on the (edge of) the plate-shaped part.

The fact that cooking plateaus consist in this manner of three separate parts which each fulfill a function, but cooperate with one another, leads to disadvantages: especially technical manufacturing problems and problems in assembly.

Newly developed techniques with regard to the pressing of heat-resistant glass into a particular shape, with regard to the injection molding of heat-resistant plastics - thermoplastics - with regard to the injection molding of aluminium and with regard to deep drawing of particular sorts of steel make it possible to avoid the said disadvantages, by making an entirely new kind of cooking plateau. Such a cooking plateau is characterized in that it consists of a plate-shaped part of a heat-resistant material which achieves all of the said functions: the upper

surface of the part is sunken, so that it forms one or more catching areas; the burner housings are integrated in the part as well as the pan supports, the hinge points, the assembly points for the gas taps, the spark transformer and the attachment clamps for the plateau.

Therefore: all the said functions integrated in a single plate-shaped part. In this connection heat-resistant is taken to mean: in the event of heating to approx. 600°C and then cooling down in for example ice, no cracks arise in the material.

The customary existing plate made from drawn steel and enamelled does not comply with that requirement of heat-resistance and could therefore not be used in order to achieve the aims which have been set.

The said integration can be achieved by attaching the pan supports and the parts of the burners concerned in a fixed manner to the plate-shaped part and make them into one entirety in that manner.

In a preferable design of a plateau according to the invention the pan supports and/or (parts of) the burner housings are formed by the upper surface and the lower surface of the plate-shaped part: the part is then shaped in such a manner, that it already immediately contains the pan supports and the burner housings.

In a preferable design of a cooking plateau according to the invention the upper surface of the plate-shaped part has bowl-shaped recessions around each of the burners.

The plate-shaped part can exist of heat-resistant glass, for example the glass known under the name "Arco-flam", of a heat-resistant plastic, such as a polyethersulfon, or of aluminium - possibly coated - such as the molding alloy GD- AISi₁₂CU.

A cooking plateau according to the invention, which achieves the three said functions, preferably achieves even more functions according to the invention, which are as follows:

- the hinging of the cover takes place around a hinge axis, which is situated in the plate-shaped part (at the back): the hinge blocks are integrated in the part;
- the attachment of the customary assembly plate for the gas adjustment tap is integrated in the plate-shaped part: such a plate is situated at the bottom of that part;
- the assembly of the spark transformer, which delivers the ignition spark, is made to assembly points which are integrated in the plate-shaped part, being at on the bottom side thereof;
- the attachment of the plateau to a table, kitchen work surface or the like is carried out with the aid of clamps, which have assembly points which are integrated in the plate-

shaped part, on the bottom side thereof.

In its most advanced design the said, in total seven, functions are integrated in the plateau.

The invention also contains methods for the manufacture of the said cooking plateaus: from glass, from plastic, from aluminium or from steel.

The invention will be explained further on the basis of the drawings, which show a perspective view of a design example of a cooking plateau according to the invention, in which all of the said seven functions are integrated: fig 1 an upper view, fig 2 a lower view.

The plateau shown in the upper view according to fig. 1 consists of a plate-shaped part 1. In the implementation example which is drawn the entire upper surface has not been sunken for the catching of food, but recessions 2 are present around each of the burner housings 3. The burner housings 3, which are connected somewhere under the part 1 to gas supply lines, protrude above the upper surface of part 1, constitute a single entirety therewith and have a connection for the burner support 11. The part 5, equipped with lateral openings 4, of the burner housings 3 is also drawn, which in this case also functions as a burner cover.

A burner housing 3 is surrounded by pan supports 6. In the design example which is drawn: four of them for each burner. Those pan supports 6 also constitute a single entirety with the part 1. The pan supports 6 are preferably not originally separate parts which are attached to the part 1, but constitute a single molded, pressed or deep drawn entirety.

In the design example which is drawn the hinge points are shown with 7. These are also integrated in the cooking plateau according to the invention in part 1. The hinge axis (not drawn) therefore runs in the plate-shaped part.

