

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 December 2003 (24.12.2003)

PCT

(10) International Publication Number
WO 2003/107282 A3

(51) International Patent Classification⁷: **G07C 3/00**
(21) International Application Number:
PCT/US2003/018706
(22) International Filing Date: 12 June 2003 (12.06.2003)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data:
60/388,433 13 June 2002 (13.06.2002) US
(71) Applicant: **CUMMINS-ALLISON CORP.** [US/US];
891 FEEHANVILLE DRIVE, MOUNT PROSPECT, IL
60056 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors: **HALLOWELL, Curtis, W.**; 1417 E. Reynolds Drive, Palatine, IL 60067 (US). **KLEIN, Robert, J.**; 3201 N. Ravenswood, #109, Chicago, IL 60657 (US). **RENZ, Mark, B.**; 622 S. Mitchell, Arlington Heights, IL 60005 (US).

Published:

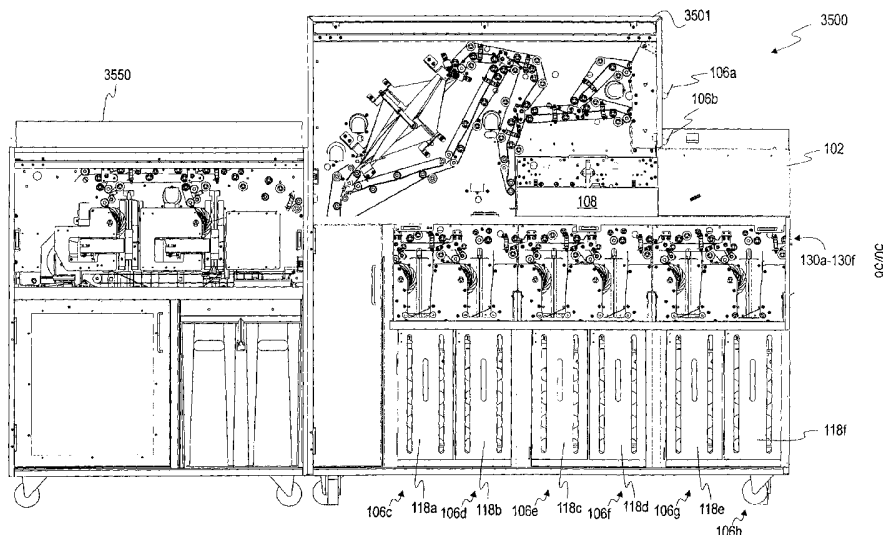
- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(74) Agents: **RUDISILL, Stephen, G.** et al.; JENKENS & GILCHRIST, 225 West Washington Street, Suite 2600, Chicago, IL 60606 (US).

(88) Date of publication of the international search report:
10 February 2005

[Continued on next page]

(54) Title: CURRENCY PROCESSING AND STRAPPING SYSTEMS AND METHODS FOR USING THE SAME



(57) Abstract: A method and device for evaluating currency bills using a strapping unit that allows a currency evaluating device (108) to automatically strap stacks of currency bills. Currency bills are placed in an input receptacle (102) and an evaluating unit (108) processes each currency bill one at a time. The currency bills are then transported to a plurality of output receptacles (106a-h). A stack moving mechanism (100) transports a stack of currency bills, which contains a predetermined number of currency bills, from each of the plurality of output receptacles to the strapping unit (1750) or a strapping position. Each stack of currency bills is strapped using strapping material.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/18706

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G07C 3/00

US CL : 194/206

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 194/206, 207

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
East

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,601,687 B1 (JENRICK et al) 05 August 2003 (05.08.2003), entire document.	1-41
A	US 6,598,726 B1 (LUNDBLAD et al) 29 July 2003 (29.07.2003), entire document.	1-41
A	US 5,022,531 (HORINO et al) 11 JUNE 1991 (11.06.1991), entire document.	1-41
A	US 4,025,420 (HORINO, SHIGEO) 24 May 1977 (24.05.1977), entire document.	1-41
A	US RE38,663E (KAYANI et al) 30 November 2004 (30.11.2004), entire document.	1-41



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

30 November 2004 (30.11.2004)

Date of mailing of the international search report

13 DEC 2004

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Donald P. Walsh

Telephone No. (703)308-1113