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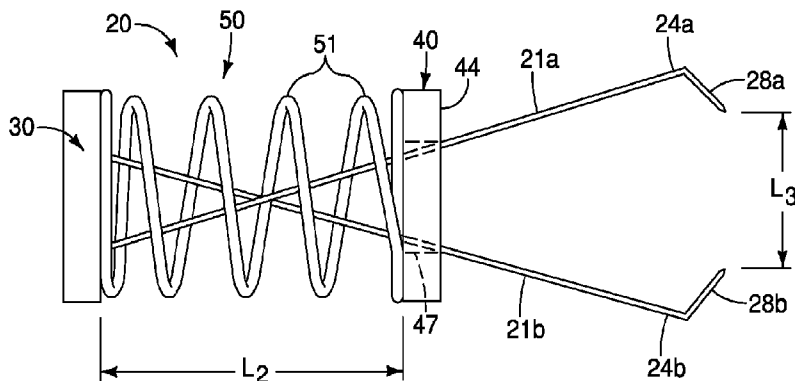


FIG. 2

(57) Abstract: The present embodiments provide a clip device (20) for engaging tissue. The clip device comprises at least first (21a) and second arms (21b) having proximal (22a, 22b) and distal ends (24a, 24b). The clip device comprises an open state when the spring member (50) is in a compressed state in which the distal end (54) of the spring member is spaced further apart from the distal ends of the first and second arms. In the open state, the distal ends of the first and second arms tend to be spaced apart from each other. Further, the clip device comprises a closed state when the spring member is in a relaxed state in which the spring member is biased to extend distally towards the distal ends of the first and second arms. In the closed state, the distal ends of the first and second arms are adjacent to each other and may engage tissue and promote hemostasis. A delivery system and methods for deploying one or more clip devices also are provided.



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**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/US2009/067992

**A. CLASSIFICATION OF SUBJECT MATTER**  
INV. A61B17/122 A61B17/128

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 practical, 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.
A	WO 90/02522 A1 (SCHMIDT FERENC J [US]; MAUGHAN P KEVIN [US]) 22 March 1990 (1990-03-22) abstract; figures 1,2,5	1-10
A	US 2008/172088 A1 (SMITH KEVIN W [US] ET AL) 17 July 2008 (2008-07-17) figures 4-6	1-10
A	US 3 958 576 A (KOMIYA OSAMU) 25 May 1976 (1976-05-25) the whole document	1-10

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 document 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

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Name and mailing address of the ISA/

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2009/067992

## 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.: 16-20  
because they relate to subject matter not required to be searched by this Authority, namely:  
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
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.:  
1-10

### 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: 1-10

A clip device for engaging tissue, the clip device comprising: a first arm having proximal and distal ends; a second arm having proximal and distal ends; a proximal base member contacting the proximal ends of the first and second arms; and a spring member having proximal and distal ends, wherein the spring member is disposed to surround at least a portion of the first and second arms, and wherein the proximal end of the spring extends from the proximal base member, wherein the clip device comprises an open state when the spring member is in a compressed state in which the distal end of the spring member is spaced apart from the distal ends of the first and second arms, and wherein the distal ends of the first and second arms tend to be spaced apart from each other when the clip device is in the open state, and wherein the clip device comprises a closed state when the spring member is in a relaxed state in which the spring member is biased to extend distally towards the distal ends of the first and second arms, wherein the distal ends of the first and second arms are adjacent to each other when the clip device is in the closed state.

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## 2. claims: 11-15

A system for deploying multiple clip devices in a sequential manner, the system comprising: a first clip device having proximal and distal ends; a second clip device having proximal and distal ends; a catheter having a lumen, wherein the first clip device and the second clip device are configured to be selectively advanced through the lumen of the catheter; and a stylet disposed for longitudinal movement within the lumen of the catheter, wherein the second clip device is configured to be disposed in the lumen of the catheter at a location distal to the stylet during delivery, and wherein the first clip device is configured to be disposed in the lumen of the catheter at a location distal to the second clip device during delivery, wherein distal advancement of the stylet is adapted to cause distal advancement of the first and second clip devices to selectively deploy the first clip device and, subsequently, selectively deploy the second clip device, and wherein both the first and second clip devices comprise closed states when disposed entirely within the lumen of the catheter, open states when extending partially distal to the catheter, and are biased to return to the closed states upon ejection from the catheter.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2009/067992
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Patent document cited in search report	Publication date	Publication date	Patent family member(s)	Publication date
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