



- (51) International Patent Classification:  
*A61F 2/01* (2006.01)
- (21) International Application Number:  
PCT/US2013/021285
- (22) International Filing Date:  
11 January 2013 (11.01.2013)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
61/586,661 13 January 2012 (13.01.2012) US
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(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,  
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,  
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,  
HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,  
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,  
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,  
NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU,  
RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ,  
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA,  
ZM, ZW.

(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,

[Continued on next page]

- (54) Title: ENDOLUMINAL FILTER WITH FIXATION

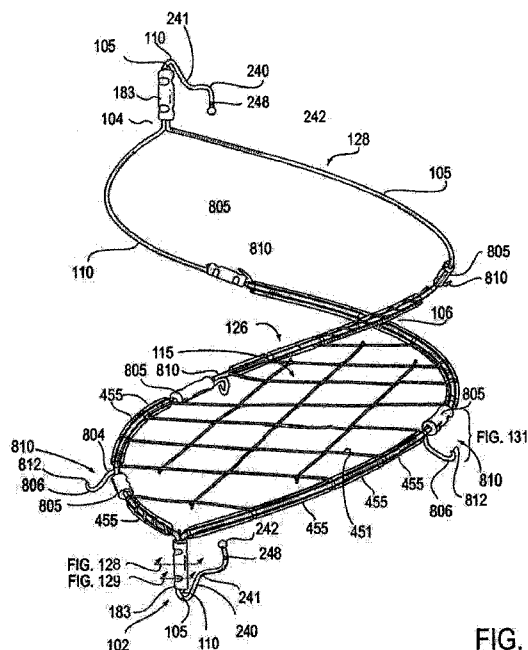


FIG. 127

(57) Abstract: An endoluminal filter including a first sup-  
port member (105) and a second support member (110) at-  
tached to the first support member to form a crossover  
(106). A material capture structure (115) extends between  
the first and second support members, the crossover and the  
first end (102) or the second end (104) of the first support  
member. The filter includes at least three tissue anchors  
(805) attached to one support member and at least two tissue  
anchors (805) attached to the other support member.



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).

— *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))*

**Published:**

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

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

19 September 2013

# INTERNATIONAL SEARCH REPORT

International application No

PCT/US2013/021285

## A. CLASSIFICATION OF SUBJECT MATTER

INV. A61F2/01

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)

EP0-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 2008/147111 A1 (JOHNSON ERIC [US] ET AL) 19 June 2008 (2008-06-19) paragraph [0177]; figures 88,101 -----	1-21
A	US 5 375 612 A (COTTENCEAU JEAN-PHILIPPE [FR] ET AL) 27 December 1994 (1994-12-27) figure 1 -----	1
A	US 2002/193827 A1 (MCGUCKIN JAMES E [US] ET AL MCGUCKIN JR JAMES E [US] ET AL) 19 December 2002 (2002-12-19) figure 10a -----	1-21
A	US 2010/318115 A1 (CHANDUSZKO ANDRZEJ J [US] ET AL) 16 December 2010 (2010-12-16) figure 10 -----	1-21

☐ 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

23 April 2013

Date of mailing of the international search report

22/07/2013

Name and mailing address of the ISA/

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2013/021285

### 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.:  
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.:

1-21

#### 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/US2013/021285

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2008147111 A1	19-06-2008	AU 2008347264 A1 CA 2711242 A1 CN 101965161 A EP 2237741 A1 JP 2011509117 A US 2008147111 A1 US 2013012981 A1 WO 2009088905 A1	16-07-2009 16-07-2009 02-02-2011 13-10-2010 24-03-2011 19-06-2008 10-01-2013 16-07-2009
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**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

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

1. claims: 1-21

Endoluminal filter comprising two connected support members, a retrieval feature, and five anchors attached to it. The group of claims is directed towards solving the problem how to better anchor a filter in a vessel which can be retrieved from both directions from the vessel.

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2. claims: 22-50

Endoluminal filter comprising two connected support members forming two loops, a retrieval feature, an overtube over the first loop and overtube elements placed over the overtube, such that a material capture structure can be threaded between overtube and alternating ones of overtube segments. The group of claims is directed towards solving the problem how to better attach a material capture structure on a filter which can be retrieved from both directions from the vessel. Manufacturing methods are also claimed.

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3. claims: 51-71

Endoluminal filter with an apical hub, a plurality of legs and an anchor on each of the legs. The group of claims is directed towards solving the problem how to provide a structurally simple filter.

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