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(54) **Rotary Locking Device**

(57) A rotary locking device comprises a locking element (4) guided for rotary movement relatively to a mounting base (1) from a first position, in which a blade portion of the locking element (4) is located in an idle position, to a second position, in which the blade portion (4B) is extended relatively to the mounting base (1) for locking engagement within a latching recess (17) of a movable member to be locked relatively to the mounting base (1). A rotary driving element (8) is mounted for rotation coaxially with the locking element (4) and is arranged to make driving engagement with the locking element (4) via a coupling allowing lost motion between the driving element (8) and the locking element (4). The coupling biases the driving element (8) relatively to the locking element (4) in a direction of movement towards the first position. A latching element is secured on the mounting base (1) and is arranged for movement from an idle position to a latching position in which it engages with the locking element (4) to latch the same in the second position. During rotation of the driving element (8) to transfer the locking element (4) from said first to said second position, the locking element (4) is biased relatively to the driving element (8) by the lost motion coupling. Upon arrest of the locking element (4) in the second position the driving element (8) can undergo lost motion

to cause movement of the latching element from the idle to the latching position.

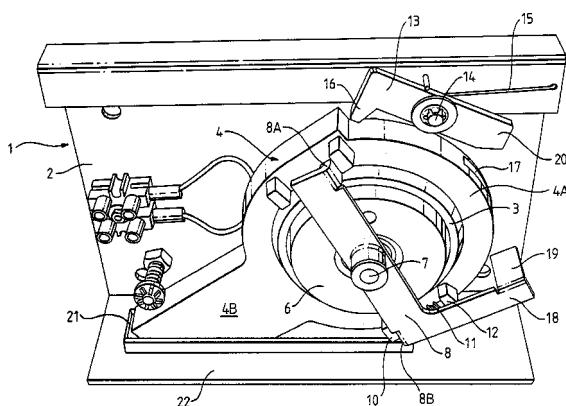


FIG. 1



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	US 4 685 709 A (KAMBIC ET AL) 11 August 1987 (1987-08-11) * column 3, line 39 - column 16, line 60; figures 1-12 *	1	INV. E05B47/02 E05B17/20
A	EP 0 712 982 A (LOY, OLIVER ET AL.) 22 May 1996 (1996-05-22) * column 2, line 49 - column 4, line 35; figures 1,2 *	1	
A	US 5 148 691 A (WALLDEN ET AL) 22 September 1992 (1992-09-22) * column 3, line 22 - column 5, line 37; figures 1-7 *	1	
			TECHNICAL FIELDS SEARCHED (IPC)
			E05B
The present search report has been drawn up for all claims			
2	Place of search	Date of completion of the search	Examiner
	The Hague	25 April 2006	PEREZ MENDEZ, J
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 03 25 2286

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.

25-04-2006

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 4685709	A	11-08-1987	NONE			
EP 0712982	A	22-05-1996	NONE			
US 5148691	A	22-09-1992	DE DE DK EP FI NO SE SE WO	69007620 D1 69007620 T2 482117 T3 0482117 A1 100029 B1 915106 A 463979 B 8902363 A 9100405 A1	28-04-1994 30-06-1994 01-08-1994 29-04-1992 29-08-1997 27-12-1991 18-02-1991 30-12-1990 10-01-1991	