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[Continued on next page]

(54) Title: FIREWALL STRUCTURE FOR USE IN A TOWER/FRAME STRUCTURE AND COOLING TOWER

(57) Abstract: A firewall structure (1000) having double panel walls with a first outer wall (1002) and a second outer wall (1004) is constructed of fiber reinforced material. Multiple cavities (1008) are defined between the outer walls and are at least partially filled with a polyurethane insulation (1010). The surfaces of the first and the second outer walls are coated with a layer of material (1020) that resists fire and heat. In one embodiment, the layer of material includes intumescent latex which functions to create a thick char layer when exposed to high temperatures or flames.

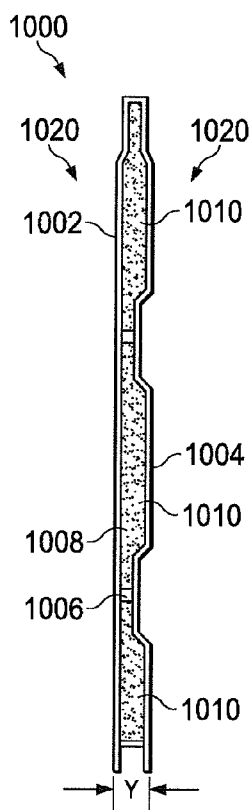


FIG. 10A





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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, 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.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 14/26514

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - E04H 5/12 (2014.01)

CPC - E04H 5/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8): E04H 5/*

CPC: E04H 5/*; USPC: 261/108

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

IPC(8): E04H*

CPC: E04H*; USPC: 261/*

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PatBase, Google Patents, Google Web

Keywords: intumescent, latex, fire, flame, heat, insulation, insulative, urethane, polyurethane, foam, char, fibre, fiber, coating, coat

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 3,987,600 A (BAEHR) 26 October 1976 (26.10.1976), entire document	1-15
Y	US 7,482,395 B2 (MABEY et al.) 27 January 2009 (27.01.2009), entire document	1-15
Y	US 7,607,646 B2 (BLAND et al.) 27 October 2009 (27.10.2009), entire document	6-10
A	DE 3045938 A1 (HOLZMANN) 09 June 1982 (09.06.1982), entire document	1-15
A	US 6,182,407 B1 (TURPIN et al.) 06 February 2001 (06.02.2001), entire document	1-15
A	US 5,687,532 A (TORREY) 18 November 1997 (18.11.1997), entire document	1-15
A	US 2006/0191220 A1 (RITCHIE) 31 August 2006 (31.08.2006), entire document	1-15

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"O" document referring to an oral disclosure, use, exhibition or other means

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

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