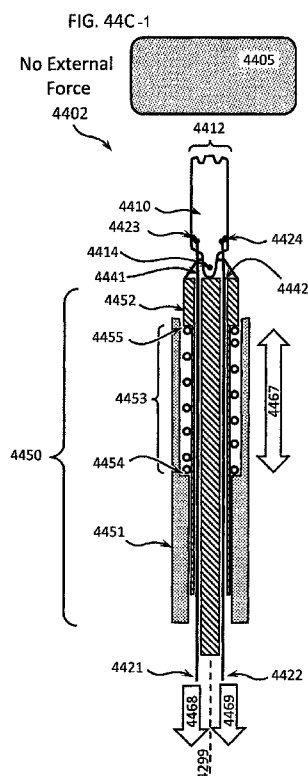




- (51) International Patent Classification:
A61B 17/32 (2006.01) A61B 17/3209 (2006.01)
- (21) International Application Number:
PCT/US2014/062382
- (22) International Filing Date:
27 October 2014 (27.10.2014)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
14/065,191 28 October 2013 (28.10.2013) US
- (63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 14065191 (CIP)
Filed on 28 October 2013 (28.10.2013)
- (71) Applicant: PHYSCIENT, INC. [US/US]; 112 S. Duke Street, Durham, North Carolina 27701 (US).
- (72) Inventors: MOODY, Ryan; 703 Shepherd St., Durham, North Carolina 27701 (US). PELL, Charles, Anthony; 1502 Tyler Court, Durham, North Carolina 27701 (US). ESPENHAHN, Eric, Torr; 101 Park Vine Circle, Cary, North Carolina 27519 (US). CRENSHAW, Hugh, Charles; 121 Pinecrest Drive, Durham, North Carolina 27705 (US).
- (74) Agent: WITCHER, III, John R.; Withrow & Terranova P.L.L.C., 100 Regency Forest Drive, Suite 160, Cary, North Carolina 27518 (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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, 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, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

[Continued on next page]

(54) Title: METHODS AND DEVICES FOR SOFT TISSUE DISSECTION



(57) Abstract: An instrument for differentially dissecting complex tissue is disclosed, comprising a handle, a central longitudinal axis, and an elongate member, with a differential dissecting member (DDM) configured to be rotatably attached to a distal end. The DDM comprises at least one tissue engaging surface, a first torque-point disposed to a first side of an axis of rotation, and a mechanism configured to rotate the DDM around the axis of rotation, causing the tissue engaging surface to move in at least one direction against the complex tissue. The mechanism comprises at least one force-transmitting member attached to the first torque-point member and to a motive source configured to oscillate the DDM. The tissue engaging surface is configured to selectively engage the complex tissue such that it disrupts at least one soft tissue in the complex tissue, but does not disrupt firm tissue in the complex tissue.



(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))*