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12/624,924 24 November 2009 (24.11.2009) US(71) Applicant (for all designated States except US): **E. KHASHOGGI INDUSTRIES, LLC** [US/US]; 55 Castilian Dr., Santa Barbara, California 93117 (US).

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(54) Title: EXTRUDED FIBER REINFORCED CEMENTITIOUS PRODUCTS HAVING WOOD-LIKE PROPERTIES AND ULTRAHIGH STRENGTH AND METHODS FOR MAKING THE SAME

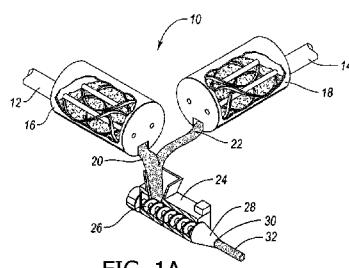


FIG. 1A

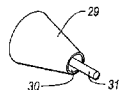


FIG. 1B

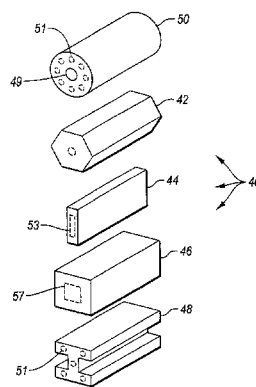


FIG. 1C

(57) Abstract: A method of manufacturing a cementitious composite including: (1) mixing an extrudable cementitious composition by first forming a fibrous mixture comprising fibers, water and a rheology modifying agent and then adding hydraulic cement; (2) extruding the extrudable cementitious composition into a green extrudate, wherein the green extrudate is characterized by being form-stable and retaining substantially a predefined cross-sectional shape; (3) removing a portion of the water by evaporation to reduce density and increase porosity; and (4) heating the green extrudate at a temperature from greater than 65°C to less than 99°C is disclosed. Such a process yields a cementitious composite that is suitable for use as a wood substitute. Particularly, by using higher curing temperatures for preparing the cementitious building products, the building products have a lower bulk density and a higher flexural strength as compared to conventional products. The wood-like building products can be sawed, nailed and screwed like ordinary wood.