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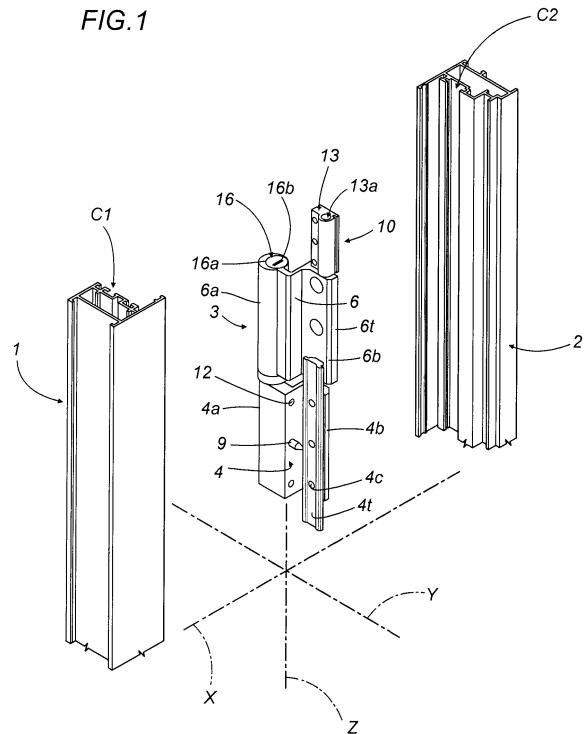
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(54) **An adjustable hinge for heavy doors and windows.**

(57) A hinge for door and window units, especially heavy door and window units comprising a fixed frame (1) and a mobile frame (2) whose profiles define respective longitudinal grooves (C1, C2) for fastening operating accessories. The hinge (3) comprises: a first male, or lower, hinge body (4) having a first cylindrical socket (4a) and a first flap (4b) that can be associated, through respective first fastening means (5), with the groove (C1) of the fixed frame (1); a second female, or upper, hinge body (6) having a second cylindrical socket (6a) and a second flap (6b) that can be associated, through respective second fastening means (7), with the groove (C2) of the mobile frame (2); a hinge pin (8) that can be housed in the two sockets (4a, 6a) and defining the axis of rotation (Z8) of the mobile frame (2). Third means (9) are also provided for fastening the first hinge body (4), acting at least between the first flap (4b) of the first body (4), in the vicinity of the first socket (4a), and the surface of the fixed frame (1) facing it. These third fastening means (9) can, in particular, be housed directly in the first socket (4a) of the first hinge body (4).

FIG. 1



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DOCUMENTS CONSIDERED TO BE RELEVANT				
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)	
X	EP 1 223 289 A (POLYMER ENGINEERING LTD [GB]) 17 July 2002 (2002-07-17) * column 5, line 18 - line 27 * * column 5, line 36 - line 42; figure 4 * -----	1,4-6	INV. E05D7/04 E05D5/02	
X	DE 69 39 409 U (ALUMINIUMWERKE WUTOESCHINGEN G [DE]) 15 January 1970 (1970-01-15)	2,4,5		
Y	* page 1, paragraph 1 - page 2, paragraph 2; claims 1,2; figures 1,2 * -----	3,7,9-12		
Y	DE 197 39 930 A1 (PARYS REMI E VAN [BE] VAN PARYS REMI EMIEL [BE]) 26 March 1998 (1998-03-26) * column 3, line 22 - line 31; figures 1,8 * -----	3,7		
Y	DE 33 42 842 A1 (FUHR CARL GMBH & CO [DE]) 5 June 1985 (1985-06-05) * page 12, paragraph 4; figures 3-5 * -----	9		
Y	FR 2 616 173 A (MEEN DOMINIQUE [FR]; ARFI ALAIN [FR]) 9 December 1988 (1988-12-09) * page 1, line 35 - page 2, line 1; figure 1 * -----	10		TECHNICAL FIELDS SEARCHED (IPC) E05D
Y	GB 06775 A A.D. 1909 (HIRCOCK JOHN THOMAS MILSON) 19 August 1909 (1909-08-19) * claim 1; figures 1,2 * -----	11,12		
A	EP 0 553 600 A (GIESSE SPA [IT]) 4 August 1993 (1993-08-04) * claim 3; figures 1-5 * -----	8,13		
The present search report has been drawn up for all claims				
Place of search The Hague		Date of completion of the search 8 August 2007	Examiner Guillaume, Geert	
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				

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

EP 06 11 0044

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  
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08-08-2007

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1223289	A	17-07-2002	GB 2371075 A	17-07-2002
			US 2002108337 A1	15-08-2002
-----				
DE 6939409	U	15-01-1970	NONE	
-----				
DE 19739930	A1	26-03-1998	BE 1010648 A3	03-11-1998
			FR 2754557 A1	17-04-1998
			GB 2317642 A	01-04-1998
			IT M1972057 A1	10-03-1999
			NL 1007057 C2	23-06-1998
			NL 1007057 A1	26-03-1998
-----				
DE 3342842	A1	05-06-1985	NONE	
-----				
FR 2616173	A	09-12-1988	NONE	
-----				
GB 190906775	A	19-08-1909	NONE	
-----				
EP 0553600	A	04-08-1993	IT 1258499 B	27-02-1996
-----				