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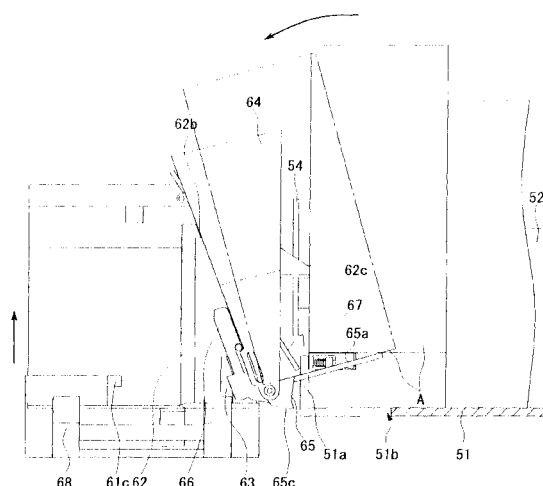
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(54) **Commodity carrying out device**

(57) The present invention provides a commodity carrying out device that can reliably carry out a vertically-long shaped commodity in an upright state from a commodity storage column to a bucket. More specifically, since a commodity positioned at the front end side of a commodity storage column is tilted forward to be moved into a bucket, when moving a vertically-long shaped commodity in an upright state into a bucket, it is possible to move the commodity without the commodity toppling backwards. Thus, the commodity can be reliably moved into the bucket.

Fig. 16



EP 2 383 708 A3



EUROPEAN SEARCH REPORT

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EP 11 17 5385

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	WO 02/35484 A (JYPA AUTOMAATIO OY [FI]; SANTALA PAULI [FI]) 2 May 2002 (2002-05-02) * page 11 - page 14 *	1-9	INV. G07F7/00 G07F11/04
A	JP 2000 076535 A (TOKYO SHIBAURA ELECTRIC CO) 14 March 2000 (2000-03-14) * abstract *	1	
A	JP 9 305852 A (MATSUSHITA REFRIGERATION) 28 November 1997 (1997-11-28) * abstract *	1	
A	FR 2 718 624 A (BLANC ROGER [FR]; KESSLER JEAN) 20 October 1995 (1995-10-20) * page 5 - page 6 *	1	
A	WO 2006/100115 A (NUOVA VDE INTERNAT S R L [IT]; VICENTIN GIOVANNI [IT]) 28 September 2006 (2006-09-28) * page 6, line 24 - page 9, line 6 *	1	
A	WO 2006/057821 A (SCRIPTPRO LLC [US]; GUERRA LAWRENCE E [US]) 1 June 2006 (2006-06-01) * the whole document *	1	
A	JP 2000 113311 A (SANYO ELECTRIC CO) 21 April 2000 (2000-04-21) * abstract *	1-9	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 18 January 2012	Examiner Lavin Liermo, Jesus
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			

2
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 11 17 5385

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
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18-01-2012

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0235484	A	02-05-2002	AU 1237402 A	06-05-2002
			EP 1337983 A1	27-08-2003
			WO 0235484 A1	02-05-2002

JP 2000076535	A	14-03-2000	NONE	

JP 9305852	A	28-11-1997	JP 3159648 B2	23-04-2001
			JP 9305852 A	28-11-1997

FR 2718624	A	20-10-1995	-----	
WO 2006100115	A	28-09-2006	EP 1866877 A1	19-12-2007
			US 2008073373 A1	27-03-2008
			WO 2006100115 A1	28-09-2006

WO 2006057821	A	01-06-2006	AU 2005309909 A1	01-06-2006
			CA 2587433 A1	01-06-2006
			CA 2732076 A1	01-06-2006
			EP 1824771 A2	29-08-2007
			JP 2008520449 A	19-06-2008
			US 2006182609 A1	17-08-2006
			US 2006287771 A1	21-12-2006
			WO 2006057821 A2	01-06-2006

JP 2000113311	A	21-04-2000	JP 3524777 B2	10-05-2004
			JP 2000113311 A	21-04-2000
