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| (51) International Patent Classification <sup>6</sup> :<br><b>A62C 35/64, 35/58</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>A1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | (11) International Publication Number: <b>WO 99/13949</b><br>(43) International Publication Date: 25 March 1999 (25.03.99) |
| (21) International Application Number: PCT/FI98/00712 ✓<br>(22) International Filing Date: 11 September 1998 (11.09.98) ✓<br>(30) Priority Data: ✓<br>① 973695 15 September 1997 (15.09.97) ✓ FI<br>② 974465 9 December 1997 (09.12.97) ✓ FI<br>(71)(72) Applicant and Inventor: ① SUNDHOLM, Göran (FI/FI);<br>Ilmari Kiannon kuja 3, FIN-04310 Tuusula (FI). ✓<br>(74) Agent: KOLSTER OY AB; Iso Roobertinkatu 23, P.O. Box<br>148, FIN-00121 Helsinki (FI). ✓                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (81) Designated States: AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).<br><br>Published<br>With international search report.<br>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.<br><br>2 PDS.<br>1 App! (See PF 24 of 12/9/01)<br>1 INV. (See Symbol "B")<br><br>2 PAS. |                                                                                                                            |
| (54) Title: FIRE FIGHTING APPARATUS ✓<br><div data-bbox="300 1232 1276 1478"> </div> <div data-bbox="1069 1164 1452 1411">           IPC: A62C 35/64,<br/>           35/38<br/>           Exam. Rept.<br/>           20/5/99.         </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                            |
| (57) Abstract<br><p>The invention relates to a fire fighting apparatus comprising a plurality of spray heads (5a' to 5e'), a tube system (2', 3a', 3e') for leading extinguishing medium from an extinguishing medium source (2') having a volume for extinguishing medium to the spray heads, at least one drive gas source for driving extinguishing medium at a high pressure via the tube system to the spray heads, and release means for activating at least one of the spray heads. In order that the fire fighting apparatus may have simple structure and installation characteristics and, in addition to that, be usable for providing extinguishing liquid along very long distances, said at least one drive gas source is coupled to a long tube (2') constituting part of the tube system in such a way that the tube together with said at least one drive gas source constitutes a hydraulic accumulator and the volume of the source of extinguishing medium is constituted by the volume of the tube at least to a substantial extent.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                            |