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Datasheet for the decision of 21 April 2020

Case Number: T 0955/15 - 3.2.02

Application Number: 05775780.9

Publication Number: 1805456

IPC: A61M16/10, A61M16/20

Language of the proceedings: EN

Title of invention:
OXYGEN ADMINISTRATION APPARATUS

Applicant:
The BOC Group Limited

Headword:

Relevant legal provisions:
EPC Art. 54(1), 54(2), 56, 84, 111(1), 123(2)

Keyword:
Novelty - (yes)
Inventive step - (yes)
Claims - clarity (yes)
Amendments - intermediate generalisation - extension beyond the content of the application as filed (no)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

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Case Number: T 0955/15 - 3.2.02

D E C I S I O N
of Technical Board of Appeal 3.2.02
of 21 April 2020

Appellant: (Applicant)	The BOC Group Limited The Priestley Centre 10 Priestley Road The Surrey Research Park Guildford Surrey GU2 7XY (GB)
Representative:	Gellner, Bernd Linde AG Technology & Innovation Corporate Intellectual Property Dr.-Carl-von-Linde-Straße 6-14 82049 Pullach (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 22 December 2014 refusing European patent application No. 05775780.9 pursuant to Article 97(2) EPC**

Composition of the Board:

Chairman	M. Alvazzi Delfrate
Members:	D. Ceccarelli
	Y. Podbielski

Summary of Facts and Submissions

I. The applicant has appealed against the Examining Division's decision, posted on 22 December 2014, to refuse European patent application No. 05 775 780.9.

II. As regards the then pending requests, the Examining Division considered that the subject-matter of claim 1 of the main request lacked inventive step, that claim 1 of the first auxiliary request comprised subject-matter which extended beyond the content of the application as filed, and that claim 1 of the second auxiliary request comprised subject-matter which extended beyond the content of the application as filed and lacked clarity.

III. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request filed with letter dated 17 April 2020.

IV. The following documents are mentioned in the present decision:

D1: US-A-5,024,219
D2: US-B-6,520,176
D3: EP-A-0 930 454
D4: DE-A-199 57 407

V. **Claims 1 to 3 of the application as filed** read as follows:

"1. Oxygen administration apparatus comprising a source of oxygen, an oxygen administration device, a flexible oxygen-conducting line connectible at one end to the source of oxygen and at another end to the oxygen

administration device, and a safety valve in the line, the safety valve comprising a shuttle, a sealing member carried by the shuttle, means biasing the shuttle in a valve closing direction, and a fusible stop preventing closure of the valve, whereby fusing of the stop allows the biasing means to close the valve."

"2. Oxygen administration apparatus as claimed in claim 1, wherein the shuttle has a hollow stem, the distal end of which stem abuts against the fusible stop."

"3. Oxygen administration apparatus as claimed in claim 2, wherein the shuttle is displaceable within a hollow body having a hollow stem complementary to the stem of the shuttle and engageable with the line, the fusible stop engaging the interior of the stem of the body."

Claim 1 of the main request reads as follows (differences compared with claim 1 of the second auxiliary request considered by the Examining Division highlighted by the Board):

"Oxygen administration apparatus comprising a source (2) of oxygen, an oxygen administration device (6), a flexible oxygen-conducting line (4) connectible at one end to the source (12) of oxygen and at another end to the oxygen administration device (6), characterised by a safety valve (10) in the line (4), the safety valve (10) comprising a shuttle (20), a sealing member (40) carried by the shuttle (20), means (64) biasing the shuttle (20) in a valve closing direction, and a fusible stop preventing closure of the valve (10), whereby fusing of the stop (32) allows the biasing means (64) to close the valve (10), wherein the shuttle

(20) is displaceable within a hollow body (22) having a hollow stem (24) complementary to ~~the~~ a stem (28) of the shuttle (20) and engageable with the line (14), the fusible stop (32) engaging the interior of the stem (24) of the body (22)."

Claims 2 to 13 are dependent claims.

