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(54) Hinging device for windows and doors

(57) A hinging device for windows and doors including a fixed frame (12) and a movable frame (14), comprising:

- a first support element (24) to be fastened to the fixed frame (12) and bearing a main axis of articulation (38),
- a second support element (26) to be fastened to the movable frame (14),
- a main lever (42) articulated to the first support element (24) around the main axis (38),

- a secondary lever (60) slidably articulated to the first support element (24) and articulated to an intermediate region (45) of the main lever (42), and
- a connecting rod (76) having an end (78) articulated to the second support element (26).

The first support element (24) bears an elongated articulation pivot pin (36) and the main lever (24) has an articulation portion (50) which extends parallel to the main axis of articulation (38) and engages the pivot pin (36) at least at its end regions.

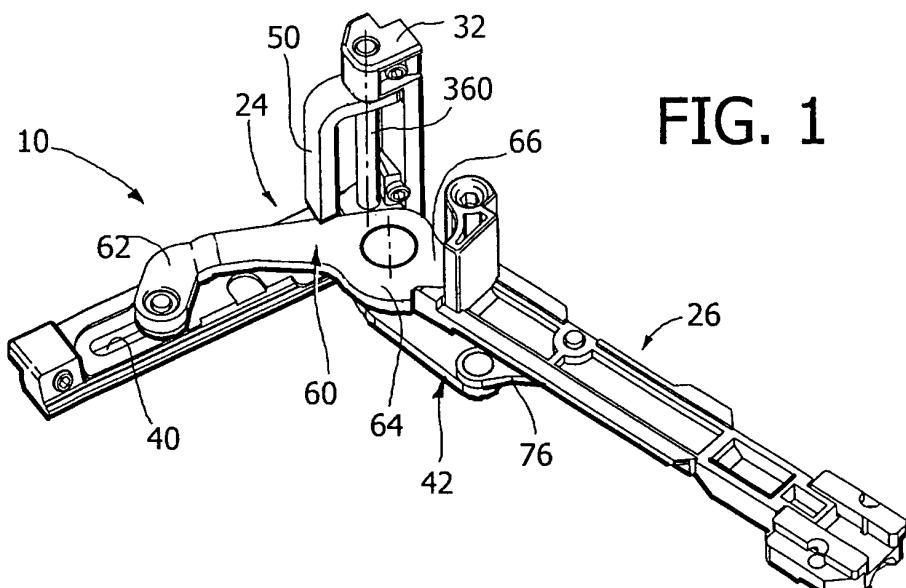


FIG. 1



DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)						
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim							
A	EP 0 385 414 A (BILSTEIN AUGUST GMBH CO KG [DE]) 5 September 1990 (1990-09-05) * column 3, line 22 - line 39; figure 3 * -----	1	INV. E05D15/52						
			TECHNICAL FIELDS SEARCHED (IPC)						
			E05D						
<p>The present search report has been drawn up for all claims</p> <p>1</p> <table border="1"> <tr> <td>Place of search</td> <td>Date of completion of the search</td> <td>Examiner</td> </tr> <tr> <td>The Hague</td> <td>22 November 2007</td> <td>Guillaume, Geert</td> </tr> </table> <p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>				Place of search	Date of completion of the search	Examiner	The Hague	22 November 2007	Guillaume, Geert
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ANNEX TO THE EUROPEAN SEARCH REPORT
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22-11-2007

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
EP 0385414	A	05-09-1990	DE ES	3906794 A1 2035667 T3		06-09-1990 16-04-1993

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