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D E C I S I O N
of 18 February 2002

Case Number: T 0704/00 - 3.2.2

Application Number: 92908169.3

Publication Number: 0648136

IPC: A61M 5/50

Language of the proceedings: EN

Title of invention:
Syringe with retractable needle

Applicant:
SAFE-T-LIMITED

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56

Keyword:
"Novelty and inventive step - yes (after amendment)"

Decisions cited:
-

Catchword:
-

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Case Number: T 0704/00 - 3.2.2

D E C I S I O N
of the Technical Board of Appeal 3.2.2
of 18 February 2002

Appellant: SAFE-T-LIMITED
Laurel House
Croit-Y-Quill
Lonan
Isle of Man (GB)

Representative: Dodd, David Michael
T. N. P. Services
P.O. Box 13
Manchester M30 9FZ (GB)

Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 30 December 1999 refusing European patent application No. 92 908 169.3 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: W. D. Weiß
Members: D. Valle
R. T. Menapace

Summary of Facts and Submissions

I. The Appellant (applicant) filed an appeal against the decision of the Examining Division to refuse the application for lack of inventive step against the documents:

D2: US-A-4 994 034

D1: WO-A-90/07948

II. Following a communication of the Board, the appellant submitted with letter of 24 September 2001 a modified version of the application.

III. Claim 1 as submitted with letter of 24 September 2001 reads as follows:

A syringe body (101, 111) for a syringe device that is sterilisable and has a needle (115) that is hollow for passage of contents of the syringe and is automatically retractable after use, the syringe body (101, 111) having an interior which comprises a main elongate cylindrical chamber (101) adapted for taking a plunger (105) in slidable sealing relation therein and a forward chamber (111) extending distally from the main chamber (101) beyond the end of the plunger movement and being adapted to house a spring (133) to bias a holder (117) for the needle (115), the syringe body (101, 111) having integrally molded internal latching formations (121) which are resiliently radially flexible and extend from the forward chamber (111) towards and into the main chamber in directions generally parallel with longitudinal axis of the body, the integral internal latching

formations (121) serving in use for retaining the needle holder (117) with the spring (133) compressed inside the forward chamber (111) in biasing the needle holder (117) and for releasing of the needle holder (117) for automatic retraction with the needle (115) when the integral latching formations (121) are radially outwardly deflected by the plunger (105) at end of its movement, characterized by the syringe body (101, 111) being made from moldable material molded in one piece, and by the integral internal latching formations (121) being adapted for their radially outward deflection also to serve in releasing the syringe body (101, 110) from a molding tool.

IV. The final requests of the appellant on the basis of the communication of 24 September 2001 are as follows:

The decision under appeal be set aside and a patent be granted on the basis of the following version of the application:

- **Claims** 1 to 23 filed with letter of 24 September 2001;

- **Description**:

  pages 2 to 4, 4a, 4b and 18 as filed with letter of 24 September 2001;

  pages 1, 5, 12, 13, 15 to 17 and 19 as filed with letter of 17 September 1998;

  pages 6 to 11, 14 and 20 as published;

- **Drawings**:

  sheets 1/6-3/6, 5/6 and 6/6 as published;

  sheet 4/6 as filed with letter of 6 May 2000.

V. The appellant argued essentially as follows:

The problem of the invention was to minimize the number of parts required by a hollow needle device with automatic needle retraction. Such problem was known by document D2. Document D2 disclosed however a traditional two-part body and led away from the claimed invention. The latching formations of document D2 were wholly external and not - like the invention - deeply internal. Document D1 showed a one-piece body. Neither document D2 nor document D1 disclosed that the deflection of the latching formations served both for releasing the latching action and for releasing the device from the molding tool. It was practically impossible to mold in one piece the embodiments of figures 2 and 3 of document D1. The latching formations of document D1 were not able to flex away and recover in order to release the inner molding core. The latching members of document D1 would be torn off in the attempt. A collapsing inner mold core was also not viable.

Reasons for the Decision

1. The appeal is admissible.

2. *Formal matters*

There are no reasons to challenge the clarity of the latest filed claims and their support by the original disclosure.

3. *Novelty and inventive step*

Document D2 (Figures 2 to 5), which is considered to represent the nearest prior art, discloses a syringe body (55, 21) for a syringe device that is sterilisable and has a needle (9) that is hollow for passage of contents of the syringe and is automatically retractable (Figure 5) after use, the syringe body having an interior which comprises a main elongate cylindrical chamber (55) adapted for taking a plunger (73) in slidable sealing relation therein and a forward chamber (21) extending distally from the main chamber beyond the end of the plunger movement and being adapted to house a spring (15) to bias a holder for the needle, the syringe body having integrally molded internal latching formations (23) which are resiliently radially flexible (column 5, lines 2, 3) and extend from the forward chamber towards and into the main chamber in directions generally parallel with longitudinal axis of the body, the integral internal latching formations serving in use for retaining the needle holder with the spring compressed inside the forward chamber in biasing the needle holder and for releasing of the needle holder for automatic retraction with the needle when the integral latching formations are radially outwardly deflected by the plunger at end of its movement.

Claim 1 distinguishes therefrom in that the syringe

body is made from moldable material molded in one piece and has integral molded internal latching formations which are adapted for their radially outward deflection also to serve in releasing the syringe body from a molding tool.

The technical problem to be solved by of the invention is therefore to be seen in simplifying the known device by minimizing the number of its parts and in making more expedite its production.

Document D2 alone does not give sufficient hints to arrive at the claimed invention in an obvious way. Document D2 discloses a syringe body made of two pieces: an elongated cylindrical chamber (55) and a forward chamber (21) having integrally molded latching formations (23). The forward chamber has to be inserted in use into the main elongate cylindrical chamber and it houses the needle holder (11) and the spring (15). On the contrary in the device according to the invention the one-piece syringe body with integrally molded latching formations (121) directly houses the needle holder (117) and the spring (133).

The additional teaching of document D1 does not lead to the invention in an obvious way either. D1 describes projections (52) integral with the body of the syringe which are deflected in a direction parallel to the longitudinal axis of the syringe thereby releasing the needle holder. There is no disclosure that the projections are molded in one piece with the main body nor that they are deflected radially outwardly to release the molding tool. The acute angle formed by the projections with the wall of the chamber and the direction of the projections towards the bottom of the

chamber makes it impossible or at least extremely complicate to extract the molding tool from the top as it is required by a distinguishing feature of the invention.

The further documents of the available prior art are farther away from the claimed invention.

Accordingly the subject-matter of claim 1 is novel and involves an inventive step having regard to the available prior art.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the Examining Division with the order to grant a patent with the following version:

- **Claims** 1 to 23 filed with letter of 24 September 2001;

- **Description:**

  pages 2 to 4, 4a, 4b and 18 as filed with letter of 24 September 2001;

  pages 1, 5, 12, 13, 15 to 17 and 19 as filed with letter of 17 September 1998;

pages 6 to 11, 14 and 20 as published (WO 92/18187);

- **Drawings:**

sheets 1/6-3/6, 5/6 and 6/6 as published (WO 92/18187);

sheet 4/6 as filed with letter of 6 May 2000.

The Registrar: The Chairman:

V. Commare W. D. Weiß