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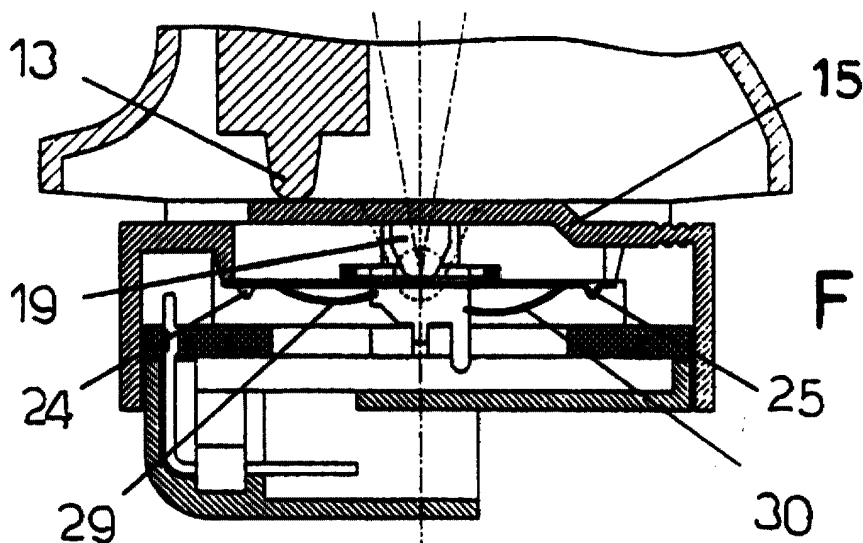
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(54) **Double release plate electrical switch**

(57) Double-release switch to control the electrical motors for the power windows of a motor vehicle, where a minimum of two mobile contacts act (24, 25, 24a, 25a), said mobile contacts being adapted to move so that they can reach two positions with the closing of fixed contacts

on a printed circuit; the mobile contacts are integral part of a metal spring plate (21, 22) provided with a pair of facing bow arms (29, 30) the ends of which are pivoted on a support (27) which is rigidly connected to said printed circuit (7).



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EUROPEAN SEARCH REPORT

Application Number
EP 99 12 4393

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	DE 11 86 128 B (BUSCH-JAEGER DÜRENER METALLWERKE) 28 January 1965 (1965-01-28)	1, 3	H01H23/00 H01H5/26
Y	* column 3, line 3 - column 4, line 48; figures 1-4 *	2, 4-7	
A	DE 92 01 542 U (JOH. VAILLANT GMBH) 26 March 1992 (1992-03-26) * page 5, line 1 - page 6, line 2; figure 1 *	1	
Y	US 5 833 048 A (DILLY GUENTER) 10 November 1998 (1998-11-10) * column 3, line 21 - column 4, line 63; figures *	2, 4-7	
A	DE 197 22 674 A (ABB PATENT GMBH) 3 December 1998 (1998-12-03) * the whole document *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			H01H
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 21 May 2001	Examiner Ramírez Fueyo, M
CATEGORY OF CITED DOCUMENTS		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	
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 12 4393

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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21-05-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 1186128 B		NONE	
DE 9201542 U	26-03-1992	NONE	
US 5833048 A	10-11-1998	NONE	
DE 19722674 A	03-12-1998	EP 0887821 A	30-12-1998

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