

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
16 December 2021 (16.12.2021)



(10) International Publication Number
WO 2021/250123 A1

(51) International Patent Classification:

F16B 41/00 (2006.01) *B25B 13/48* (2006.01)
F16B 39/28 (2006.01) *B25B 13/50* (2006.01)
F16B 23/00 (2006.01) *B25B 17/00* (2006.01)
F16B 35/06 (2006.01)

(72) Inventor; and

(71) Applicant: SALVUCCI, Emanuele [IT/IT]; Via Portofer-
raio, 11, 00182 Roma (IT).

(74) Agent: SCHLICH, George William; 9 St Catherine's
Road, Littlehampton West Sussex BN17 5HS (GB).

(21) International Application Number:

PCT/EP2021/065518

(22) International Filing Date:

09 June 2021 (09.06.2021)

(25) Filing Language:

English

(26) Publication Language:

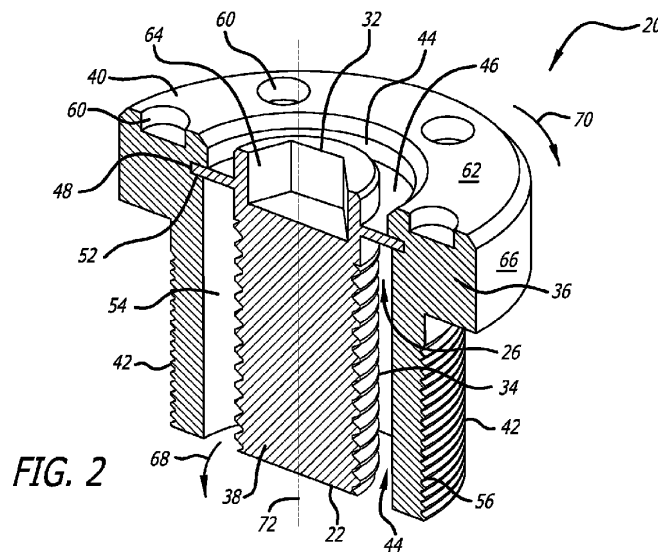
English

(30) Priority Data:

63/036,774 09 June 2020 (09.06.2020) 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, IT, 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, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(54) Title: LOCKING THREADED FASTENERS



(57) Abstract: The present specification discloses a locking fastener that includes a first threaded fastener (22) axially positioned within an axial through hole (44) of a second threaded fastener, and captured therein by a rotating joint (26) that permits rotation of the first threaded fastener and the second threaded fastener relative to one another about a common thread axis. In one or more embodiments the first threaded fastener thread (34) handedness is opposite to the second threaded fastener thread (42) handedness. Additionally disclosed, is a screwdriver tool configured to simultaneously engage and oppositely rotate the first threaded fastener and the second threaded fastener into a mating component having a first mating thread and a second mating thread configured to receive the first threaded fastener and the second threaded fastener, respectively, driven at the same axial advance distance for each turn. Once tightened, the present locking fastener resists loosening and provides a tamper-resistant hold.

[Continued on next page]

WO 2021/250123 A1

(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))
