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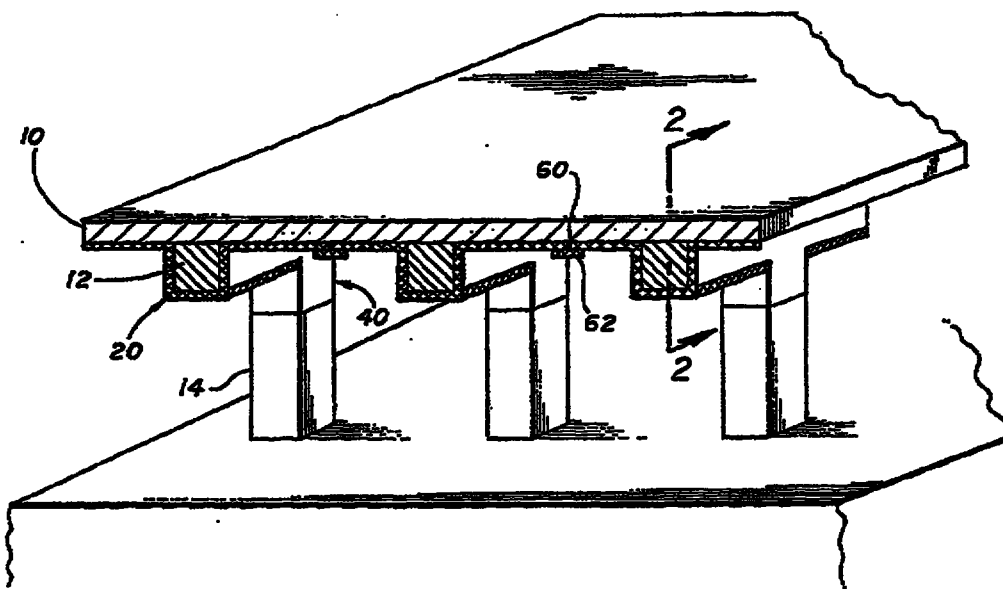
WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶: E04C 5/07, E02D 37/00	A1	(11) International Publication Number: WO 97/01686 (43) International Publication Date: 16 January 1997 (16.01.97)
(21) International Application Number: PCT/US96/09823 (22) International Filing Date: 11 June 1996 (11.06.96) (30) Priority Data: 496,743 29 June 1995 (29.06.95) US (71) Applicant: HEXCEL-FYFE CO., L.L.C. [US/US]; 1341 Ocean Avenue, Del Mar, CA 92014 (US). (72) Inventors: FYFE, Edward, R.; 1339 Ocean Avenue, Del Mar, CA 92014 (US). ISLEY, Frederick, P.; 865 Larkspur Drive, Tracy, CA 95376 (US). (74) Agents: OLDENKAMP, David, J. et al.; Poms, Smith, Lande & Rose, Suite 3800, 2029 Century Park East, Los Angeles, CA 90067 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BI, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>

(54) Title: FABRIC REINFORCED BEAMS AND BEAM CONNECTIONS



(57) Abstract

A technique for applying high strength fiber fabric to strengthen beams (12) and the connection between beams (12) and either supported platforms (10) or supporting vertical columns (14) is disclosed. Fabric made of high strength fibers such as glass, boron, or carbon, is laid over the connection between a beam (12) and a platform (10), or between a beam (12) and a supporting column (14), and impregnated with an epoxy resin or other polymer matrix. The fabric may be additionally fastened to the structural member using adhesives, fabric fasteners, or bolts. The invention is particularly well suited for retrofitting bridges, freeway overpasses, parking structures, and the like to prevent failure during an earthquake.