



(11)

EP 1 480 242 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
02.08.2006 Bulletin 2006/31

(51) Int Cl.:
H01H 71/02 (2006.01) H01H 83/22 (2006.01)

(43) Date of publication A2:
24.11.2004 Bulletin 2004/48

(21) Application number: **04076451.6**

(22) Date of filing: **18.05.2004**

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

- **Antoniazzi, Aleberto**
20080 zibido San Giacomo (MI) (IT)
- **Readaelli, Claudio**
20030 Seveso (MI) (IT)
- **Valagussa, Sergio**
20050 Ronco Briantino (MI) (IT)

(30) Priority: **20.05.2003 IT bg20030035**

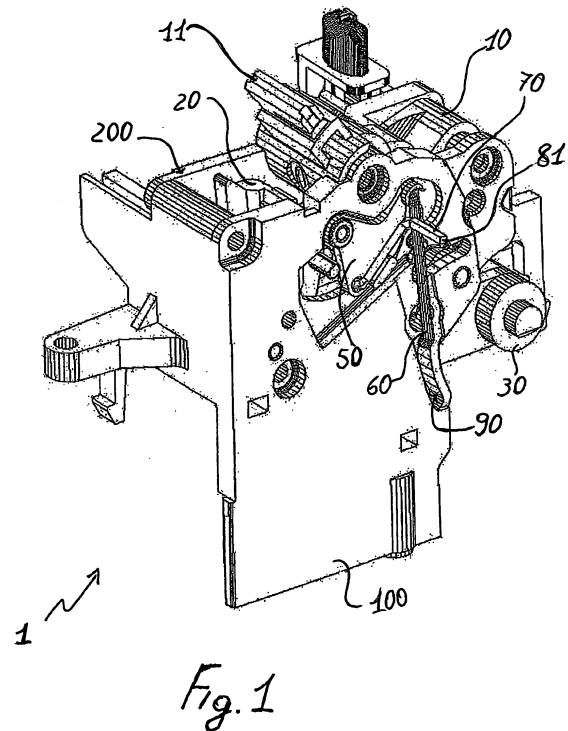
(71) Applicant: **ABB Service S.r.l**
20124 Milano (IT)

(74) Representative: **Zanoli, Enrico et al**
Zanoli & Giavarini S.r.l.,
Viale Bianca Maria, 35
20122 Milano (IT)

(72) Inventors:
• **Colombo, Gabriele**
20011 Corbetta (MI) (IT)

(54) **A device for low-voltage circuit breakers**

(57) A device for low-voltage circuit breakers comprising a kinematic chain designed for transmission of motion to an external kinematic structure. Said kinematic chain comprises first elements (10) for manoeuvring, second elements (20) for engagement/release, and third elements (30) for actuation, substantially contained within two containment side pieces (100, 200). The kinematic chain further comprises means (40) for transmission of motion located on the outside of the two side pieces and connected to said actuating means (30).



EP 1 480 242 A3



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	FR 1 371 007 A (SIEMENS-SCHUCKERTWERKE AKTIENGESELLSCHAFT) 28 August 1964 (1964-08-28) * the whole document *	1	INV. H01H71/02 H01H83/22
A	EP 1 069 586 A (POWER CONTROLS IBERICA, SL) 17 January 2001 (2001-01-17) * the whole document *	1	
A	GB 773 193 A (CHILTON AIRCRAFT COMPANY LIMITED) 24 April 1957 (1957-04-24) * the whole document *	1	
A	DE 295 20 288 U1 (HEINRICH KOPP AG, 63796 KAHL, DE) 8 February 1996 (1996-02-08)		
A	EP 1 033 737 A (ABB RICERCA SPA; ABB SERVICE SRL) 6 September 2000 (2000-09-06)		
A	US 4 288 768 A (ARNHOLD ET AL) 8 September 1981 (1981-09-08)		
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			H01H
Place of search		Date of completion of the search	Examiner
The Hague		27 June 2006	Desmet, W
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	

1
EPO FORM 1503 03.82 (F04/C01)

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

EP 04 07 6451

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.

27-06-2006

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
FR 1371007	A	28-08-1964	NONE	

EP 1069586	A	17-01-2001	ES 2157161 A1	01-08-2001
			HU 0002633 A2	28-02-2001
			PL 341457 A1	29-01-2001

GB 773193	A	24-04-1957	NONE	

DE 29520288	U1	08-02-1996	NONE	

EP 1033737	A	06-09-2000	AT 255274 T	15-12-2003
			BR 0004136 A	09-01-2001
			CN 1266271 A	13-09-2000
			DE 60006730 D1	08-01-2004
			DE 60006730 T2	30-09-2004
			IT MI990438 A1	04-09-2000
			JP 2000268695 A	29-09-2000
			MX PA00002238 A	08-03-2002

US 4288768	A	08-09-1981	AR 224876 A1	29-01-1982
			BR 7905007 A	29-04-1980
			DE 2834327 A1	21-02-1980
			DK 328079 A	05-02-1980
			EP 0008026 A1	20-02-1980
			ES 483045 A1	16-04-1980
			FI 792407 A	05-02-1980
			GR 64885 A1	06-06-1980
			HK 54981 A	20-11-1981
			IN 152622 A1	25-02-1984
			IT 1122427 B	23-04-1986
			JP 55049832 A	10-04-1980
			NO 792532 A	05-02-1980
			PT 70018 A	01-09-1979
			YU 187479 A1	30-06-1982
			ZA 7904033 A	27-08-1980

EPO FORM P/0459

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