



- (51) International Patent Classification:
A61M 5/14 (2006.01) A61M 5/142 (2006.01)
- (21) International Application Number:
PCT/US2019/042408
- (22) International Filing Date:
18 July 2019 (18.07.2019)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
62/699,805 18 July 2018 (18.07.2018) 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, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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).

(54) Title: DRUG DELIVERY INSERTION APPARATUSES AND SYSTEM

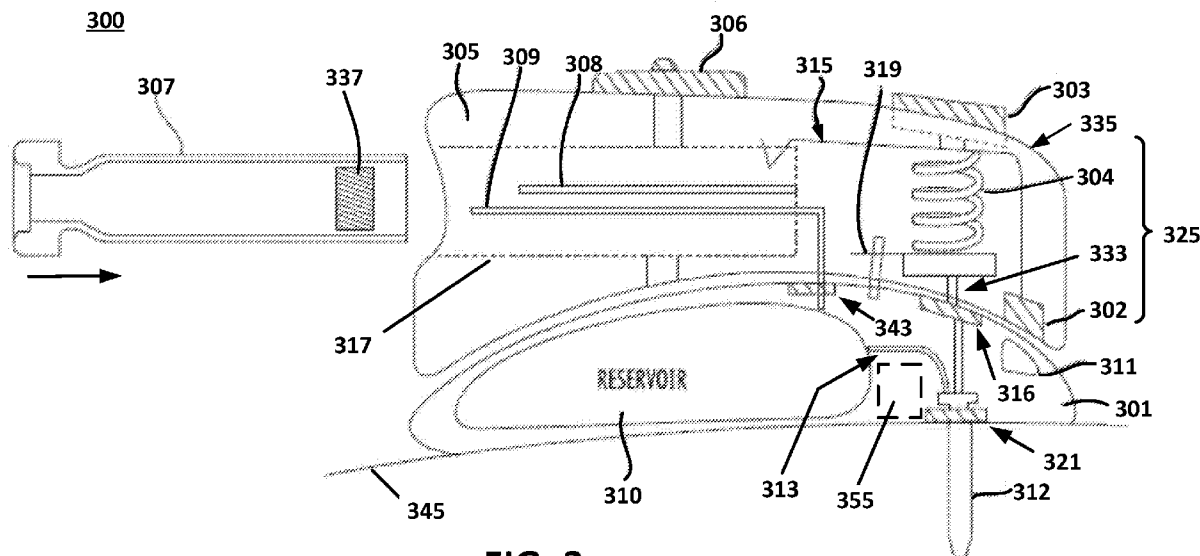


FIG. 3

(57) Abstract: Disclosed are examples for a system for drug delivery and components thereof. The system may include an on-body pump device and a secondary unit. The on-body pump device may include a reservoir and a fluid pathway. The reservoir may be configured to hold a liquid drug. The secondary unit may be removably coupled to the on-body pump device. The secondary unit may be configured to receive a prefilled cartridge containing a liquid drug, expel the liquid drug from the prefilled cartridge, and deliver the liquid drug to the reservoir of the on-body pump device via the fluid pathway. Examples of variations to the secondary unit are also disclosed.



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:

20 February 2020 (20.02.2020)

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2019/042408

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61M5/14 A61M5/142
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

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)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	WO 2016/162755 A2 (CEQR SA [CH]) 13 October 2016 (2016-10-13) paragraphs [0016], [0017], [0023], [0048], [0060]; figures 1, 2, 24 -----	1-3,5-8, 14,15,18 4,16,17
X	US 2008/119790 A1 (HAWKINS DANIEL [US] ET AL) 22 May 2008 (2008-05-22) paragraphs [0029], [0031], [0037], [0040]; figures 1, 4, 9 -----	1,2,4-6, 14-16,18

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"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</p> <p>"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</p> <p>"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</p> <p>"&" document member of the same patent family</p>
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Date of the actual completion of the international search 26 September 2019	Date of mailing of the international search report 16/01/2020
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Herz, Markus
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2019/042408

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.:
1-8, 14-18

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.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/ US2019/ 042408

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, 14-18

This invention (or group of inventions) is based on a "secondary unit" for an "on-body pump device" for the purpose of filling the latter with a medicament and inserting a needle in the skin of a patient

2. claims: 9-14

This invention (or group of inventions) defines an "on-body pump device" with two reservoirs and a flow regulator, addressing the purpose of providing one or more medicaments at different flow rates.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2019/042408

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WO 2016162755	A2	13-10-2016	EP 3280471 A2	14-02-2018
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