



(51) International Patent Classification:

F16K 1/00 (2006.01) *F16K 31/12* (2006.01)
F16K 15/04 (2006.01) *A62C 35/68* (2006.01)
F16K 15/18 (2006.01)

(21) International Application Number:

PCT/US2019/012279

(22) International Filing Date:

04 January 2019 (04.01.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/649,680 29 March 2018 (29.03.2018) US

(71) Applicant: **GLOBE FIRE SPRINKLER CORPORATION** [US/US]; 4077 Airpark Drive, Standish, Michigan 48658 (US).

(72) Inventors: **RINGER, Yoram**; 499 Elmgrove Avenue, Providence, Rhode Island 02906 (US). **MEYER, Stephen**,

J.; 1135 Braefield Road, Chester Springs, Pennsylvania 19425 (US). **FARRELL, Gordon**; 219 Echo Acres Road, North Conway, New Hampshire 03860 (US). **HUANG, Fang**; 1-1-2806 Room, A Zone, Haijing Yin Xiang Cheng Kuangshan Road, Xi'an Shaanxi 710032 (CN).

(74) Agent: **ELIAS, Ragi, A.I.** et al.; Panitch Schwarze Belisario & Nadel LLP, Two Commerce Square, 2001 Market Street, Suite 2800, Philadelphia, Pennsylvania 19103 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, 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.

(54) Title: COMBINATION CONTROL AND CHECK VALVE ASSEMBLY FOR A WET PIPING SYSTEM

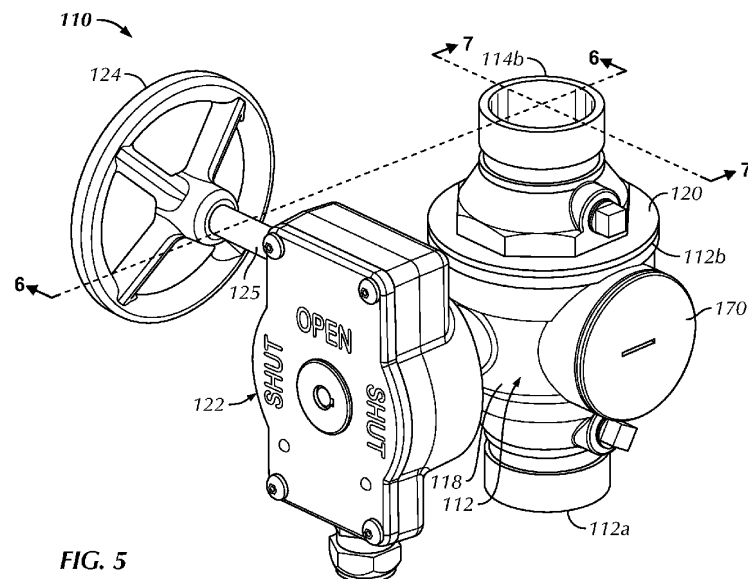


FIG. 5

(57) Abstract: A combination control and check valve assembly for a wet piping system includes a control valve in the form of a ball valve and a one-way check valve mounted within the flow pathway of the ball valve. A valve actuation assembly is mounted to the valve assembly to selectively rotate the ball valve between the open and closed positions thereof. The valve actuation assembly is mounted to a first side of the valve assembly and rotationally fixed to the ball, whereby rotation of the valve actuation assembly rotates the ball between the open and closed positions. A side opening is formed in a second side of the valve assembly that is angularly spaced from the first side. The side opening is positioned to align with the fluid flow pathway of the ball valve in the closed position thereof to provide access to the check valve.

[Continued on next page]



(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))