



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
02.10.2002 Bulletin 2002/40

(51) Int Cl.7: **H05B 3/68**, H05B 3/74,
H05B 6/06

(21) Application number: **02425160.5**

(22) Date of filing: **15.03.2002**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR
Designated Extension States:
AL LT LV MK RO SI

(71) Applicant: **Technowind S.P.A.**
60044 Fabriano (AN) (IT)

(72) Inventor: **Mezzopera, Ennio**
60044 Fabriano (AN) (IT)

(30) Priority: **26.03.2001 IT AN010015**

(74) Representative: **Baldi, Claudio**
Piazza Ghislieri, 3
60035 Jesi (Ancona) (IT)

(54) **Electrical cooktop equipped with electronic device for memorisation of personalised cooking cycles.**

(57) The present invention refers to an electrical cooktop assisted by an electronic control unit actuated by means of a "Memory" button that can memorise the cooking cycles (as sample sequences) carried out by

the user on specific hot plates of the cooktop, and send the instructions necessary to automatically reproduce the sample sequences on the hot plates used during the original memorisation to the various controls of the hot plates.

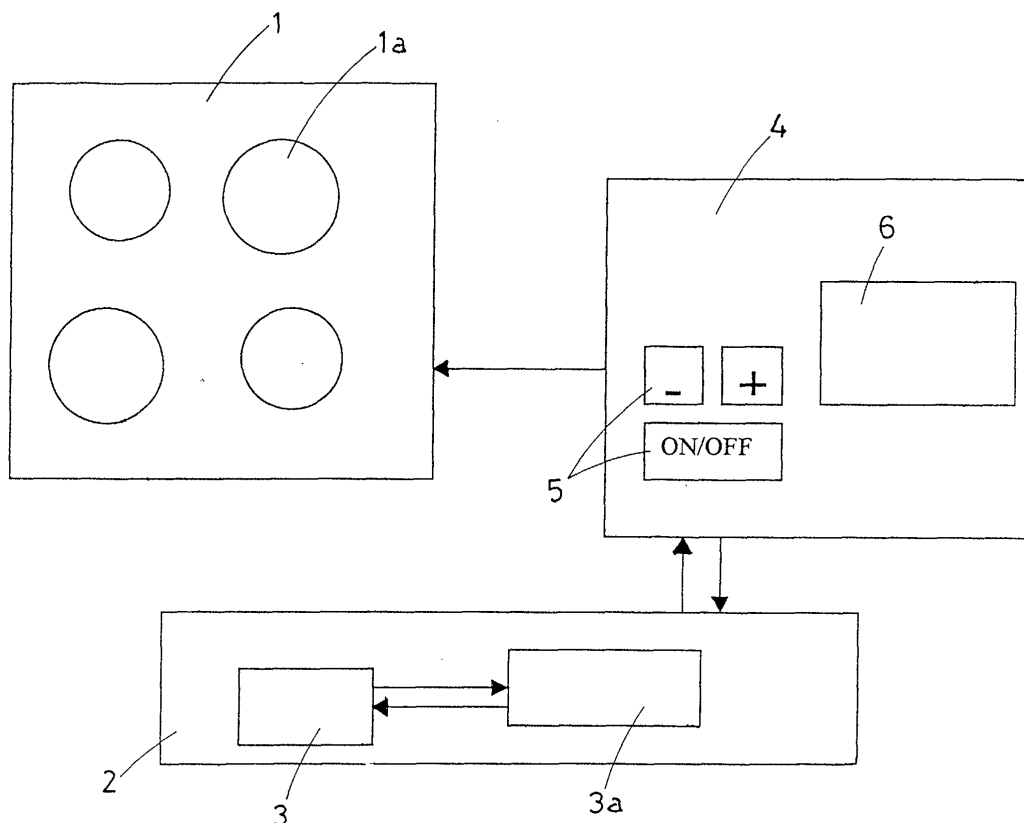


FIG. 2

Description

[0001] The present patent application refers to a cooktop, of the type in which the plates are heated electrically or by magnetic induction, equipped with an electronic device capable of memorising personalised cooking cycles.

[0002] As it is known, household appliances (such as washing machines, dishwashers, ovens and similar appliances) capable of automatically reproducing standardised operation cycles set by the manufacturer on the electronics contained in the appliances have been available on the market for long.

