

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 :

B65G 37/02

A2

(11) International Publication Number:

WO 00/00416

(43) International Publication Date:

6 January 2000 (06.01.00)

(21) International Application Number: PCT/US99/14259

(22) International Filing Date: 23 June 1999 (23.06.99)

(30) Priority Data:

60/090,860

26 June 1998 (26.06.98)

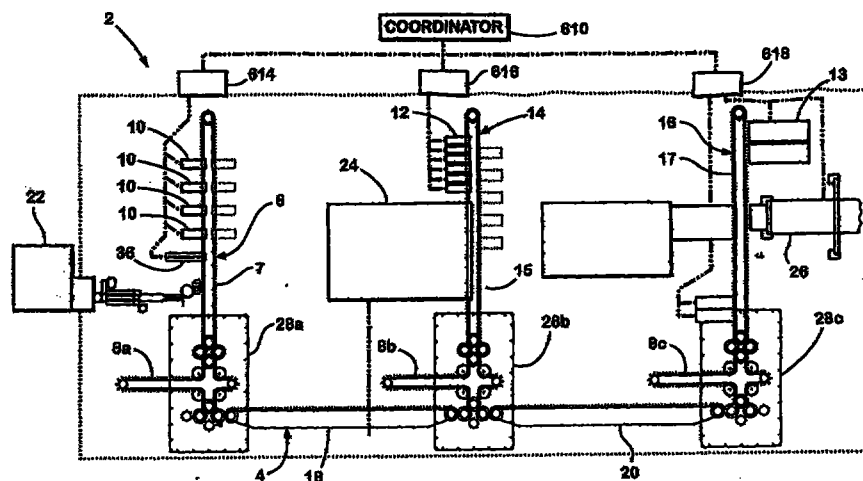
US

(71) Applicant: EVEREADY BATTERY COMPANY, INC.
[US/US]; 25225 Detroit Road, Westlake, OH 44145 (US).(72) Inventors: PATTANTYUS-ABRAHAM, Imre, A.; 21516
Hilliard Boulevard, Rocky River, OH 44126-3218 (US).
LAW, Chad, E.; 218 Williams Street, Huron, OH 44839
(US). WEBER, Patrick, J.; 15380 Howe Road, Strongsville,
OH 44136 (US). STEDMAN, Stanley, W.; 6551 Nicoll
Drive, North Ridgeville, OH 44039 (US). CHANG,
Stephen, T.; 358 Balmoral Drive, Richmond Heights, OH
44143 (US).(74) Agents: POPHAL, Michael, C. et al.; Eveready Battery
Company, Inc., 25225 Detroit Road, Westlake, OH 44145
(US).(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR,
BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE,
GH, GM, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent
(GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR,
IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published

*Without international search report and to be republished
upon receipt of that report.*

(54) Title: HIGH SPEED MANUFACTURING SYSTEM



(57) Abstract

A high speed manufacturing system for processing articles of manufacture requiring processes to be performed on the articles at a pre-selected processing rate includes a trunk for simultaneously conveying a plurality of the articles of manufacture at the pre-selected processing rate in a first mode of motion from the beginning of the manufacturing system to the end of the system. At least one branch processing station is positioned intermediate the beginning and the end of the trunk wherein the branch processing station during its operation performs at least one process on articles of manufacture conveyed on the branch processing station and where the articles are conveyed in a second mode of motion. At least one transfer device is positioned intermediate the trunk and the branch processing station to continuously extract articles of manufacture from the trunk and transition the movement of the extracted articles of manufacture from the first mode of motion to the second mode of motion for transfer to the branch processing station. The transfer device also extracts each of the processed articles of manufacture from the branch processing station and transitions the movement of the articles from the second mode of motion to the first mode of motion for transfer to the trunk.