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(54) **Modular connector system.**

(57) An electrical connector has several rows of contacts connected to two rows of leads that engage terminals on a circuit board assembly, which enables a large number of contacts to be located in a connector of moderate cost. A connector insert comprises a wafer device and multiple leads, the leads having front lead portions connected to multiple rows of contacts on the wafer device, middle lead portions moulded into the wafer device, and rearward lead portions lying in two parallel rows for contacting terminals on opposite sides of the circuit board assembly. Each wafer device includes two substantially identical wafers, to allow moulding of a single row of leads at a time into a wafer. Each wafer has forwardly projecting towers that each lie around the front portion of a lead, and each contact has a periphery captured by a tower portion and a hole that receives a lead front portion. The contacts are arranged in columns on the wafer device, with at least four contacts in each column, and some of the lead middle portions extend both laterally and longitudinally to provide a small spacing or pitch of the lead rear portions. The insert has leaf springs at opposite sides for centering the insert in the connector housing while allowing the insert to "float" within the housing.

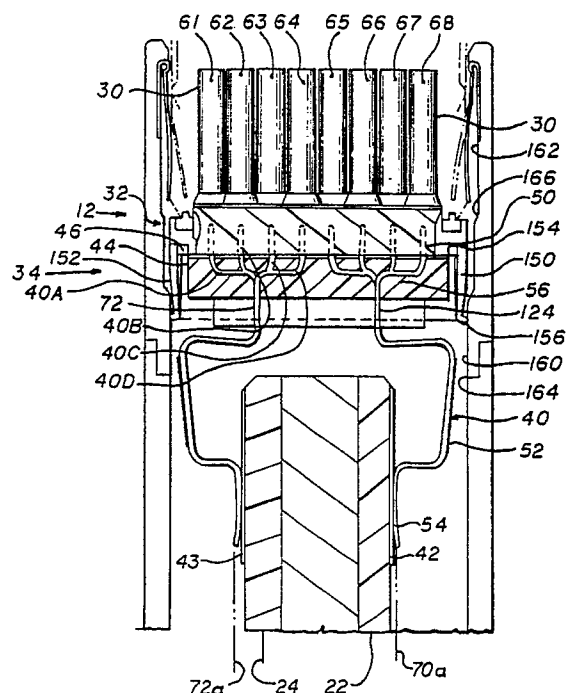


FIG. 3

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EUROPEAN SEARCH REPORT

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EP 90 31 2923

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) |
|--|--|---|---|
| X,A | EP-A-0 286 440 (RAYCHEM CORP.) * page 3, column 4, line 40 - page 4, column 5, line 37; figure 1 ** page 2, column 1, lines 13 - 23; figure 1 * - - - | 1,8,10,12 | H 01 R 23/70 H 01 R 13/514 H 01 R 4/02 H 01 R 13/504 |
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| A | US-A-4 884 335 (MC.COY ET AL.) * column 14, lines 12 - 37; figure 14 * - - - | 6,7 | |
| A | US-A-4 447 109 (HOBART, JR.) * abstract; figure 4 * - - - - - | 6,7 | |
| The present search report has been drawn up for all claims | | | TECHNICAL FIELDS SEARCHED (Int. Cl.5) |
| | | | H 01 R |
| Place of search | | Date of completion of search | Examiner |
| The Hague | | 10 September 91 | HORAK A.L. |
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