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**Datasheet for the decision
of 24 January 2013**

Case Number: T 0259/09 - 3.2.02

Application Number: 01113681.9

Publication Number: 1270035

IPC: A61M 16/00, A61M 15/08

Language of the proceedings: EN

Title of invention:
An apparatus for supplying a therapeutic oxygen gas

Applicant:
TEIJIN LIMITED

Headword:
-

Relevant legal provisions:
EPC Art. 84, 123(2)

Keyword:
"Clarity (yes)"
"Extended subject-matter (no)"

Decisions cited:
-

Catchword:
-



Case Number: T 0259/09 - 3.2.02

DECISION
of the Technical Board of Appeal 3.2.02
of 24 January 2013

Appellant:
(Applicant)

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Decision under appeal:

Decision of the Examining Division of the
European Patent Office posted 10 October 2008
refusing European patent application
No. 01113681.9 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman: E. Dufrasne
Members: M. Stern
C. Körber

Summary of Facts and Submissions

- I. The applicant lodged an appeal against the decision, dispatched on 10 October 2008, refusing European application No. 01 113 681.9. The appealed decision is a decision according to the state of the file which refers to two earlier communications by the Examining Division containing objections under Articles 123(2) and 84 EPC.
- II. The notice of appeal was received on 10 December 2008 and the appeal fee was paid on the same day. With the statement of grounds of appeal received on 9 January 2009 the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 to 7 filed with said statement.
- III. With a letter dated 30 May 2012 the appellant filed a new set of claims 1 to 7 replacing the previous claims, and withdrew its request for oral proceedings assuming the Board remitted the case to the Examining Division.
- IV. Claim 1 reads as follows:
- "1. An apparatus (10) for controlling the supply of an oxygen therapeutic gas, comprising:
a nasal cannula (16) adapted to be introduced into a nasal passage of a patient;
a conduit (18) to direct a pressurized oxygen therapeutic gas to the nasal cannula;
a pressure sensor (26) provided on the conduit, arranged to detect the pressure in the conduit;

a valve (24), provided on the conduit, arranged to allow and block a fluid communication to the nasal cannula;

a controller (30) adapted to control the operation of the valve in synchronization with the respiration of a patient based on the changes in the pressure detected by the pressure sensor, to increase the volume of the oxygen therapeutic gas passing through the valve for each respiration, compared with a normal respiration condition, when the respiratory frequency increases, such that the volume of oxygen therapeutic gas supplied to the patient increases in steps according to the increase in the respiratory frequency, wherein the time period (T) for opening the valve is given by

$$T = F_o / \alpha R_n f_o$$

wherein:

f_o is the flow rate of oxygen therapeutic gas through the valve when the valve is open under a predetermined pressure in the conduit upstream of the valve;

R_n is the respiratory frequency when the respiration of the patient is in normal condition;

F_o is a predetermined flow rate of oxygen therapeutic gas; and

α is a non-dimensional constant that is an inverse of the ratio of the time period of inhalation relative to the time period of one respiration."

V. The arguments of the appellant are summarised as follows:

As outlined on page 1, line 17 et seq. of the original application, the inventive apparatus improved the conventional apparatus for supplying oxygen therapeutic gas by improving the control of the volume of gas

provided for each respiration. These conventional apparatuses were well known in the art to be used not only with cylinders, or refillable gas containers, but also with pressurised lines generally available in hospitals as sources of pressurised oxygen gas. The specific pressurised gas source was therefore not an element of the gas supply control apparatus, but a separate entity connectable to the gas supply control apparatus via a shut-off valve. The cylinder thus did not form an essential element of the invention, as it did not even form an element of an apparatus for controlling the supply of gas.

Reasons for the Decision

1. The appeal is admissible.
2. The application concerns an apparatus for controlling the supply of an oxygen therapeutic gas to a patient comprising in essence a controller adapted to control the operation of a valve in synchronisation with the respiration of the patient.
3. *Article 123(2) EPC*
- 3.1 Claim 1 contains, inter alia, the following amendments with respect to claim 1 of the application as originally filed (strikethrough text and underlinings added by the Board indicate, respectively, the features deleted from and added to claim 1 as originally filed):

"An apparatus (10) for ~~supplying~~ controlling the supply of an oxygen therapeutic gas, comprising:

~~a cylinder for containing a pressurized oxygen therapeutic gas;~~
a nasal cannula (16) adapted to be introduced into a nasal passage of a patient;
a conduit (18) ~~extending between the cylinder and the nasal cannula for directing the~~ to direct a pressurized oxygen therapeutic gas to the nasal cannula ~~from the cylinder;~~
a pressure sensor (26) provided on the conduit, ~~for detecting~~ arranged to detect the pressure in the conduit;
a valve (24), provided on the conduit, ~~for allowing and blocking the~~ arranged to allow and block a fluid communication between the cylinder and to the nasal cannula;
a controller (30) ..."

