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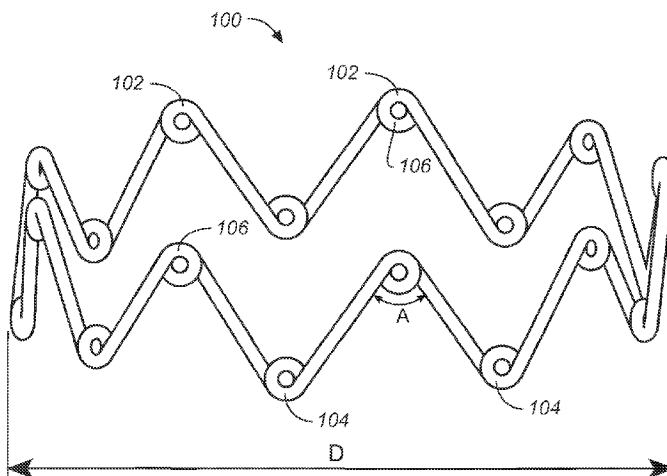


FIG. 1A

(57) Abstract: Described here are self-expanding devices and methods of using and making them. The devices may be useful in a variety of locations within the body, for a number of different uses. In some variations, the devices have a first compressed configuration enabling low profile delivery through a delivery device, a second expanded configuration for apposition against tissue, and comprise either a single continuous filament or at least two non-intersecting filaments. In some variations, the device is formed into a shape having a series of peaks and valleys. At least one of the peaks and valleys may have a loop at then end thereof. At least a portion of these devices may be capable of biodegrading over a predetermined period of time, and the devices may be configured for drug delivery. Methods of treating one or more sinus cavities are also described here.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - A61F 2/04 (2009.01) USPC - 606/199; 623/23.7; 424/424 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) USPC 606/199; 623/23.7; 424/424 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched All USPC; USPC 606/199; 623/23.7, 424/424, 604/891.1, 606/326, 606/191, 623/23.64, 623/23.75; IPC A61F 2/04 Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubWEST(USPT,PGPB,EPAB,JPAB); Google: @PD<20071218; self-expand\$; delivery device; biodegradable; polymer; sinus; anti-inflammatory; mometasone furate; days; discontinuous; continuous; ethmoid; maxillary; frontal sinus; sphenoid; loop; coat; impregnate; eyelet; suture; crown shaped; peaks; valleys; diamond; ring; etc.		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2007/0005094 A1 (Eaton, et al) 4 January 2007 (04.01.2007); para [0014]-[0018], [0020], [0022]-[0024], [0055]-[0056], [0058]-[0062], [0065], [0067], [0069]-[0070], [0072], [0074]-[0075], [0083], [0087], [0093], [0098], [0100]-[0104], [0109], [0112], [0115]-[0116], [0122], [0125], [0127]	1-5, 8-12, 29-43, 45, 51-54, 69-70
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Y	-[0129], [0132]; Fig 3B, 7A, 13A-13C, 21, 22A; claim 93	6-7, 13-28, 44, 46-50, 55-68, 71-125
Y	US 2003/0147954 A1 (Yang, et al) 7 August 2003 (07.08.2003); para [0027], [0033], [0037]	6-7
Y	US 2007/0100435 A1 (Case, et al) 3 May 2007 (03.05.2007); para [0050], [0069], [0092], [0107], [0117]; Fig 17, 19	13-28, 57-59, 83, 92, 97-101
Y	US 2006/0106361 A1 (Muni, et al) 18 May 2006 (18.05.2006); para [0015], [0144], [0161], [0163], [0170]; Fig 10A	44, 46, 47, 113
Y	US 2007/0207186 A1 (Scanlon, et al) 6 September 2007 (06.09.2007); para [0012]; [0161], pg. 18, right column; [0161], pg. 19, left column	48-50
Y	US 7,018,401 B1 (Hyodoh, et al) 28 March 2006 (28.03.2006); col 1, ln 15-20; col 6, ln 36-43; col 50, ln 29-36; Fig 9	55
Y	US 2004/0133270 A1 (Grandt) 8 July 2004 (08.07.2004); para [0011], [0045]-[0046], [0048]; Fig 6C, 6D, 7B	56-68, 71-125
Y	US 2002/0188344 A1 (Bolea, et al) 12 December 2002 (12.12.2002); para [0010], [0039], [0046], [0048]	18, 101
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/>		
* 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 07 April 2009 (07.04.2009)		Date of mailing of the international search report 16 APR 2009
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. 571-273-3201		Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 08/86718

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2007/0250105 A1 (Ressemann, et al) 25 October 2007 (25.10.2007); para [0009]-[0011], [0015]-[0017], [0097]-[0098], [0109], [0119]-[0121], [0140]	104-125

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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:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I: Claims 1-125, drawn towards expandable devices for opening body cavities/lumens/etc, systems of such devices, and methods of use and manufacture of said devices.

Group II: claims 126-148, drawn to a specific delivery device for deployment of an implant.

The inventions listed as Groups I - II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

***** Continued on the Extra 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 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.:
1-125

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

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Continuation of BOX III:

The special technical feature of the inventions of Groups I-II differ from one another. The special technical feature of the invention listed as Group I is an expandable device for opening body cavities, whereas, the special technical feature of the invention listed as Group II is a delivery device for delivering one or more implants. The special technical feature of the inventions of Groups I-II differ from one another. Therefore, the inventions lack a shared special technical feature. Without a shared special technical feature, the inventions lack unity with one another.