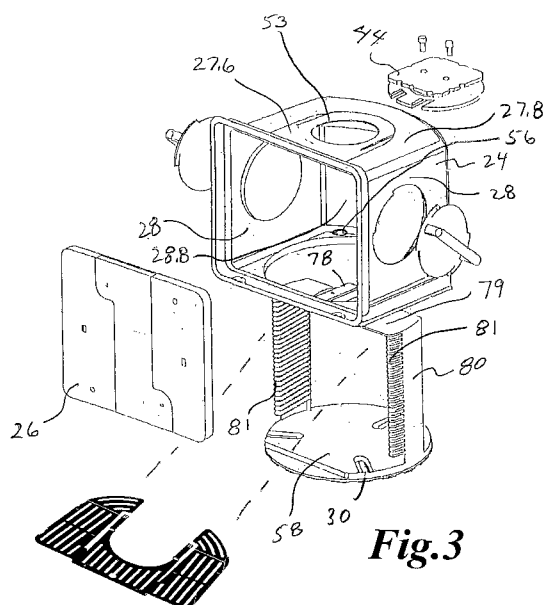




- (51) **International Patent Classification:**
H01L 21/673 (2006.01) *B65D 85/86* (2006.01)
B65D 85/38 (2006.01)
- (21) **International Application Number:**
PCT/US2012/036373
- (22) **International Filing Date:**
3 May 2012 (03.05.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/482,151 3 May 2011 (03.05.2011) US
- (71) **Applicant (for all designated States except US):** ENTERGRIS, INC. [US/US]; 129 Concord Road, Billerica, MA 01821 (US).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** FORBES, Martin, L. [US/US]; 993 Ridge Road, Divide, CO 80814 (US). BURNS, John [US/US]; 6046 Bow Ridge Drive, Colorado Springs, CO 80918 (US). FULLER, Matthew, A. [US/US]; 1731 North Vevada Avenue, Colorado Springs, CO 80907 (US).
- (74) **Agents:** CHRISTENSEN, Douglas, J. et al.; Patterson Thuente Christensen Pedersen, P.A., 4800 Ids Center, 80 South Eighth Street, Minneapolis, MN 55402-2100 (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, QA, RO, RS, RU, RW, 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, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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).

[Continued on next page]

(54) **Title:** WAFER CONTAINER WITH PARTICLE SHIELD**Fig. 3**

(57) **Abstract:** One or more particulate shields above the top wafer in wafer containers such as FOUPs may be provided to prevent accumulation of particulates on wafers. The particulate shields or barriers may be formed of materials that are compatible to maintaining less than 5% RH, particularly materials that will not absorb meaningful amounts of water, and that will not bring absorbed moisture into the container. In embodiments, particular materials found to be suitable include cyclic olefin polymers, cyclic olefin copolymers, liquid crystal polymers. In particular embodiments, a FOUP may be provided with an additional slot above the industry standard 25 slots to receive a dedicated barrier. In embodiments, the barrier may be a solid thin shape that corresponds to the wafer shape. In embodiments, the barrier may have inherent charge properties opposite to the particulates found in the containers to thereby attract the particulates to the barrier. In embodiments the barrier may have apertures, such as slots, or other openings, to facilitate charge development for enhancing the attraction of particulates to the barrier. In embodiments the barrier may be retrofitted to existing wafer containers, such as FOUPs. In embodiments, the shield may be conforming to the interior structure of a specific FOUP configuration.



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