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(54) **Cooking hob**

(57) A hob is provided with a top panel (2), a casing (3), at least one heating unit (4), and a control device (5) for supplying and controlling the heating unit (4), wherein the top panel (2) has a top face (6) and a bottom face

(7), which has a perimetral surface (9), and is made of glass. The hob (1) comprises a structure that is fixed, preferably continuously, to the top panel (2) along the perimetral surface (9).

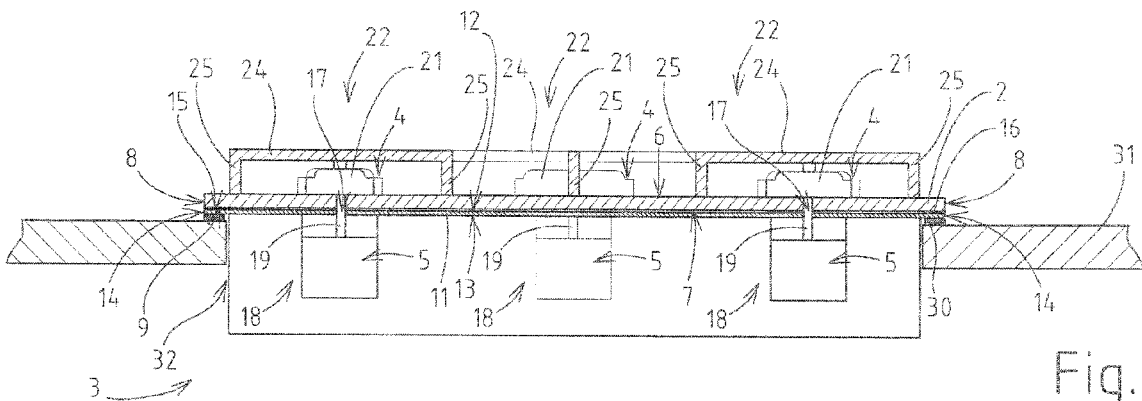


Fig. 2

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## Description

**[0001]** The present invention relates to a hob.

**[0002]** In particular, the present invention regards a hob comprising a top panel, a casing, at least one heating unit, and a control device for supplying and controlling the heating unit. The top panel has a top face and a bottom face, which has a perimetral surface, and is made of glass. The hob comprises at least one resting element, supported and set on the top panel, in the proximity of the cooking unit. The resting element has the function of supporting implements for cooking purposes, such as pots or pans or the like, so that said implements can be positioned on the heating unit.

**[0003]** The glass panel, during use, is subject to accidental impact, on account of which it could get broken and shattered into a multitude of splinters of glass, which could be projected into the surrounding environment, causing danger for the persons in the vicinity. In addition, in the event of breaking, the glass would shatter into a multitude of very small shivers, rendering the procedure of removal of the splinters of glass problematical and long. This drawback is particularly present in hobs with top panels made of toughened glass.

**[0004]** Furthermore, another drawback consists in the fact that the splinters of glass, produced by the accidental breaking of the hob, would occupy the casing underlying the top surface, where the control device of the heating unit is set.

**[0005]** In addition, another drawback lies in the fact that, in the event of accidental impact, the resting elements would lose the support of the top panel and, consequently, would tend to tilt, causing the implements positioned thereon to drop. This creates a situation of danger for any persons who may be in the vicinity, because they could be struck by the implements or by their contents.

**[0006]** Furthermore, another drawback lies in the fact that the hob cannot be used until the top panel is replaced.

**[0007]** An aim of the present invention is to provide a hob that will limit the drawbacks of the known art.

**[0008]** Another aim of the present invention is to provide a hob that is alternative to those of the known art.

**[0009]** A further aim of the present invention is to provide a hob that will reduce to a minimum the dispersion of splinters of glass in the event of accidental breaking of the top panel.

**[0010]** Yet a further aim of the present invention is to provide a hob that, in the event of accidental impact, will increase the stability of the resting unit and will reduce the situations of danger for any persons who may be in the vicinity to a minimum.

**[0011]** Yet another aim of the present invention is to provide a hob that will reduce the length of time that the hob itself is put out of use to a minimum.

