

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
07 October 2021 (07.10.2021)



(10) International Publication Number
WO 2021/202636 A1

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

(21) International Application Number:
PCT/US2021/025045

(22) International Filing Date:
31 March 2021 (31.03.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/005,020 03 April 2020 (03.04.2020) US

(71) Applicant: **EDWARDS LIFESCIENCES CORPORA-
TION** [US/US]; One Edwards Way, Irvine, California
92614 (US).

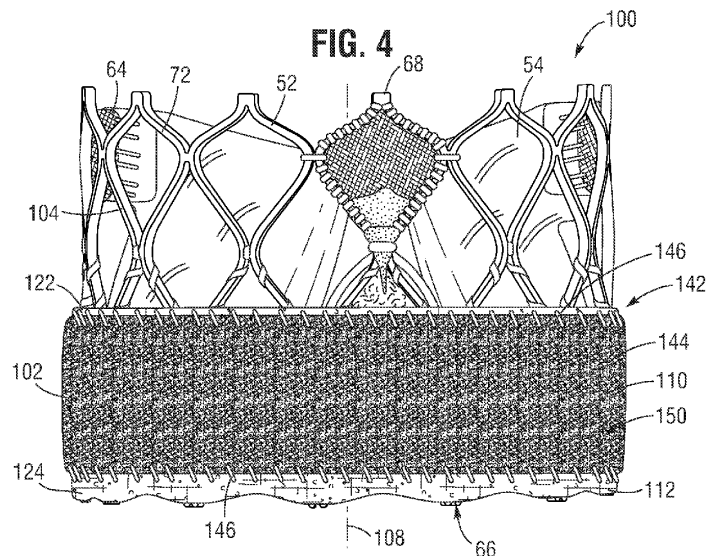
(72) Inventors: **SENESH, Gil**; Edwards Lifesciences, One Ed-
wards Way, Legal Department, Irvine, CA 92614 (US).

CORONA, Jeanette Jasmine; Edwards Lifesciences, One
Edwards Way, Legal Department, Irvine, CA 92614 (US).
PAWAR, Sandip Vasant; Edwards Lifesciences, One Ed-
wards Way, Legal Department, Irvine, CA 92614 (US).

(74) Agent: **GERMAN, Joel B.** et al.; Edwards Lifesciences,
One Edwards Way, Irvine, California 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, IT, 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, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(54) Title: A MULTI-LAYER COVERING FOR A PROSTHETIC HEART VALVE



(57) Abstract: A prosthetic heart valve including a frame, leaflet structure, and sealing member disposed around an outer surface of the frame is disclosed. As one example, the sealing member includes an inner layer and a plush outer layer comprising a plush outer surface. The inner layer is arranged against the outer surface of the frame and the outer layer is arranged against and attached to the inner layer. The inner layer is folded over at inflow and outflow ends, in an axial direction relative to a central longitudinal axis of the frame, to overlap respective ends of the outer layer and form tapered folds at opposite ends of the sealing member, each tapered fold including a narrower, first portion where the inner layer folds over and contacts itself and a wider, second portion where the inner layer overlaps an outer surface of an end portion of the outer layer.

[Continued on next page]

(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))*