

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: **84302907.5**

(51) Int. Cl.⁴: **B 23 K 3/04**

H 05 B 3/12, H 05 B 6/08

(22) Date of filing: **30.04.84**

(30) Priority: **26.05.83 US 498282**

(43) Date of publication of application:
09.01.85 Bulletin 85/2

(88) Date of deferred publication of search report: **17.12.86**

(84) Designated Contracting States:
AT BE CH DE FR GB IT LI NL SE

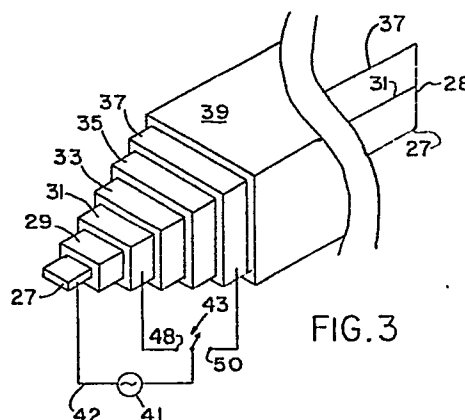
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(54) **Multiple temperature autoregulating heater.**

(57) A multiple temperature autoregulating heater comprises a laminate of a conductive material, a first ferromagnetic layer on a surface of the conductive material and a second ferromagnetic layer insulated from the first layer. The layers have different Curie temperatures. A switching device is provided to connect one or the other of the layers to be energized from a constant current source. The device autoregulates in the region of the Curie temperature of the selected layer. The conductive material may be non-magnetic (copper) or a low resistivity ferromagnetic material having a Curie temperature well above the Curie temperatures of the autoregulating layers. In the latter case, a thin layer of copper or the like may be interposed between the surface and the conductive ferromagnetic material to further increase conductivity. The device may be provided with multiple ferromagnetic layers to provide multiple different autoregulating temperatures.





European Patent
Office

EUROPEAN SEARCH REPORT

0130671

Application number

EP 84 30 2907

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
A,D	WO-A-8 203 305 (IRIS ASSOCIATES) * Page 5, line 1 - page 6, line 11; page 14, line 25 - page 17, line 24; figures 1,4 *	1,2,5,7	H 05 B 6/10 G 05 D 23/26
A	--- US-A-3 522 440 (MASAO ANDO) * Whole document *	1,2,4,7	
A	--- US-A-3 575 581 (MASAO ANDO) * Column 2, lines 1-60; figures 2,3 *	1,7	
E	--- WO-A-8 404 698 (METCAL INC.) * Page 21, line 23 - page 23, line 23; page 27, line 19 - page 28, line 26; figures 3,8,9 *	1,2,5,7	
A,D	--- EP-A-0 110 692 (METCAL INC.)		TECHNICAL FIELDS SEARCHED (Int. Cl. 3) H 05 B G 05 D
A,D	--- EP-A-0 107 927 (METCAL INC.)		
A,D	--- US-A-4 256 945 (P.S. CARTER) -----		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 18-09-1986	Examiner ARAN D.D.
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			