**[0012]** According to the present invention a hob is provided comprising a top panel, a casing, at least one heating unit, and a control device for supplying and controlling

the heating unit, the top panel having a top face and a bottom face, which has a perimetral surface, and being made of glass, the hob being characterized in that it comprises a structure that is fixed, preferably continuously, to the top panel along the perimetral surface.

**[0013]** Thanks to the present invention in the event of breaking of the top panel, the structure withholds the damaged or splintered top panel, thus reducing the dispersion of splinters of glass in the vicinity and in the casing.

**[0014]** According to a preferred embodiment, the structure comprises a further panel, which is fixed, preferably continuously, to the top panel.

**[0015]** Thanks to the further panel, in the event of breaking, the damaged or splintered top panel remains entirely fixed to the further panel. In this way, the dispersion of splinters of glass is reduced or prevented, and it is possible to proceed to replacement of the top panel in a fast way, thus reducing the maintenance costs. Thanks to the additional panel, the damaged top panel is able to support a resting element set thereon. In this way, dropping or tilting of the resting element itself and of possible implements set thereon is prevented.

**[0016]** In addition, the hob with the damaged top panel can be used until it is replaced. Consequently, the time of non-usability of the hob up to its replacement is reduced.

**[0017]** According to a further preferred embodiment, the hob comprises a bi-adhesive tape; the further panel being fixed to the top panel, along the perimetral surface, by said bi-adhesive tape.

**[0018]** Thanks to the bi-adhesive tape, in the event of breaking, the damaged or splintered top panel is entirely fixed to the further panel, thus reducing or altogether eliminating the dispersion of splinters of glass and facilitating replacement of the top panel itself so as to reduce maintenance costs.

**[0019]** According to a further preferred embodiment, the structure comprises a frame defining an annular seat configured for housing the top panel and the further panel.

**[0020]** Thanks to the frame that houses the top panel and the further panel, fixing of the top panel to the further panel is better ensured. In this way, the dispersion of splinters of glass in the event of breaking of the top panel is further reduced or eliminated.

**[0021]** According to a further preferred embodiment, the top panel comprises side faces set between the top face and the bottom face, the structure comprising a frame set substantially in contact with the side faces of the top panel.

**[0022]** Thanks to the frame set in contact with the side faces of the top panel, in the event of breaking of the top panel, the dispersion of splinters of glass is further reduced or eliminated.

**[0023]** Further characteristics and advantages of the present invention will emerge clearly from the ensuing description of non-limiting examples of embodiment, with

reference to the figures of the annexed drawings, wherein:

- Figure 1 is a top plan view of the hob provided according to the present invention;
- Figure 2 is a view in side elevation and in cross section of the hob of Figure 1;
- Figure 3 is a view in side elevation and in cross section of an alternative embodiment of the hob of Figure 1; and
- Figure 4 is a view in side elevation and in cross section of a further alternative embodiment of the hob of Figure 1.

**[0024]** Designated as a whole by the reference number 1 in Figure 1 is a hob comprising a top panel 2, a casing 3 (Figure 2), and one or more heating units 4 (in the attached figures five heating units 4), and a control device 5 (Figure 2) for each heating unit 4.

**[0025]** With reference to Figure 2, the top panel 2 has a top face 6 and a bottom face 7 and is made of thermally toughened glass. In addition, the top panel 2 between the top face 6 and the bottom face 7 has side faces 8. Along the bottom face 7, the top panel 2 has a perimetral surface 9 adjacent to the side faces 8, which is shaped like an annulus along the outer periphery of the bottom face 7.

**[0026]** The hob 1 comprises a structure that extends along the bottom face 7 of the top panel 2 and is fixed to the top panel 2 along the perimetral surface 9. In greater detail, the structure comprises a panel 11 made of a metal material. In a preferred version of the present invention, the panel 11 is made of stainless steel.

**[0027]** The panel 11 is parallel to, extends throughout the length of, and completely faces the top panel 2.

**[0028]** In particular, the panel 11 has a top face 12 set facing the bottom face 7 of the top panel 2, and a bottom face 13 opposite to the top face 12. Furthermore, the panel 11 has side faces 14 between the top face 12 and the bottom face 13.

