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(72) Inventors:
• **Dent, Peter**
Enfield, Middlesex EN1 2RE (GB)
• **Parry, Ian Charles**
London NW2 7BS (GB)

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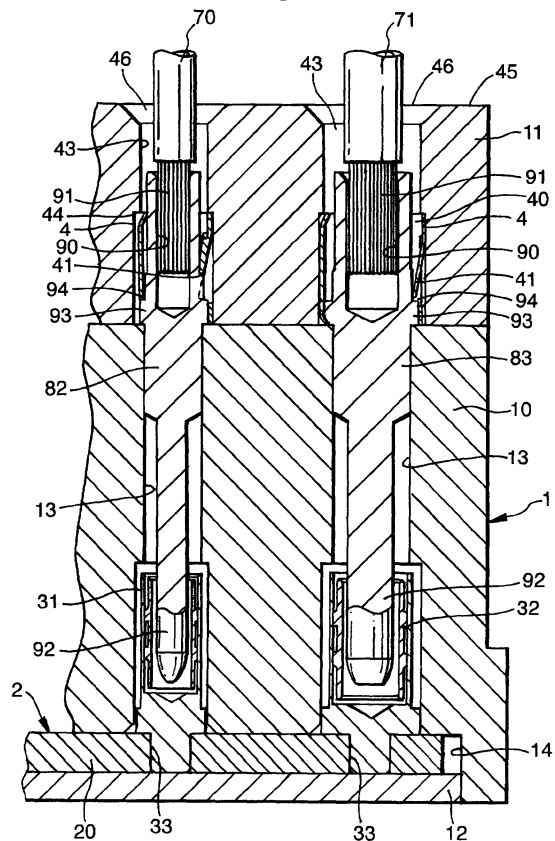
(74) Representative: **Flint, Jonathan McNeill et al**
765 Finchley Road
London NW11 8DS (GB)

(71) Applicant: **Smiths Industries Public Limited
Company**
London, NW11 8DS (GB)

(54) **Electrical connector assemblies**

(57) An electrical busbar terminal assembly has several hyperboloid spring sockets 21 to 32 mounted on a metal bar 20 spaced along its length. The sockets 21 to 32 extend along respective bores 13 of an insulating lower body 10 and the bar 20 extends along the bottom of the body being covered by a cover plate 12. The two end sockets 21 and 32 are larger than the others 22 to 31 and receive input power contacts 72 and 83 so that power is distributed from these sockets via the bar 20 to contacts 73 to 82 inserted in the other sockets. Catches 4 with inturned teeth 41 retain the contacts 72 to 83 after insertion. The catches 4 are located in bores in an upper closure 11 bonded to the lower body 10 and are trapped between the lower body and a step 44 in the upper closure. The catches 4 are electrically isolated from the sockets 21 to 32 until after insertion of a contact 72 to 83.

Fig.4.





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 30 7956

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.7)
X	US 3 597 726 A (APPLETON ARTHUR I ET AL) 3 August 1971 (1971-08-03)	1	H01R25/16 H01R13/187
A	* abstract; claims; figures * ---	2-9	
X	US 5 286 210 A (KILSDONK JAN A ET AL) 15 February 1994 (1994-02-15)	1	
A	* abstract; claims; figures * ---	2-9	
A	US 3 397 384 A (LAWRENCE ROLAND B) 13 August 1968 (1968-08-13)	1-9	
	* claims; figures * ---		
A	US 5 160 282 A (SWAFFIELD JOHN D ET AL) 3 November 1992 (1992-11-03)	1-9	
	* abstract; claims; figures * ---		
A	US 4 653 842 A (KIRMA SAFA) 31 March 1987 (1987-03-31)	1-9	
	* claims; figures * ---		
A	US 3 594 714 A (PAULLUS CLARENCE LEONARD ET AL) 20 July 1971 (1971-07-20)	1-9	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
	* abstract; claims; figures * ---		H01R
A	US 5 374 202 A (ANDERSON JAMES D) 20 December 1994 (1994-12-20)		

The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		7 April 2003	Durand, F
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone		T : theory or principle underlying the invention	
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A : technological background		D : document cited in the application	
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 30 7956

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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07-04-2003

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3597726	A	03-08-1971	NONE	
US 5286210	A	15-02-1994	NONE	
US 3397384	A	13-08-1968	NONE	
US 5160282	A	03-11-1992	NONE	
US 4653842	A	31-03-1987	DE 3441297 A1 FR 2578361 A1 GB 2167248 A , B	22-05-1986 05-09-1986 21-05-1986
US 3594714	A	20-07-1971	BE 715541 A DE 1790275 A1 ES 354210 A1 ES 374228 A1 ES 374229 A1 FR 1564408 A GB 1218462 A GB 1218463 A JP 50016518 B JP 48011879 B NL 6807104 A NL 7202079 A SE 351950 B US 3456231 A	16-10-1968 26-10-1972 16-01-1970 01-04-1972 16-03-1972 18-04-1969 06-01-1971 06-01-1971 13-06-1975 16-04-1973 25-11-1968 25-05-1972 11-12-1972 15-07-1969
US 5374202	A	20-12-1994	NONE	