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ELECTRIC COOKING DEVICE



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BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a cooking device,
05 and more particularly to an electric cooking device.

2. Description of the Prior Art

Typical electric cooking devices may not be used
for solidly retaining the food to be cooked within the
container.

10 The present invention has arisen to mitigate
and/or obviate the afore-described disadvantages of the
conventional electric cooking devices.

SUMMARY OF THE INVENTION

The primary objective of the present invention is
15 to provide an electric cooking device for solidly
retaining the food to be cooked within the container.

The other objective of the present invention is to
provide an electric cooking device for retaining the
food of various amount within the container.

20 In accordance with one aspect of the invention,
there is provided an electric cooking device comprising
a base, a tray received in the base and including a
bottom portion, a first heater attached to the bottom
portion of the tray, a casing pivotally secured to the
25 tray at a pivot device, and a cover secured to the
casing. The food to be cooked may be received in the
tray and may be solidly retained between the tray and

the casing such that the oil and the steam and the oil vapor may be suitably retained within the tray and the casing.

05 The base includes a front portion having a protrusion provided thereon, and includes a switch attached to the protrusion of the base for controlling or for operating the electric cooking device. The base includes a timer attached to the protrusion of the base.

10 The base includes a peripheral wall, the tray includes a peripheral fence having a peripheral flange extended outward therefrom for engaging with the peripheral wall of the base. A second heater is further secured to the casing for further heating the food
15 contained in the tray.

The pivot device includes a duct provided on the tray, and two pins provided on the casing and received in the duct. The casing includes a projection provided thereon having a first of the pins extended therefrom,
20 and includes a seat provided thereon, the pivot device includes a block secured to the seat and having a second of the pins extended therefrom. The duct includes a flap extended therefrom for engaging with the casing. A knob is attached to the cover for opening
25 the cover.

The duct includes an oblong hole formed therein. The pins are loosely received in the oblong hole of the

duct for allowing the casing and the cover to be adjusted up and down relative to the tray and for allowing the various amount of food to be retained in the tray and the casing by slidably adjusting the casing relative to the tray.

Further objectives and advantages of the present invention will become apparent from a careful reading of a detailed description provided hereinbelow, with appropriate reference to accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a partial exploded view of an electric cooking device in accordance with the present invention;

FIG. 2 is a perspective view of the electric cooking device, in which the cover is closed;

FIG. 3 is a perspective view of the electric cooking device, in which the cover is opened:

FIG. 4 is a partial exploded view of the electric cooking device, in which the lower tray is disposed upside-down;

FIG. 5 is a cross sectional view taken along lines 5-5 of FIG. 2;

FIG. 6 is a cross sectional view similar to FIG. 5, illustrating the application of the electric cooking device; and

FIG. 7 is a side view of the electric cooking device, in which a portion of the base and a portion of

the cover have been cut off for illustrating the inner structures of the base and the cover.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawings, and initially to FIGS.
05 1-4, an electric cooking device in accordance with the present invention comprises a base 1 including a peripheral wall 10 extended upward from the peripheral portion thereof for defining a chamber 18 therein, and including a protrusion 11 extended forward therefrom.
10 and including an electric box 12 provided in the rear and bottom portion thereof for receiving electric wires therein, for example, and for coupling to the electric power source. The base 1 includes a pair of ears 13 laterally extended from the side portions thereof, and
15 includes four studs 14 extended in the chamber 18 thereof, and includes a switch 15 and a timer 16 attached to the protrusion 11.

A tray 2 is received in the chamber 18 of the base 1 and includes a peripheral fence 20 having a
20 peripheral flange 21 extended laterally outward from the outer middle portion of the peripheral fence 20 for engaging on top of the peripheral wall 10 of the base 1. The tray 2 includes four studs 24 extended downward therefrom (FIG. 4). The tray 2 may be secured to the
25 base 1 with fasteners 17 which may be engaged with the studs 14, 24 of the base 1 and the tray 2. A heating member, such as an electric heater 25 is attached to

the bottom of the tray 2 or disposed between the tray 2 and the base 1, for heating the food contained in the space 27 of the tray 2 (FIG. 3). The tray 2 includes a duct 22 having an oblong hole 26 formed therein and
05 having a flap 23 extended upward therefrom.

