(11) **EP 1 037 224 A3** 

(12)

## **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3: 29.08.2001 Bulletin 2001/35

(51) Int Cl.7: **H01H 13/14** 

(43) Date of publication A2: **20.09.2000 Bulletin 2000/38** 

(21) Application number: 00105078.0

(22) Date of filing: 10.03.2000

(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: 11.03.1999 JP 6559899

(71) Applicant: ALPS ELECTRIC CO., LTD. Ota-ku Tokyo (JP)

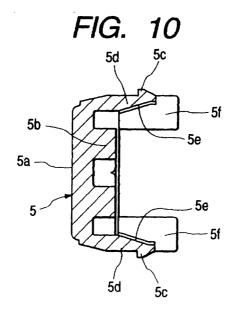
(72) Inventor: Hayakawa, Kazuki, c/o Alps Electric Co., Ltd. Tokyo (JP)

(74) Representative: Klunker . Schmitt-Nilson . Hirsch Winzererstrasse 106 80797 München (DE)

## (54) Push switch

(57) A structure of a stem in a push switch is provided which can ensure a sufficient engaging strength of hook portions of the stem even if the hook portions are not equal in wall thickness and which can reduce the size of the entire stem. The push switch comprises a box-shaped housing a, a pair of fixed terminals fixed within the housing 1, a stem 5 held slidably by inner side faces of the housing 1, a movable contact 3 disposed above the fixed terminals 2 so as to be operable in in-

terlock with movement of the stem 5, and a rubber spring 4 which causes the movable contact 3 to move into contact with and away from the fixed terminals 2 and which causes the stem to return. The stem 5 is formed with hook portions having retaining portions respectively for engagement with retaining grooves formed in the inner side faces of the housing, the hook portions 5d being respectively formed with relief portions on sides thereof opposed to the rubber spring 4 to receive therein bent portions of the rubber spring.





## **EUROPEAN SEARCH REPORT**

Application Number EP 00 10 5078

	DOCUMENTS CONSIDER				
Category	Citation of document with indi		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)	
А	PATENT ABSTRACTS OF 3 vol. 1998, no. 09, 31 July 1998 (1998-07 & JP 10 092260 A (MAT CO LTD), 10 April 199 * abstract *	(-31) SUSHITA ELECTRIC IND	1-4	H01H13/14	
L,A, P	& US 5 895 901 A 20 April 1999 (1999-	-04-20)			
				TECHNICAL FIELDS SEARCHED (Int.Cl.7)	
				H01H	
:					
	The present search report has bee	on drawn up for all claims	_		
	Place of search	Date of completion of the search		Examiner	
THE HAGUE		9 July 2001	'		
X : part Y : part doci A : tech	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with another ument of the same category inological background -written disclosure	L : document cited	ocument, but publ late I in the application I for other reasons	ished on, or	

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

EP 00 10 5078

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.

09-07-2001

Cit	Patent document ed in search repo	rt	Publication date		Patent family member(s)		Publication date
JP	10092260	Α	10-04-1998	US	5895901	А	20-04-1999
1000						** **** **** **** **** **** **** ***	
			Official Journal of the Euro				

3