



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 0 933 794 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
12.01.2000 Bulletin 2000/02

(51) Int. Cl.⁷: **H01H 27/00**

(43) Date of publication A2:
04.08.1999 Bulletin 1999/31

(21) Application number: **99101984.5**

(22) Date of filing: **01.02.1999**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **02.02.1998 IT VI980017**

(71) Applicant:
Pizzato Elettrica S.r.l.
36063 Marostica (Vicenza) (IT)

(72) Inventors:
• **Pizzato, Bernardo**
36063 Marostica (Vicenza) (IT)
• **Pizzato, Marco**
36063 Marostica (Vicenza) (IT)

(74) Representative: **O'Byrne, Daniel**
c/o Maroscia & Associati S.r.l.,
Corso Palladio, 42
36100 Vicenza (IT)

(54) **Electric safety switch**

(57) 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).

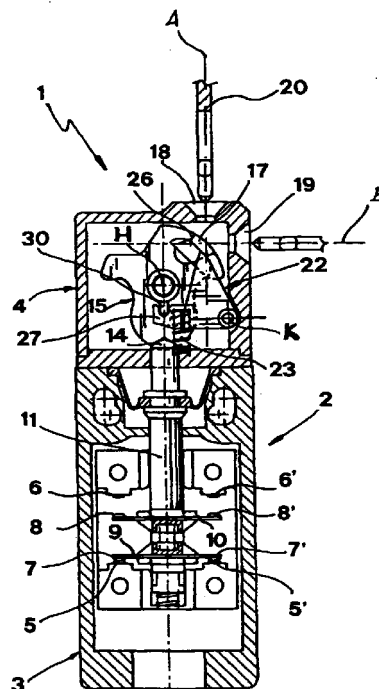


Fig. 1

EP 0 933 794 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 99 10 1984

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.6)
A	EP 0 778 595 A (SCHNEIDER ELECTRIC SA) 11 June 1997 (1997-06-11) * abstract; claims; figures *	1-12	H01H27/00
A	EP 0 707 329 A (BERNSTEIN HANS SPEZIALFABRIK) 17 April 1996 (1996-04-17) * abstract; claims; figures *	1-12	
A	DE 43 38 910 C (BERNSTEIN HANS SPEZIALFABRIK) 16 February 1995 (1995-02-16) * abstract; claims; figures *	1-12	
A	EP 0 727 797 A (SCHMERSAL K A GMBH & CO) 21 August 1996 (1996-08-21) * figures; examples *	1-12	
A	DE 39 43 376 C (KLÖCKNER MÖLLER) 20 June 1991 (1991-06-20) * claims; figures *	1-12	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			H01H
Place of search		Date of completion of the search	Examiner
THE HAGUE		19 November 1999	Durand, F
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document 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			

EPO FORM 1503 03.82 (P04C01)

**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 2741993 A	06-06-1997
		CN 1165387 A	19-11-1997
		JP 9180587 A	11-07-1997
		US 5898143 A	27-04-1999
EP 0707329 A	17-04-1996	DE 4436579 A	25-04-1996
		US 5622253 A	22-04-1997
DE 4338910 C	16-02-1995	DE 59405371 D	09-04-1998
		EP 0653771 A	17-05-1995
		ES 2113026 T	16-04-1998
		US 5516993 A	14-05-1996
EP 0727797 A	21-08-1996	DE 19504744 A	12-09-1996
		BR 9600727 A	23-12-1997
		DE 59600067 D	12-02-1998
		JP 8249986 A	27-09-1996
		US 5821484 A	13-10-1998
DE 3943376 C	20-06-1991	AT 95005 T	15-10-1993
		DE 59002868 D	28-10-1993
		WO 9110247 A	11-07-1991
		EP 0507820 A	14-10-1992