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(54) **A cooking device with a spring element**

Kochvorrichtung mit Federelement

Dispositif de cuisson doté d'un élément à ressort

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Description

TECHNICAL FIELD

[0001] The present invention relates to a cooking device having a connection spring between the top plate and the body thereof.

KNOWN STATE OF THE ART

[0002] In the cooking devices, after the burners are positioned on the body, the top plate is placed on the body so as to pass through the burners, and afterwards, the top plate is fixed to the body by means of connection elements. In the known state of the art, said fixation process is realized by means of pluralities of methods. In one of these methods, after the top plate is positioned on the body, it is screwed to the two lateral walls of the body by means of 4 screws where there is one screw in the front and there is one screw at the rear part of said lateral walls.

[0003] The other method is defined in the patent application WO2008080795. In this application, a connection spring is described which provides the top plate to be assembled to the body. Said connection spring has an inverse V form and it is positioned between the top plate and the body. While the top plate is pressed from above and when it is fixed to the body, the spring bends back and when the top plate is seated to the body completely, the spring returns to the prior position thereof.

[0004] Prior art document GB 430 829 A describes a spring loaded bolt being designed for assembling a top plate to a body of a cooking device. For disassembling the top plate a push button is provided, wherein the push button is designed to act on the spring loaded bolt.

BRIEF DESCRIPTION OF THE INVENTION

[0005] The object of the present invention is to provide a cooking device having a top plate whose assembly and the disassembly process can be realized in an easy manner by means of a spring element.

[0006] In order to reach said object, the present cooking device comprises a body and a top plate positioned with a predetermined spacing with the body in an accessible manner from the outside of the device. A spring element is provided pressing the top plate to the body in a manner to attach the top plate to the body in the locked position and configured therefore to release the top plate when a force is applied from the outside of the device via spacing. By means of this, the spring element is removed by applying for instance an apparatus between the top plate and the body; and the locking condition, which is obtained as a result of the pressure applied to the top plate, is eliminated. Alternatively, in the locked position, the press can also be applied from the top plate towards the body.

[0007] The cooking device comprises a spring element where the upper end bends backwardly and releases the

top plate in case a force (F), applied through the spacing, is applied to a joining wall which joins an upper end and a lower edge, where the upper end thereof is rested from the inner side of the inner folded-edge of the top plate and where the lower edge is fixed to the body from a lower edge thereof which is at a lower level than the upper end and which extends in S form from the upper end towards the body. By means of this, the top plate, which is assembled to the body, can be easily disassembled by means of a force applied between the body and the top plate.

[0008] In an application of the present invention, the spring element is positioned in the middle region of the body.

[0009] In another application of the present invention, one each spring elements are positioned at a region of the body close to the both corners of the body.

BRIEF DESCRIPTION OF THE FIGURES

[0010] The additional characteristics and advantages of the present invention will be obtained from the exemplary embodiments giving reference to the accompanied figures.

In Figure 1, the perspective view of the subject matter cooking device is given.

In Figure 2, the frontal perspective detailed view of the subject matter cooking device is given.

In Figure 3, the view of Detail A illustrated in Figure 2 is given.

In Figure 4, the perspective view of the spring element in the subject matter cooking device is given.

In Figure 5, the lateral cross sectional view of the subject matter cooking device is given.

In Figure 6, the view of Detail B illustrated in Figure 5 is given.

REFERENCE NUMBERS

[0011]

10 Cooking device

20 Body

22 Burner

24 Door

30 Top plate

40 Spring element

41 Upper edge

42 Upper end

44 Lower edge

46 Joining wall

50 Spacing

THE DETAILED DESCRIPTION OF THE INVENTION

[0012] The subject matter cooking device (10) comprises a body (20) which has a door (24) at the front side thereof; at least one burner (22) which is positioned on the body (20); a top plate (30) which has a cut-out wherein the burner (22) is housed and which is assembled onto the body (20); a spring element (40) which provides the assembly of the top plate (30) to the body (20) and which is positioned between the body (20) and the top plate (30).

