

Internal distribution code:

- (A) Publication in OJ
(B) To Chairmen and Members
(C) To Chairmen
(D) No distribution

**Datasheet for the decision
of 16 April 2010**

Case Number: T 1951/07 - 3.2.02

Application Number: 01402510.0

Publication Number: 1195172

IPC: A61M 5/00

Language of the proceedings: EN

Title of invention:
Automatic injection device

Applicant:
Nemoto Kyorindo Co., Ltd.

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 56

Relevant legal provisions (EPC 1973):
-

Keyword:
"Inventive step (no)"

Decisions cited:
-

Catchword:
-



Case Number: T 1951/07 - 3.2.02

D E C I S I O N
of the Technical Board of Appeal 3.2.02
of 16 April 2010

Appellant: Nemoto Kyorindo Co., Ltd.
2-27-20, Hongo
Bunkyo-ku
Tokyo (JP)

Representative: Boire, Philippe Maxime Charles
Cabinet Plasseraud
52 rue de la Victoire
F-75440 Paris Cedex 09 (FR)

Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 31 July 2007
refusing European patent application
No. 01402510.0 pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: M. Noël
Members: D. Valle
M. J. Vogel

Summary of Facts and Submissions

- I. The appellant (applicant) lodged an appeal on 17 September 2007 against the decision of the Examining Division refusing the European patent application No. 01402510.0. The fee for appeal was paid on the same day and the statement setting out the grounds for appeal was received on 8 November 2007.

- II. The Examining Division held that the application did not meet the requirement of Article 56 EPC (lack of inventive step), having regard to the state of the art presented in the application in combination with the following prior art document:

D1: GB-A-1 391 575.

- III. In response to a preliminary opinion of the Board dated 17 December 2009, the appellant requested by letter of 8 March 2010 that a written decision according to Rule 111(1) EPC be issued.

- IV. In its written submissions the appellant requested that the decision under appeal be set aside and a patent be granted on the basis of a set of claims 1 to 18 filed on 8 November 2007 together with the statement of grounds of appeal.

- V. The set of claims 1 to 18 comprises method claims 1 to 9, of which three are independent claims, and device claims 10 to 18, of which three are independent claims.

Independent method claim 1 reads as follows:

"Method of using an automatic injection device (100) comprising piston holders (3a, 3b) holding cylinder pistons and plural systems of heads having a drive mechanism (4a-7a, 4b-7b) for moving the piston holders forward and backward, whereby the device can hold a plurality of syringes (1a, 1b) and can operate injection or suction in each syringe independently, wherein tips of at least two of the syringes are connected to a multi way-branched tube (2) without valves, and said device further comprising an electromagnetic brake (11) which is capable of effect braking of movement of a second head, said method being **characterized** in that said electromagnetic brake (11) is turned on when the piston holder of a first head is in a forward-moving state and the piston holder of the second head is in a stopped state, whereby backward-moving of the second head is prohibited, and in that said electromagnetic brake (11) is turned off when the second head is in moving state."

VI. The appellant argued essentially as follows:

The passage on page 1, lines 71 to 78 of D1 was concerned principally with a single-syringe device provided with an electromagnetic brake for instantaneously stopping the delivery of fluid. When a double-syringe device was used the fluid was thereby prevented from flowing into the other syringe.

The present invention provided for another control mode by blocking the non-delivering syringe while the liquid-delivering syringe was in progress, whereas

intermediate stoppage of the liquid-delivering syringe was achieved in D1.

Since valves were conventionally used in the state of the art for avoiding back flow of liquid from one syringe into another by turning off the valve placed on the non-delivering syringe, the skilled person would not have interpreted D1 as disclosing that the brake of the non-delivering syringe was turned on before the liquid-delivering syringe was made to stop.

Therefore, the subject-matter of claim 1 involved an inventive step over the state of the art.

Reasons for the Decision

1. The appeal is admissible.
2. *Inventive step*
 - 2.1 It is not disputed that the closest state of the art is described in the patent application itself with reference to Figures 8 and 9. From this, the distinguishing features of claim 1 are that the device comprises an electromagnetic brake which is capable of effect braking of movement of a second head, that said electromagnetic brake is turned on when the piston holder of a first head is in a forward-moving state and the piston holder of the second head is in a stopped state, whereby backward-moving of the second head is prohibited, and that said electromagnetic brake is turned off when the second head is in moving state.

The purpose of the invention, which is achieved by the above distinguishing features, is given on page 3, first full paragraph, and on page 4, second paragraph of the application as filed, and consists essentially in avoiding that the actuation of the liquid-delivering syringe causing some of the liquid to flush back into the non-delivering syringe. As a result, the injection liquid is prevented from being undesirably sucked and mixed into the non-delivering syringe.

2.2 D1 deals with a medical injection apparatus similar to that of the present invention.

D1 discloses with reference to Figures 1 to 3 (page 2) an injection device comprising two identical syringes 1d, 1g arranged in parallel to each other and provided respectively with two plungers 4d, 4g, each separately connected to a mechanism driven by an electric motor 15 (Figure 3) incorporating an electromagnetic brake F (Figure 5 and page 3, lines 22 to 23). Therefore, each electromagnetic brake is capable of braking the movement of the respective syringe head, as required by claim 1 at issue.

On page 1, lines 76 to 78 of D1 it is further indicated that where several syringes are provided or being used, the delivery of one syringe into another is thereby prevented.

It is true that D1 does not explicitly disclose that the electromagnetic brake is turned on when the piston holder of a first head is in a forward-moving state and the piston holder of the second head is in a stopped state, whereby backward-moving of the second head is

prohibited. However the Board is satisfied that this is the only way of using the braking system in order to prevent back flush.

When considering the above quoted passage of D1 in the light of the two-syringes embodiment described in relation to the Figures, it becomes clear that there are only two possibilities of using the electromagnetic brakes, i.e. by turning the circuit "on" or "off". Each alternative will necessarily lead to the functional features recited in the characterising portion of claim 1. Briefly, when the brake associated with the non-delivering syringe is turned on, the corresponding head is stopped and any backward movement is prohibited. In this way delivery of liquid from one syringe into the other is prevented as indicated on page 1 of D1. Conversely, when the same brake is turned off, the head is permitted to move (and to be used, in turn, as the delivering syringe).

The interpretation of D1 presented by the appellant starting from additional prior art documents using valves for avoiding backflow is not accepted by the Board since D1 does not disclose the use of any valve and those documents represent prior art which is more remote than that presented in the patent application as being the most promising starting point. Therefore, the arguments set forth by the appellant are irrelevant and not convincing.

Nor does the fact that claim 1 in suit was reworded into a method claim during the examination procedure change the above findings of the Board since an invention originally directed to a device covers the

use of the device as well. Therefore, like the present application, the device disclosed in D1 also extends to the use of the device or, as formulated in claim 1 at issue, to the method of using the device. These changes of terminology are only changes of form.

2.3 For these reasons the subject-matter of claim 1 does not involve an inventive step within the meaning of Article 56 EPC.

Since a patent cannot be granted partially, the other independent method and device claims 3, 5, 10, 12 and 14 need no further investigation. Therefore, the application has to be refused in its entirety.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

D. Sauter

M. Noël