

(19)



Europäisches Patentamt  
European Patent Office  
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(11) Publication number:

**0 376 308 A3**

(12)

**EUROPEAN PATENT APPLICATION**(21) Application number: **89124076.4**(51) Int. Cl.<sup>5</sup>: **B65H 3/06, B65H 7/02**(22) Date of filing: **28.12.89**

(30) Priority: **28.12.88 JP 332644/88**  
**29.12.88 JP 330984/88**  
**29.12.88 JP 330985/88**

(43) Date of publication of application:  
**04.07.90 Bulletin 90/27**

(84) Designated Contracting States:  
**DE FR GB**

(88) Date of deferred publication of the search report:  
**18.09.91 Bulletin 91/38**

(71) Applicant: **CANON KABUSHIKI KAISHA**  
**30-2, 3-chome, Shimomaruko, Ohta-ku**  
**Tokyo(JP)**

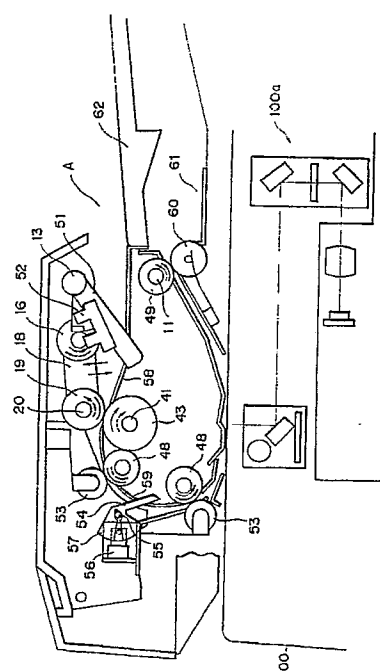
(72) Inventor: **Sayama, Hideaki**  
**1-4, Nishi Kubo-cho Hodogaya-ku**  
**Yokohama-shi Kanagawa-ken(JP)**  
Inventor: **Sata, Junichi**  
**Sanirejidensu B-105 167, Miyauchi**  
**Nakahara-ku**  
**Kawasaki-shi Kanagawa-ken(JP)**

(74) Representative: **Tiedtke, Harro, Dipl.-Ing. et al**  
**Patentanwaltsbüro Tiedtke-Bühling-Kinne-**  
**Grupe-Pellmann-Grams-Struif Bavariaring 4**  
**Postfach 20 24 03**  
**W-8000 München 2(DE)**

(54) **Sheet feeding apparatus.**

(57) The present invention provides a sheet feeding apparatus comprising a stacking means (62) for stacking sheets; a feed means (16) for feeding the sheets stacked in the stacking means; a driving means (2) for generating rotational forces in a predetermined direction and in an opposite direction opposite to the predetermined direction; and a shifting means (14) for shifting the feed means to a position where the feed means contacts the sheet stacked in the stacking means by the rotational force directed toward the predetermined direction, and for separating the feed means from the sheet stacked in the stacking means by the rotational force directed toward the opposite direction. The shifting means includes a driving force transmitting means (7,8) for transmitting the rotational force directed toward the predetermined direction by a first predetermined value and for transmitting the rotational force directed toward the opposite direction by a second predetermined value, whereby the feed means is shifted by the rotational force transmitted by the driving force transmitting means.

FIG. 1

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## EUROPEAN SEARCH REPORT

Application Number

EP 89 12 4076

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	US-A-3 567 214 (XEROX CORP.) * Column 4, line 3 - column 8, line 57; figures 3-7, 10 * ---	1-6, 17-22	B 65 H 3/06 B 65 H 7/02
X	PATENT ABSTRACTS OF JAPAN, vol. 10, no. 181 (M-492)[2237], 25th June 1986; & JP-A-61 027 841 (SEIKO EPSON CORP.) 07-02-1986 * The whole document * ---	1, 2, 4-6	
X	US-A-4 085 931 (VEEDER IND. INC.) * Column 2, line 14 - column 3, line 52; figures * ---	7-11	
Y	---	12-16	
Y	PATENT ABSTRACTS OF JAPAN, vol. 12, no. 374 (M-749)[3221], 6th October 1988; & JP-A-63 123 742 (RICOH CO., LTD) 27-05-1988 * The whole document * ---	12-16	
P, X	EP-A-0 320 246 (MATSUSHITA ELECTRIC IND. CO., LTD) * Page 2, column 2, line 43 - page 3, column 4, line 49; figures 1-4 * ---	1-4, 6	TECHNICAL FIELDS SEARCHED (Int. Cl.5)  B 65 H G 03 B
E	PATENT ABSTRACTS OF JAPAN, vol. 14, no. 281 (M-986)[4224], 18th June 1990; & JP-A-02 086 518 (CANON INC.) 27-03-1990 * The whole document * ---	1-3, 17, 18	
A	PATENT ABSTRACTS OF JAPAN, vol. 5, no. 108 (M-78)[780], 14th July 1981; & JP-A-56 052 344 (RICOH K.K.) 11-05-1981 * The whole document * -----	7	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 11-06-1991	Examiner THIBAUT E.E.G.C.
<b>CATEGORY OF CITED DOCUMENTS</b> 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			



## CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

## X LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1-6,17-22: Sheet feeding apparatus.
2. Claims 7-16: control device for sheet feeding apparatus.

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims,

namely claims: