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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

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- (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, 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, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

[Continued on next page]

(54) Title: AN ARRANGEMENT, A LOOP-SHAPED SUPPORT, A PROSTHETIC HEART VALVE AND A METHOD OF REPAIRING OR REPLACING A NATIVE HEART VALVE

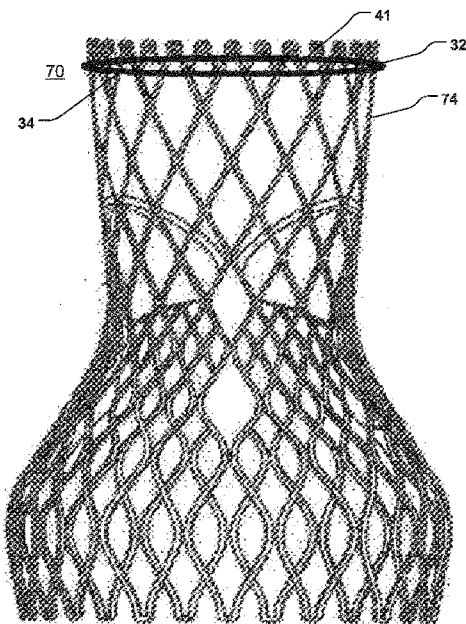


Fig. 7

(57) Abstract: The present disclosure relates to an arrangement, a loop-shaped support, a prosthetic heart valve and a method of repairing or replacing a native heart valve. With the method or the arrangement, leakage or regurgitation between a prosthetic heart valve and the surrounding valve tissue is prevented. In one embodiment, an arrangement for replacement or repair of a native heart valve is provided, which comprises a loop-shaped support (41) and a prosthetic heart valve (70) and wherein an outer segment (32) of the loop-shaped support (41) is positionable towards surrounding valve tissue of a native heart valve and wherein an outer surface (74) of the prosthetic heart valve (70) is positionable towards an inner segment (34) of the loop-shaped support (41) so as to prevent paravalvular leakage or regurgitation between the prosthetic heart valve (70) and the surrounding valve tissue of the native heart valve.





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- *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))*

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2013/051366

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.: **15-23**
because they relate to subject matter not required to be searched by this Authority, namely:
**Rule 67.IV PCT - Method for treatment of the human or animal body by surgery.
The feature "positioning a loop support" in claim 15 implies surgery.**
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:

see additional sheet

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 fees, this Authority did not invite payment of additional fees.
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

International application No PCT/EP2013/051366

A. CLASSIFICATION OF SUBJECT MATTER INV. A61F2/24 ADD.				
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				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal, WPI Data				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	US 2010/076549 A1 (KEIDAR YARON [IL] ET AL) 25 March 2010 (2010-03-25) paragraphs [0066], [0078]; figures 6c,9a	1-5,7,8, 12-14 6,9,10		
Y	----- WO 2008/058940 A1 (MEDTENTIA AB [SE]; KERAENEN OLLI [SE]) 22 May 2008 (2008-05-22) page 16, lines 18-21 page 25, lines 3-14 figures 4,14a	6,9,10		
X	----- US 2006/195185 A1 (LANE ERNEST [US] ET AL) 31 August 2006 (2006-08-31) paragraphs [0131], [0132], [0174]; figures 11,17b	1-5,7,8, 11-14		
	----- -/--			
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.				
* Special categories of cited documents : <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed </td> <td style="width: 50%; border: none; vertical-align: top;"> "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "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 "&" document member of the same patent family </td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "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 "&" document member of the same patent family
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "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 "&" document member of the same patent family			
Date of the actual completion of the international search	Date of mailing of the international search report			
8 August 2013	19/08/2013			
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Espuch, Antonio			

INTERNATIONAL SEARCH REPORT

International application No PCT/EP2013/051366

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2010/030014 A1 (FERRAZZI PAOLO [IT]) 4 February 2010 (2010-02-04) paragraphs [0071] - [0078]; figure 9 -----	1-5,7-9, 12-14
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X	US 2006/195184 A1 (LANE ERNEST [US] ET AL) 31 August 2006 (2006-08-31) paragraphs [0174], [0177]; figures 17a-19 -----	24,25, 27-29,33
A	WO 2004/030569 A2 (AMPLE MEDICAL INC [US]) 15 April 2004 (2004-04-15) page 21, lines 5-25; figure 10 -----	24,33

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-14

downsizeable support

2. claims: 24-33

support having fingers

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/EP2013/051366

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