

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
02 April 2020 (02.04.2020)



(10) International Publication Number
WO 2020/068445 A1

(51) International Patent Classification:
A61F 2/44 (2006.01)

(21) International Application Number:
PCT/US2019/050904

(22) International Filing Date:
12 September 2019 (12.09.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/736,649 26 September 2018 (26.09.2018) US

(71) Applicant: **SPINEEX, INC.** [US/US]; 4046 Clipper Court, Fremont, California 94538 (US).

(72) Inventors: **ROGERS, Andrew**; c/o SpineEX, Inc., 4046 Clipper Court, Fremont, California 94538 (US). **BUR-**

ROWS-OWNBEY, Robyn; c/o SpineEX, Inc., 4046 Clipper Court, Fremont, California 94538 (US).

(74) Agent: **HOU, Tianjun**; Houst Consulting, PO BOX 700092, San Jose, California 95170 (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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH,

(54) Title: EXPANDABLE AND ADJUSTABLE LORDOSIS INTERBODY FUSION SYSTEM

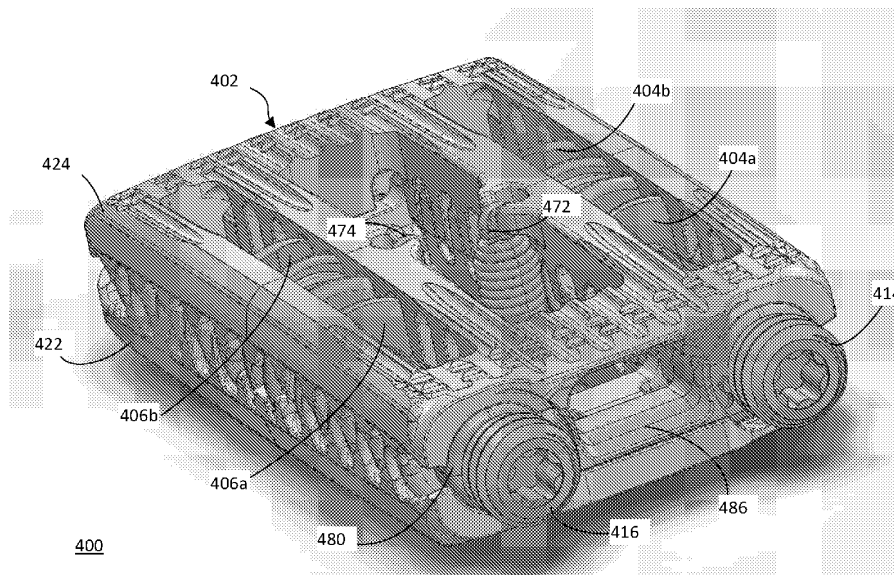


FIG. 21

(57) Abstract: A spinal implant device for placement between vertebral bodies includes a housing with a first shell member and a second shell member, at least one screw member in the housing, and at least one drive shaft operably engageable with the screw member. At least the first shell member has step tracking comprising a plurality of individual riser members of variable height. The drive shaft may cause the at least one screw member to move on the plurality of individual riser members. The at least one screw member comprises an external helical thread having a thickness configured to fit in the gaps between adjacent individual riser members. The first and second shell members move relative to each other in response to the rotation of the at least one screw member to effect an expansion or a contraction of the housing.

[Continued on next page]

WO 2020/068445 A1

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))