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(54) **Supply unit**

(57) The supply unit (A) of the sparking system according to the present invention is developed for allowing the spark generators in household ovens to function even in electricity shortages. The oven according to the present invention comprises a supply unit (A), a sparking system including a sparking button electrically connected

to said supply unit (A) as well as at least one spark generator, and a slot (1) provided on the oven into which said supply unit (A) is placed. The supply unit (A) comprises a box (2) into which battery is placed, the front cover (6) of said box (2), a battery (5) disposed in said box, and a couple of conductor terminals (3) contacting each terminal of the battery (5).

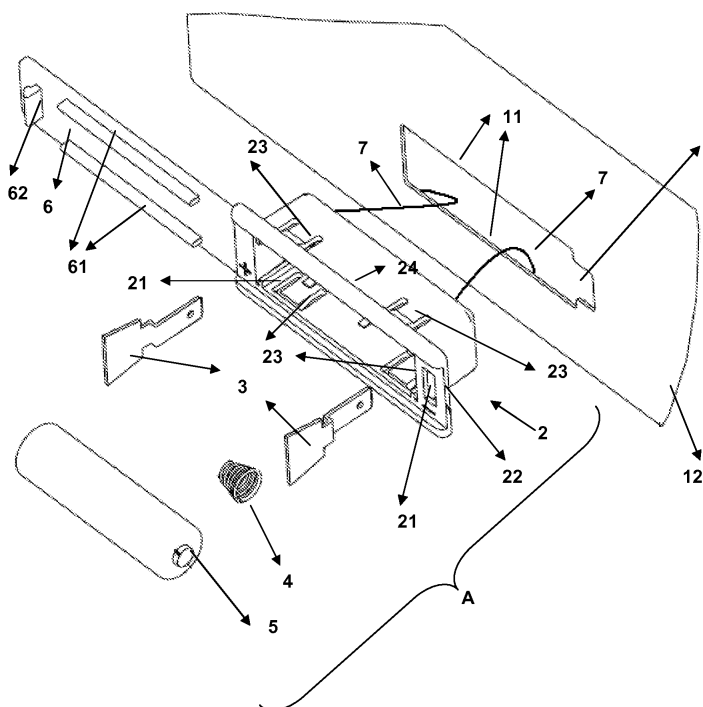


Figure- 1

Description

Technical Field

[0001] The present invention relates to units supplying electricity to spark generators used for igniting the gas burners and to electronic equipment of ovens, particularly of household ovens.

Prior Art

[0002] Various sparking units have been developed in the prior art for igniting the gas burners of household ovens. Such units are typically associated to a sparking button provided on the oven and supplied with network electricity. Once the user turns on the gas flow valve connected to the burner, he/she depresses this button so that a spark generator adjacent to the gas burner is operated and the gas burner starts burning. The problem that when the network electricity is interrupted, such sparking units fail have led to the need of using battery supply units in such type of ovens. There are disclosed sparking units operating with battery and battery supply units of different types in the published patent applications JP62019618 and JP2000320839 for meeting this need. The mechanical structures of these units do not provide a fast assembly to the oven. Therefore, a supply unit for the sparking system of oven burners is developed as detailed hereunder.

Brief Description of Invention

[0003] The oven according to the present invention comprises a supply unit, a sparking system including a sparking button electrically connected to said supply unit as well as at least one spark generator, and a slot provided on the oven into which said supply unit is accommodated. There are made securing tabs on the box of the supply unit into which a battery is disposed, so that once that box is placed into said slot, these securing tabs avoid its removal from said slot. While the box is placed into the slot, the edges of the slot contact the outwardly-sloped surface of each securing tab.