**[0029]** Along the top face 12 the panel 11 has a perimetral surface 15 adjacent to the side faces 14, which is shaped like an annulus along the outer periphery of the top face 12.

**[0030]** The hob 1 comprises a bi-adhesive tape 16, which fixes together the top panel 2 and the panel 11; in particular, the top panel 2 and the panel 11 are fixed along the entire perimetral surface 9 of the top panel 2 and all along the perimetral surface 15 of the top face 12 of the panel 11. Furthermore, the bi-adhesive tape 16 is able to withstand at least a temperature of 70°C without the adhesive power being degraded.

**[0031]** The top panel 2 is set on the panel 11, is in view, and has a first thickness; consequently, the panel 11, is set underneath the top panel 2, and is not in view. In addition, the panel 11 has a second thickness smaller than the first thickness. In a preferred version of the present invention, the second thickness is substantially

equal to one tenth of the first thickness.

**[0032]** The hob 1 has one opening 17 for each heating unit 4; consequently, said openings 17 are provided both in the top panel 2 and in the panel 11.

5 **[0033]** With reference to Figure 3, the hob 1, for each heating unit 4, comprises a heating assembly 18 comprising the heating unit 4 itself, a valve 19 for regulating the gas, and the control device 5 comprising a knob 20 set on the top panel 2 and configured for supplying and  
10 controlling said valve 19.

**[0034]** The valve 19 is housed in part within the respective opening 17; consequently, the opening 17 of the top panel 2 is occupied by the valve 19.

15 **[0035]** The heating unit 4 is a gas burner, which comprises one or more heat-resistant metal elements 21, from which, in use, the gas exits, which, following upon combustion, gives rise to a flame.

**[0036]** The casing 3 is located underneath the top panel 2 and the panel 11 and in part houses the heating  
20 assembly 18.

**[0037]** With reference to Figure 2, the hob 1 further comprises resting elements 22, which are set on the top panel 2 and have the function of supporting implements for cooking the food, such as pots or pans or the like, so that said implements can be positioned on the heating  
25 units 4. The resting elements 22 are made of metal material, such as iron or cast iron, and comprise a central body, which comprises horizontal arms 24 and, in use, is positioned on the heating unit 4, and vertical arms 25, which extend from the horizontal arms 24 to the top panel  
30 2 and rest on the top panel 2 itself.

**[0038]** The hob 1 is sized so that the maximum temperature present along the perimetral surface 9, along the side faces 8, and along the side faces 14 is less than  
35 70°C.

**[0039]** In an alternative embodiment of the present invention illustrated in Figure 3, the structure comprises a frame 28, which surrounds the side faces 8 of the top panel 2 and is in continuous contact with the top panel 2  
40 along the side faces 8.

**[0040]** The hob 1 comprises a contact element 30, which, after the hob 1 has been installed in a cooker, rests on a surface 31 of the cooker, in which an opening 32 is made for installing the hob 1 so that it is set in; consequently, the hob 1 represented in Figures 1 to 3 defines a hob of a set-in type.

**[0041]** In an alternative embodiment of the present invention illustrated in Figure 4, the frame 28 is omitted, and the casing 3, in the top part, comprises a frame 35 that defines a C-shaped annular seat 36 for housing the  
50 top panel 2 and the panel 11. In greater detail, the frame 35 comprises a top end 37, which extends parallel to the top panel 2, a bottom end 38, which extends parallel to the top panel 2, and a central body 39, which is set between the top end 37 and the bottom end 38 and extends  
55 perpendicular to the top and bottom ends 37 and 38. The bottom end 38, the central body 39, and the top end 37 define the C-shaped annular seat 36. In this case, the

casing 3, and in particular the frame 35, forms an integral part of the structure.

[0042] The top end 37 is in contact with, and surrounds, the top panel 2, continuously, along part of the top face 6.

[0043] The bottom end 38 is in contact with, and surrounds, the panel 11, continuously, along part of the bottom face 13.

