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(54) **Electric heater assembly**

(57) An electric heater assembly comprises at least one electric heater, each of which incorporates at least one sensing means (8) for use in detecting a cooking vessel (9) on a cooking plate (7) overlying the heater. The sensing means (8) is provided for the purpose of effecting selective energising and/or de-energising of one or more electric heating elements (3) in the or each heater. The or each sensing means (8) comprises an electrically conductive sensor loop. The or each sensor loop is connected to a circuit (100) comprising a non-oscillatory resonant circuit (102, 103), for the or each sensor loop, driven by an oscillatory circuit (101) such that the or each resonant circuit is operated at within  $\pm$

15 percent of its resonant frequency, the resonant circuit not forming part of the oscillatory circuit (101). A transformer (104, 105, 106), associated with the or each sensor loop (8), has a first winding (105) connected in the resonant circuit and a second winding (106) connected to, or integral with, its associated sensor loop (8). Means (110, 111) is provided to monitor change in a parameter associated with electric current in and voltage across the or each resonant circuit (102, 103) as a result of placement and/or removal of a cooking vessel (9) on and/or from the cooking plate (7) and to effect selective energising and/or de-energising of one or more electric heating elements (3) in the or each heater.

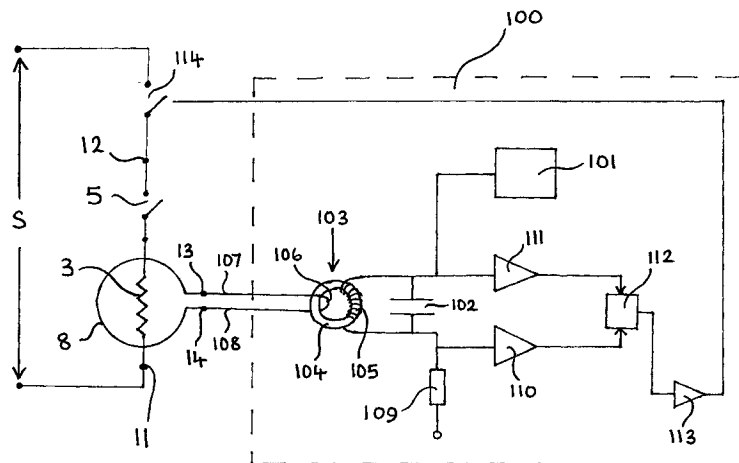


FIG. 4



European Patent  
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EUROPEAN SEARCH REPORT

Application Number  
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| DOCUMENTS CONSIDERED TO BE RELEVANT  |   |   |  |
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| Category   | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim   | CLASSIFICATION OF THE APPLICATION (Int.Cl.7) |
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| The present search report has been drawn up for all claims                       |   |   |  |
| Place of search  |   | Date of completion of the search  | Examiner                                     |
| MUNICH   |   | 30 July 2003  | Kopycki, P                                   |
| CATEGORY OF CITED DOCUMENTS  |   |   |  |
| X : particularly relevant if taken alone   |   | T : theory or principle underlying the invention                        |  |
| Y : particularly relevant if combined with another document of the same category |   | E : earlier patent document, but published on, or after the filing date |  |
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EPO FORM 1503 03/02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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EP 00 30 3417

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 The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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