



- (51) International Patent Classification:
E21B 17/02 (2006.01) *E21B 43/10* (2006.01)
- (21) International Application Number:
PCT/US2013/023973
- (22) International Filing Date:
31 January 2013 (31.01.2013)
- (25) Filing Language: English
- (26) Publication Language: English
- (71) Applicant (for all designated States except US): **HAL-LIBURTON ENERGY SYSTEMS, INC.** [US/US];
10200 Bellaire Blvd., Houston, Texas 77072 (US).
- (72) Inventor; and
- (71) Applicant (for US only): **VEIT, Jan** [CZ/US]; 3201
Dover Drive, Plano, Texas 75075 (US).
- (74) Agents: **GRISWOLD, Joshua A.** et al.; Fish & Richardson P.C., P.O. Box 1022, Minneapolis, Minnesota 55440 (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, 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, PA, 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, 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: SPRING CLIPS FOR TUBULAR CONNECTION

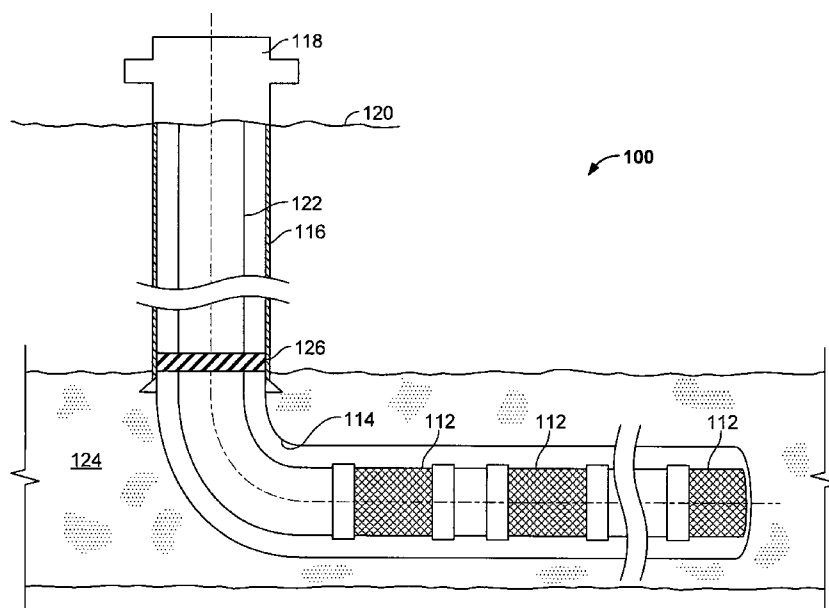


FIG. 1

(57) Abstract: A jumper tube is connected to a shunt tube of a well screen assembly by positioning the jumper tube end to end, adjacent with the shunt tube. A spring clip is then flexed over a profile of a coupling and allowed to snap into gripping engagement of the coupling, thereby retaining the jumper tube relative to the first screen assembly.