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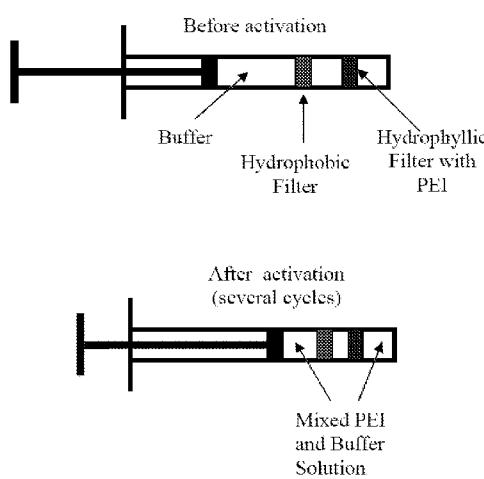
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[Continued on next page]

(54) Title: APPLICATOR SYSTEM FOR THE DELIVERY OF SURGICAL SEALANTS

Figure 3



(57) Abstract: One aspect of the invention relates to a simple, inexpensive applicator system which can be used for the delivery of a hydrogel formulation. In certain embodiments, the applicator system is suitable for use in sealing of dura mater, especially dura matter within the spinal column. In other embodiments, the applicator system may be used to repair cardiovascular defects, defects of the gall or urinary bladder, or repair of any of the other ducts within the body.

- 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))

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International application No. PCT/US2010/033134

A. CLASSIFICATION OF SUBJECT MATTER

A61M 5/24(2006.01)i, A61J 1/06(2006.01)i, A61M 5/28(2006.01)i, A61B 17/70(2006.01)i, A61B 17/34(2006.01)i

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)

A61M 5/24; G06F 15/16; H04J 3/22; H04B 7/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS(KIPO internal) & Keywords: syring*, inject*, insert*, needl*, clos*, occlud*, oclus*, seal*, hydrophobic*, septum*, filter*, membrane* and diaphragm*

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	US 6949114 B2 (MILLO, CHARLES F. et al.) 27 September 2005 See Abstract, Figs. 8-11a, Columns 1-20, Claim 1	1,3,31 2,4,9-12,16-20 ,32-36
Y A	US 4572210 A1 (MCKINNON, ROBERT J.) 25 February 1986 See Abstract, Figs. 1,5, Columns 1-5, Claim 1	1,3,31 2,4,9-12,16-20 ,32-36
A	US 2008-0188828 A1 (REYNOLDS, DAVID L. et al.) 07 August 2008 See Abstract, Figs. 1,2, Claims 1-19	1-4,9-12,16-20 ,31-36
A	US 6818018 B1 (SAWHNEY, AMARPREET S.) 16 November 2004 See Abstract, Columns 1-19, Claims 1-6,12	1-4,9-12,16-20 ,31-36

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
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 "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
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 "&" document member of the same patent family

Date of the actual completion of the international search
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2010/033134**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.: 8, 15, 24 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:
They are not defined obviously to accomplish meaningful international search because they are citing the multiple dependent claims 7,14,23 which are not drafted in accordance with the second and third sentences of Rule 6.4(a)

3. Claims Nos.: 5-7,13-14,21-23,25-30,37-38 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:

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 fee, this Authority did not invite payment of any additional fee.

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.:

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.

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