[0004] The securing tab is such a part that can be bent to some extent towards the interior and exterior of the box. Therefore, as the box is pushed into the slot, each tab becomes flexed towards the interior of the box. Once the box is completely pushed into the slot, the rabbet provided all around the front part of the box is leaned against the connection surface where the slot is present. In this position, the edges are freed from each such securing tab. When there remains no pressure on the securing tab, it flexes towards the exterior of the box and remains at the rear of the slot. In this position the edges making up the periphery of the slot are positioned between the rabbet and at least one securing tab and avoid the removal of the box from the slot. Unless the securing tab is flexed at the rear of the slot into the box, it is im-

possible to remove the box from the slot. In brief, the present invention provides a simple and fast assembly of the box into a slot provided on the oven. Thanks to the structure of the securing tabs on the box used, the box is prevented from being removed out from the slot by itself.

Objective of Invention

[0005] The objective of the present invention is to produce a supply unit for the sparking system, such unit allowing the use of spark generators even when there is electricity shortage in the household ovens.

[0006] A further objective of the present invention is to realize the assembly of the supply unit to the oven in a simple and fast manner.

[0007] Another objective of the present invention is to allow the assembly operation to be performed without making use of any connection elements.

[0008] Yet another objective of the present invention is to prevent the box in the supply unit from being removed from the slot by itself thanks to the structure of the securing tabs.

[0009] Still another objective of the present invention is to supply electricity to other electronic equipment in the oven by means of said supply unit.

Description of Figures

[0010] An illustrative embodiment of the subject supply unit is illustrated in annexed figures briefly described hereunder.

[0011] Figure 1 is a perspective view of the components of the supply unit prior to assembly.

[0012] The parts in said figures are individually enumerated as following:

- Supply Unit (A)
- Slot (1)
- Box (2)
- Terminal (3)
- Spring (4)
- Battery (5)
- Cover (6)
- Cable (7)
- Edge (11)
- Connection surface (12)
- Channel (21)
- Tab slot (22)
- Securing tab (23)
- Rabbet (24)
- Tightening element (61)
- Securing tab (62)

Description of Invention

[0013] The supply unit (A) connected to the sparking system and to the electronic equipment, as illustrated in

Figure 1 prior to assembly, is developed for allowing the spark generators and electronic equipment provided in ovens to fulfill their functions even when there is electricity shortage. The oven according to the present invention comprises a supply unit (A) and a slot (1) on the oven into which said supply unit (A) is placed. This oven further comprises a sparking button electrically connected to the unit (A), as well as a spark generator and/or electronic equipment (not illustrated in the figure).

[0014] The supply unit (A) comprises a box (2) into which battery is placed, the front cover (6) of said box (2), a battery (5) disposed in said box, a couple of conductor terminals (3) contacting each terminal of the battery (5), and a spring (4) jamming the battery (5) within the box for avoiding the interruption of the battery's (5) contact with the terminals (3). Each terminal (3) is placed in the channels (21) provided at both sides of each box (2). There is further provided a slot into which the spring (4) is placed at the side where one of the terminals (3) is present. By embodying at least one of the terminals (3) so as to be flexible in the form of a spring, it is also possible to eliminate the use of said spring (4). When the supply unit (A) is assembled, the battery (5) is placed into the box (2) so that the terminals of the battery contact with said terminals (3). The cover (6) closes the box (2) so that at least one tightening element (61) provided on its inner side of said cover (6) is leaned against the battery (5) and at least one securing tab (62) provided on the cover (6) is introduced into at least one tab slot (22) on the edge of the box (2).

[0015] Two cables (7) introduced from the rear of the box (2) are connected to said terminals (3). These cables (7) are passed through the slot (1) and are used to supply electricity to spark generator through the sparking button.

[0016] Once the box (2) is placed into said slot (1), these securing tabs (23) prevent the box from removing out of the slot (1). When the box (2) is placed into said slot (1), the edges (11) of the slot (1) contact the outwardly-protruding sloped surface of each securing tab (23). The securing tab (23) is such a piece, of which at least one edge is integrated to the lateral surface of the box, and the other edges are exposed and are flexible to some extent towards the interior and exterior of the box (2). Therefore, as the box (2) is pushed into the slot (1), each tab (23) becomes flexed towards the interior of the box (2). Once the box (2) is completely pushed into the slot (1), the rabbet (24) provided all around the front part of the box (2) is leaned against the connection surface (12) where the slot (1) is provided. In this position, the edges (11) are freed from each such securing tab (23). When there remains no pressure on the securing tab (23), it flexes towards the exterior of the box and remains at the rear of the slot (1). In this position the edges (11) making up the periphery of the slot (1) are positioned between the rabbet (24) and at least one securing tab (23) and avoid the removal of the box (2) from the slot (1). Unless the securing tab (23) is flexed at the rear of the slot (1) into the box (2), it is impossible to remove the box (2)

from the slot (1).