[0003] The existence of household appliances able to memorise and repeat operation cycles set by the user according to his/her specific preferences is not known on the market.

[0004] The purpose of the present invention is to fill the gap in the sector of household appliances by designing a cooktop able to memorise specific cooking modes set by the user from time to time on each hot plate, with reference to the power used in the cooking phases and to the duration of the phases of the cooking cycle.

[0005] This result has been obtained by equipping the cooktop of the invention with a suitable electronic device; the capability of the device to carry out the sequential analytical memorisation of the steps of a cooking cycle is extremely important in practical terms since, as all those who are skilled in the sector know, during a cooking process it is very often impossible to maintain the same power throughout the entire process, being recommended to alternate "low flame" phases with "high flame" phases.

[0006] Practically speaking, before starting the execution of a specific cooking operation for the first time, the person using a hot plate of the cooktop of the invention only needs to set the electronic device so that it will memorise all controls (on/off, power used during the different cooking phases) given to the plate in order to obtain perfect cooking results.

[0007] During the first operating sequence (that can be defined as "sample sequence") the user must constantly supervise the entire cooking process in order to set the cooking parameters personally.

[0008] During the reproduction of the sample sequence the user can disregard the cooking process completely and be sure of obtaining perfect cooking results, thanks to the settings that were memorised in the electronic device of the invention.

[0009] According to this new logic the user can memorise a new sample sequence on the electronic device for each plate that he prepares on the cooktop for the first time.

[0010] For this reason the memory of the electronic device of the cooktop of the invention will contain a sample sequence to cook meat, a sample sequence to cook pasta, a sample sequence to cook vegetables and so on.

[0011] It must be said that each sample sequence of the memory is associated with the specific hot plate used for the original memorisation. This means that all sample sequences can be automatically reproduced only on the same plates used during the memorisation phase.

[0012] Moreover, each user can cancel a sample sequence contained in the cooktop memory as well as modify it to memorise it again as a new sample sequence.

[0013] For major clarity the description of the invention continues with reference to the enclosed drawings, which are intended for purposes of illustration and not in a limiting sense, whereby:

- fig. 1 is the block diagram of a cooking sample sequence that can be memorised in the electronic device provided with the cooktop of the invention;
- fig. 2 is the block diagram of the cooktop of the invention.

[0014] Fig. 1 is a schematic representation of the analytical sequence of the different phases of a cooking process - conventionally defined as "Cooking A" - with total duration of 20 minutes. This figure shows that:

- the first operating phase provides for switching on the hot plate;
- the second phase provides for giving the maximum power to the hot plate for five minutes;
- the third phase provides for giving the minimum power to the hot plate for ten minutes;
- the fourth phase provide for giving the maximum power to the hot plate for additional five minutes;
- the fifth phase provides for switching off the hot plate.

[0015] As mentioned earlier, the instructions for the five cooking phases can be memorised in the electronic device supplied with the cooktop of the invention by enabling the "Memory" function before switching on the hot plate.

[0016] In order to reproduce the same cooking cycle, the user must switch on the hot plate on which Cooking "A" was originally carried out as sample sequence and enable the "Memory" function again. In this way the plate will be able to reproduce the same sample sequence exactly and automatically

[0017] Fig. 2 is a schematic representation of the cooktop of the invention (1) interfaced with the electronic device (2) responsible for the memorisation and automatic reproduction of the cooking cycles. The electronic device (2) is composed of a control unit (3) with memory (3a).

[0018] The control unit (3) is connected with the control panel (4) of the cooktop (1) of the invention that, apart from the traditional controls (5) for switching on, switching off and adjusting the hot plates, also houses

a "Memory" button (6) responsible for the functions illustrated with reference to Figure 1.

