



(51) International Patent Classification:
A61M 5/34 (2006.01)

(21) International Application Number:
PCT/IB2016/052833

(22) International Filing Date:
16 May 2016 (16.05.2016)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/133,293 14 March 2015 (14.03.2015) US

(71) Applicant: ADST TECHNOLOGIES LTD. [IL/IL]; 1
Abba Eban Ave., 4672526 Herzliya Pituach (IL).

(74) Agent: CHERSON, Joe; Pob 915, 43100 Raanana (IL).

(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, BN, 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, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, 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, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

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))

[Continued on next page]

(54) Title: MASS VACCINATION DEVICE

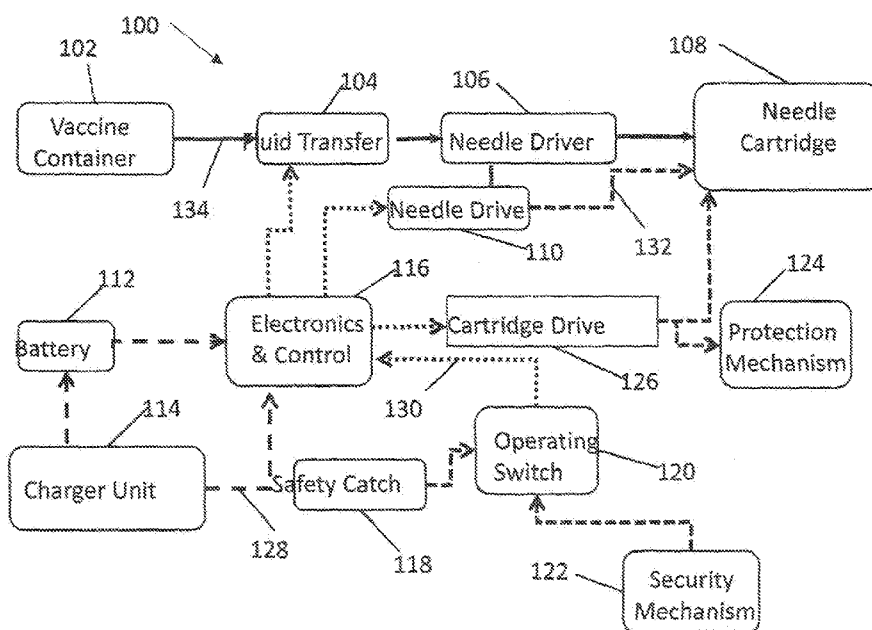


Figure 1

(57) Abstract: Disclosed is a device for mass vaccinations of humans. The device includes a replaceable needle cartridge, a needle driving mechanism, and a vaccine container.



— *the filing date of the international application is within two months from the date of expiration of the priority period (Rule 26bis.3)*

(88) Date of publication of the international search report:
24 November 2016

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB 16/52833

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61M 5/34 (2016.01)

CPC - A61M 5/34

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)
IPC (8): A61M 5/34 (2016.01); CPC: A61M 5/34Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
IPC (8): A61M 5/142 5/158 5/162 5/165 5/20 5/30 5/31 5/315 5/32 5/34 37/00 (2016.01); CPC: A61D 1/025, A61M 5/008 5/204 2005/004 2005/2026Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Google Web; Google Patents; Search Terms Used: vaccine, container, reservoir, needle, drive, spring, sleeve, injector, mass, multiple, drug, delivery, replaceable, piston, belt, device, cartridge, system, contamination, filter, rapid, tubing, hydrophilic, revolving, pump

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2008/0221549 A1 (Cohen) 11 September 2008 (11.09.2008), entire document, especially fig 2, 5a-b, 10b; para [0014], [0038]-[0040], [0045], [0062]-[0064], [0072], [0084]	1-6, 8-9, 11-12, 15, 17 ----- 7, 10
X	WO 2014/016807 A2 (Syrinjector Ltd.) 30 January 2014 (30.01.2014), entire document, especially fig 1-2; para [0053]-[0054], [0056], [0060], [0087]-[0088]	1, 13-16
Y	US 2006/0219317 A1 (Baldwin et al.) 05 October 2006 (05.10.2006), entire document, especially fig 2; para [0109]	7
Y	US 2014/0039237 A1 (Li) 06 February 2014 (06.02.2014), entire document, especially fig 1; para [0037], [0040]	10
A	US 2007/0185437 A1 (Goldenberg et al.) 09 August 2007 (09.08.2007), entire document	1-17
A	US 2004/0260270 A1 (Cohen) 23 December 2004 (23.12.2004), entire document	1-17

☐ 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 to be of particular relevance

"E" earlier application or patent 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

06 October 2016

Date of mailing of the international search report

18 OCT 2016

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents
P.O. Box 1450, Alexandria, Virginia 22313-1450
Facsimile No. 571-273-8300

Authorized officer:

Lee W. Young

PCT Helpdesk: 571-272-4300
PCT OSP: 571-272-7774