



Europäisches
Patentamt
European
Patent Office
Office européen
des brevets



(11)

EP 1 944 447 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
10.11.2010 Bulletin 2010/45

(51) Int Cl.:
E05F 1/12 (2006.01) *E05F 3/20 (2006.01)*

(43) Date of publication A2:
16.07.2008 Bulletin 2008/29

(21) Application number: 08150071.2

(22) Date of filing: 07.01.2008

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

Designated Extension States:
AL BA MK RS

(30) Priority: 15.01.2007 IT VR20070008

(71) Applicant: **Industria Casearia Silvio Belladelli S.r.l.**
37069 Villafranca di Verona (VR) (IT)

(72) Inventor: **Bongiovanni, Claudio**
37069, Rizza di Villafranca di Verona (V (IT)

(74) Representative: **Fisauli, Beatrice A. M. et al**
Con Lor S.p.A
Via Renato Fucini, 5
20133 Milano (IT)

(54) Device for an automatic closing of doors

(57) A device (70) for an automatic closing of a door wing is coupled to a floor with possibility of rotation and comprises a fixed group (40) which is fixed to the floor, a rotary group (60) to which the door wing is fixed and a translating group (50) which is coupled to the fixed group (40) in such a way as to translate orthogonally to the floor and not to rotate in relation to the fixed group (40).

The translating group (50) comprises elastic means (11) and at least an element (9) acting as a cam follower and translating orthogonally to the floor. The rotary group (60) to which the door wing is fixed comprises at least an element (6) acting as a cam in relation to the element (9) acting as a cam follower.

The rotary group (60) is coupled to the translating group (50) so that the cam element (6) beats against the cam follower (9) and with a rotation of the rotary group (60) in a given direction the cam element (6) causes a translation, orthogonal to the floor, of the cam follower (9) and a compression of the elastic means (11). In the same manner, the expansion of the elastic means (11) causes a reverse rotation of the rotary group (60) as well as a reverse rotation of the door wing fixed to the rotary group.

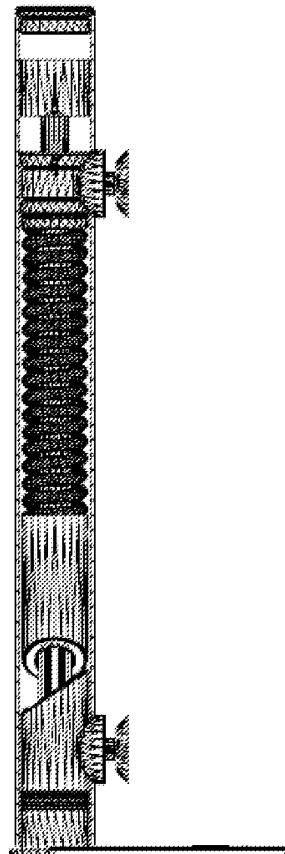


Fig. 9



EUROPEAN SEARCH REPORT

Application Number
EP 08 15 0071

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)								
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim									
X	US 3 107 758 A (BENHAM KENT W) 22 October 1963 (1963-10-22) * column 18, line 65 - column 21, line 31; figures 18-26 *	1,5-10	INV. E05F1/12 E05F3/20								
X	US 2 325 711 A (SEAMAN DAVID J) 3 August 1943 (1943-08-03) * page 1, column 2, line 19 - page 2, column 2, line 29; figures 1-3 *	1-10									
1			TECHNICAL FIELDS SEARCHED (IPC)								
1			E05F								
The present search report has been drawn up for all claims											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Place of search</td><td style="width: 33%;">Date of completion of the search</td><td colspan="2" style="width: 34%;">Examiner</td></tr> <tr> <td>The Hague</td><td>23 September 2010</td><td colspan="2">Guillaume, Geert</td></tr> </table>				Place of search	Date of completion of the search	Examiner		The Hague	23 September 2010	Guillaume, Geert	
Place of search	Date of completion of the search	Examiner									
The Hague	23 September 2010	Guillaume, Geert									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">CATEGORY OF CITED DOCUMENTS</td><td style="width: 50%;">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</td></tr> <tr> <td>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</td><td></td><td></td><td></td></tr> </table>				CATEGORY OF CITED DOCUMENTS	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	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					
CATEGORY OF CITED DOCUMENTS	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										
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											

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

EP 08 15 0071

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.

23-09-2010

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 3107758	A 22-10-1963	NONE	
US 2325711	A 03-08-1943	NONE	