

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
18 May 2006 (18.05.2006)

PCT

(10) International Publication Number
WO 2006/052491 A2

(51) International Patent Classification:
F16B 37/04 (2006.01)

(21) International Application Number:
PCT/US2005/039128

(22) International Filing Date: 31 October 2005 (31.10.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/625,094 5 November 2004 (05.11.2004) US
11/163,685 27 October 2005 (27.10.2005) US

(71) Applicant (for all designated States except US): **PEM MANAGEMENT, INC.** [US/US]; 300 Delaware Avenue, Suite 1225, Wilmington, DE 19801 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **BENTRIM, Brian, G.** [US/US]; 4590 Louise St. Claire Drive, Doylestown, PA 18901 (US).

(74) Agent: **GORE, Gregory, J.**; 70 West Oakland Avenue, Suite 316, Doylestown, PA 18901 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

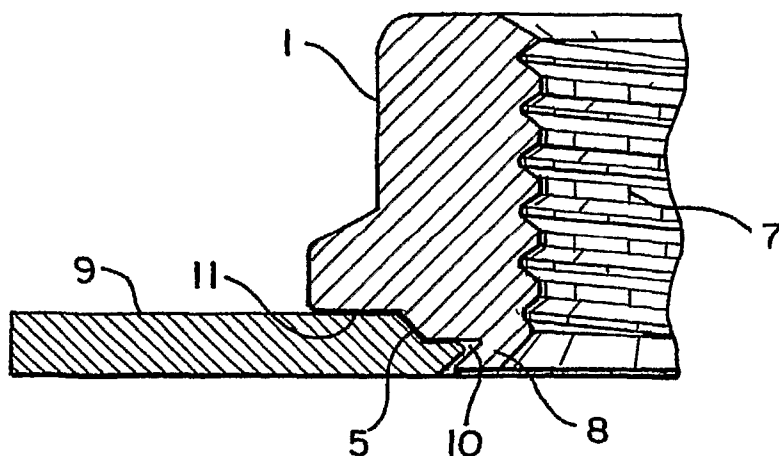
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ROTATABLE CAPTIVATED NUT



(57) Abstract: A captive clinch nut may be rotatably attached to an apertured sheet. The nut includes a body having an axial threaded bore and a flange forming a base of the nut body. The flange includes a surface on a bottom side thereof preferably unitary therewith for providing a bearing surface of reduced friction against the sheet. A displacer unitary with the nut body is located directly below the flange and has an outside diameter less than an outside diameter of the flange. A tubular flared shank unitary with the nut body extends coaxially from the displacer, and includes a neck immediately adjacent the displacer with

an outside diameter less than the outside diameter of the displacer forming an undercut area between the outside of the shank and an underside of the displacer for receiving the cold flow of metal of the sheet.