



- (51) **International Patent Classification:**
B23K 9/29 (2006.01) *B23K 9/32* (2006.01)
- (21) **International Application Number:**
PCT/US2012/030227
- (22) **International Filing Date:**
23 March 2012 (23.03.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/468,875 29 March 2011 (29.03.2011) US
- (71) **Applicant** (for all designated States except US):
ILLINOIS TOOL WORKS INC. [US/US]; 3600 West Lake Avenue, Glenview, IL 60026-1215 (US).
- (72) **Inventor:** JANSMA, Jeremy, L.; 1235 Harrison Street, Lowell, IN 46356 (US).
- (74) **Agents:** FILDES, Christopher, J. et al.; Fildes & Outland, P.C., 20916 Mack Avenue, Suite 2, Grosse Pointe Woods, MI 48236 (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, BR, BW, BY, BZ, CA, CH, CL, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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.

(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, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, ML, MR, NE, SN, TD, TG).

Published:

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

(54) **Title:** WELDING GUN WITH CONNECTING MEANS WITH STOP BETWEEN A HANDLE AND A NECK ASSEMBLY;
METHOD OF ASSEMBLY SUCH A WELDING GUN

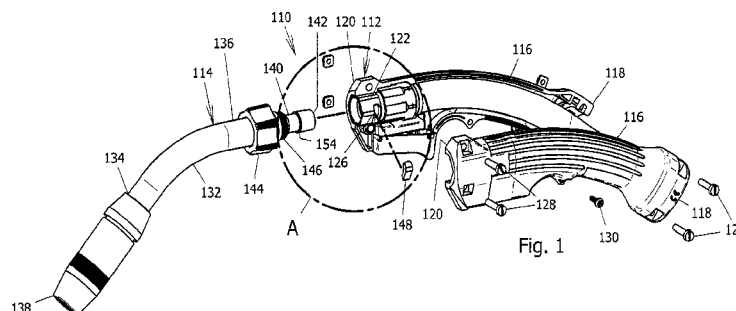


Fig. 1

(57) **Abstract:** A welding gun (110) includes a gun assembly (112) including a handle (116) having a cable receiving (118) end and also a connecting end (120). The connecting end includes a tubular end fitting (122) having female threads (124) proximal to the connecting end, and also having an aperture (126) adjacent the female threads. A neck assembly (114) includes a body tube (132) having a welding end (134) and also a connecting end (136). The connecting end of the body tube is telescopically engageable with the tubular end fitting. The connecting end of the body tube includes an annular recess (140) inwardly spaced from a terminus of the connecting end, and also includes a locking nut (144) and male threads (146) engageable with the female threads. The locking nut and male threads are disposed adjacent the annular recess away from the terminus (142). A stop (148) is fitable in the aperture and extends into the annular recess in an assembled disposition of the gun.