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

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CAO, Hengchu** [CN/US]; One Edwards Way, Irvine, CA 92614 (US).
CONKLIN, Brian, S. [US/US]; One Edwards Way, Irvine, CA 92614 (US). **SCHMIDT, Paul, A.** [US/US];

One Edwards Way, Irvine, CA 92614 (US). **KIM, Grace, Myong** [US/US]; One Edwards Way, Irvine, CA 92614 (US). **DAVIDSON, James, A.** [US/US]; One Edwards Way, Irvine, CA 92614 (US). **TRAN, Hoa, Trinh** [US/US]; One Edwards Way, Irvine, CA 92614 (US). **TAM, Kristy, Luong** [US/US]; One Edwards Way, Irvine, CA 92614 (US).

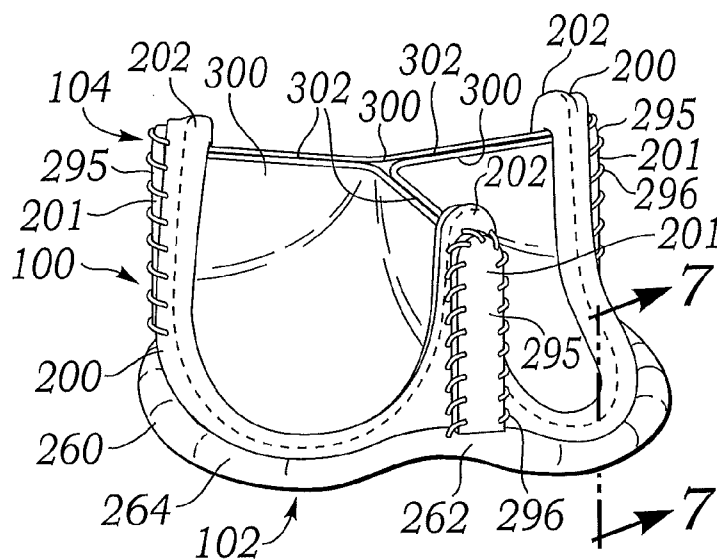
(74) Agents: **MICHALERYA, Melinda** et al.; Edwards Life-sciences LLC, One Edwards Way, Irvine, CA 92614 (US).

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[Continued on next page]

(54) Title: PROSTHETIC HEART VALVE

Fig. 5A



(57) Abstract: Disclosed prosthetic valves can comprise a sewing ring configured to secure the valve to an implantation site. Some disclosed valves comprise a resiliently collapsible frame having a neutral configuration and a collapsed deployment configuration. Some disclosed frames can self-expand to the neutral configuration when released from the collapsed deployment configuration. Collapsing a disclosed valve can provide convenient access to the sewing ring, such as for securing the valve to the implantation site, as well as for the insertion of the valve through relatively small surgical incisions.



(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/035952**A. CLASSIFICATION OF SUBJECT MATTER****A61F 2/24(2006.01)i, A61M 29/02(2006.01)i, A61L 27/04(2006.01)i, A61B 17/32(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A61F 2/24; B23P 11/02; A61B 17/00; A61B 17/04

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|--|
| X | US 2007-0050021 A1 (DERRICK JOHNSON) 01 March 2007 See the abstract; the paragraphs 0032-0035,0039; and Fig.3A. | 1-6,7-9,10,14,15 ,16,17,19,23,24,25 ,26,28 18,20-22 |
| Y | | |
| Y | US 2008-0033543 A1 (DONNELL GURSKIS et al.) 07 February 2008 See the abstract; the paragraphs 0087, 0091; and Figs.1,2,3A,3B. | 18,20-22 |
| X | US 2006-0195184 A1 (ERNEST LANE et al.) 31 August 2006 See the entire document. | 1-6,7-9,10,14,15 ,16,17,19,23,24,25 ,26,28 18,20-22 |
| Y | | |
| X | US 05411522A A (TROTT; ARTHUR F.) 02 May 1995 See the abstract; col.5; claim 1; and Figs.1-3. | 1-6,7-9,10,14,15 ,16,17,19,23,24,25 ,26,28 18,20-22 |
| Y | | |
| A | US 2004-0078950 A1 (STEFAN SCHRECK) 29 April 2004 See the entire document. | 1-28 |



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

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"P" document published prior to the international filing date but later than the priority date claimed

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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Korean Intellectual Property Office
Government Complex-Daejeon, 189 Cheongsa-ro,
Seo-gu, Daejeon 302-701, Republic of Korea

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Authorized officer

KIM, MYEONG HEE

Telephone No. 82-42-481-8160



INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2011/035952**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 29-34
because they relate to subject matter not required to be searched by this Authority, namely:
The subject matters of claims 29-34 are directed to methods for treatment of the human by surgery. (Article 17(2)(a)(i), Rule 39.1(iv))
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/035952

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