



200002313-5

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : F16B 23/00, B25B 15/00, B21K 1/46	A1	(11) International Publication Number: WO 99/23389 (43) International Publication Date: 14 May 1999 (14.05.99)
(21) International Application Number: PCT/US98/22864 (22) International Filing Date: 28 October 1998 (28.10.98) (30) Priority Data: 08/961,626 31 October 1997 (31.10.97) US (71) Applicant: CREARE INC. [US/US]; Etna Road, P.O. Box 71, Hanover, NH 03755 (US). (72) Inventor: STACY, W., Dodd; P.O. Box 353, Etna, NH 03750 (US). (74) Agent: BOOKSTEIN, Arthur, Z.; Kirkpatrick & Lockhart LLP, One International Place, Boston, MA 02110 (US).		(81) Designated States: AU, BR, CA, CN, CZ, GE, HU, IL, JP, KR, MX, PL, SG, YU, Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>

(54) Title: SPIRAL DRIVE SYSTEM FOR THREADED FASTENERS**(57) Abstract**

A spiral drive system for threaded fasteners (10) includes driver-engageable surfaces on the head end (16) of the fastener (10) in which at least some of the driver-engageable surfaces are defined by a spiral segment (8) configured to maximize torque transmission while spreading the driving load over a broad driver-fastener interface to reduce the risk of development of high stress regions. Drivers (4) and related tooling also are disclosed.