[0017] In an exemplary embodiment of the present invention, when the cover (6) is closed onto the box (2), the battery (5) becomes positioned within the box with a certain spacing to the lateral surfaces of the box, since a couple of jamming or tightening elements (61) lean against the side of the cylindrically-shaped battery (5) from below and above. The reason of this is that at least one securing tab (23) provided on the lateral surfaces of the box (2) is allowed for resilience towards the interior of the box.

[0018] Ovens with electronic controls and displays can be given as an example for another embodiment of the present invention. It is possible to make use of the supply unit (A) not only for sparking purposes, but also for supplying electricity to the electronic control units and displays of ovens. By using batteries (5) of different capacities according to the electricity requirement of equipment to be used, such requirements can be met. The said cables (7) are connected to the oven's electronic control units and displays and used for supplying electricity to such equipments in the manner as described above for the exemplary embodiment.

[0019] The present invention provides the simple and fast assembly of the box (2) into a slot (1) provided on the oven. Thanks to the structure of the securing tabs (23) used; the box (2) is prevented from being removed out of the slot by itself.

Claims

1. An oven comprising a supply unit (A) including a box (2) into which battery is placed and a slot (1) into which said box (2) is placed, **characterized by** comprising at least one securing tab (23) on at least one lateral surface of said box (2), said tab (23) being flexible to some extent towards the interior and exterior of the box (2) and having an outwardly-protruding surface; a rabbet (24) disposed all around the front part of the box (2) so as to lean against the connection surface (12) where the slot is provided (1); and in that the edges (11) making up the periphery of the slot (1) are located between the rabbet (24) and at least one securing tab (23), when the box (2) is placed into the slot (1).
2. An oven according to Claim 1, **characterized in that** said supply unit (A) comprises at least one battery (5) placed into the box.
3. An oven according to Claim 2, **characterized in that** said supply unit (A) comprises a couple of conductive terminals (3) contacting both terminals of the battery (5) in the box.

4. An oven according to Claim 3, **characterized in that** said supply unit (A) comprises at least one spring (4) jamming the battery (5) in the box so that the battery's (5) contact with said terminals (3) is not interrupted. 5
5. An oven according to Claim 3, **characterized in that** said supply unit (A) comprises two cables (7) in connection with the terminals (3) in the box (2). 10
6. An oven according to Claim 5, **characterized in that** said cables (7) are connected to the sparking button and to the spark generator for the gas burners of the oven. 15
7. An oven according to Claim 1, **characterized in that** said supply unit (A) comprises a front cover (6) of the box (2). 20
8. An oven according to Claim 7, **characterized in that** said cover (6) comprises at least one securing tab (62) securable to at least one tab slot (22) at the edge of the box (2). 25
9. An oven according to Claim 7, **characterized in that** when said supply unit (A) is in the assembled state, the inner side of said cover (6) is provided with at least one tightening element (61) which leans against the battery (5). 30
10. An oven according to Claim 1, **characterized in that** the edges (11) of the slot (1) are of a width providing contact to the outwardly-projecting sloped surface of each securing tab (23), when the box (2) is placed into the slot (1). 35
11. An oven according to Claim 1, **characterized in that** at least one edge of said securing tab (23) is integrated to the lateral surface of the box (2) and the other edges are exposed. 40
12. An oven according to Claim 5, **characterized in that** said cables (7) are connected to the electronic control units and displays of the oven. 45