[0019] Whenever the user wants to memorise a cooking cycle as sample sequence on one of the hot plates of the cooktop (1), first of all he must give the command to the control unit (3) before starting the cooking cycle. 5

[0020] The command is given by pressing the "Memory" button (6) located on the control panel (4) and then switching on one (1a) of the plates of the cooktop (1) with the control (5) normally located on the control panel (4). 10

[0021] In this way the control unit (3) will memorise the operations carried out on the hot plate (1a) from the moment onwards until the same is switched off on the internal memory (3a). 15

[0022] If the user wants to recall a memorised cooking cycle (or sample sequence), he simply needs to execute the following operations in sequence: press the switch (5) of the plate (1a) on which the sample sequence was carried out and then press the "Memory" button (6) that will send a command to the control unit (3) in order to automatically reproduce the sample sequence. 20

[0023] The control unit (3) will recall the parameters of the cooking cycle on the memory (3a) and send them to the control (5) of the plate (1a) so that it can reproduce the steps of the sample sequence shown in blocks in Fig. 1, with reference to switching on, switching off, duration of each cooking cycle and power. 25

30

Claims

1. Electrical cooktop of the type provided with hot plates, **characterised by** the fact that it is equipped with an electronic device (3) with memory (3a) interfaced between the hot plates and the controls (5); it being provided that, when suitably actuated with a "Memory" button (6) located on the control panel (4) of the cooktop (1) of the invention, the electronic device (3) can memorise the cooking cycles (as sample sequences) carried out by the user on specific hot plates and send the instructions (regarding switching on, switching off, duration and power of each cooking phase) necessary to automatically reproduce the sample sequence on the hot plates used during the original memorisation process to the controls (5) of the hot plates. 35 40 45

