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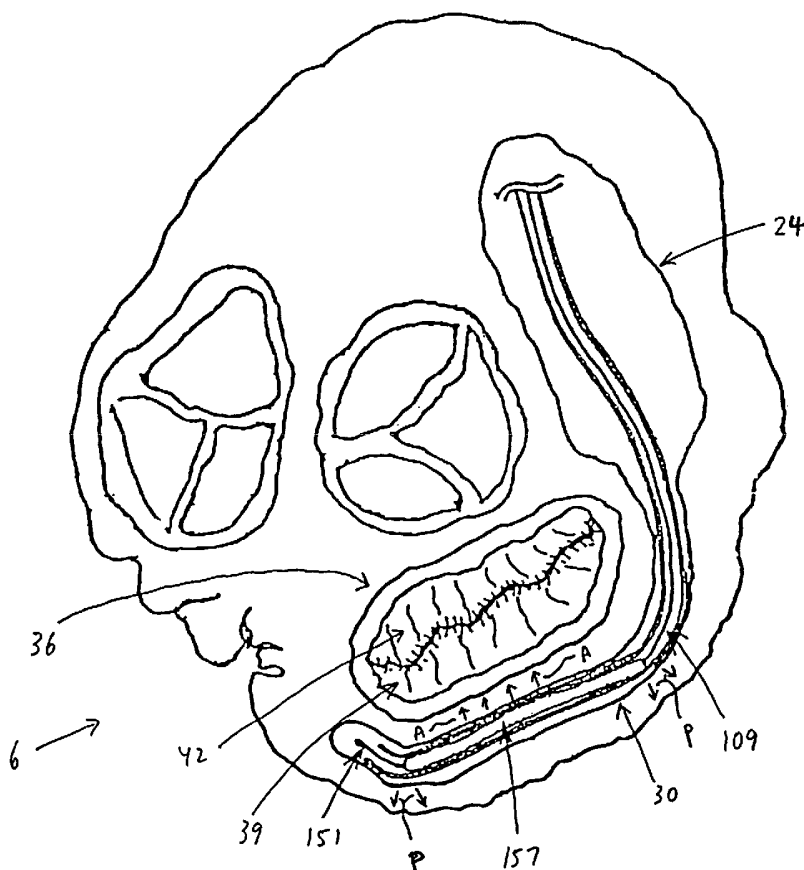
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR IMPROVING MITRAL VALVE FUNCTION



(57) **Abstract:** A method and apparatus for reducing mitral regurgitation. The apparatus (157) is inserted into the coronary sinus (30) of a patient in the vicinity of the posterior leaflet (39) of the mitral valve, the apparatus being configured to straighten the natural curvature of at least a portion of the coronary sinus in the vicinity of the posterior leaflet of the mitral valve (36), whereby to move the posterior annulus anteriorly and thereby improve leaflet coaptation and reduce mitral regurgitation.

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ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
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**INTERNATIONAL SEARCH REPORT**

International application No.  PCT/US03/20284
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**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC(7) : A61F 2/24  
 US CL : 623/2.36  
 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)  
 U.S. : 623/2.11,2.36, 904;606/108,191

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)  
 Please See Continuation Sheet

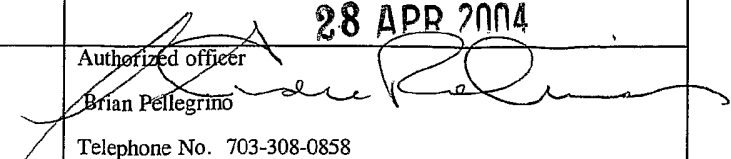
**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,210,432 B1 (Solem et al) 03 April 2001, Figs. 10,11, col. 2, lines 9-19,36-42, col. 4, lines 47-50.	1-12
X	US 6,119,037 A (Kellogg et al) 12 September 2000, Figs. 2,4, col. 4, lines 22,23,49-58.	13,14,18,19
X	US 5,476,506 A (Lunn) 19 December 1995, Figs. 1,2,5D, col. 2, lines 16-20,30,31, col. 4, lines 63-67.	20,21
X	US 5,569,201 A (Burns) 29 October 1996, Figs. 10,12, col. 3, lines 15-30, col. 4, line 34.	13-17

Further documents are listed in the continuation of Box C.       See patent family annex.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"&" document member of the same patent family
"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	

Date of the actual completion of the international search 19 March 2004 (19.03.2004)	Date of mailing of the international search report <b>28 APR 2004</b>
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer  Brian Pellegrino Telephone No. 703-308-0858
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**INTERNATIONAL SEARCH REPORT**

PCT/US03/20284

**Continuation of B. FIELDS SEARCHED Item 3:**

EAST text terms:

coronary sinus, mitral valve, posterior leaflet, expandable body, stent, move

**INTERNATIONAL SEARCH REPORT**

International application No.

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**Box III TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)**

**NEW ABSTRACT**

A method and apparatus for reducing mitral regurgitation. The apparatus (157) is inserted coronary sinus (30) of a patient in the vicinity of the posterior leaflet (39) of the mitral valve, the apparatus being configured to straighten the natural curvature of at least a portion of the coronary sinus in the vicinity of the posterior leaflet of the mitral valve (36), whereby to move the posterior annulus anteriorly and thereby improve leaflet coaptation and reduce mitral regurgitation.