(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 15 May 2008 (15.05.2008)

(10) International Publication Number WO 2008/057515 A3

(51) International Patent Classification: A61M 5/00 (2006.01)

(21) International Application Number:

PCT/US2007/023333

(22) International Filing Date:

6 November 2007 (06.11.2007)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/857,088 6 November 2006 (06.11.2006) US 11/982,808 5 November 2007 (05.11.2007) US

(71) Applicant (for all designated States except US): SAFESHOT TECHNOLOGIES, LLC [US/US]; 25909 Pala, Suite 300, Mission Viejo, CA 92691 (US).

(72) Inventors; and

Inventors/Applicants (for US only): SMITH, Jeffrey [US/US]; 25909 Pala, Suite 300, Mission Viejo, CA 92691 (US). THAYER, Daniel [US/US]; 25909 Pala, Suite 300, Mission Viejo, CA 92691 (US).

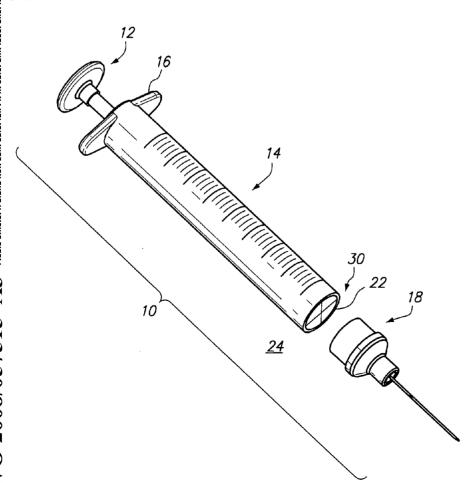
(74) Agent: STETINA BRUNDA GARRED & BRUCKER; 75 Enterprise, Suite 250, Aliso Viejo, CA 92656 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, 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, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, 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, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,

[Continued on next page]

(54) Title: PUNCTURABLE MEMBRANE FOR SAFETY SYRINGE



(57) Abstract: Α safety syringe may define a variable fluid chamber and detached needle assembly. The variable fluid chamber may hermetically sealed off from the environment or ambient air until the needle assembly is attached to a syringe body of the safety syringe. A proximal end of the variable fluid chamber is sealed off from the environment via a seal between a piston and syringe body. The distal end of the variable fluid chamber may be sealed off from the environment via a barrier covering the distal end of the syringe body. The barrier may be punctured to allow fluid to through therethrough at or about the same time when the needle assembly is attached to the distal end portion of the syringe body.

WO 2008/057515 A3



PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- (88) Date of publication of the international search report: 18 September 2008

INTERNATIONAL SEARCH REPORT

International application No. PCT/US2007/023333

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - A61M 5/00 (2008.04) USPC - 604/110			
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)			
USPC - 604/110			
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)			
PatBase			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where ap	propriate, of the relevant passages	Relevant to claim No.
Y	US 6,413,236 B1 (VAN DYKE) 02 July 2002 (02.07.20	02) entire document	1-12
Y	US 6,179,812 B1 (BOTICH et al) 30 January 2001 (30.01.2001) entire document		1-12
Y	US 4,031,889 A (PIKE) 28 June 1977 (28.06.1977) entire document		9-11
Further documents are listed in the continuation of Box C.			
* Special categories of cited documents: "A" document defining the general state of the art which is not considered date and not in conflict with the application but cited to understand the document defining the general state of the art which is not considered to the of precipilly sale and not in conflict with the application but cited to understand the property of the conflict with the application but cited to understand the property of the conflict with the application but cited to understand the property of the conflict with the application but cited to understand the property of the conflict with the application but cited to understand the property of the p			
	the principle or theory underlying the invention er application or patent but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive		
cited to	ent which may throw doubts on priority claim(s) or which is establish the publication date of another citation or other	step when the document is taken alone	
"O" document referring to an oral disclosure, use, exhibition or other means "O" document referring to an oral disclosure, use, exhibition or other being obvious to a person skilled in the		step when the document is documents, such combination	
"P" document published prior to the international filing date but later than "&" document member of the same patent family the priority date claimed			
Date of the actual completion of the international search Date of mailing of the international search report			
05 May 2008 23 MAY 2008			
Name and mailing address of the ISA/US Authorized officer:			
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450		Blaine R. Copenheaver	
Foogimila No. 574 979 9994		PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774	