



(51) International Patent Classification:

**B05B 5/03** (2006.01) **B05B 13/02** (2006.01)  
**B05D 3/00** (2006.01)

(21) International Application Number:

PCT/US2010/058319

(22) International Filing Date:

30 November 2010 (30.11.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/265,046 30 November 2009 (30.11.2009) US

(71) Applicant (for all designated States except US): **UNITED TECHNOLOGIES CORPORATION** [US/US];  
United Technologies Bldg., Hartford, CT 06101 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **NEAL, James, W.**; 25 Majus Circle, Ellington, CT 06029 (US). **LATOUR, Robert, F.** [US/US]; 12 Cubles Drive, Bolton, CT 06043 (US). **ZIMMERMAN, Benjamin, J.** [US/US]; 4 Pearl Street Extension, Enfield, CT 06082 (US).

(74) Agent: **SLATE, William, B.**; 900 Chapel Street, Suite 1201, New Haven, CT 06510-2802 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

6 October 2011

(54) Title: COATING METHODS AND APPARATUS

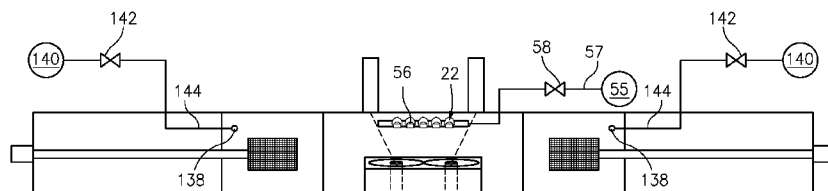


FIG. 7

(57) Abstract: A coating apparatus comprises a coating chamber for coating the articles. The at least one preheat chamber is coupled to the coating chamber. The at least one loading station has a proximal end connectable to at least one of the preheat chambers when in an installed position at a distal end of the preheat chamber. The loading station further includes a carrier for carrying the articles and a drive system. The drive system is positioned to move the carrier between: a loading/unloading position of the carrier in the loading station; a preheat position of the carrier in the preheat chamber to which the loading station is connected; and a deposition position of the carrier in the coating chamber. A gas source is connected to the preheat chamber.