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(54) Title: MIST TYPE FIRE PROTECTION DEVICES, SYSTEMS AND METHODS

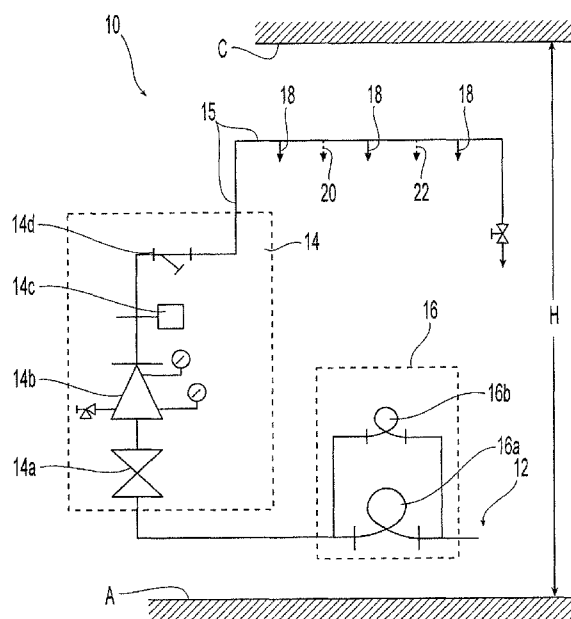


Fig. 1

(57) Abstract: Various mist-type fire protection systems for the protection of light and ordinary hazard occupancies of reduced water demand as compared to known mist type systems or sprinkler systems configured to protect the same occupancies. Three system configurations are defined by varying design criteria for the installation of: mist devices having an enlarged coverage area alone or in combination with known nozzles or sprinklers. The preferred mist devices provide for the protection of at least one of a light hazard occupancy only and a light and ordinary hazard occupancy having a ceiling with a maximum ceiling height of at least 8 ft. The preferred device include a body having a passageway defining a K-factor of less than 1 gpm/psi^{1/2}. The preferred device includes means for diffusing the fluid at a flux density of less than 0.1 gpm/sq. ft. for a fluid pressure at the inlet of less than 500 psi. to define a coverage area of the device of over than 132 sq. ft., preferably to a maximum of 256 sq. ft.