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

[Continued on next page]

(54) Title: LEFT ATRIAL APPENDAGE OCCLUDER

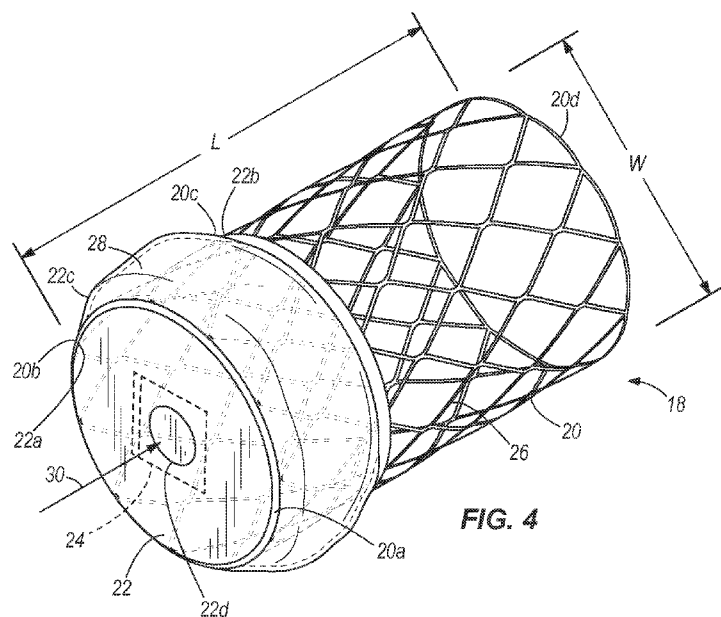


FIG. 4

(57) Abstract: Systems and methods for occluding a left atrial appendage are disclosed. A left atrial appendage may be covered with a first occluder device to obstruct the passage of blood out of the left atrial appendage. The first occluder device may include an expandable member, a cover attached to and covering an end of the expandable member, and a one-way valve disposed in the cover. The cover may form a flexible pocket between the cover and the expandable member. The cover may be made of bioprosthetic material. A second occluder device may also be disposed within the left atrial appendage by inserting the second occluder device through the one-way valve in the cover of the first occluder device. The second occluder device may be used to stretch the left atrial appendage to obliterate the left atrial appendage.



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

21 February 2013

(15) Information about Correction:
see Notice of 21 February 2013

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2012/042172

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61B17/00 A61B17/12
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)

A61B

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00/27292 A1 (MV MEDICAL DEVICES INC [US]) 18 May 2000 (2000-05-18) pages 7-8; figure 6 -----	1,2,5,7
X	US 2006/136043 A1 (CULLY EDWARD H [US] ET AL) 22 June 2006 (2006-06-22) paragraphs [0058] - [0062]; figures 4a-4c -----	1,2
A	US 2011/054515 A1 (BRIDGEMAN JOHN [US] ET AL) 3 March 2011 (2011-03-03) paragraphs [0037] - [0044]; claim 1 -----	1-12
A	WO 2007/083288 A2 (ATRIA MEDICAL INC [US]; LEVI TAMIR [IL]; ROSENBERG MEIR [US]; BEN-AMOT) 26 July 2007 (2007-07-26) the whole document -----	1-12



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 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

3 September 2012

Date of mailing of the international search report

20/11/2012

Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/042172

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.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 17-27
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:
see FURTHER INFORMATION sheet PCT/ISA/210

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.:
1-12

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: 1-12

An occluder system for occluding a left atrial appendage comprising:
a first occluder device for restricting blood flow out of the left atrial appendage comprising:
an expandable member;
a cover attached to the expandable member covering an end of the expandable member; and
a valve attached to the cover.

2. claims: 13, 14

An occluder system for occluding a left atrial appendage comprising:
an expandable member, and
a cover made of bioprosthetic material attached to the expandable member covering an end of the expandable member.

3. claims: 15, 16

An occluder system for occluding a left atrial appendage comprising:
an expandable member, and
a cover covering an end of the expandable member, a first portion of the cover is fixedly attached to the expandable member and a second prtion of the cover detached from the expandable member thereby forming a flexible pocket between the cover and the expandable cover.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 17-27

Claims 17-27 disclose a method of treatment by surgery practised on the human body contrary to Rule 39.1(iv) PCT. Claims 17-27 pertain to a method for occluding a left atrial appendage comprising the implicit step of inserting a first occluder device in the heart to obstruct the passage of blood out of the left appendage obviously forming part of a surgical procedure. The Authority is therefore not required to carry out international search preliminary examination.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.2), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2012/042172

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0027292	A1	18-05-2000	AT 512630 T 15-07-2011
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			WO 2006068981 A2 29-06-2006

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WO 2007083288	A2	26-07-2007	NONE
