

(51) International Patent Classification:  
*A61M 5/46* (2006.01)(21) International Application Number:  
PCT/JP2010/051662(22) International Filing Date:  
29 January 2010 (29.01.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2009-020758 30 January 2009 (30.01.2009) JP  
2009-021771 2 February 2009 (02.02.2009) JP(71) Applicant (for all designated States except US): **TERUMO Kabushiki Kaisha** [JP/JP]; 44-1, Hatagaya 2-chome, Shibuya-ku, Tokyo 151-0072 (JP).

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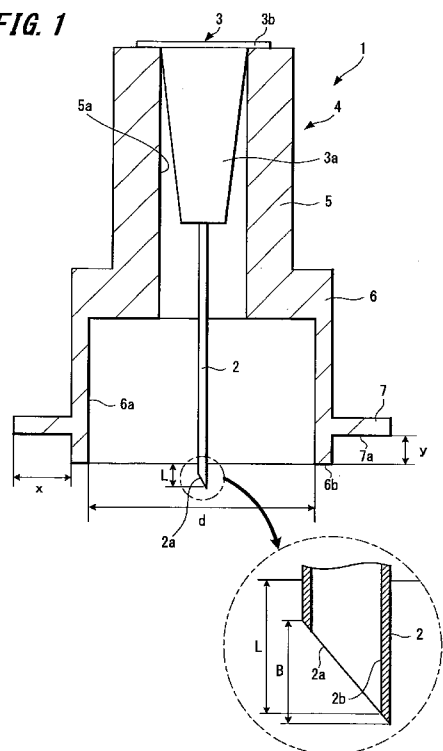
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, 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, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: INJECTION NEEDLE ASSEMBLY AND DRUG INJECTION DEVICE

FIG. 1



(57) Abstract: The present invention is made to securely position a needle tip and a blade face of a needle tube inserted into the skin in a predetermined site of a living body, such as the upper layer of skin. An injection needle assembly includes a needle tube (2) having a needle tip capable of puncturing a living body, a hub (3) holding the needle tube, a stabilizer (4), and a guide portion (7). The stabilizer (4) is formed in a tubular shape surrounding the circumference of the needle tube (2), and an end face (6b) is pressed against the skin, and thereby a raised portion of the skin is formed in a tube hole (6a). The guide portion (7) is arranged on the stabilizer (4), and is adapted to recognize a press-in distance of the stabilizer (4) to the skin.



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— *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:**

11 November 2010

**Published:**

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

# INTERNATIONAL SEARCH REPORT

International application No  
PCT/JP2010/051662

## A. CLASSIFICATION OF SUBJECT MATTER

INV. A61M5/46

ADD.

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 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)

EP0-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2007/118077 A1 (CLARKE RICHARD P [US] ET AL) 24 May 2007 (2007-05-24)	1-3, 5-10,20
Y	paragraphs [0046] - [0049]; figures 1, 2, 4	4,18,19
	paragraph [0065]	
Y	EP 1 752 096 A2 (LIFESCAN INC [US]) 14 February 2007 (2007-02-14)	4
	figures 9-11	
X	US 2003/050602 A1 (PETTIS RONALD J [US] ET AL) 13 March 2003 (2003-03-13)	1,10-12, 16,17
Y	paragraph [0036] - paragraph [0039]; figures 1A, 1b	13-15, 18,19
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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

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"O" document referring to an oral disclosure, use, exhibition or other means

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"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

15 September 2010

Date of mailing of the international search report

28/09/2010

Name and mailing address of the ISA/

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## INTERNATIONAL SEARCH REPORT

International application No

PCT/JP2010/051662

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2008/022755 A1 (ROCHE DIAGNOSTICS GMBH [DE]; HOFFMANN LA ROCHE [CH]) 28 February 2008 (2008-02-28) page 5 - page 10; figures 2, 4, 5 -----	13-15
A	JP 2000 037456 A (TERUMO CORP) 8 February 2000 (2000-02-08) the whole document -----	1-20

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/JP2010/051662

## 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: 1-10, 20

Invention I relates to an injection needle assembly comprising as potential special technical feature a guide portion for limiting the press-in distance of a skin deformer, thereby solving the technical problem of facilitating reproducible skin deformation.

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2. claims: 1, 11-19

Invention II relates to an injection needle assembly comprising as potential special technical feature an adjusting portion for limiting the insertion depth of an injection needle thereby solving the technical problem of reducing trauma to the patient.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/JP2010/051662

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