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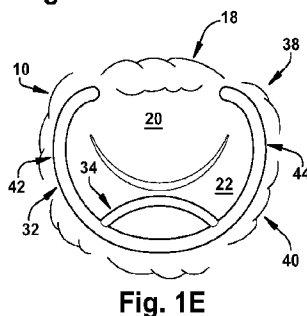
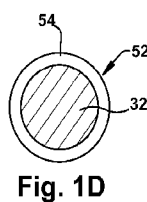
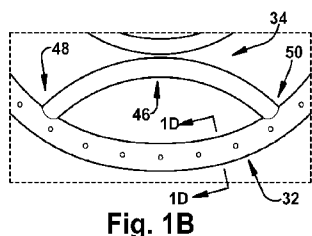
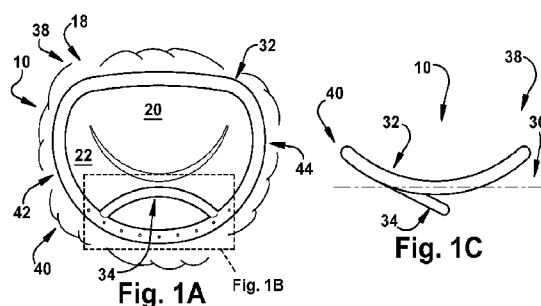
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— with international search report

[Continued on next page]

(54) Title: APPARATUS AND METHOD FOR TREATING A REGURGITANT HEART VALVE



(57) Abstract: An apparatus is provided for treating regurgitation of blood flow through a diseased heart valve. The apparatus includes an annular support member and at least one posterior leaflet support member. The annular support member (32) has an anterior end portion (38), a posterior end portion (40), and oppositely disposed first and second intermediate portions (42, 44) extending between the end portions. The at least one posterior leaflet support member is securely connected to the annular support member and is dimensioned to extend across a portion of a free edge of a posterior valve leaflet. The posterior leaflet support member comprises an arcuate center portion (46) integrally formed with and extending between first and second end portions. The arcuate center portion has a concave shape relative to the anterior end portion. At least one of the first and second end portions is securely attached to the posterior end portion.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:

16 July 2009

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/084042

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61F2/24

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 practical, search terms used)

EPO-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 2005/038509 A1 (ASHE KASSEM ALI [US]) 17 February 2005 (2005-02-17)	1, 11, 14, 22
Y	paragraph [0032] - paragraph [0060]	2-10, 12, 13, 15-21, 23-26
Y	WO 99/04730 A (BAXTER INT [US]) 4 February 1999 (1999-02-04)	2-10, 12, 13, 15-21, 23-26
	the whole document	
Y	WO 2007/072399 A (FRATER ROBERT WILLIAM MAYO [US]) 28 June 2007 (2007-06-28)	2-10, 12, 13, 15-21, 23-26
	the whole document	
	-/--	

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document 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.
- *G* document member of the same patent family

Date of the actual completion of the international search

20 February 2009

Date of mailing of the international search report

10/06/2009

Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2004/006384 A1 (MCCARTHY PATRICK [US]) 8 January 2004 (2004-01-08) abstract; claims; figures -----	1-26

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Claims Nos.: 32-34

The subject-matter of claims 32-34, discloses a method for treating regurgitation of blood flow through a diseased heart valve. The method comprises the step of positioning an implant. The International preliminary searching authority is not required to establish an opinion with regard to novelty, inventive step and industrial applicability on methods for treatment of the human body by surgery or therapy (Rule 39.1(iv)).

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2008/084042

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.: 32-34
because they relate to subject matter not required to be searched by this Authority, namely:
see FURTHER INFORMATION sheet PCT/ISA/210
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 allsearchable 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 reportcovers 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.:

1-26

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-26

An apparatus for treating regurgitation of blood flow
through a diseased heart valve

2. claims: 27-31

A sizing device

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2008/084042

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2005038509	A1	17-02-2005	NONE
WO 9904730	A	04-02-1999	AT 295705 T 15-06-2005
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