[0044] The central body 39 is in contact with, and surrounds continuously, the top panel 2 along the side faces 14 and the panel 11 along the side faces 14.

[0045] In this case, the hob 1 can either be set-in in a cooking unit, or else can itself define an independent cooker, since the weight of the top panel 2 and of the panel 11 is supported by the frame 28.

[0046] Thanks to the hob 1 provided according to the present invention, in the event of accidental breaking, the damaged or shattered top panel 2 remains entirely fixed to the panel 11. In this way, the dispersion of splinters of glass in the vicinity of the hob and in the casing is reduced or eliminated altogether. Furthermore, replacement of the top panel is facilitated by the fact that it is not necessary to pick up the splinters of glass, and, since the damaged or shattered top panel is fixed entirely to the panel 11, replacement is made with greater ease and with less danger for the operating staff. All this results in a reduction of the maintenance costs in the event of breaking of the top panel 2.

[0047] In addition, the bi-adhesive tape 16 does not lose its adhesive power over time since it is fixed on the top panel 2, only along the perimetral surface, where the maximum temperature is 70°C.

[0048] Thanks to the present invention, when the top panel 2 is damaged it does not lose its shape or supporting capacity. In this way, it is able to support the resting elements 22, preventing them from tilting and from causing the implements supported thereby to drop.

[0049] Furthermore, the hob with the damaged top panel 2 can be used until the top panel 2 is replaced since it does not create any situations of danger.

[0050] Finally, it is evident that modifications and variations may be made to the hob described herein, as well as to its use, without thereby departing from the scope of the annexed claims. For example, the hob can comprise heating units functioning with electric power instead of heating units functioning with gas.

2. The hob according to Claim 1, wherein the top panel (2) is made of toughened glass.
3. The hob according to Claim 1 or Claim 2, wherein the structure comprises a further panel (11), which is fixed, preferably continuously, to the top panel (2).
4. The hob according to Claim 3, wherein the further panel (11) is made of a metal material, preferably stainless steel.
5. The hob according to Claim 3 or Claim 4, comprising a bi-adhesive tape (16); the further panel (11) being fixed to the top panel (2), along the perimetral surface (9), by the bi-adhesive tape (16).
6. The hob according to any one of the preceding Claims 3 to 5, wherein the structure comprises a frame (35) defining an annular seat (36) configured for housing the top panel (2) and the further panel (11).
7. The hob according to any one of Claims 3 to 6, wherein the further panel (11) has a thickness smaller than that of the top panel (2).
8. The hob according to any one of Claims 3 to 7, wherein the thickness of the further panel (11) is substantially equal to one tenth of the thickness of the top panel (2).
9. The hob according to any one of the preceding claims, wherein the top panel (2) comprises side faces (8) set between the top face (6) and the bottom face (7), the structure comprising a frame (28) set substantially in contact with the side faces (8) of the top panel (2).
10. The hob according to any one of the preceding claims, comprising a plurality of heating units (4) and a plurality of control devices (5).

## Claims

1. A hob comprising a top panel (2), a casing (3), at least one heating unit (4), and a control device (5) for supplying and controlling the heating unit (4), the top panel (2) having a top face (6) and a bottom face (7), which has a perimetral surface (9), and being made of glass; the hob (1) being **characterized in that** it comprises a structure that is fixed, preferably continuously, to the top panel (2) along the perimetral surface (9).

