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(54) **Title:** METHOD AND APPARATUS FOR DETECTING OCCLUSIONS IN AN AMBULATORY INFUSION PUMP

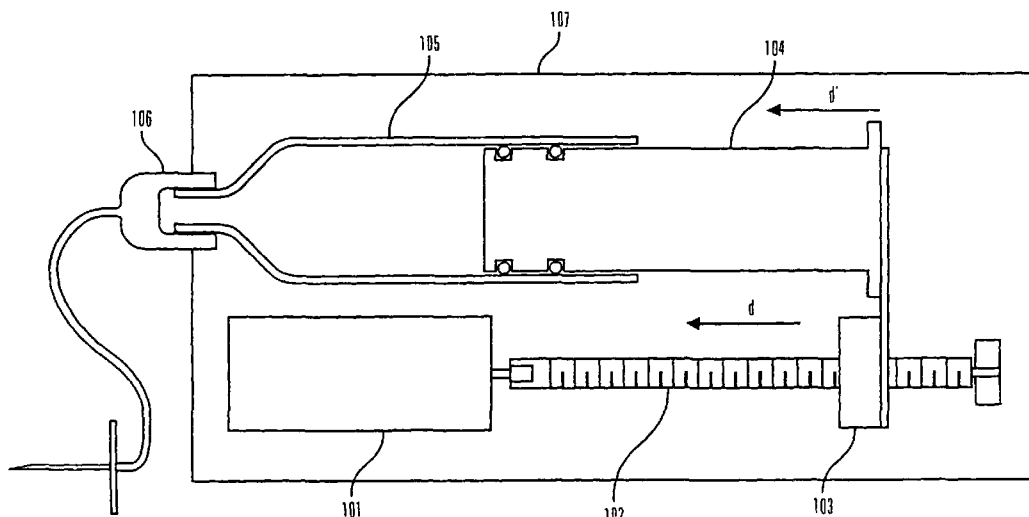


FIG. 1

(57) **Abstract:** An improved pump, reservoir (406) and reservoir piston (407) are provided for controlled delivery of fluids. A motor (403) is operably coupled to a drive member (432), such as a drive screw (404), which is adapted to advance a plunger slide (405) in response to operation of the motor. The plunger slide is removably coupled to the piston (407). A system for automatically detecting an occlusion in a medication infusion pump is provided. The electrical current to an infusion pump is measured. Based on a series of measurements of one or more variables, the infusion pump detects whether there is an occlusion in the system.

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
INV. A61M5/168

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 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	US 2006/184154 A1 (MOBERG SHELDON B [US] ET AL) 17 August 2006 (2006-08-17) paragraphs [0160] - [0162], [0194], [0200] - [0202]; claims 7,13,28; figures 26-31	21-36
X	US 2004/133166 A1 (MOBERG SHELDON B [US] ET AL) 8 July 2004 (2004-07-08) paragraphs [0098] - [0113]; figures 11-13	21-36
X	WO 93/04284 A (ABBOTT LAB [US]) 4 March 1993 (1993-03-04) page 22, lines 12-17; figures	21
P, X	WO 2007/035567 A (LIFESCAN INC [US]; ANEX DEON [US]) 29 March 2007 (2007-03-29) page 17 - page 18; figures 11,12	21
	-/--	

Further documents are listed in the continuation of Box C.

See patent family annex.

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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 529 546 A (MEDEX INC [US]) 11 May 2005 (2005-05-11) paragraphs [0048] - [0072]; figures 3,4 -----	21

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.: 1-20
because they relate to subject matter not required to be searched by this Authority, namely:

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
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:

1. As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable 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.:
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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

Information on patent family members

International application No

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