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61/084,456 29 July 2008 (29.07.2008) 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, 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,

[Continued on next page]

(54) Title: LANCETS WITH IMPROVED COUPLING FEATURES AND STERILITY CAPS

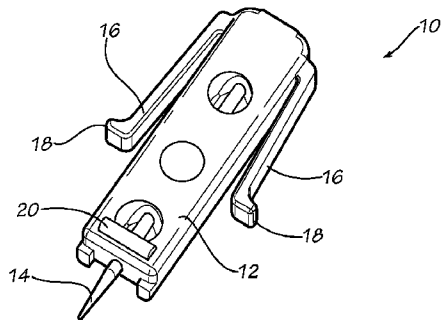


FIG. 1A

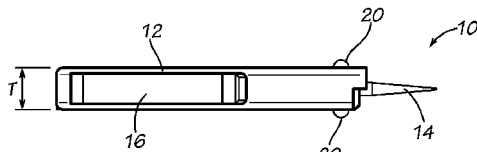


FIG. 1B

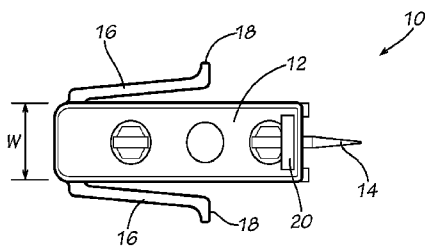
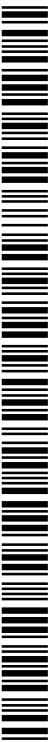


FIG. 1C

(57) Abstract: Improved lancet configurations and protective lancet end-cap configurations are disclosed. In example forms, one or more flexing cantilevers project from the lancet body for coupling with a cooperating receiver of a lancing device. A gripping handle extends from a sterility cap for ease of removal from and replacement over the lancet tip. A lancet body has a smoothly curved wave contour with at least one crest and at least one trough for engagement with a cooperating receiver of a lancing device.



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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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**Declarations under Rule 4.17:**

— of inventorship (Rule 4.17(iv))

**Published:**

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

— 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))

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

1 April 2010

**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/US2009/051943

**A. CLASSIFICATION OF SUBJECT MATTER**  
INV. A61B5/15

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.
X	EP 0 747 006 A (APLS CO LTD [JP] ASAHI POLYSLIDER CO LTD [JP]) 11 December 1996 (1996-12-11)	1-2,7-8
Y	column 3, line 10 - line 37; figures column 5, line 6 - line 20	27-35
X	US 2007/185515 A1 (STOUT JEFFREY T [US]) 9 August 2007 (2007-08-09)	1,3-6,8
Y	paragraphs [0001], [0007] - [0011], [0036] - [0040], [0043], [0047], [0048], [0052]; figures	27-35
A	WO 01/28423 A (GAINOR MEDICAL NORTH AMERICA L [US]; LEVAUGHN RICHARD W [US]; FLYNN ST) 26 April 2001 (2001-04-26) figures	1-8
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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

Date of the actual completion of the international search

5 February 2010

Date of mailing of the international search report

17/02/2010

Name and mailing address of the ISA/  
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## INTERNATIONAL SEARCH REPORT

International application No

PCT/US2009/051943

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2007/130830 A (FACET TECHNOLOGIES LLC [US]; ROBBINS AVI M [US]; BUENGER DAVID R [US]) 15 November 2007 (2007-11-15)	1,9-11
Y	paragraphs [0001], [0051] - [0053]; figures	27-35
X	US 2006/052809 A1 (KARBOWNICZEK JACEK G [PL] ET AL) 9 March 2006 (2006-03-09) paragraphs [0003], [0070], [0072], [0073]; figures	21-26
X	EP 1 285 629 A (MATSUSHITA ELECTRIC IND CO LTD [JP] PANASONIC CORP [JP]) 26 February 2003 (2003-02-26)	12-13, 15-20
Y	paragraphs [0001], [0143], [0144]; figures	33-35
X	WO 2007/097283 A (ASAHI POLYSLIDER COMPANY LTD [JP]; HYOUE TOMOYUKI [JP]) 30 August 2007 (2007-08-30)	12-14
Y	paragraphs [0029], [0048], [0049]; figures	27-35
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X,P	WO 2009/015097 A (KIM STANLEY [US]) 29 January 2009 (2009-01-29) abstract page 2, last paragraph - page 4, paragraph first page 6, line 1 - page 21, line 21 figures	12-14

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2009/051943

## 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.:

### 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: 1-8(completely); 27-35(partially)

directed to a resilient coupling member for releasably engaging a lancet to a lancing device.  
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2. claims: 9-11, 21-26

directed to various lancet shapes and dimensions.  
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3. claims: 12-20(completely); 27-35(partially)

directed to a protective sterility cap of a lancet.  
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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2009/051943

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