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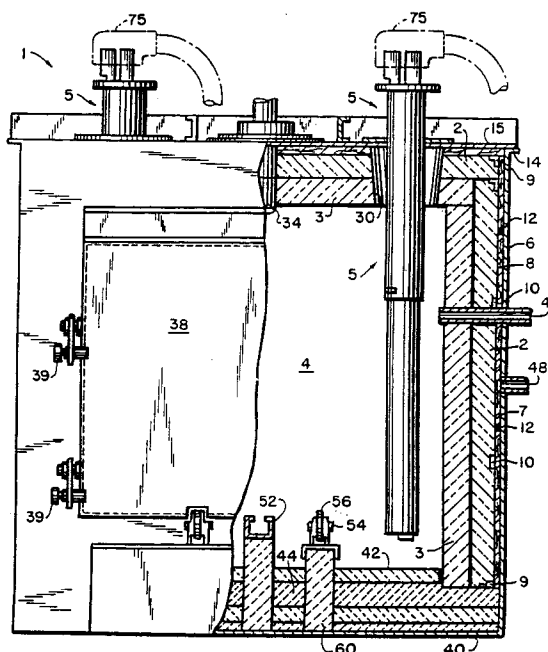
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**19.11.92 Bulletin 92/47**(71) Applicant: **GENERAL SIGNAL CORPORATION**  
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**c/o Ladas & Parry, Altheimer Eck 2**  
**W-8000 München 2(DE)**(54) **Electric heating device.**

(57) A low voltage electric heating device for application in a furnace which comprises: a cylindrical outer housing or sleeve replaceably disposed within a carburizing integral quench furnace and electrically connected to a first electric terminal; and a current path element disposed within the outer housing, the current path element being electrically connected to a second electric terminal and electrically insulated from a substantial part of the outer housing.

**FIG.1****EP 0 452 561 A3**



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## EUROPEAN SEARCH REPORT

Application Number

EP 90 12 5037

| 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.5) |
| Y   | US-A-3 764 718 (W.V. MIDDOUGH ET AL.)<br>* column 3, line 47 - column 5, line 18; figures 1-5 * | 1-3,5<br>9,13,14  | H05B3/64                                      |
|   | ---   |   |   |
| Y   | US-A-4 090 054 (H.G. HEINE ET AL.)<br>* column 5, line 26 - column 6, line 58; figure 3 *       | 1-3,5<br>9,13,14  |   |
|   | ---   |   |   |
| A   | US-A-4 080 510 (J.H. BECK)<br>* column 2, line 35 - column 3, line 54; figures 1-3 *            | 1-3,9,13  |   |
|   | ---   |   |   |
| A   | GB-A-153 661 (THE BRITISH THOMSON-HOUSTON CO. LTD.)   |   |   |
|   | ---   |   |   |
| A   | FR-A-1 315 187 (M.J. BASSET)  |   |   |
|   | ---   |   |   |
| A   | FR-A-897 300 (SOCIETE ANONYME DES ATELIERS DE SECHERON)   |   |   |
|   | -----   |   |   |
|   |   |   | TECHNICAL FIELDS SEARCHED (Int. Cl.5)         |
|   |   |   | H05B  |
| The present search report has been drawn up for all claims  |   |   |   |
| Place of search<br>THE HAGUE  |   | Date of completion of the search<br>03 SEPTEMBER 1992   | Examiner<br>ALBERTSSON E. G.                  |
| <b>CATEGORY OF CITED DOCUMENTS</b>  |   |   |   |
| X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |   | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>.....<br>& : member of the same patent family, corresponding document |   |