(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
31 August 2006 (31.08.2006)

PCT

(10) International Publication Number
WO 2006/091518 A1

(51) International Patent Classification:
B24D 11/00 (2006.01) *B24D 18/00* (2006.01)

(21) International Application Number:
PCT/US2006/005914

(22) International Filing Date:
21 February 2006 (21.02.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/063,258 22 February 2005 (22.02.2005) US

(71) Applicant *(for all designated States except US)*: **SAINT-GOBAIN ABRASIVES, INC.** [US/US]; 1 New Bond Street Box Number 15138, Worcester, Massachusetts 01615-0138 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **NEVORET, Damien** [US/US]; 25 Jonathan Circle, Worcester, Massachusetts 01604 (US). **GWO, Swei** [US/US]; 225 Timberwind Lane, Vandalia, OH 45377 (US). **ZANOLI, Alain** [FR/FR]; 28 Rue Joseph Vernet, F-84000 Avignon (FR).

(74) Agent: **BUJOLD, Michael J.**; 112 Pleasant Street, Concord, New Hampshire 03301 (US).

(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, KR, 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.

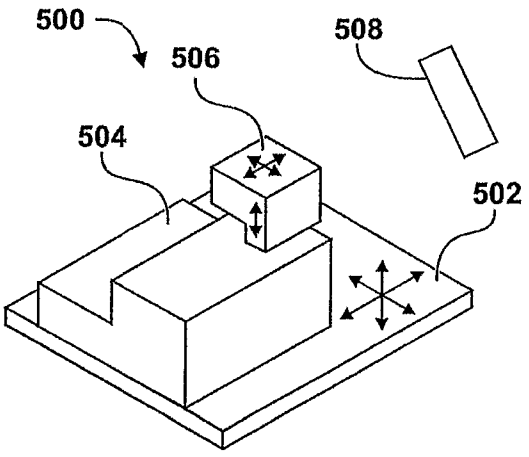
(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, 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).

Declarations under Rule 4.17:
— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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*

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: RAPID TOOLING SYSTEM AND METHODS FOR MANUFACTURING ABRASIVE ARTICLES



(57) Abstract: A method of facilitating abrasive article manufacturing includes providing a rapid tooling system (500) to a consumer and providing a cartridge (500) to the consumer. The cartridge (506) has a cartridge body, a first binder and first abrasive particles. The cartridge (506) is configured to operate as part of the rapid tooling system (500) and is operable to deposit the first binder and the first abrasive particles in successive patterned layers to form an abrasive structure.

WO 2006/091518 A1