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## (54) Electric safety switch

A safety electric switch, comprising a casing (2,3,4) with at least two slots (18, 19) for the insertion of a key actuator (20) of pre-defined shape, at least one pair of electric contacts (5,5', 6,6',7,7',8,8') disposed in the casing (3) and displaceable between a closed and an open position, a cam (15) mounted inside the casing (4) and operatively connected to the contacts to promote their movement and commutation, the cam being rotatable around a first axis (H) by insertion of the actuator in the casing, blocking means (22) adapted to prevent rotation of the cam (15) and the consequent displacement of the contacts, elastic means (23) acting on the blocking means (22) to maintain them in a cam blocking position when the actuator is disinserted from the casing. The blocking means (22) comprise at least one lever element (24,24') pivoted about a second axis (K) distal from the first axis (H) and positioned so as to act on one side face of the cam (15). The second pivot axis (K) is substantially parallel to the cam pivot axis (H).

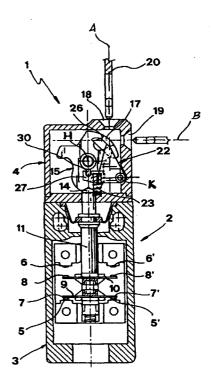


Fig. 1



## **EUROPEAN SEARCH REPORT**

Application Number EP 99 10 1984

	DOCUMENTS CONSIDE	RED TO BE RELEVANT		
Category	Citation of document with in of relevant passa	dication, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	EP 0 778 595 A (SCHI 11 June 1997 (1997-0 * abstract; claims;	06-11)	1-12	H01H27/00
A	EP 0 707 329 A (BERI SPEZIALFABRIK) 17 Ap * abstract; claims;	oril 1996 (1996-04-17)	1-12	
A	DE 43 38 910 C (BERN SPEZIALFABRIK) 16 February 1995 (19 * abstract; claims;	995-02-16)	1-12	
A	EP 0 727 797 A (SCHI 21 August 1996 (1996 * figures; examples		1-12	
A	DE 39 43 376 C (KLÖ 20 June 1991 (1991- * claims; figures *		1-12	TECHNICAL FIELDS SEARCHED (Int.Cl.6) H01H
	The present search report has	peen drawn up for all claims	_	
	Place of search	Date of completion of the search		Examiner
	THE HAGUE	19 November 1999	Dui	rand, F
X : par Y : par doc A : tecl O : nor	CATEGORY OF CITED DOCUMENTS ticularly relevant if taken alone ticularly relevant if combined with anot nument of the same category hnological background newritten disclosure primediate document	T: theory or princip E: earlier patent do after the filing de her D: document cited t L: document cited f &: member of the s document	cument, but pub ite in the application for other reasons	n s

## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 99 10 1984

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 The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

19-11-1999

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
EP 0778595	A	11-06-1997	FR CN JP US	2741993 A 1165387 A 9180587 A 5898143 A	06-06-1997 19-11-1997 11-07-1997 27-04-1999
EP 0707329	Α	17-04-1996	DE US	4436579 A 5622253 A	25-04-1990 22-04-1990
DE 4338910	С	16-02-1995	DE EP ES US	59405371 D 0653771 A 2113026 T 5516993 A	09-04-199 17-05-199 16-04-199 14-05-199
EP 0727797	Α	21-08-1996	DE BR DE JP US	19504744 A 9600727 A 59600067 D 8249986 A 5821484 A	12-09-199 23-12-199 12-02-199 27-09-199 13-10-199
DE 3943376	C	20-06-1991	AT DE WO EP	95005 T 59002868 D 9110247 A 0507820 A	15-10-199 28-10-199 11-07-199 14-10-199

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82