

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
16 January 2020 (16.01.2020)



(10) International Publication Number
WO 2020/011879 A1

(51) International Patent Classification:
A61F 2/24 (2006.01) *A61M 1/10* (2006.01)

(21) International Application Number:
PCT/EP2019/068595

(22) International Filing Date:
10 July 2019 (10.07.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
18182804.7 10 July 2018 (10.07.2018) EP
16/031,732 10 July 2018 (10.07.2018) US

(71) Applicant: SYNTACH AG [CH/CH]; Freier Platz 10,
8200 Schaffhausen (CH).

(72) Inventors: SOLEM, Kristian; Kraaksgatan 16, 231 45
Trelleborg (SE). SOLEM, Jan Otto; Hulda Rasks Väg 12,
237 42 Bjärred (SE). ENGVALL, Daniel; Kullavägen 20,
302 93 Halmstad (SE). KRÜGER, Victoria; Länsmansvä-
gen 5, 283 43 Oxie (SE). WOLFF, Martin; Körsbärsvä-
gen 10, 223 55 Lund (SE). BERG, Jonathan; Magnolia-
gatan 12, 244 60 Furulund (SE). SPÄNBERG, André; Grä-
varevägen 18, 227 30 Lund (SE).

(74) Agent: KIPA AB; P O Box 1065, 251 10 Helsingborg (SE).

(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,

(54) Title: AN IMPLANTABLE CARDIAC VALVE IMPROVEMENT DEVICE, SYSTEM AND PROCEDURE

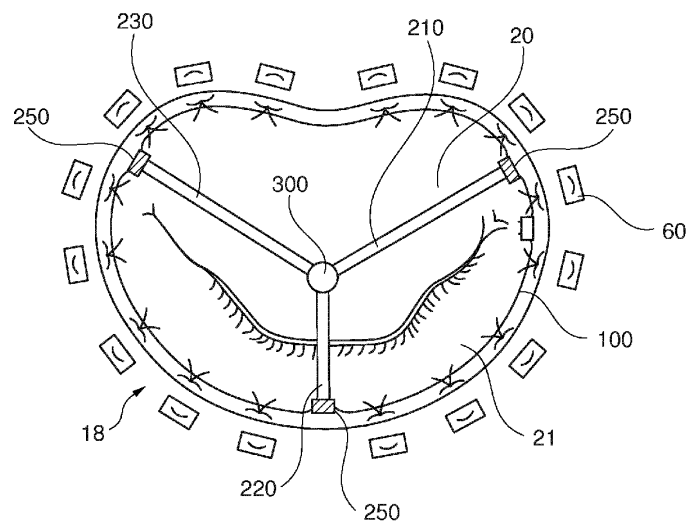


Fig. 4b

(57) Abstract: An implantable medical device for transcatheter delivery is disclosed including: an anchor unit (100) configured to be permanently anchored at a cardiac valve of a patient. At least one locking unit (300) is provided for fixation of tissue of the cardiac valve and/or fixation of at least a part of a shape of the anchor unit (100) and/or for connection to a further unit via the at least one coupling unit (200). The further unit is preferably a cardiac valve replacement or repair unit (600) and/or a driving unit (500) such as of a cardiac assist device. The device further includes at least one coupling unit (200) of fixed permanent length or non-reversibly adjustable length before locking the coupling unit (200) to the fixed permanent length for connecting the anchor unit (100) to at least one of the locking unit (300). The coupling unit (200) has a first end portion and a second end portion. The first end portion is connectable to the anchor unit (100), and the second end portion includes the locking unit (300).

[Continued on next page]

WO 2020/011879 A1

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, 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).

Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

Published:

— *with international search report (Art. 21(3))*
