



(51) International Patent Classification:

C03B 17/06 (2006.01) *C03C 3/091* (2006.01)
C03C 17/02 (2006.01) *B32B 17/06* (2006.01)
C03C 3/083 (2006.01)

(21) International Application Number:

PCT/US2011/041316

(22) International Filing Date:

22 June 2011 (22.06.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/359,409 29 June 2010 (29.06.2010) US

(71) Applicant (*for all designated States except US*): **CORNING INCORPORATED** [US/US]; 1 Riverfront Plaza, Corning, New York 14831 (US).

(72) Inventors; and

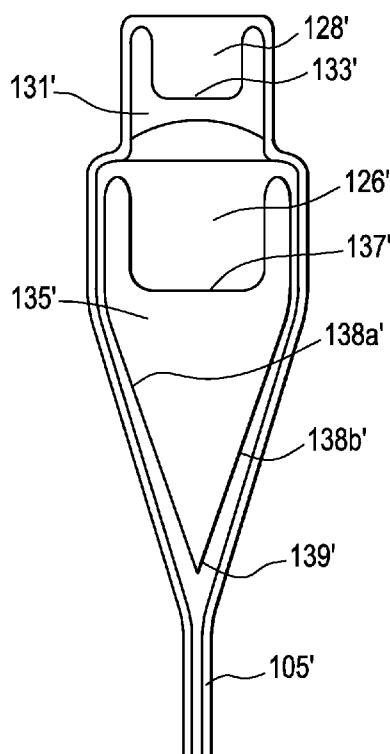
(75) Inventors/Applicants (*for US only*): **BOOKBINDER, Dana C.** [US/US]; 2675 Davis Road, Corning, New York 14830 (US). **HOUSE, Keith Leonard** [US/US]; 2249 Spencer Hill Road, Corning, NY 14830 (US). **TANDON, Pushkar** [US/US]; 3405 Deer Crest, Painted Post, New York 14870 (US).

(74) Agent: **MASON, Matthew J.**; Corning Incorporated, SP-Ti-03-01, Intellectual Property Department, Corning, New York 14831 (US).

[Continued on next page]

(54) Title: MULTI-LAYER GLASS SHEET MADE BY CO-DRAWING USING THE OVERFLOW DOWNDRAW FUSION PROCESS

FIG. 3



(57) Abstract: Transparent glass sheets having increased mechanical strength include an inner layer surrounded by surface compressive layers wherein the difference of the coefficient of thermal expansion of the inner layer and the surface compressive layer is greater than $50 \times 10^{-7} \text{ } ^\circ\text{C}^{-1}$ and wherein the surface compressive layer has a compressive stress of at least about 300 MPa.



(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))