Figure 2 shows the bottom side of the plateau. The gas taps are assembled onto the assembly plates 9. 8 shows the assembly points for the spark transformer and 10 shows the assembly points for the attachment clamps for the cooking plateau.

Claims

1. Cooking plateau for a gas device, in which the following functions are achieved:

- food and the like is caught;
- the burners are connected to gas supplies present under the plateau;
- pans and the like are supported when they are located above the burners,

characterized in that the plateau consists of a single plate-shaped part [1] of a heat-resistant material which achieves all of the said functions: the upper surface of the part is sunken, so that it forms one or more catching areas

[2]; the burner housings [3] are integrated in the part [1], as are the pan supports [6].

2. Cooking plateau according to claim 1, characterized in that the pan supports [6] and/or (parts of) the burner housings [3] are formed by the upper surface of the plate-shaped part [1].

3. Cooking plateau according to claim 1 or 2, characterized in that the upper surface of the plate-shaped part [1] has bowl-shaped recessions, around the burner housings [3].

4. Cooking plateau according to claim 1, 2 or 3, characterized in that the plate-shaped part [1] is formed from heat-resistant glass.

5. Cooking plateau according to claim 1, 2 or 3, characterized in that the plate-shaped part [1] is formed from a heat-resistant plastic.

6. Cooking plateau according to claim 1, 2 or 3, characterized in that the plate-shaped part [1] is formed from aluminium.

7. Cooking plateau according to one of the claims 1, 2 or 3, characterized in that the plate-shaped part [1] is formed from ultra deep drawn steel.

8. Cooking plateau according to claim 1 or 2, whereby the gas device is equipped with a cover, which hinges around a horizontal axis, characterized in that the hinge or the hinges respectively [7] are also integrated in the plate-shaped part [1].

9. Cooking plateau according to one of the preceding claims, whereby the gas device contains taps on plates for adjusting the gas supply to the burners, characterized in that the assembly plate or the assembly plates, respectively, [9] are integrated in the plate-shaped part.

10. Cooking plateau according to one of the preceding claims, whereby the gas device contains a spark transformer characterized in that the assembly points [8] for the spark transformer are integrated in the plate-shaped part.

11. Cooking plateau according to one of the preceding claims, whereby the gas device can be fixed to a table, kitchen working surface or the like which is present beneath it, characterized in that the assembly points [10]

for the fixing clamps are integrated in the plate-shaped part.