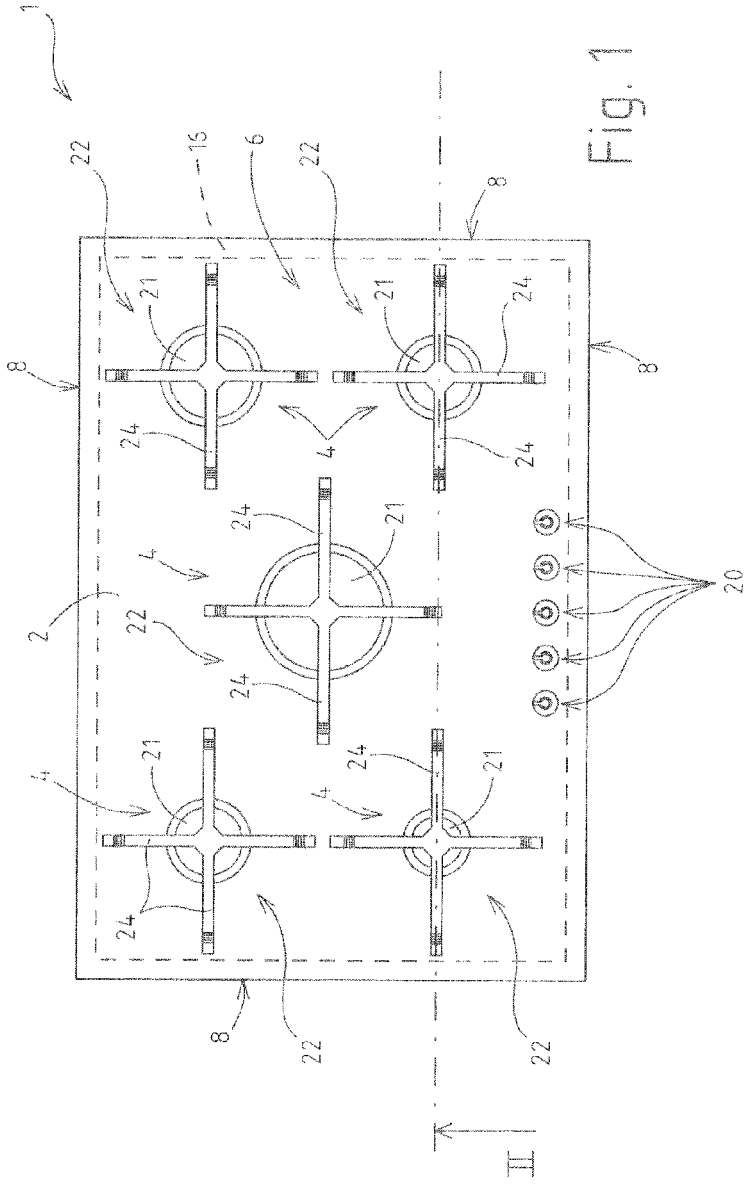


Fig. 1

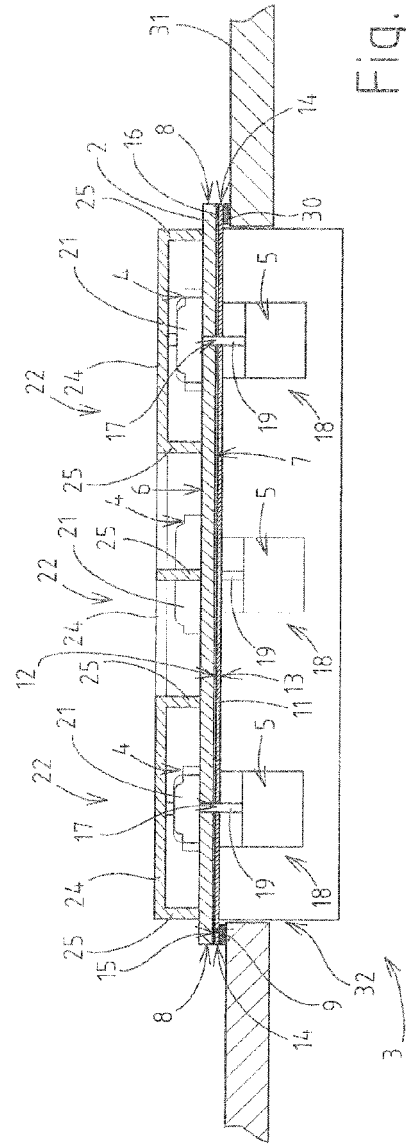


Fig. 2

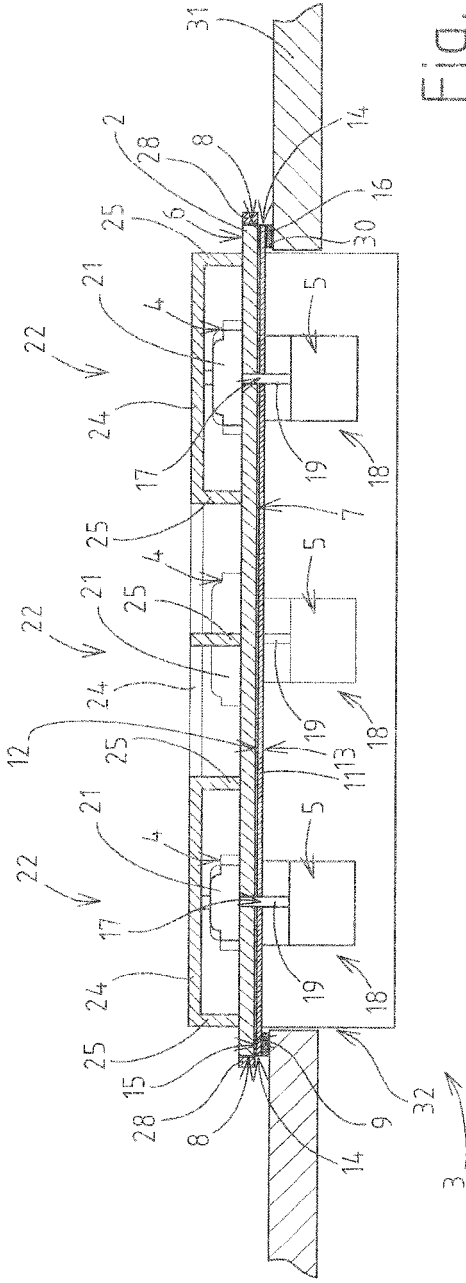


Fig. 3

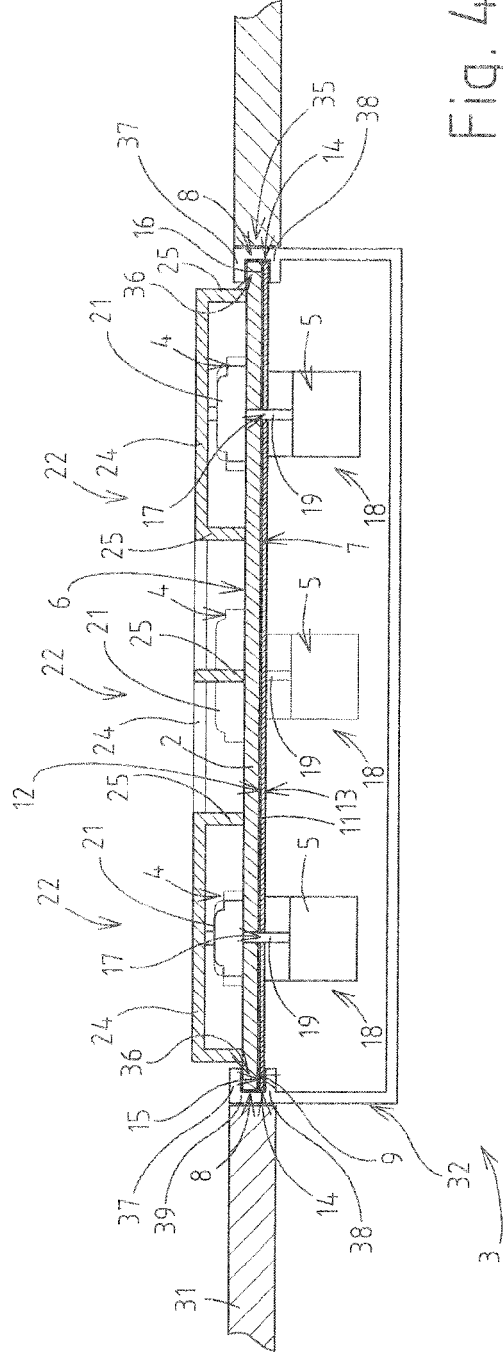


Fig. 4



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 Application Number  
 EP 11 17 5883

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Place of search		Date of completion of the search	Examiner
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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