



(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:  
01.10.2003 Bulletin 2003/40

(51) Int Cl.7: H05B 3/74

(43) Date of publication A2:  
02.11.2000 Bulletin 2000/44

(21) Application number: 00303417.0

(22) Date of filing: 25.04.2000

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

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(30) Priority: 27.04.1999 GB 9909636

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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.

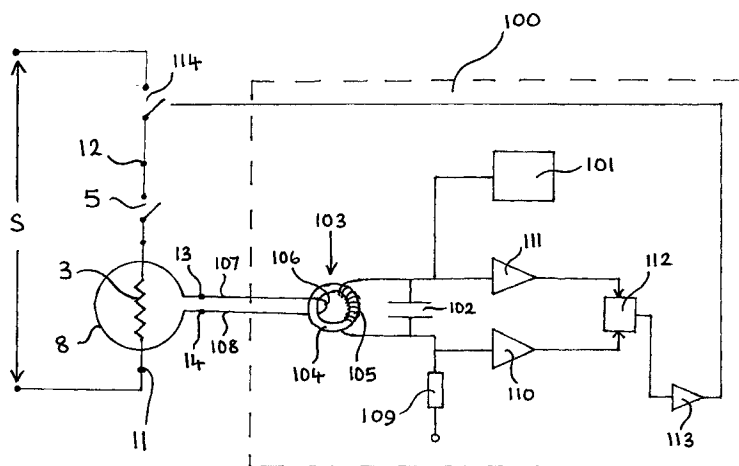


FIG. 4



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 00 30 3417

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A	* column 1, line 48-67 - column 10 *	1	
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A	* page 3 - page 8; claims 1,7 *	1	
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A	* column 2, line 39-68 - column 8; claim 1 *	1	
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A	* column 3, line 56-62 - column 16, line 24-35; claim 1 *	1	
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)  H05B F24C G01V H02M
Place of search <b>MUNICH</b>		Date of completion of the search <b>30 July 2003</b>	Examiner <b>Kopycki, P</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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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  
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