

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
30 November 2006 (30.11.2006)

PCT

(10) International Publication Number
WO 2006/126795 A1

(51) International Patent Classification:
B29C 31/06 (2006.01)

(21) International Application Number:
PCT/KR2006/001833

(22) International Filing Date: 17 May 2006 (17.05.2006)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2005-0043208 23 May 2005 (23.05.2005) KR
10-2006-0042832 12 May 2006 (12.05.2006) KR

(71) Applicant (for all designated States except US): **FINE TECHNICS CO., LTD.** [KR/KR]; Rm. 706, Zeus Plaza, 924 Sau-dong, Gimpo-city, Gyeonggi-do 415-802 (KR).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **BACK, Sung-Hun** [KR/KR]; 325-504 Jugong 3danji Apt., Cheolsan3-dong, Gwangmyung-city, Gyeonggi-do 423-733 (KR).

(74) Agent: **Y.P.LEE, MOCK & PARTNERS**; 1575-1 Seocho-dong, Seocho-gu, Seoul 137-875 (KR).

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

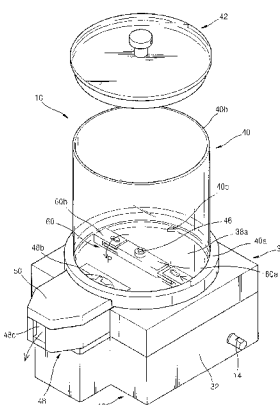
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT,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

Published:

— with international search report

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.

(54) Title: QUANTITATIVE POWDER SUPPLYING DEVICE AND MATERIAL SUPPLYING APPARATUS HAVING THE POWDER SUPPLYING DEVICE AND METHOD OF QUANTITATIVE SUPPLYING THE POWDER



(57) Abstract: Provided are an apparatus and method for supplying quantitative powder and a material supply apparatus including the apparatus for supplying the quantitative powder. The apparatus for supplying quantitative powder includes a driving part generating a driving force using an external power; a powder supply part connected to the driving part, following the operation of the driving part, and transferring the powder according to a predetermined path; a chamber placed on the sides of the powder supply part and receiving the powder transferred by the powder supply part; a compression part compressing the transferred powder in the chamber; and a quantitative supply part separating a desired amount of powder from the compressed powder and discharging the separated powder from the chamber. The material supply apparatus includes an upper duct passing an externally provided plastic raw material having a quantitative powder supply device that discharges powder to be mixed with the plastic raw material; a rotation duct rotatably equipped at the lower part of the upper duct and including a stirring unit mixing the plastic raw material with the powder; a lower duct placed below the lower part of the rotation duct, rotatably supporting the rotation duct, and discharging a mixture of the plastic raw material and powder downwardly that passes through the rotation duct to the outside; bearings disposed between the upper duct and the rotation duct and between the lower duct and the rotation duct, rotatably supporting the rotation duct, and forming a seal between the rotation duct and the upper and lower ducts; and a driving unit axis-rotating the rotation duct and operating the stirring unit.



WO 2006/126795 A1