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AO, 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, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

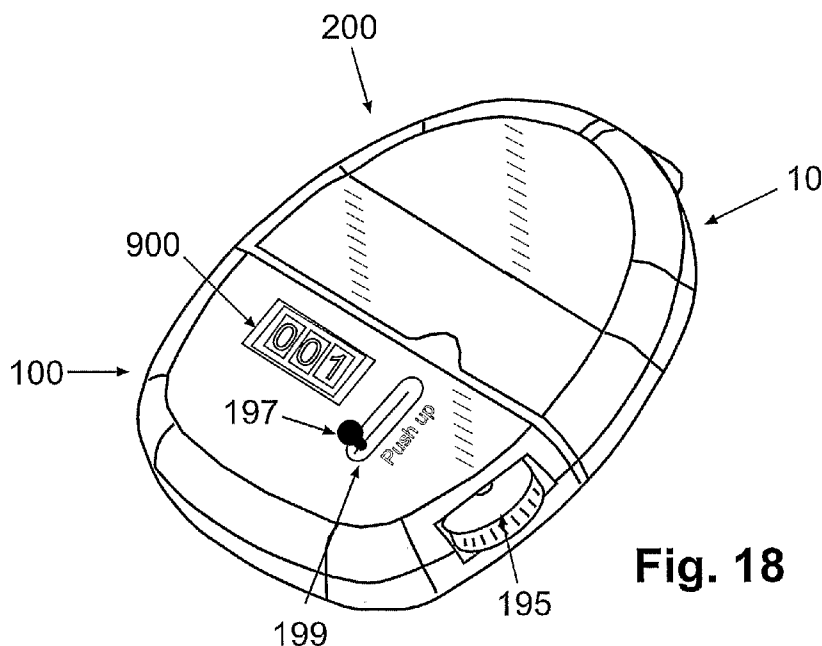
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**Fig. 18**

(57) Abstract: Disclosed is an ambulatory therapeutic fluid delivery device (10). The device includes at least one housing (200) connectable to a cannula (250), the at least one housing retaining a reservoir (220) to hold the therapeutic fluid. The device also includes a mechanically powered pumping mechanism (150) to cause delivery of at least some of the fluid from the reservoir, and a power-transfer mechanism to transfer manually-delivered power provided by a user to mechanically actuate the pumping mechanism.

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**INTERNATIONAL SEARCH REPORT**

International application No  
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<b>A. CLASSIFICATION OF SUBJECT MATTER</b> INV. A61M5/142      A61M5/145		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
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		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
<b>Category*</b>	<b>Citation of document, with indication, where appropriate, of the relevant passages</b>	<b>Relevant to claim No.</b>
X	WO 97/23252 A (SCIENCE INC [US]) 3 July 1997 (1997-07-03)  page 31, line 5 - line 13; figures 18A-18C	1-15, 21-44, 51-53
Y	-----	2-39
X	US 2005/182385 A1 (EPLEY JOHN M [US]) 18 August 2005 (2005-08-18) paragraph [0054]; figures 9,11	1,2
X	US 3 279 653 A (PFLEGER FREDERICK W) 18 October 1966 (1966-10-18) column 5, line 19 - line 60; figures 1,2	1,38
Y	-----	6-19
Y	US 2007/106218 A1 (YODFAT OFER [IL] ET AL) 10 May 2007 (2007-05-10) abstract; figures	6-37
	----- -/--	
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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 *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  13 March 2009		Date of mailing of the international search report  20/03/2009
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  Ehrsam, Fernand

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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.
P,X	WO 2008/078318 A (MEDINGO LTD [IL]; YODFAT OFER [IL]; IDAN GAVRIEL J [IL]; NETA AVRAHAM) 3 July 2008 (2008-07-03) cited in the application page 4; figures 18A-18I -----	1-37
Y	WO 2006/121921 A (MEDTRONIC MINIMED INC [US]; MOBERG SHELDON B [US]; HANSON IAN [US]; CH) 16 November 2006 (2006-11-16) page 29; figures -----	2-39
X	US 4 676 122 A (SZABO ANTHONY W [US] ET AL) 30 June 1987 (1987-06-30) column 4, line 65 - column 5, line 21; figures 1,2 -----	1,38
Y	-----	6-19

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IL2008/001058

## 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.: 54-69  
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  
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy
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 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.

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IL2008/001058

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9723252	A	03-07-1997	AU 724234 B2	14-09-2000
			AU 1429097 A	17-07-1997
			CA 2241365 A1	03-07-1997
			CN 1209073 A	24-02-1999
			EP 0874654 A1	04-11-1998
			JP 2001508668 T	03-07-2001
			US 6045533 A	04-04-2000
-----				
US 2005182385	A1	18-08-2005	NONE	
-----				
US 3279653	A	18-10-1966	NONE	
-----				
US 2007106218	A1	10-05-2007	AU 2006310103 A1	10-05-2007
			CA 2627787 A1	10-05-2007
			CN 101340938 A	07-01-2009
			EP 1945285 A1	23-07-2008
			WO 2007052277 A1	10-05-2007
			KR 20080066992 A	17-07-2008
-----				
WO 2008078318	A	03-07-2008	US 2008215035 A1	04-09-2008
-----				
WO 2006121921	A	16-11-2006	CA 2602472 A1	16-11-2006
			EP 1893255 A2	05-03-2008
			US 2006264888 A1	23-11-2006
			US 2006264889 A1	23-11-2006
			US 2006264894 A1	23-11-2006
			US 2006253086 A1	09-11-2006
			US 2008009824 A1	10-01-2008
			US 2006264890 A1	23-11-2006
-----				
US 4676122	A	30-06-1987	NONE	