

(19)



(11)

**EP 2 251 516 A3**

(12)

**EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**03.04.2013 Bulletin 2013/14**

(51) Int Cl.:  
**E05F 1/10<sup>(2006.01)</sup> E05F 5/00<sup>(2006.01)</sup>**

(43) Date of publication A2:  
**17.11.2010 Bulletin 2010/46**

(21) Application number: **10161903.9**

(22) Date of filing: **04.05.2010**

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR**  
Designated Extension States:  
**BA ME RS**

(72) Inventor: **Lane, Andrew John Stafford, Staffordshire ST17 0RJ (GB)**

(74) Representative: **Jackson, Derek Charles Derek Jackson Associates The Old Yard Lower Town Claines Worcestershire WR3 7RY (GB)**

(30) Priority: **14.05.2009 GB 0908216**

(71) Applicant: **Lane, Andrew John Stafford, Staffordshire ST17 0RJ (GB)**

(54) **Door operating mechanism**

(57) A door operating mechanism comprises a body (1) including a housing (7), a shaft (13) rotatably mounted in the housing and a coil spring (23) mounted in the housing. The coil spring acts between the housing and the

shaft for applying a rotary force to the shaft. A lever arm (3) is secured at one end to the shaft so as to rotate therewith and is rotatably mounted at the other end to means (47) slidably mounted to an elongate retainer (5).

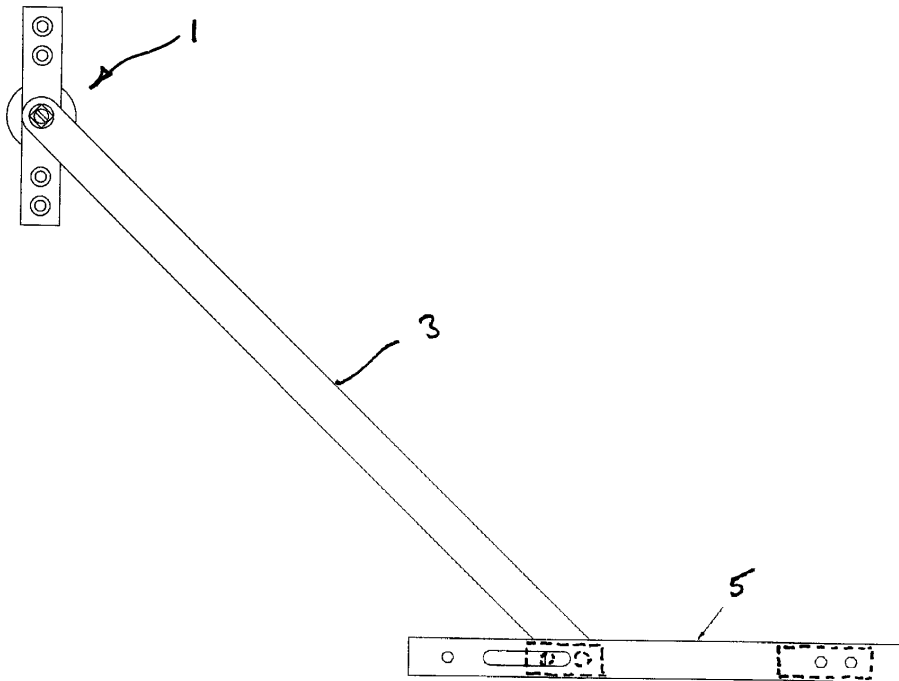


Fig. 1

**EP 2 251 516 A3**



EUROPEAN SEARCH REPORT

Application Number  
EP 10 16 1903

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	DE 691 762 C (AMBI BUDD PRESSWERK GMBH) 5 June 1940 (1940-06-05)	1-8,15	INV. E05F1/10 E05F5/00
Y	* page 2, line 1 - line 14 *	9-12,14	
A	* figures 1-3 *	13	
Y	EP 0 790 381 A2 (E C O SCHULTE GMBH & CO KG [DE]) 20 August 1997 (1997-08-20) * column 3, line 59 - column 4, line 5 * * column 6, line 4 - line 6 * * column 6, line 58 - column 7, line 4 * * figures 1, 5, 6 *	9-12,14	
A	FR 2 251 696 A1 (FRANK GMBH WILH [DE]) 13 June 1975 (1975-06-13) * page 4, line 36 - page 5, line 27; figure 1 *	1-9	
			TECHNICAL FIELDS SEARCHED (IPC)
			E05F
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 25 February 2013	Examiner Prieto, Daniel
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	

EPO FORM 1503.03.82 (F04C01)

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

EP 10 16 1903

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.

25-02-2013

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 691762	C	05-06-1940	NONE
EP 0790381	A2	20-08-1997	DE 19548202 A1 EP 0790381 A2
FR 2251696	A1	13-06-1975	AT 341182 B CH 586345 A5 ES 431980 A1 FR 2251696 A1 IT 1025583 B YU 303374 A

EPC FORM P0459

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