(11) EP 2 489 819 A3

(12) EUROPEAN PATENT APPLICATION

(88) Date of publication A3: **26.11.2014 Bulletin 2014/48**

(51) Int Cl.: **E05D** 7/00 (2006.01)

E05D 11/04 (2006.01)

(43) Date of publication A2: **22.08.2012 Bulletin 2012/34**

(21) Application number: 12154870.5

(22) Date of filing: 10.02.2012

(84) Designated Contracting States:

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR Designated Extension States:

BA ME

(30) Priority: 17.02.2011 Fl 20115149

(71) Applicant: Abloy Oy 80100 Joensuu (FI)

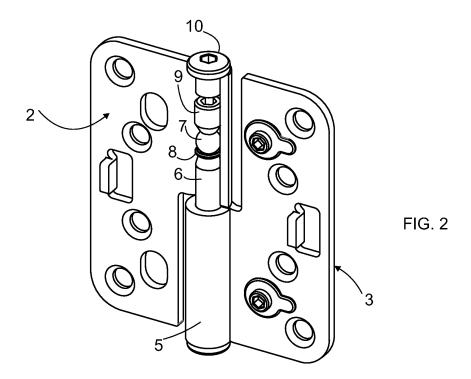
(72) Inventor: Salomaa, Jukka 63920 Inha (FI)

(74) Representative: Berggren Oy Ab P.O. Box 16
Antinkatu 3 C
00101 Helsinki (FI)

(54) Hinge

(57) The invention provides an inexpensive hinge (1, 12) that has a height adjustment and a strong structure. The invention comprises a metal ball (7) and a retaining ring (8, 11) between the hinge pin (6, 13) and the height adjustment screw (9) to create a bearing that reduces

wear and tear. The retaining ring (8, 11) holds the metal ball (7) within the hinge leaf rolling (4) if the leaf parts (2, 3) are separate. However, the retaining ring allows the ball to move if the height adjustment screw is turned.



EP 2 489 819 A3



EUROPEAN SEARCH REPORT

Application Number EP 12 15 4870

	DOCUMENTS CONSIDER				
Category	Citation of document with indic of relevant passage		Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)	
Y A	US 3 007 193 A (HUGHE 7 November 1961 (1961 * column 2, line 19 -	11-07)	1-4 5-10	INV. E05D7/00 E05D11/04	
	* figures 2,6,7,9 *				
Y A	DE 85 17 909 U1 (ANUB UND SOHN GMBH) 14 Aug * page 4, line 1 - pa	ust 1985 (1985-08-14)	1-4 5-10		
А	* figure 1 *		3-10		
Α	DE 843 067 C (JENSEN 3 July 1952 (1952-07- * the whole document	03)	1		
				TECHNICAL FIELDS SEARCHED (IPC)	
				E05D	
	The present search report has bee	n drawn up for all claims			
	Place of search	Date of completion of the search	1/1 -	Examiner	
	The Hague	21 October 2014		mke, Beate	
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		E : earlier patent doc after the filing date D : document cited in L : document cited fo	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 sa	& : member of the same patent family, corresponding document		

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

EP 12 15 4870

5

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.

21-10-2014

10						21-10-201
10	Patent document cited in search repor	i l	Publication date	Pater men	nt family nber(s)	Publication date
	US 3007193	Α	07-11-1961	NONE		
15	DE 8517909	U1	14-08-1985	NONE		
	DE 843067	С	03-07-1952	NONE		
20						
25						
30						
35						
40						
45						
45						
50						
FORM P0459						

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

55