

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
25 January 2024 (25.01.2024)



(10) International Publication Number
WO 2024/020108 A1

(51) International Patent Classification:
A61B 17/11 (2006.01) *A61B 17/08* (2006.01)

(21) International Application Number:
PCT/US2023/028164

(22) International Filing Date:
19 July 2023 (19.07.2023)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/390,549 19 July 2022 (19.07.2022) US

(71) Applicant: VANDERBILT UNIVERSITY [US/US]; 305 Kirkland Hall, 2201 West End Avenue, Nashville, Tennessee 37240 (US).

(72) Inventor: HIGDON, Kent K.; c/o Vanderbilt University, 305 Kirkland Hall, 2201 West End Avenue, Nashville, Tennessee 37240 (US).

(74) Agent: WESORICK, Richard S.; Tarolli, Sundheim, Covell & Tummino LLP, 950 Main Avenue, Suite 710, Cleveland, Ohio 44113 (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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ,

(54) Title: AN APPARATUS FOR ANASTOMOSING A CUT VESSEL

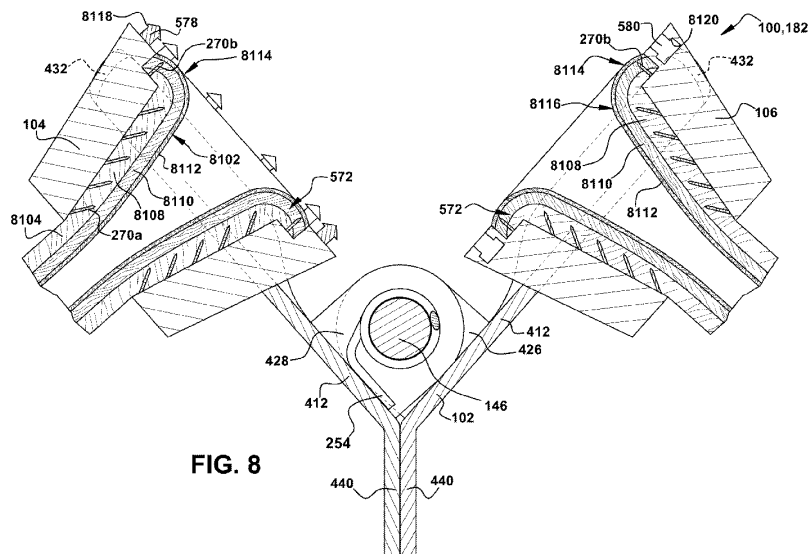


FIG. 8

(57) Abstract: An apparatus for anastomosing a cut vessel includes a first ring. The first ring has an inner surface defining an inner lumen configured to selectively receive a first vessel end of the cut vessel. A second ring has an inner surface that defines an inner lumen configured to selectively receive a second vessel end of the cut vessel. A closure mechanism has a first engagement portion joined to the first ring and a second engagement portion joined to the second ring. A biasing member of the closure mechanism is configured to urge the first and second rings toward one another to anastomose the cut vessel after the first and second vessel ends have been received in the first and second rings.

[Continued on next page]

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, ME, 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))