[0013] In Figure 1, a perspective view of a cooking device (10) is given. The top plate (30) is positioned and assembled onto the body (20). After the top plate (30) is assembled onto the body (20), a spacing (50) is formed between the body (20) and the top plate (30). Prior to the assembly of the top plate (30), the spring element (40) is fixed to the body (20) so as to be accessible through said opening (50) formed after assembly on an upper surface (26) of the body (20). Afterwards, the plate (30) is positioned on the body (20) so that the edge part of the top plate (30) will be provided on the spring element (40). When the top plate (30) is pressed from above, the spring element (40) bends and the edge bent part (K) of the top plate (30) enters beneath the spring element (40) and thereby it is assembled (Figure 2 and Figure 3). In the application of the present invention in Figure 1, 2 and 3, the spring element (40) is positioned at a middle point of front side of the body (20) where the door (24) is provided.

[0014] In Figure 4, the perspective view of the spring element (40) is given. The spring element (40) comprises a lower edge (44) extension which is parallel to the upper surface (26) of the body (20). The spring element (40) has a profile which draws an S shape from a lower edge thereof (44) towards an upper edge thereof (41). At the end thereof, the upper edge (41) comprises an upper end (42). The upper edge (41) and the upper end (42) are at a higher level than the level of the lower edge (44). The spring element (40) moreover comprises a joining wall (46) which joins the upper edge (41) and the lower edge (44) in the vertical direction. The joining wall (46) makes a narrow angle with the lower and upper edges (44, 41). The angle which the joining wall (46) makes with the lower edge (44) is greater than the angle which the joining wall (46) makes with the upper edge (41).

[0015] In Figure 5 and Figure 6, the lateral cross sectional view of the cooking device (10) after assembly is

given. While in this position, the upper end (42) of the spring element (40) applies a force to the folded-edge (K) of the top plate (30) internally and thereby fixes the top plate (30) on the body (20). In this position, the lower edge (44) of the spring element (40) is fixed to the upper surface (26) of the body (20) by means of a connection element (not illustrated in the figure). When the top plate (30) is positioned on the body (20) prior to assembly and when the top plate (30) is pressed from above for the assembly process, as the upper end (42) of the spring element (40) bends towards the joining wall (46), the folded-edge (K) enters underneath the upper end (42). When the pressure applied to the top plate (30) from above is interrupted, the upper end (42) advances towards the folded-edge (K), and it begins applying pressure to the folded-edge (K) and it holds the top plate (30) in a fixed position. When the top plate (30) is desired to be dismantled from the body (20), an "F" force is applied to the joining wall (46), which can be accessed through the spacing (50), by means of a tapered or strip-form apparatus (not illustrated in the figure). By means of this process, while the spring element (40) bends backwardly by means of the joining wall (46), the upper end thereof (42) is released from the folded-edge (K) of the top plate (30) and thereby it releases the top plate (30). Thus, the top plate (30) can be released and can be lifted upwardly by being held from the edge thereof.

Claims

1. A cooking device (10) comprising a body (20), a top plate (30) and a spring element (40) pressing the top plate (30) to the body (20) in a manner to attach the top plate (30) to the body (20) in the locked position, wherein

- the top plate (30) is positioned with a predetermined spacing (50) with the body (20), wherein the spacing (50) is accessible from the outside of the device (10), and

- the spring element (40) is configured to release the top plate (30) when a force is applied to a joining wall (46) of the spring element (40) from the outside of the device (10) via the spacing (50), **characterized in, that** the spring element (40) comprises an upper end (42) which bends backwardly and releases the top plate (30) when a force (F) is applied through the spacing (50) to a joining wall (46) of the spring element (40), said upper end (42) extending up to the inner side of the inner folded-edge (K) of the top plate (30), and the spring element (40) is fixed to the body (20) from a lower edge thereof (44) which is at a lower level than the upper end (42) and extends in S form from the upper end (42) towards the body (20).

2. A cooking device according to claim 1, wherein the spring element (40) is positioned in the middle of the body (20).
3. A cooking device according to any one of the preceding claims, wherein one each spring elements (40) are positioned at a region of the body (20) close to the both corners thereof.