50

55

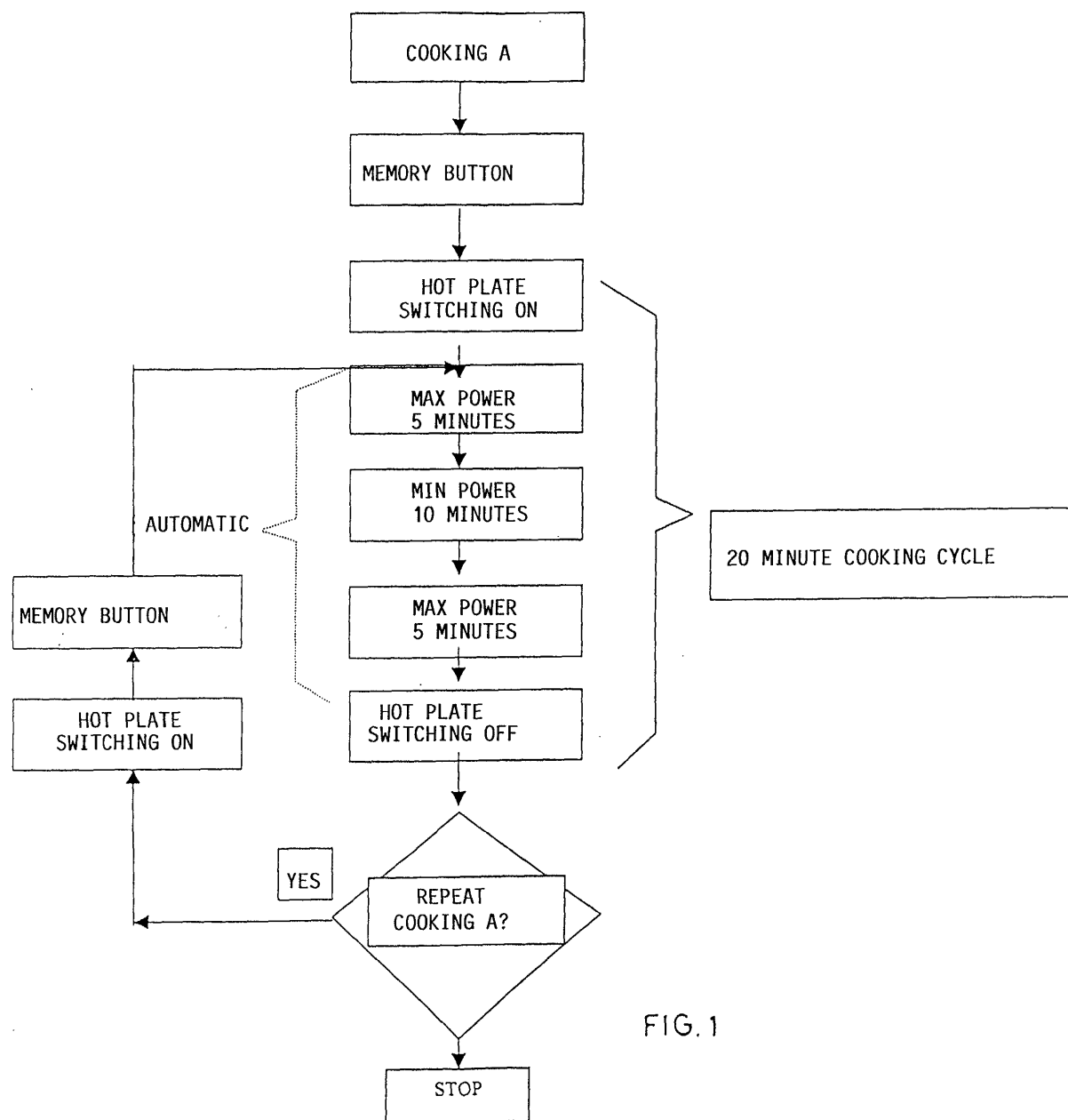


FIG.1

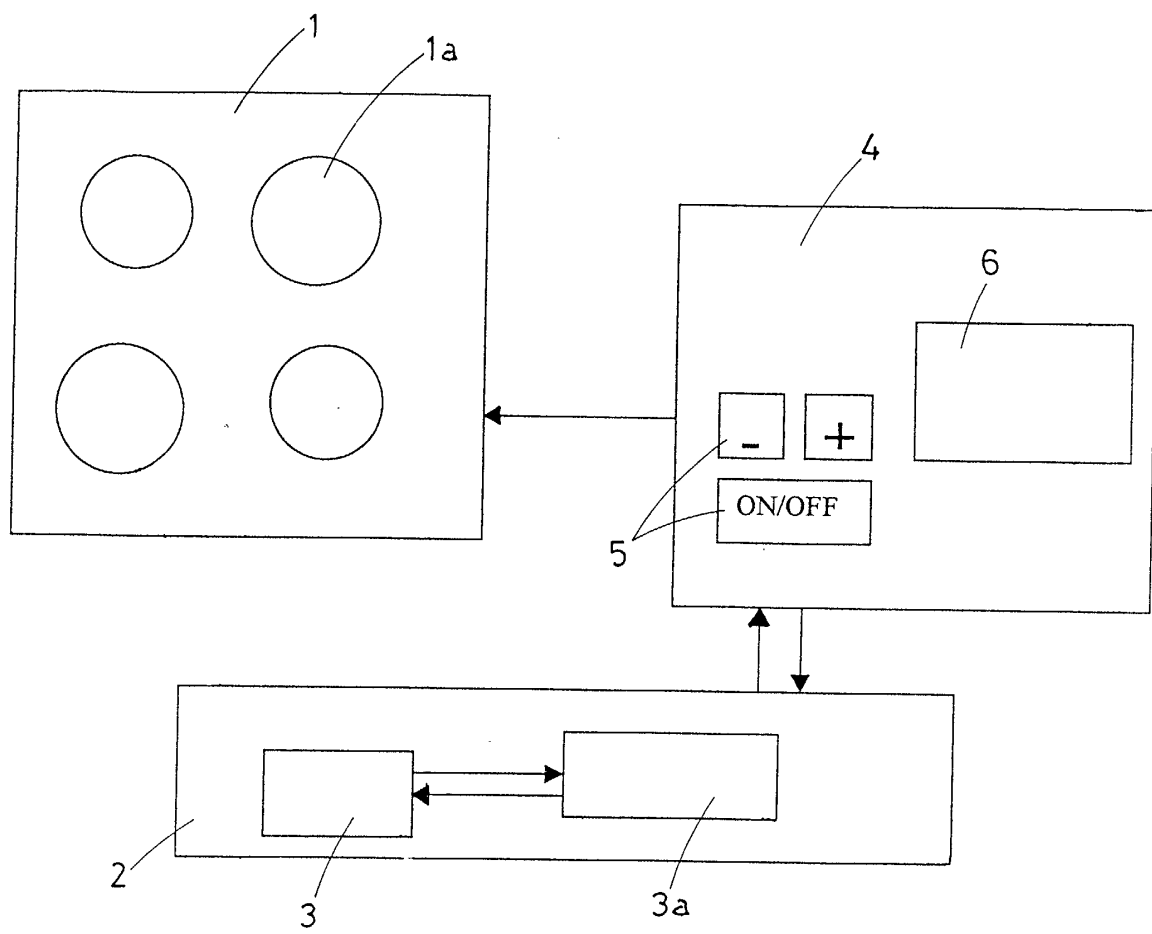


FIG. 2