3.2 These changes mainly relate to the deletion of the feature of *"a cylinder for containing a pressurized oxygen therapeutic gas"* contained in original claim 1, which was held in the impugned decision to contravene Article 123(2) EPC.

The Examining Division considered that the original description consistently presented the apparatus for supplying an oxygen therapeutic gas according to the invention as having such a cylinder (page 1, line 35; page 2, lines 1, 3, 7 and 34; page 3, line 1; Figure 1; claim 1), and that no other possibilities were mentioned or envisaged in the original description. This would lead the skilled reader to consider said cylinder as being essential, so that it could not be removed from the independent claim.

3.3 It is correct that the original application presents the apparatus of the invention and its preferred embodiment as comprising a cylinder as the source of pressurised oxygen therapeutic gas. However, and most importantly, the original application also states, under the Summary of the Invention on page 1, lines 28 to 32, that the invention is directed to solve the prior-art problems which are encountered with conventional therapeutic oxygen gas supplying apparatuses, which are mentioned before on page 1, at lines 17 to 26. For achieving this purpose, the invention provides an apparatus for controlling the supply of an oxygen therapeutic gas to a patient with a particularly devised controller.

3.4 The Board finds that from these statements two overriding considerations are directly derivable.

First, as pointed out by the appellant, conventional therapeutic oxygen gas supplying apparatuses were well known to be commonly used not only with cylinders, or refillable gas containers, but also with pressurised lines generally available in hospitals as sources of pressurised oxygen gas. Therefore, the stated intention to devise the apparatus of the invention to solve problems encountered with conventional therapeutic oxygen gas supplying apparatuses is attainable only to the extent that the specific source of pressurised gas (in particular, the cylinder) is not claimed as an element of the apparatus of the invention.

Second, from the fact that the invention is directed to an apparatus for *controlling* the supply of an oxygen therapeutic gas to a patient by means of a particularly

devised controller which controls the operation of a valve in synchronisation with the respiration of the patient, it is clear that the specific pressurised gas source should not be seen as a constitutive element of the gas supply control apparatus (certainly not as an essential one, as stated in the impugned decision), but just as a separate entity connectable to the gas supply control apparatus via a shut-off valve.

- 3.5 Based on these considerations, the Board disagrees with the finding in the impugned decision that the skilled reader would consider the cylinder as being essential, so that it could not be removed from the independent claim.

As a consequence, the definition of the apparatus claim 1 without the specification of a cylinder as the source of pressurised oxygen therapeutic gas does not lead to an unallowable extension of subject-matter over the application as filed.

- 3.6 Thus, claim 1 satisfies the requirements of Article 123(2) EPC.

4. *Article 84 EPC*

The impugned decision according to the state of the file also contained, in its reference to one of the communications issued by the Examining Division (on 27 February 2007), an objection under Article 84 EPC regarding an unclear expression in the then pending claim 1. This expression is however no longer contained in current claim 1, so that the corresponding objection no longer applies.

5. It is moreover noted that the definition of the invention as now amended requires a corresponding adaptation of the description.

It also appears that in dependent claim 2 the term "respiration" may have to be replaced by the term "expiration" in accordance with the corresponding original disclosure on page 6, lines 3 to 6 and page 4, lines 33 to 35.

6. It is also noted that in the course of the examination procedure a communication pursuant to Rule 51(4) EPC 1973 (Rule 71(3) EPC 2000) had been issued, based however on an independent claim 1 which still contained the above-mentioned and examined limiting feature which the Examining Division considered in its decision as being essential (and therefore objected to its deletion under Article 123(2) EPC). Thus, also the question of patentability may possibly require re-assessment in view of the subject-matter now claimed.

The Board consequently finds it appropriate to remit the case to the Examining Division for continuation of the examination procedure (Article 111(1) EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:

D. Hampe

E. Dufrasne