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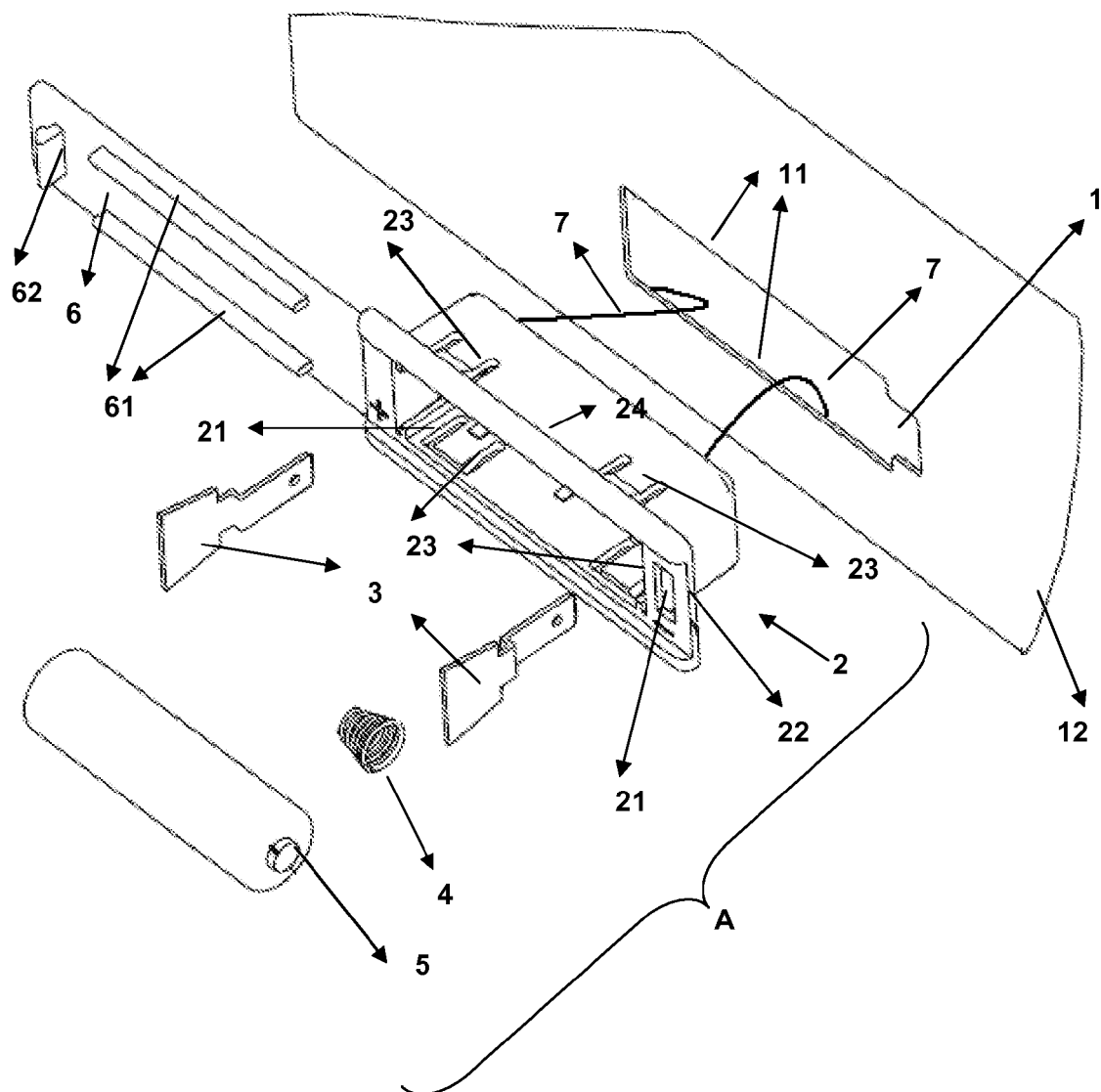


Figure- 1

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- JP 62019618 B [0002]
- JP 2000320839 B [0002]