- 12.** Method for manufacturing a cooking plateau according to claim 4 and claims 8 up to and including 11, characterized in that the glass is melted and then pressed into the desired shape. 5
- 13.** Method for manufacturing a cooking plateau according to claim 5 and claims 8 up to and including 11, characterized in that it is manufactured from a heat-resistant plastic with the aid of injection molding. 10
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- 14.** Method for manufacturing a cooking plateau according to claim 6 and claims 8 up to and including 11, characterized in that it is manufactured from aluminium with the aid of injection molding followed by coating. 20
- 15.** Method for manufacturing a cooking plateau according to claim 6 and claims 8 up to and including 11, characterized in that it is manufactured from aluminium plate material with the aid of wall-stretching. 25
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- 16.** Method for manufacturing a cooking plateau according to claim 6 and claims 8 up to and including 11, characterized in that it is manufactured from aluminium plate material with the aid of super plastic heat shaping. 35
- 17.** Method for manufacturing a cooking plateau according to claim 7 and claims 8 up to and including 11, characterized in that it is manufactured from ultra deep drawn steel with the aid of deep drawing and wall-stretching. 40
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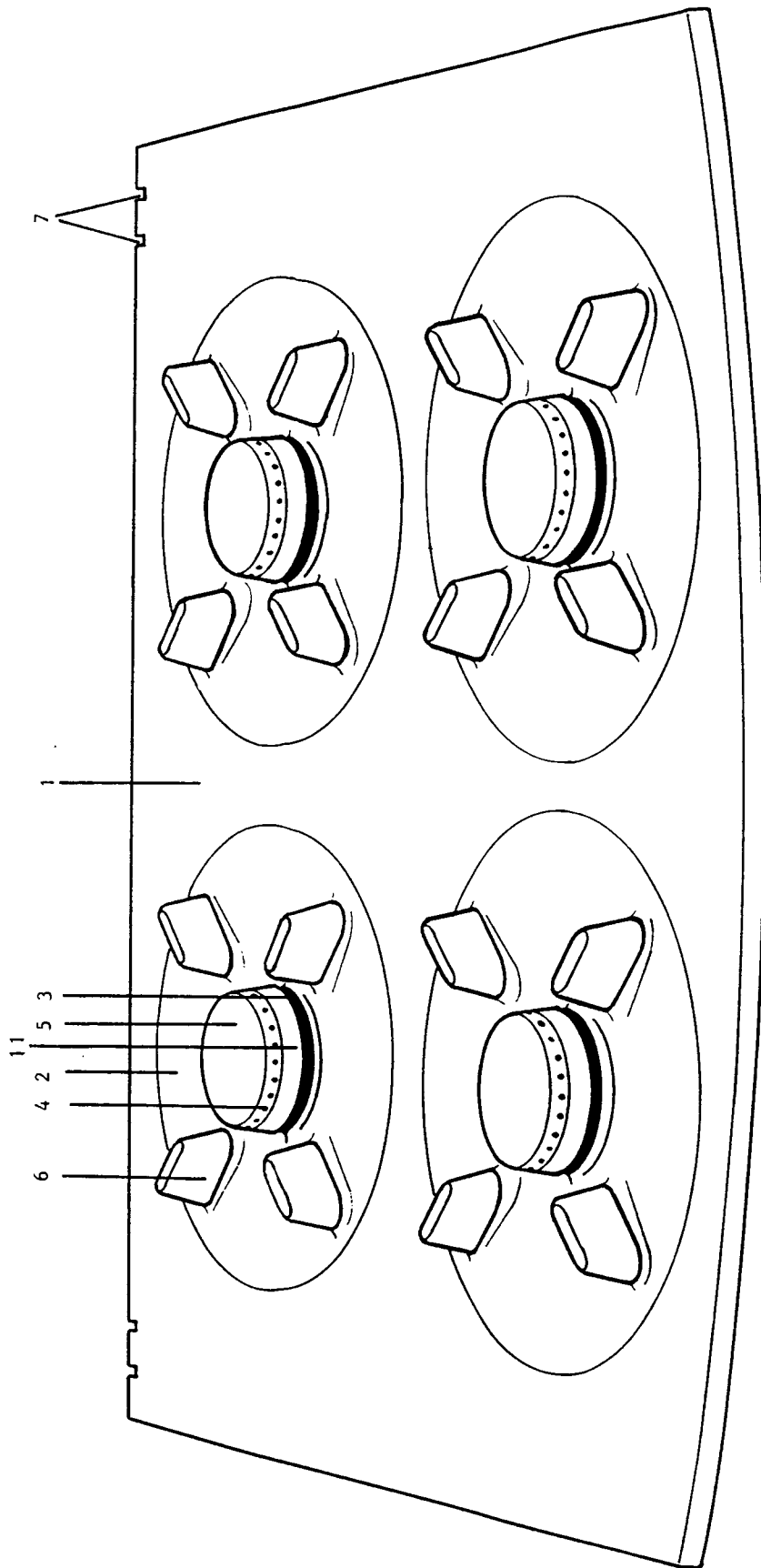


