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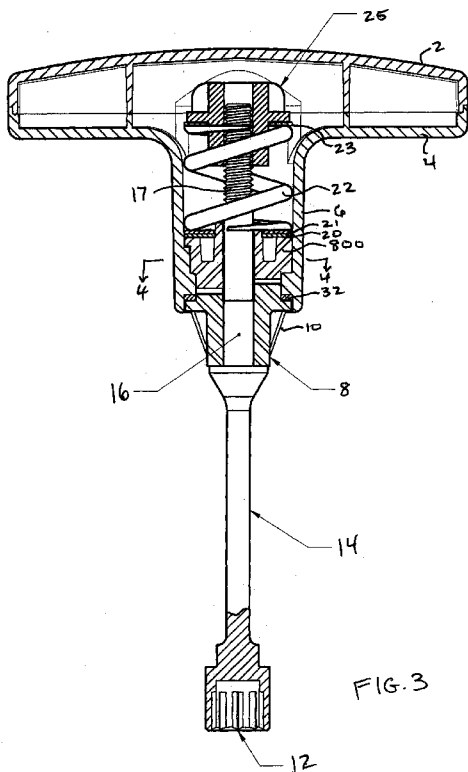
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[Continued on next page]

(54) Title: ULTRA HIGH TORQUE DEVICE



(57) Abstract: A torque-limiting device may include a shaft extending axially through upper and lower shanks and a spring to connect to a nut. The upper and lower shanks may be under a force from the spring and further configured to selectively engage within a predetermined torque limit and disengage at above the predetermined torque limit. Accordingly, the shaft may receive torque up to the predetermined limit as provided by a user operating a handle of the torque-limiting device. The torque-limiting device may be disposable, reusable, economical, and have high torque capabilities.

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SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
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INTERNATIONAL SEARCH REPORT

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PCT/US2011/034607**A. CLASSIFICATION OF SUBJECT MATTER***A61B 19/00(2006.01)i, A61C 3/00(2006.01)i, B25B 13/06(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A61B 19/00; B25B 23/157; B23Q 5/00; B25B 13/22

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: TORQUE, LIMIT, MEDICAL, DRIVER and DEVICE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2009-0293687 A1 (JOHN NINO et al.) 3 December 2009 See abstract, paragraphs [0022] - [0042] and figures 1 - 8	1-19
A	US 2009-0194307 A1 (JAMES A. RINNER) 6 August 2009 See abstract, paragraphs [0036] - [0057] and figures 1 - 50	1-19
A	US 2006-0179981 A1 (BRIAN CUTLER et al.) 17 August 2006 See abstract, paragraphs [0030] - [0039] and figures 1 - 19	1-19
A	WO 2008-075186 A2 (PRECIMED, S. A.) 26 June 2008 See abstract, page 7, line 1 - page 14, line 7 and figures 1 - 11	1-19
A	US 2009-0260490 A1 (BRIAN JAMES CUTLER et al.) 22 October 2009 See abstract, paragraphs [0070] - [0084] and figures 1 - 27	1-19

 Further documents are listed in the continuation of Box C. See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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