

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 August 2009 (06.08.2009)

PCT

(10) International Publication Number
WO 2009/095540 A1

(51) International Patent Classification:

F41F 3/052 (2006.01) **F42B 30/10** (2006.01)
F41F 1/06 (2006.01)

(21) International Application Number:

PCT/FI2009/050078

(22) International Filing Date: 30 January 2009 (30.01.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

20085078 31 January 2008 (31.01.2008) FI

(71) Applicant (for all designated States except US): **PATRIA LAND & ARMAMENT OY** [FI/FI]; Kaivokatu 10 A, 00100 Helsinki (FI).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TIAINEN, Jukka** [FI/FI]; Kisakatu 9, 38210 Sastamala (FI). **NURMINEN, Mika** [FI/FI]; Rouskukatu 7, 37130 Nokia (FI). **HAKARI, Seppo** [FI/FI]; Paavo Kolinkatu 12 B 10, 33720 Tampere (FI).

(74) Agent: **KOLSTER OY AB**; Iso Roobertinkatu 23, P.O.Box 148, 00121 Helsinki (FI).

(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, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (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, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

[Continued on next page]

(54) Title: ARRANGEMENT FOR SUPPORTING SHELL INTO WEAPON BARREL, SUPPORT ELEMENT AND METHOD

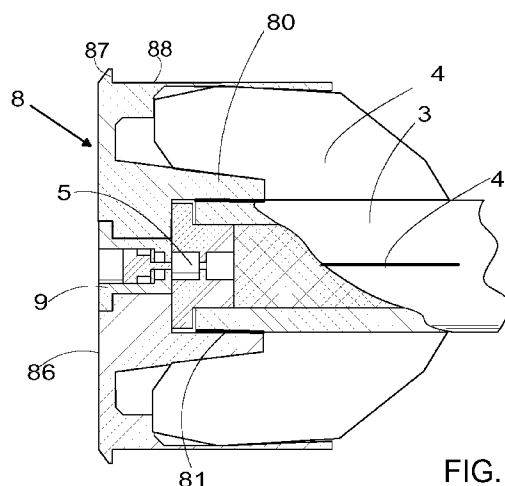


FIG. 3

(57) Abstract: The invention relates to an arrangement for supporting a shell (1), such as a mortar shell, into the barrel of a breech-loading weapon, the arrangement comprising a support element (8) to be fastened to the tail of the mortar shell, the element comprising a rim flange (87), means for fastening the support element to the tail of the mortar shell (1), and firing means (9) for firing an actual primer (5) of the mortar shell (1) for firing the mortar shell. The arrangement is characterized in that the means for fastening the support element to the shell tail are arranged in the support element (8) by means of finger-like fastening members (80) settling onto the shell tail tube (3) and arranged to constitute an interference fit between the shell (1) and the support element (8) when the shell (1) is placed in the support element (8). The invention also relates to a support element and a method for supporting a mortar shell (1) into the barrel of a breechloading weapon.

WO 2009/095540 A1



Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*