FIGURE 1

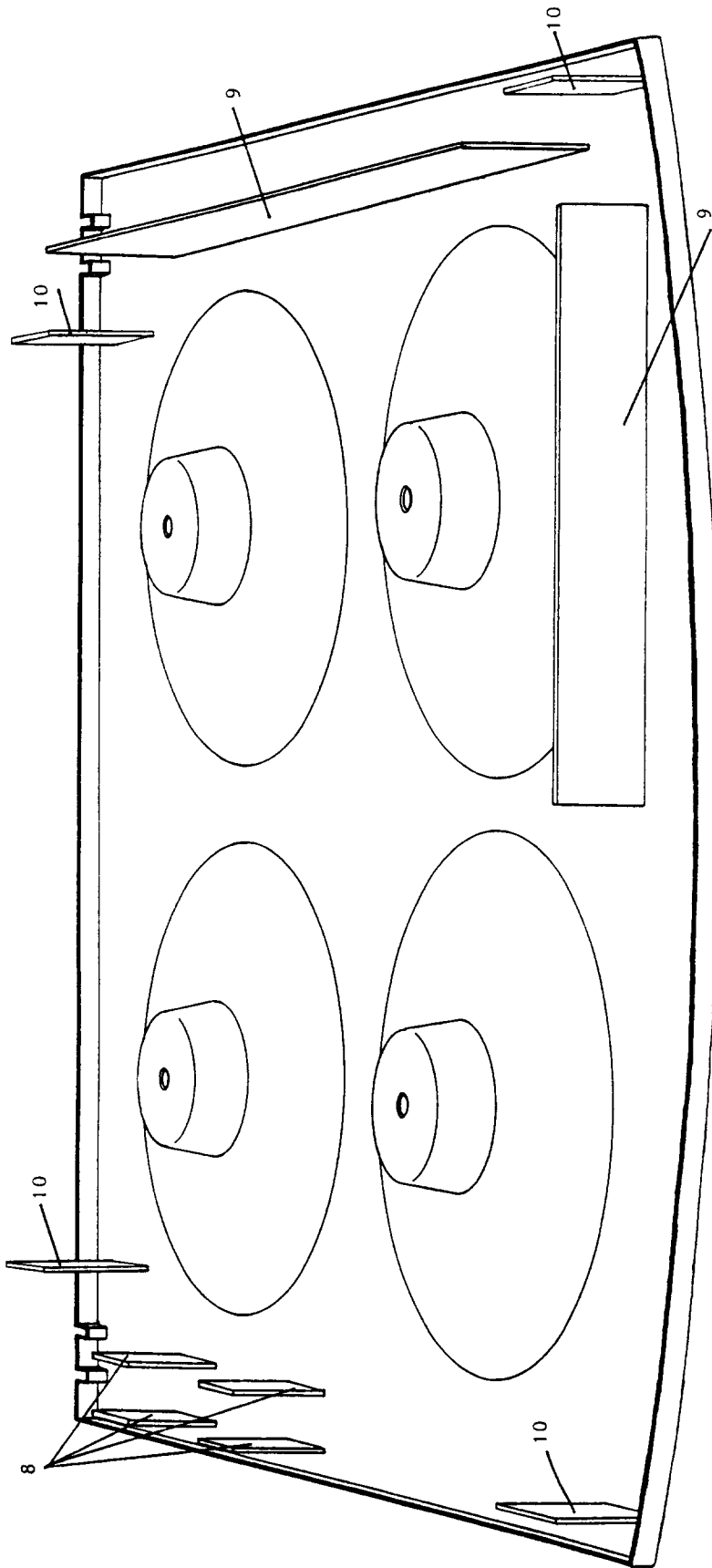


FIGURE 2



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	US-A-3 592 180 (KWELLER) * column 2, line 30 - line 35 * * column 3, line 5 - line 35; figures 4,5 *	1-4	F24C1/00 F24C3/08
X	--- GB-A-2 185 564 (THORN EMI) * the whole document *	1,2,6,14	
A	--- EP-A-0 210 780 (NEW WORLD) * claim 14 *	5	
A	--- FR-A-1 514 252 (S.G. DE FONDERIE) * the whole document *	8	
A	--- FR-E-94 420 (TRIPLEX) * figure 4 *	7,17	

			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			F24C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 06 AUGUST 1993	Examiner VANHEUSDEN J.
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
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