(11) **EP 1 204 128 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: **05.01.2005 Bulletin 2005/01**

(51) Int CI.7: **H01H 21/00**, H01H 1/58

- (43) Date of publication A2: **08.05.2002 Bulletin 2002/19**
- (21) Application number: 01126042.9
- (22) Date of filing: 31.10.2001
- (84) Designated Contracting States:

 AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU

 MC NL PT SE TR

Designated Extension States:

AL LT LV MK RO SI

(30) Priority: **02.11.2000 JP 2000340408**

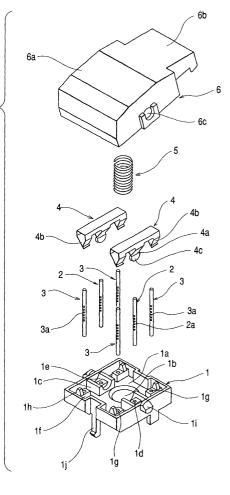
02.11.2000 JP 2000340409 02.11.2000 JP 2000340410

- (71) Applicant: ALPS ELECTRIC CO., LTD. Tokyo 145-8501 (JP)
- (72) Inventor: Tanaka, Takaki, c/o Alps Electric Co., Ltd. Tokyo 145-8501 (JP)
- (74) Representative: Klunker . Schmitt-Nilson . Hirsch Winzererstrasse 106 80797 München (DE)

(54) Lever operating type switch assembly

(57) The invention provides a switch assembly in which a movable contact point is swingably supported stably having a common contact point and an individual contact point formed in simple structure to save the material cost and having the common contact point and the individual contact point the parts of which can be used commonly. A support projection that extends to a free end side from an elastic contact position of a common contact point is formed on a support tongue of a movable contact point that is supported swingably in a container of a housing in which a common contact point and an individual contact point are disposed, and a support projection is supported on a pivot support portion formed on the housing.

FIG. 1



EP 1 204 128 A3



EUROPEAN SEARCH REPORT

Application Number EP 01 12 6042

Cotocce	Citation of document with indic	ation, where appropriate.	Relevant	CLASSIFICATION OF THE		
Category	of relevant passage		to claim	APPLICATION (Int.Cl.7)		
Υ	US 5 293 507 A (HAYAK 8 March 1994 (1994-03 * claim 1 *	1-4	H01H21/00 H01H1/58			
Υ	FR 685 294 A (L APP E SOC) 8 July 1930 (193 * page 2, line 5 - li	1-4				
A	US 4 740 661 A (FUNAK 26 April 1988 (1988-6 * abstract *	.) 1				
A	US 4 371 767 A (OHASH 1 February 1983 (1983 * abstract *		5,8,9			
A	DE 15 40 189 A (MARKW 2 January 1970 (1970- * claims 1-3 *		5,8			
FR 1 348 817 A (M 10 January 1964 (* page 2, left-ha		-01-10)	9	TECHNICAL FIELDS SEARCHED (Int.Cl.7)		
	The present search report has bee	n drawn up for all claims Date of completion of the search		Examiner		
The Hague		9 November 200	1	oberecht, L		
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		E : earlier paten after the filing D : document ci L : document cit	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			
A : technological background O : non-written disclosure P : intermediate document			member of the same patent family, corresponding document			



Application Number

EP 01 12 6042

CLAIMS INCURRING FEES						
The present European patent application comprised at the time of filing more than ten claims.						
Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):						
No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.						
LACK OF UNITY OF INVENTION						
The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:						
see sheet B						
All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.						
As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.						
Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:						
None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:						



LACK OF UNITY OF INVENTION SHEET B

Application Number

EP 01 12 6042

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-4

Pivot structure for a movable contact of a switch.

2. claims: 5-8

Form of fixed ontacts and the mounting thereof in a switch base.

3. claims: 9-12

Pin and socket contact wherein the pin has an insulating part.

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

EP 01 12 6042

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.

09-11-2004

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5293507	Α	08-03-1994	JP JP DE	2573191 Y2 4105436 U 4205364 A1	28-05-19 10-09-19 03-09-19
FR 685294	Α	08-07-1930	NONE		
US 4740661	A	26-04-1988	JP JP JP	3026595 Y2 61149238 U 61189534 U	10-06-19 13-09-19 26-11-19
US 4371767	Α	01-02-1983	JP JP	56101840 U 60008355 Y2	10-08-19 25-03-19
DE 1540189	Α	02-01-1970	DE	1540189 A1	02-01-19
FR 1348817	Α	10-01-1964	CH DE	389063 A 1178494 B	15-03-19 24-09-19

FORM P0459

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