



(51) International Patent Classification:
A61F 2/24 (2006.01)

(21) International Application Number:
PCT/US2019/058368

(22) International Filing Date:
28 October 2019 (28.10.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/752,898 30 October 2018 (30.10.2018) US
62/893,084 28 August 2019 (28.08.2019) US

(71) Applicant: **EDWARDS LIFESCIENCES CORPORATION** [US/US]; One Edwards Way, Irvine, CA 92614 (US).

(72) Inventors: **SCHWARCZ, Elazar, Levi**; Caesarea Business Park, 8 Haeshel Street, 30889 Caesarea (IL). **COHEN, Oren**; Caesarea Business Park, 8 Haeshel Street, 30889

Caesarea (IL). **SAAR, Tomer**; Caesarea Business Park, 8 Haeshel Street, 30889 Caesarea (IL). **NEUMANN, Yair, A.**; Caesarea Business Park, 8 Haeshel Street, 30889 Caesarea (IL). **WITZMAN, Ofir**; Caesarea Business Park, 8 Haeshel Street, 30889 Caesarea (IL).

(74) Agent: **GERMAN, Joel, B.** et al.; Edwards Lifesciences, One Edwards Way, Irvine, CA 92614 (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.

(54) Title: VALVE DIAMETER AND FORCE MONITORING OF A PROSTHETIC HEART VALVE

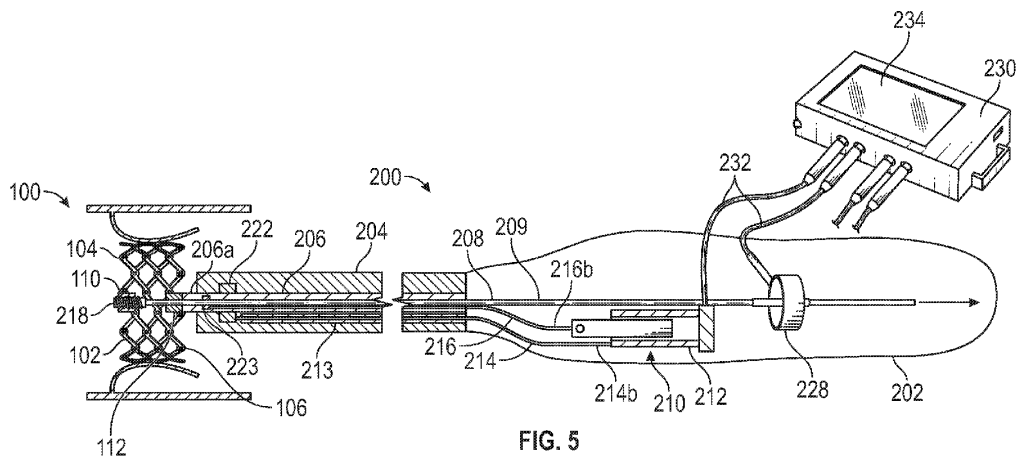


FIG. 5

(57) Abstract: A delivery apparatus including a measurement device to monitor the real-time diameter of a prosthetic heart valve can include a handle, at least one first actuator extending from the handle and being configured to apply a distally directed force to a proximal end portion of a prosthetic heart valve, at least one second actuator extending from the handle and being configured to apply a proximally directed force to a distal end portion of a prosthetic heart valve, a sensor, and first and second motion-transmitting members coupled to the first and second actuators, respectively, and having proximal ends coupled to the sensor, wherein the sensor senses relative movement between the motion-transmitting members upon actuation of the first and second actuators to determine the diameter of the prosthetic heart valve as it expands from a radially compressed configuration to a radially expanded configuration.

(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))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*