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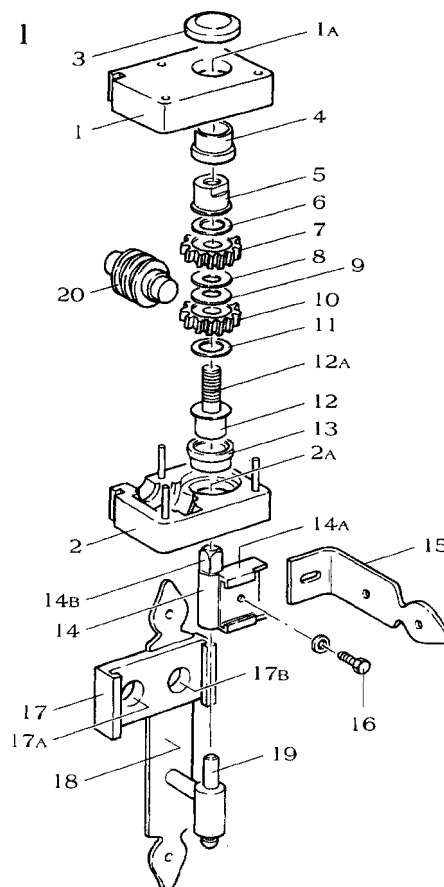
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(54) **Device for moving and retaining shutters from the inside of the building**

(57) A device for moving and retaining shutters from the inside of the building, comprising a reduction unit with a worm screw gear system (20) actuated by an actuation shaft and stably engaged in a ring gear (7,10) located on the pivoting axis of the leaf-like part, comprising friction means (6,11) and elastic means (8,9) for transmitting the actuation motion from the gear system to the leaf-like part; the means, although using a nonreversible gear system and in order to prevent a sudden force affecting the leaf-like part in contrast with the reduction unit from damaging the reduction unit or the means for fixing the device to the leaf-like part, allow the connection of the gear system to the leaf-like part to be moved to occur due to the friction applied through the friction means (6,11) and elastic means (8,9), adequately compressed.

FIG. 1





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EUROPEAN SEARCH REPORT

Application Number
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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 (Int.Cl.6)
X	FR 2 646 202 A (PEYRAMAURE MICHEL) 26 October 1990 (1990-10-26) * page 1, line 1 - line 23 * * page 6, line 6 - line 22 * * page 11, line 33 - page 12, line 32 * * figure 5 *	1	E05F11/34 E05F11/36 E05F15/12
A	FR 2 697 572 A (SCIAR SARL) 6 May 1994 (1994-05-06) * page 3, line 10 - line 21 * * figure 2 *	2	
A	GB 2 264 534 A (AUTOGATES SDN BHD) 1 September 1993 (1993-09-01) * figures 2,3 *	2	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			E05F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 25 June 2001	Examiner Moreau, C
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
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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
FR 2646202	A	26-10-1990	NONE	
FR 2697572	A	06-05-1994	NONE	
GB 2264534	A	01-09-1993	AU 655711 B	05-01-1995
			AU 3376493 A	02-09-1993

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