SUTURE METHOD

A method for joining and holding closed a wound in bodily tissue, fastening junctions of wounds, tying off wounds, joining a foreign element to tissue, and altering the position of tissue using a barbed suture (40) including sharp pointed ends (54, 56). Each end (54 or 56) of the suture (40) includes barbs (44) on one end (54 or 56) that permit movement in an opposing direction to the barbs (44) on the other end (54 or 56) of the suture (40). This two-way barbed suture (40) is used by the method of the present invention in applications including abdominal surgeries such as a Nissen fundoplication, laparoscopic uses such as stabilizing a bowel structure and performing a closure of a cystostomy, liver to bowel anastomosis, closure of an orifice of a Zenker's Diverticulum, endoscopic uses such as closure of ulcerative lesions or post-procedural tissue defects, bladder wound closure, valve replacement surgery, device attachment, cosmetic surgery, and blood vessel wound closure.

Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report: 16 December 2004

For two-letter codes and other abbreviations, refer to the “Guidance Notes on Codes and Abbreviations” appearing at the beginning of each regular issue of the PCT Gazette.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61B 17/08
US CL : 606/153
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)

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>US 5,887,594 A (LOCICERO, III) 30 March 1999 (30.03.1999), See entire document.</td>
<td>1-10</td>
</tr>
</tbody>
</table>

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

Date of the actual completion of the international search
14 October 2004 (14.10.2004)

Name and mailing address of the ISA/US
Mail Stop PCT, Attn: ISA/US
Commissioner of Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
Facsimile No. (703) 305-3230

Form PCT/ISA/210 (second sheet) (July 1998)
INTERNATIONAL SEARCH REPORT

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

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

2. ☐ Claim 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. ☐ Claim Nos.:
   because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation 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 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.: 1-10

Remark on Protest ☐ The additional search fees were accompanied by the applicant’s protest.
☐ No protest accompanied the payment of additional search fees.
BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING: The inventions listed as Groups I-XI 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:

Groups I-XI are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects. In the instant case, the different inventions have different effects.

Continuation of B. FIELDS SEARCHED Item 3:
EAST BRS, NPL
search terms: fundoplication, barbed, barb, GERD, suture