Patentansprüche

1. Kochvorrichtung (10) mit einem Gehäuse (20), einer Deckplatte (30) und einem Federelement (40), das die Deckplatte (30) derart an das Gehäuse (20) drückt, dass die Deckplatte (30) in der verriegelten Stellung am Gehäuse (20) befestigt ist, wobei
 - die Deckplatte (30) mit einem vorbestimmten Zwischenraum (50) zum Gehäuse (20) positioniert wird, wobei der Zwischenraum (50) von der Außenseite der Vorrichtung (10) zugänglich ist, und
 - das Federelement (40) dafür konfiguriert ist, die Deckplatte (30) freizugeben, wenn von der Außenseite der Vorrichtung (10) über den Zwischenraum (50) eine Kraft auf eine verbindende Wand (46) des Federelements (40) ausgeübt wird, **dadurch gekennzeichnet, dass** das Federelement (40) ein oberes Ende (42) umfasst, das sich zurückbiegt und die Deckplatte (30) freigibt, wenn durch den Zwischenraum (50) eine Kraft (F) auf eine verbindende Wand (46) des Federelements (40) ausgeübt wird, wobei sich das obere Ende (42) nach oben zur Innenseite der inneren gefalteten Kante (K) der Deckplatte (30) erstreckt und wobei das Federelement (40) an seiner unteren Kante (44) am Gehäuse (20) befestigt ist, die sich auf einer niedrigeren Ebene als das obere Ende (42) befindet und sich in S-Form von dem oberen Ende (42) zum Gehäuse (20) erstreckt.
2. Kochvorrichtung nach Anspruch 1, wobei sich das Federelement (40) in der Mitte des Gehäuses (20) befindet.
3. Kochvorrichtung nach einem der vorhergehenden Ansprüche, wobei sich jeweils ein Federelement (40) in einem Bereich des Gehäuses (20) nahe seiner beiden Ecken befindet.

Revendications

1. Dispositif de cuisson (10) comprenant une carcasse (20), une plaque supérieure (30) et un élément à ressort (40) pressant la plaque supérieure (30) sur

la carcasse (20) de sorte à fixer la plaque supérieure (30) à la carcasse (20) en position verrouillée, dans lequel

- la plaque supérieure (30) est positionnée avec un espacement prédéterminé (50) par rapport à la carcasse (20), dans lequel l'espacement (50) est accessible par l'extérieur du dispositif (10), et
 - l'élément à ressort (40) est configuré afin de relâcher la plaque supérieure (30) lorsqu'une force est appliquée sur une paroi de jonction (46) de l'élément à ressort (40) par l'extérieur du dispositif (10) via l'espacement (50), **caractérisé en ce que** l'élément à ressort (40) comprend une extrémité supérieure (42) qui se courbe vers l'arrière et relâche la plaque supérieure (30) lorsqu'une force (F) est appliquée via l'espacement (50) sur une paroi de jonction (46) de l'élément à ressort (40), ladite extrémité supérieure (42) s'étendant jusqu'à l'intérieur du bord courbé vers l'intérieur (K) de la plaque supérieure (30), et l'élément à ressort (40) est fixé à la carcasse (20) au départ d'un bord inférieur de celle-ci (44) se trouvant à un niveau inférieur à celui de l'extrémité supérieure (42) et s'étendant en décrivant un S au départ de l'extrémité supérieure (42) vers la carcasse (20).

2. Dispositif de cuisson selon la revendication 1, dans lequel l'élément à ressort (40) est positionné au milieu de la carcasse (20).
3. Dispositif de cuisson selon l'une quelconque des revendications précédentes, dans lequel un élément à ressort (40) est positionné en une région de la carcasse (20) proche de ses deux angles.

