(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 0 841 276 A3

(12) EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
03.02.1999 Bulletin 1999/05

(43) Date of publication A2:
13.05.1998 Bulletin 1998/20

(21) Application number: **97117532.8**

(22) Date of filing: **10.10.1997**

(51) Int. Cl.[6]: **B65H 9/10**, B65H 5/02, B65H 45/00

(84) Designated Contracting States:
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
Designated Extension States:
AL LT LV RO SI

(30) Priority: **29.10.1996 IT MI962236**

(71) Applicant:
RIGOLI F.I.M.E. S.p.A.
I-20139 Milano (IT)

(72) Inventor: **Rigoli, Vittorio**
20139 Milan (IT)

(74) Representative:
Klausner, Erich et al
c/o Ufficio Internazionale Brevetti
Ing. C. Gregorj S.p.A.
Via Dogana 1
20123 Milano (IT)

(54) Device for turning paper sheets into a desired orientation in a paper sheet folding machine

(57) A device for turning paper sheets to a desired orientation in a paper sheet folding machine which comprises an entraining system (14) for feeding a sheet to be folded and a side turning means engageable with and apt to cause the turning of said sheet in combination with the sheet entraining motion (18) thereof, wherein said side turning means comprises a wheel (20) which is rotatively driven to apply to the sheet (10) an entraining force in a direction (22) opposite to the direction (18) of the feeding motion applied to the sheet (10) by the entraining system (14). On a side of the system (14) entraining the sheet (10), a vertically movable abutment pin member (24) is provided for engaging an edge of the sheet (10) in order to stop the turning movement thereof in its lying plane, once the sheet (10) has reached a desired amount of turning.

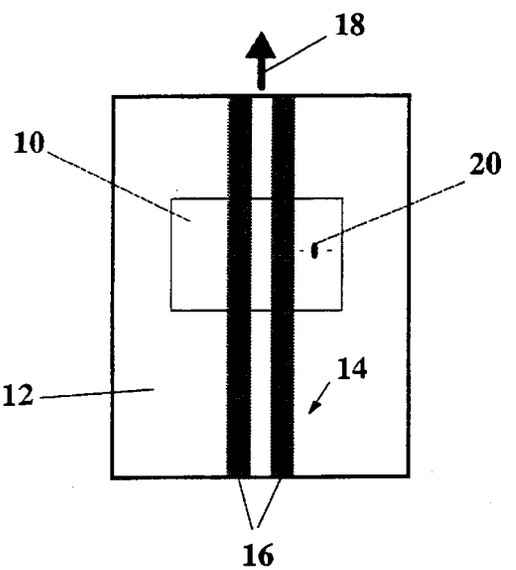


Fig. 1

EP 0 841 276 A3

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 97 11 7532

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.6)
X	US 5 090 683 A (VENKATESH H. KAMATH ET AL.) 25 February 1992 * column 5, line 45 - column 11, line 61; figures *	1-3,8	B65H9/10 B65H5/02 B65H45/00
X	EP 0 512 827 A (MOORE BUSINESS FORMS, INC.) 11 November 1992 * column 3, line 11 - column 7, line 4; figures *	1-3,8	
A	PATENT ABSTRACTS OF JAPAN vol. 12, no. 179 (M-701) '3026!, 26 May 1988 & JP 62 290658 A (FUJI XEROX CO LTD), 17 December 1987 * abstract *	1,5,6,8	
A	DE 30 48 298 A (BAY, OTTO) 22 July 1982 * page 15, line 4 - page 16, line 4; figure 1 *	1,8	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6) B65H

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
BERLIN	10 December 1998	Fuchs, H

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. EP 97 11 7532

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.

10-12-1998

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5090683 A	25-02-1992	JP 4226240 A	14-08-1992
EP 0512827 A	11-11-1992	US 5282614 A	01-02-1994
		AU 656769 B	16-02-1995
		AU 1608592 A	12-11-1992
		CA 2068257 A	11-11-1992
		DE 69204896 D	26-10-1995
		DE 69204896 T	04-04-1996
		JP 2723420 B	09-03-1998
		JP 5221563 A	31-08-1993
		MX 9202138 A	01-11-1992
		NZ 242672 A	26-07-1994
		US 5172907 A	22-12-1992
DE 3048298 A	22-07-1982	CH 650221 A	15-07-1985
		JP 57121552 A	29-07-1982
		NL 8105417 A	16-07-1982
		US 4445679 A	01-05-1984

EPO FORM P0459

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