



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
20.08.2014 Bulletin 2014/34

(51) Int Cl.:
B65H 29/00 (2006.01) B65H 9/20 (2006.01)

(43) Date of publication A2:
29.06.2011 Bulletin 2011/26

(21) Application number: **10194513.7**

(22) Date of filing: **10.12.2010**

(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 RS SE SI SK SM TR
Designated Extension States:
BA ME

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(30) Priority: **28.12.2009 JP 2009298264**

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(54) **Paper leaves processor and paper leaves processing method**

(57) In a paper leaves processor, when a paper leaf is introduced in a storing direction, a sensor (1b) detects a position of the paper leaf in a direction of a width of a take-up roller (1a). A correction amount-calculating unit (1c) compares the position of the paper leaf detected by the sensor and a centering area of an inlet-outlet opening, and calculates a correction amount for accommodating the position of the paper leaf within a centering area when discharging the paper leaf. Further, the correction amount-calculating unit calculates a movement amount of the take-up roller based on a moving direction of the take-up roller and the correction amount, and stores the movement amount in a correction information-storing unit (1d). When discharging the paper leaf, a position controller controls a moving unit (1f) based on the movement amount to move a position of the take-up roller.

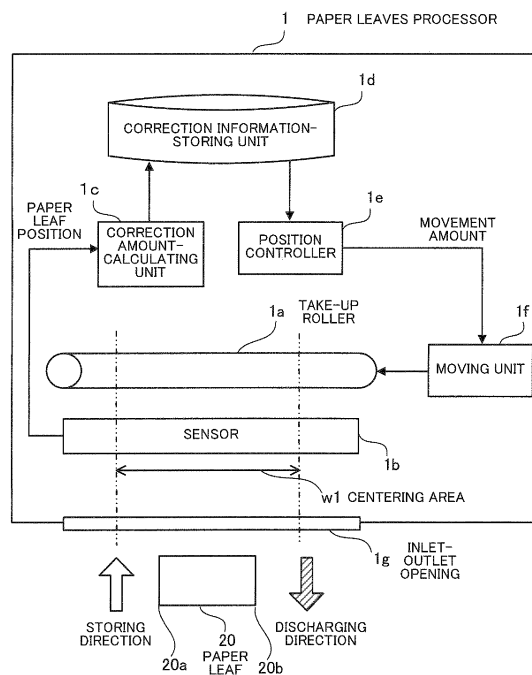


FIG. 1



EUROPEAN SEARCH REPORT

Application Number
EP 10 19 4513

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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 (IPC)
A	US 6 682 068 B1 (HANEY SEAN [US] ET AL) 27 January 2004 (2004-01-27) * abstract; figures 1, 18-26 * * column 16, line 3 - column 18, line 45 * -----	1-6	INV. B65H29/00 B65H9/20
A,D	JP 2006 069708 A (GLORY KOGYO KK) 16 March 2006 (2006-03-16) * abstract; figures 1-8 * -----	1-6	
A	DE 10 2007 050449 A1 (WINCOR NIXDORF INT GMBH [DE]) 5 March 2009 (2009-03-05) * abstract; figures 1a, 1d, 2-5 * * paragraph [0030] * * paragraph [0035] * -----	1-6	
A	WO 2009/113299 A1 (JAPAN CASH MACHINE CO LTD) 17 September 2009 (2009-09-17) * abstract; figures 12-27 * & EP 2 256 073 A1 (NIPPON KINSEN KIKAI KK [JP]) 1 December 2010 (2010-12-01) * abstract; figures 1, 12-27 * * paragraph [0021] - paragraph [0025] * -----	1-6	TECHNICAL FIELDS SEARCHED (IPC) B65H
A	EP 1 764 324 A2 (CANON KK [JP]) 21 March 2007 (2007-03-21) * abstract; figures 1-9 * * paragraph [0003] - paragraph [0005] * * paragraph [0039] - paragraph [0041] * * paragraph [0053] - paragraph [0056] * * the whole document * -----	1-6	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 14 July 2014	Examiner Piekarski, Adam
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 (P04C01)

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

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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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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6682068 B1	27-01-2004	BR 9815320 A	06-03-2001
		CA 2305284 A1	10-06-1999
		CN 1285802 A	28-02-2001
		EP 1034125 A1	13-09-2000
		ES 2414960 T3	23-07-2013
		RU 2175633 C1	10-11-2001
		US 6682068 B1	27-01-2004
		WO 9928225 A1	10-06-1999

JP 2006069708 A	16-03-2006	JP 4273061 B2	03-06-2009
		JP 2006069708 A	16-03-2006

DE 102007050449 A1	05-03-2009	NONE	

WO 2009113299 A1	17-09-2009	CN 102015500 A	13-04-2011
		EP 2256073 A1	01-12-2010
		JP 5184926 B2	17-04-2013
		JP 2009220943 A	01-10-2009
		TW 200951058 A	16-12-2009
		US 2011095474 A1	28-04-2011
		WO 2009113299 A1	17-09-2009

EP 1764324 A2	21-03-2007	EP 1764324 A2	21-03-2007
		JP 4785474 B2	05-10-2011
		JP 2007076774 A	29-03-2007
		US 2007075479 A1	05-04-2007
		US 2012091655 A1	19-04-2012

EPO FORM P0459

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