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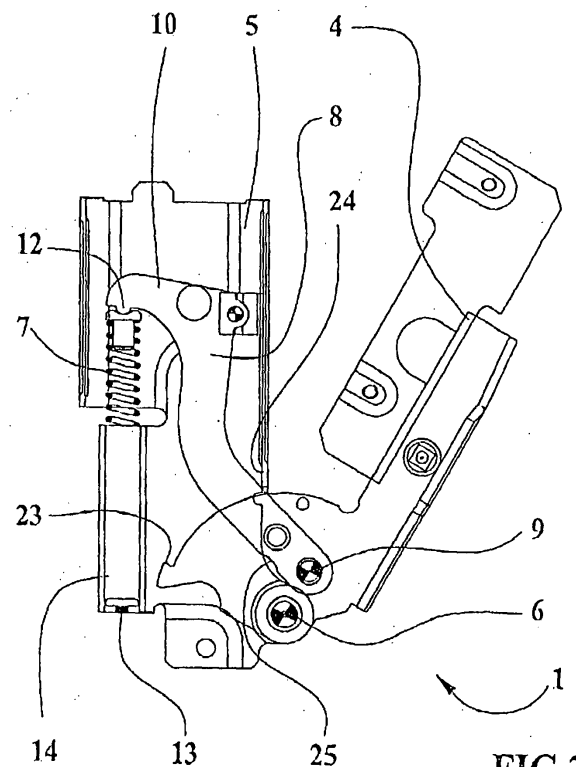
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(54) **Compact hinge device for a door**

(57) A compact hinge device for a door (2) of a structure (3) is provided with connection members, first (4) and second (5), mutually connected by means of a first rotation pivot (6) and respectively fit to be fixed to the door (2) and to the structure (3), it is also provided with elastic means (7) fit to provide to the connection members, first (4) and second (5) with an elastic closing force.

The device comprises an arm mean (8), whose a first end is connected by means of a second rotation pivot (9) to the first connection member (4) and whose second end has a head (10) connected at an end to the elastic mean (7) whose opposite end is constrained to a lock (13) of the second connection member (5).

In the passage from an extreme closing condition (C) to an extreme opening condition (A) the head (10) of the arm mean (8) compresses the elastic mean (7) balancing the door (2).



**FIG.2**



## EUROPEAN SEARCH REPORT

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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 0 919 776 A2 (CMI SRL [IT]) 2 June 1999 (1999-06-02) * figures 1-2 *	1-14	INV. F24C15/02 A47L15/42 E05D11/08 E05F1/12
A	US 4 269 165 A (WROTON WALTER A ET AL) 26 May 1981 (1981-05-26) * figures 1-3 *	1-14	
A	WO 02/064925 A1 (GRONBACH FORSCHUNGS UND ENTWIC [AT]; GRONBACH LINA [DE]) 22 August 2002 (2002-08-22) * figures 2-4 *	1-14	
A	US 3 196 482 A (BATES WAYNE C) 27 July 1965 (1965-07-27) * figures 2-3 *	1-14	
A	US 3 712 287 A (SUMMERS F) 23 January 1973 (1973-01-23) * figures 3-4 *	1-14	
A	DE 31 40 039 A1 (BOSCH SIEMENS HAUSGERAETE [DE]) 21 April 1983 (1983-04-21) * figure 1/1 *	1-14	TECHNICAL FIELDS SEARCHED (IPC) F24C E05F A47L
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 13 September 2017	Examiner Adant, Vincent
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			

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

EP 06 01 9034

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0919776 A2	02-06-1999	DE 69824122 D1	01-07-2004
		DE 69824122 T2	28-10-2004
		EP 0919776 A2	02-06-1999
		ES 2221111 T3	16-12-2004
-----			
US 4269165 A	26-05-1981	NONE	
-----			
WO 02064925 A1	22-08-2002	BR 0204073 A	31-12-2002
		EP 1287222 A1	05-03-2003
		US 2003172920 A1	18-09-2003
		WO 02064925 A1	22-08-2002
-----			
US 3196482 A	27-07-1965	NONE	
-----			
US 3712287 A	23-01-1973	NONE	
-----			
DE 3140039 A1	21-04-1983	NONE	
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