



(51) International Patent Classification:
B21D 5/14 (2006.01) **E04B 1/32** (2006.01)

(21) International Application Number:
PCT/US2009/066339

(22) International Filing Date:
2 December 2009 (02.12.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
12/314,555 12 December 2008 (12.12.2008) US

(71) Applicant (for all designated States except US): **M.I.C. INDUSTRIES, INC.** [US/US]; 11911 Freedom Drive, One Fountain Square, Reston, VA 20190 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ANDERSON, Todd, E.** [US/US]; 1020 Edgewood Drive, Duncansville, PA 16635 (US). **MORELLO, Frederick** [US/US]; 304 Terlyn Drive, Johnstown, PA 15904 (US).

(74) Agents: **PEARSON, Douglas et al.**; Jones Day, 222 East 41st Street, New York, NY 10017-6702 (US).

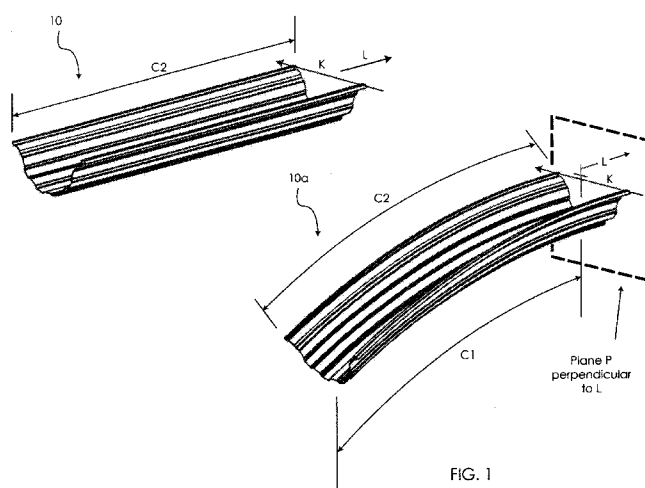
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, 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, 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, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, 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))

(54) Title: CURVED BUILDING PANEL, BUILDING STRUCTURE, PANEL CURVING SYSTEM AND METHODS FOR MAKING CURVED BUILDING PANELS



(57) Abstract: A building panel formed from sheet material extends in a longitudinal direction along its length and includes a curved center portion in cross section, a pair of side portions extending from the curved center portion, and a pair of connecting portions extending from the side portions. The curved center portion includes a plurality segments extending in the longitudinal direction. The panel is curved in the longitudinal direction without having transverse corrugations. A particular segment may have a depth greater than that of another segment to accommodate the longitudinal curve. A system for longitudinally curving the panel includes first and second curving assemblies, each of which includes multiple rollers arranged to contact the panel as it passes along, a positioning mechanism for changing a relative rotational orientation between the first and second curving assemblies, a drive system for moving the panel longitudinally, and a control system for controlling the positioning mechanism.

