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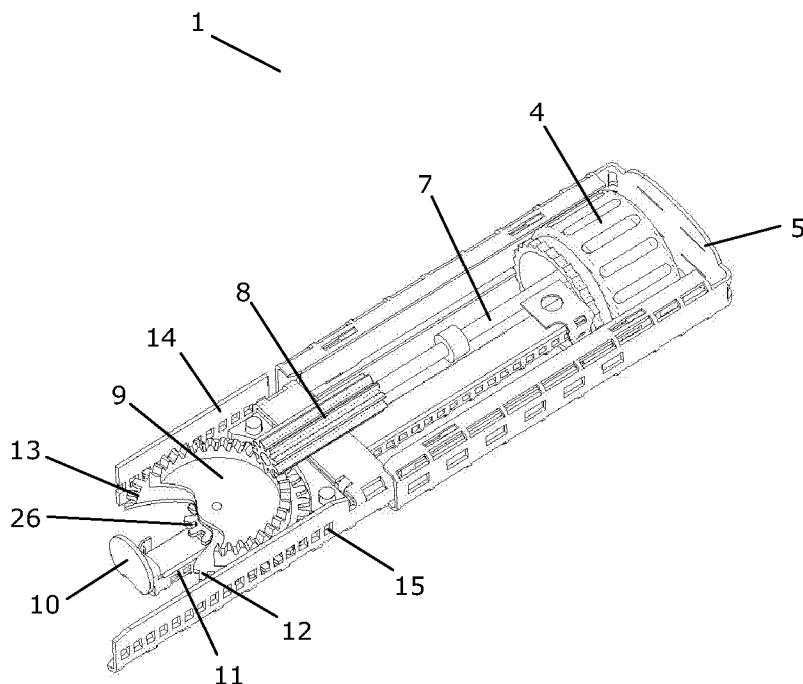
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- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: AN INJECTION DEVICE HAVING A GEARING ARRANGEMENT



(57) Abstract: An injection device with a gearing arrangement providing a gearing ratio between axial movement of an injection button and axial movement of a piston rod. The injection device comprises a dose setting member being operable to set a dose by rotating the dose setting member relatively to a housing, about a rotational axis. During setting of a dose the gearing arrangement is prevented from rotating along with the dose setting member about the rotational axis. According to one aspect of the invention, the gearing arrangement comprises at least one gear wheel having a rotational axis which is non-parallel to, e.g. substantially perpendicular to, the rotational axis of the dose setting member. According to another aspect of the invention, the gearing arrangement comprises a driving spindle being provided with a threaded portion having a first

pitch, and the piston rod is provided with a threaded portion having a second pitch. The gearing is provided by the threaded portions.

INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2007/052177

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61M5/315

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, 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	US 6 003 736 A (LJUNGGREN ET AL) 21 December 1999 (1999-12-21) the whole document	1-4
X	GB 664 044 A (BECTON DICKINSON CO) 2 January 1951 (1951-01-02) the whole document	1-4
X	EP 1 462 134 A (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD) 29 September 2004 (2004-09-29) abstract figures 8-10 paragraph [0141] - paragraph [0148] ----- -/--	1-4



Further documents are listed in the continuation of Box C.



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
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- *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

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12/10/2007

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INTERNATIONAL SEARCH REPORT

International application No

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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.
A	WO 2004/035113 A (ELI LILLY AND COMPANY; JUDSON, JARED, ALDEN; RITSHER, KENNETH, ALAN) 29 April 2004 (2004-04-29) abstract -----	1-4
A	WO 03/080160 A (ELI LILLY AND COMPANY; JUDSON, JARED, ALDEN; STEWART, WILLIAM, CHARLES) 2 October 2003 (2003-10-02) abstract -----	1
A	WO 2004/007002 A (NOVO NORDISK A/S) 22 January 2004 (2004-01-22) abstract -----	1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2007/052177

Box 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 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 fee, this Authority did not invite payment of any additional fee.
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.:

see annex

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4

An injection device comprising a housing, a dose setting member, a piston rod, an injection button, a gearing arrangement wherein at least one of the gear wheel(s) has a rotational axis which is non-parallel to the rotational axis of the dose setting member.

2. claims: 5-6

An injection device comprising a housing, a dose setting member, a piston rod, an injection button, a gearing arrangement comprising a driving spindle.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2007/052177

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