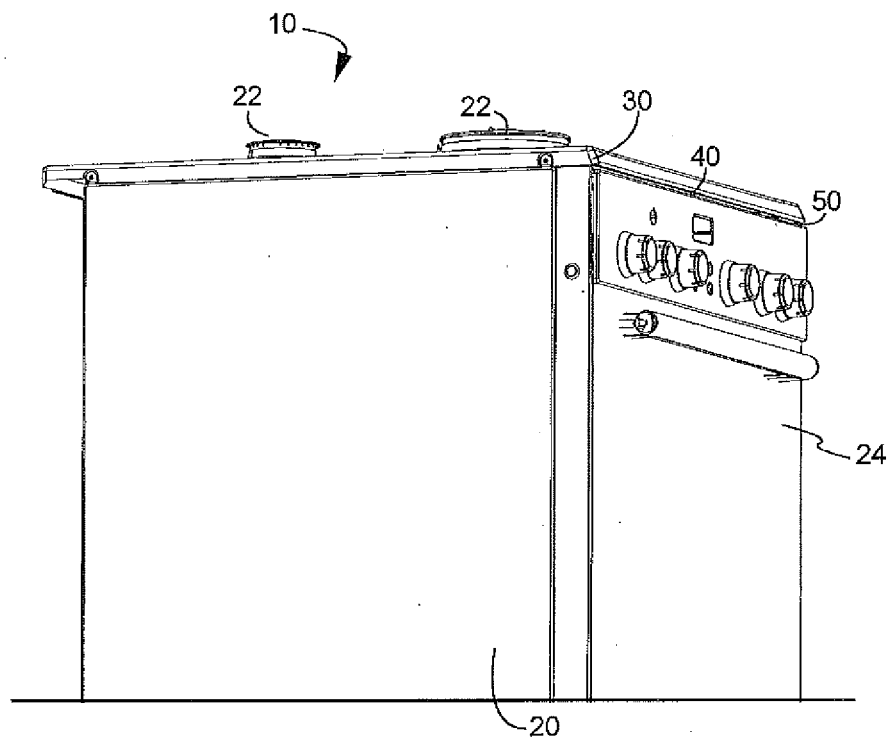


Fig. 1

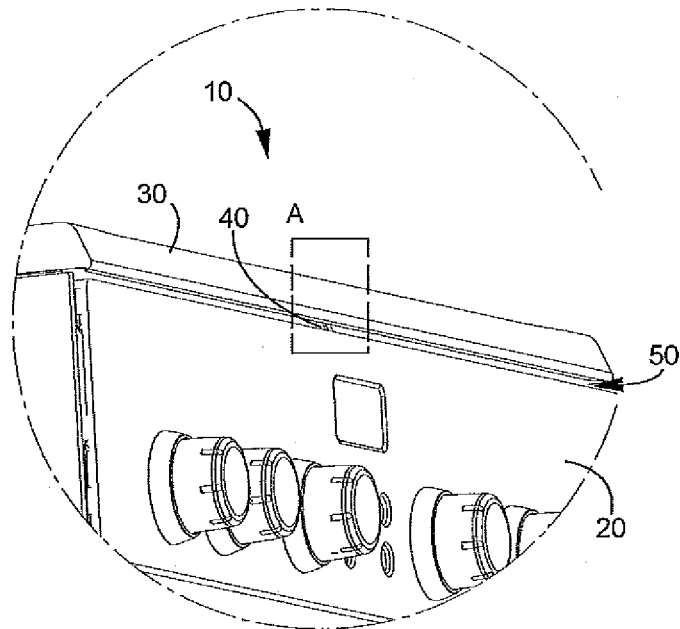


Fig. 2

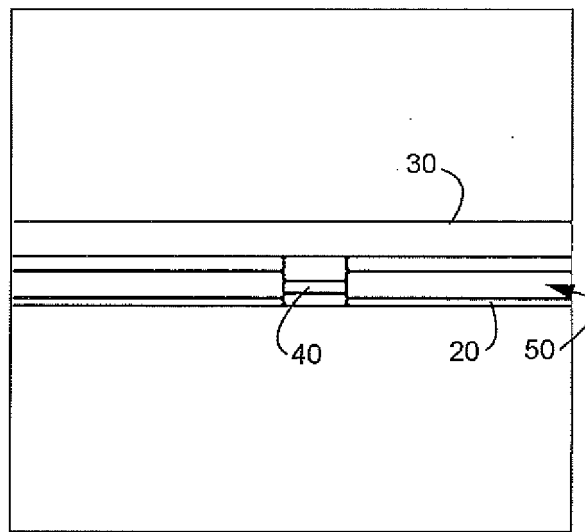


Fig. 3

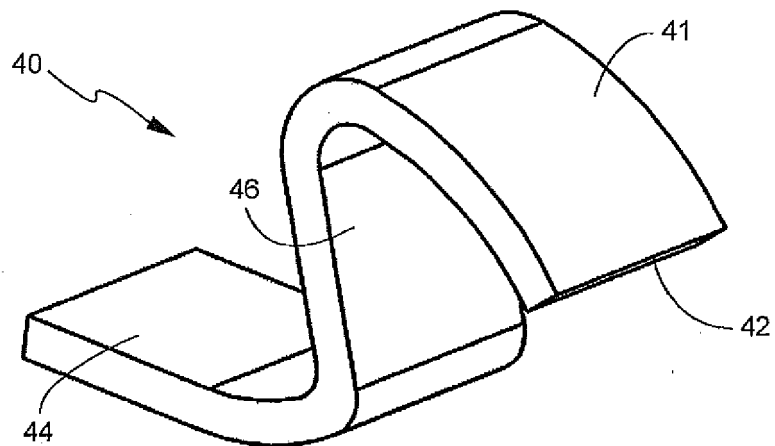