A cover 3 has a ring or knob 32 secured to the front portion thereof with one or more fasteners 31, and includes four studs 33 provided therein. A casing 4 includes a peripheral fence 40 having a peripheral
10 flange 41 extended laterally outward from the outer middle portion of the peripheral fence 40 for engaging with the peripheral wall of the cover 3. The casing 4 includes a number of holes 49 formed therein for receiving fasteners 5 which may secure the casing 4 in
15 the cover 3 and which may be engaged with the studs 33 of the cover 3. A heating member, such as an electric heater 42 is attached to the top of the casing 4 for heating the food contained in the space 27 of the tray 2 and in the space 70 (FIGS. 3, 5 and 6). The casing 4
20 includes a projection 43 having a pin 44 extended therefrom and extended inward of the oblong hole 26 of the duct 22, and includes a seat 45 extended therefrom for supporting a block 46. The block 46 may be secured to the seat 45 with one or more fasteners 48 and
25 includes a pin 47 extended therefrom and extended inward of the oblong hole 26 of the duct 22, for pivotally securing the casing 4 and thus the cover 3 to

the tray 2 and the base 1 at the pivot pins 44, 47, and for allowing the cover 3 and the casing 4 to be opened relative to the tray 2 and the base 1.

As best shown in FIGS. 5 and 6, the oblong hole 26 of the duct 22 has a size greater than the pins 44, 47, such that the pins 44, 47 may be loosely received in the oblong hole 26 of the duct 22 and such that the pins 44, 47 may be moved along the oblong hole 26 of the duct 22. Various amount of food 80, 81 may thus be received in the tray 2 and retained between the tray 2 and the casing 4 due to the sliding engagement of the pins 44, 47 in the oblong hole 26 of the duct 22 and by the adjustment between the casing 4 and the tray 2. The inner peripheral portion of the peripheral fence 40 of the casing 4 is engaged with the outer peripheral portion of the peripheral fence 20 of the tray 2 for solidly retaining the food in the tray 2 and the casing 4 and for preventing the oil and the steam and the oil vapor from flowing out of the tray 2 and the casing 4.

Referring next to FIG. 7, the tray 2 may be heated by the heater 25 in order to cook the food received in the space 27 of the tray 2. The switch 15 may actuate either or both of the electric heaters 25, 42 to heat and to cook the food. The time 16 may control the on and off and may control the operation time of the electric power supplied to the electric cooking device. The flap 23 may engage with the cover 3 or the casing 4

for limiting the rotational movement of the casing 4
and the cover 3 relative to the tray 2 and the base 1.

Accordingly, the electric cooking device in
accordance with the present invention may be used for
05 solidly retaining the food to be cooked within the
container, and may be used for retaining the food of
various amount within the container.

Although this invention has been described with a
certain degree of particularity, it is to be understood
10 that the present disclosure has been made by way of
example only and that numerous changes in the detailed
construction and the combination and arrangement of
parts may be resorted to without departing from the
spirit and scope of the invention as hereinafter
15 claimed.

CLAIMS

1. An electric cooking device comprising:
 - a base,
 - a tray received in said base and including a bottom portion,
 - 05 a first heater attached to said bottom portion of said tray.
 - a casing pivotally secured to said tray at a pivot device, and
 - a cover secured to said casing.
2. The electric cooking device according to claim 1, wherein said base includes a front portion having a protrusion provided thereon, and includes a switch
04 attached to said protrusion of said base.
3. The electric cooking device according to claim 2, wherein said base includes a timer attached to said
03 protrusion of said base.
4. The electric cooking device according to claim 1, wherein said base includes a peripheral wall, said tray includes a peripheral fence having a peripheral flange extended outward therefrom for engaging with
05 said peripheral wall of said base.
5. The electric cooking device according to claim 1 further comprising a second heater secured to said
03 casing.
6. The electric cooking device according to claim 1, wherein said pivot device includes a duct provided

on said tray, and two pins provided on said casing and
04 received in said duct.

7. The electric cooking device according to claim
6, wherein said casing includes a projection provided
thereon having a first of said pins extended therefrom,
and includes a seat provided thereon, said pivot device
05 includes a block secured to said seat and having a
second of said pins extended therefrom.

8. The electric cooking device according to claim
6, wherein said duct includes a flap extended therefrom
03 for engaging with said casing.

9. The electric cooking device according to claim
02 1 further comprising a knob attached to said cover.

10. An electric cooking device comprising:

a base,

a tray received in said base, said tray including
a duct provided thereon, said duct including an oblong
05 hole formed therein,

a first heater attached to said tray,

a cover, and

a casing secured in said cover, said casing
including a pair of pins provided thereon and received
10 in said oblong hole of said duct for pivotally securing
said casing to said tray,

said pins being loosely received in said oblong
hole of said duct for allowing said casing and said
cover to be adjusted up and down relative to said tray.

11. The electric cooking device according to claim
10, wherein said casing includes a projection provided
thereon having a first of said pins extended therefrom,
and includes a block having a second of said pins
05 extended therefrom.

12. The electric cooking device according to claim
11, wherein said casing includes a seat provided
thereon, said block is secured to said seat and has
04 said second pin extended therefrom.