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(54) Title: **SPECIAL APPLICATION CONTROL SPRINKLER FOR USE IN FIRE PROTECTION**

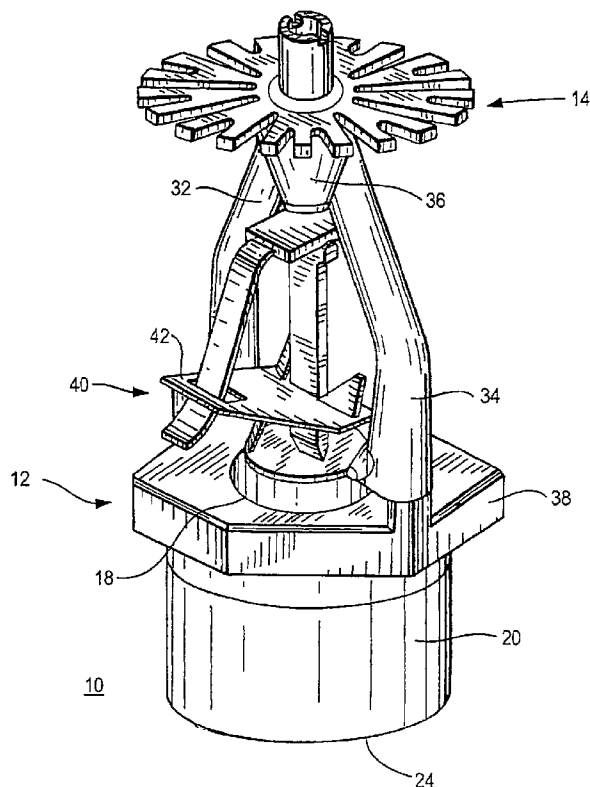


FIG. 2

(57) Abstract: A sprinkler having a design such that they can be arrayed where the coverage of each exceeds 80 square feet - preferably less than 200 square feet in extra hazard or high piled storage environments up to ceiling heights of 25 feet or greater, including ceiling heights of approximately 30 feet or greater and being adapted to control through the maintenance of the heat release rate for the prescribed period of time established by NFPA- 13 standards for what are termed "Extra Hazard" and "High Piled Storage" occupancy in which sprinklers preferably having a K factor of 18-40 through the selective combination of pressure and trigger-speed provide sufficiently large drops of water to permit the same to maintain sufficient size and density after contacting the structural members generally encountered in warehouse-type facilities to be able to penetrate the fire plume. Specifically, in its preferred embodiment if the pressure is 7-10psi, a diagonal line emanating from the center of the deflector to the edge of the obstruction (A) is greater than 3 times the height or 3 times the width of the obstruction.



FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,
PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM,
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B FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U S 169/37, 38, 42, 239/518, 524

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

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

C DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X	US 6,976,543 B1 (FISCHER) 20 December 2005 (20 12 2005), whole document	1-18
A	US 6,059,044 (FISCHER) 09 May 2000 (09 05 2000), whole document	1-18
A	US 5,609,211 (MEYER et al) 11 March 1997 (11 03 1997), whole document	1-18

D Further documents are listed in the continuation of Box C ☐ See patent family annex

* Special categories of cited documents	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document denning the general state of the art which is not considered to be of particular relevance	"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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