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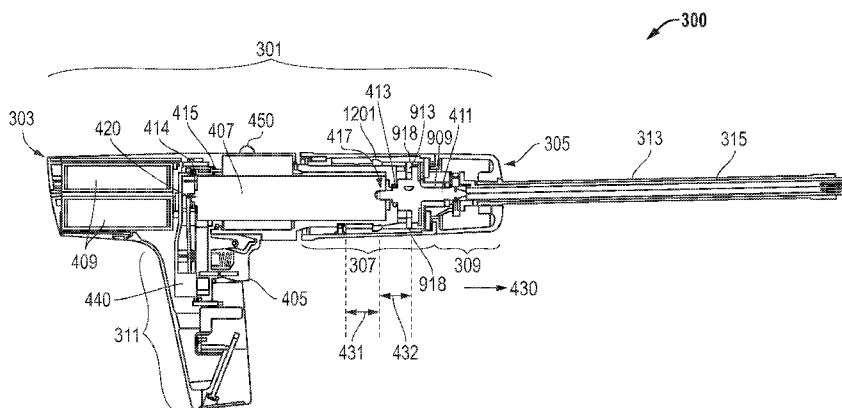


FIG. 4

(57) **Abstract:** A surgical tool for removing a portion of an implant is provided that includes a housing, a motor contained within the housing and coupled to the housing, and an output shaft having a distal end and a proximal end opposite the distal end, wherein the proximal end is coupled to the motor and the distal end has an opening configured to rotatably engage an implant. The surgical tool further includes a counter-torque sleeve extending around the output shaft having a proximal end and a distal end opposite the proximal end, wherein the proximal end is coupled to the housing and the distal end is configured to couple to the implant relative to the counter-torque sleeve. Upon a rotational force to the implant, the forces transmitted by the output shaft and the counter-torque sleeve are balanced by the coupling of the output shaft and counter-torque sleeve through the housing.



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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)

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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: implant removing tool, driver motor, shaft, sleeve, movable configuration

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2008-0234715 A1 (PESCE ROBERT S. et al.) 25 September 2008 See paragraphs [0066],[0068],[0070],[0071],[0081], claims 1, 23, 14, 32, figs . 1A, 1B, 8A	1-15
A	US 2006-0117911 A1 (RAINES, JR. et al.) 08 June 2006 See paragraphs [0021],[0023],[0025],[0028],[0029], claim 1, figs. 1, 2A	1-15
A	US 2006-0041268 A1 (SHORES et al.) 23 February 2006 See paragraphs [0031],[0041],[0042],[0053], figs. 2, 5B	1-15
A	US 6096042 A1 (HERBERT; TIMOTHY JAMES) 01 August 2000 See column 6 line 13 - column 6 line 43, claim 1, figs. 1, 3	1-15

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

* Special categories of cited documents:

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"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

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"&" document member of the same patent family

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