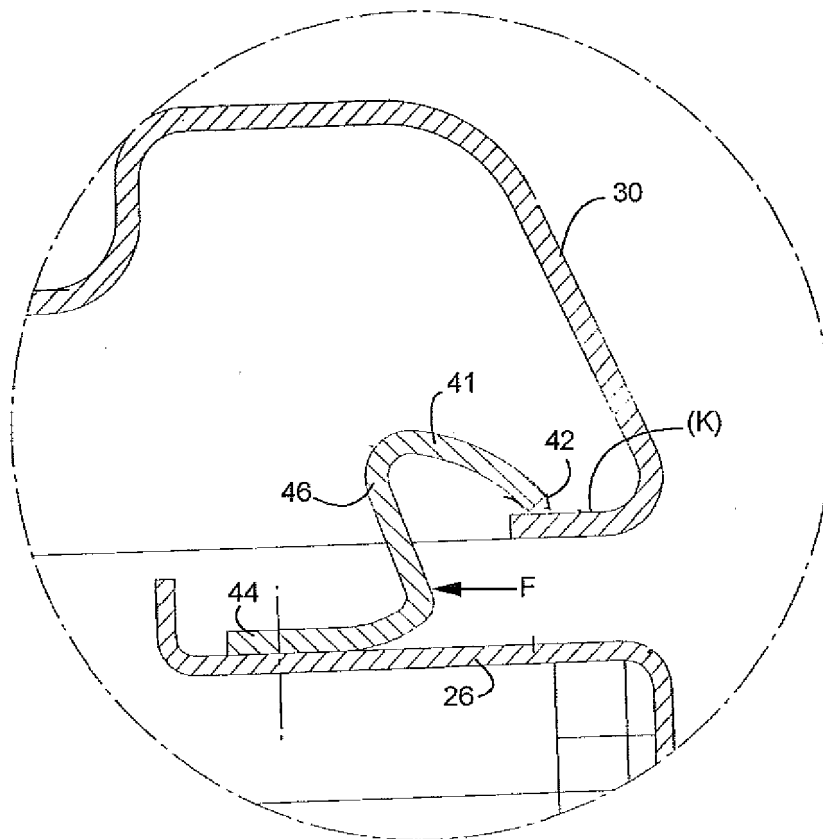
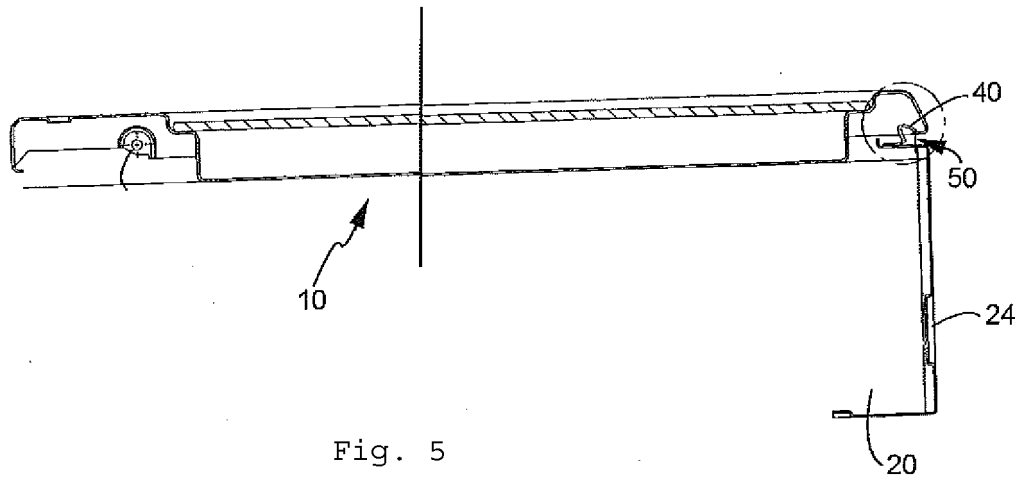


Fig. 4



REFERENCES CITED IN THE DESCRIPTION

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