VI. The appellant's arguments, where relevant to the present decision, may be summarised as follows:

Extension of subject-matter

In the impugned decision, the Examining Division had stated that that the hollow stem of the shuttle was an essential feature of the safety valve without explaining why the person skilled in the art would reach this conclusion. The person skilled in the art would understand that, unless a potential flow path was specifically sealed off, gas would be able to flow from one region of a valve to another. Figure 2 of the application as filed showed that there were two flow paths for gas flowing from nipple 72 towards nipple 26. The first flow path was the one explicitly described on page 6 lines 13 to 21 of the application as filed. Although not explicitly disclosed in the application as filed, it would nonetheless be evident to the skilled person that there was a second flow path for gas from chamber 42 to nipple 26 along the outside of hollow stem 28.

The person skilled in the art also knew from page 6, lines 14 to 18, of the application as filed that the gas, to flow from chamber 54 to chamber 42, had to flow past shuttle 20 via passages provided for this purpose. This further demonstrated that it was directly and

unambiguously derivable to the person skilled in the art that the hollow stem was not an essential feature of the invention. The person skilled in the art knew that there was the second flow path, and knew that this could be used as an alternative flow path to the hollow stem, particularly if passages were provided for this purpose by analogy with the flow path from chamber 54 to chamber 42.

It followed that the exclusion of the hollow stem feature from the amended claim was not in contravention of Article 123(2) EPC since the hollow stem was not an essential feature of the invention.

Clarity

Claim 1 had been amended to recite "a stem (28)". This addressed the clarity issue in the impugned decision by introducing the stem (28) as a feature of the claim.

Novelty and inventive step

The subject-matter of claim 1 of the main request was novel and inventive over the prior art cited in the examination procedure.

Reasons for the Decision

1. The invention

The invention relates to an apparatus for administering oxygen-enriched air of the kind typically used at home by patients with chronic lung disease.

The apparatus comprises an oxygen administration device, an oxygen line and a safety valve in the line. The safety valve is designed to close immediately in the event of a fire, thereby causing the supply of oxygen, which would support the combustion, to cease. According to the description, page 2, lines 2 to 7, the fire could be caused by patients who, against strict instructions, smoked when administering oxygen to themselves. This could be less seldom than one might think, given that a typical cause of chronic lung disease is smoking over many years.

In order to ensure immediate closure in the event of a fire, the valve, an embodiment of which is shown in Figure 2 of the application as reproduced below, comprises a shuttle (20), a sealing member (40) carried by the shuttle, means (64) biasing the shuttle in a valve closing direction, and a fusible stop (32) preventing closure of the valve, whereby fusing of the stop allows the biasing means to close the valve.

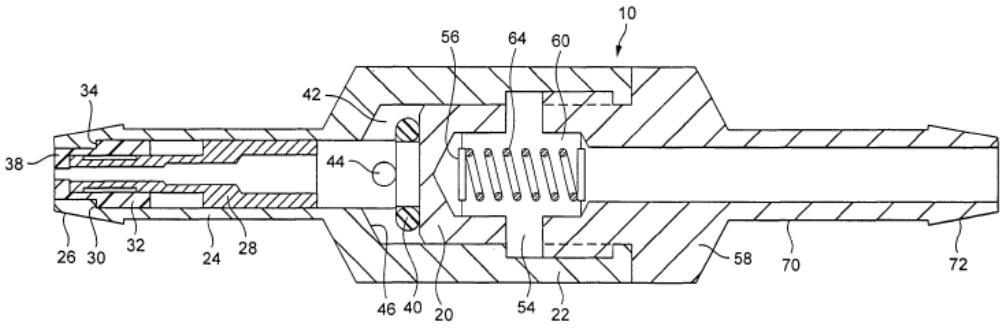

FIG. 2

According to claim 1 of the main request the shuttle (20) is displaceable within a hollow body (22) having a hollow stem (24) complementary to a stem (28) of the shuttle and engageable with the line, the fusible stop engaging the interior of the stem of the body.

2. Extension of subject-matter

2.1 The subject-matter of claim 1 of the main request, which, in substance, corresponds to the second auxiliary request in the first instance proceedings, is based on claims 1 and 3 of the application as filed.

In the impugned decision, the Examining Division rightly pointed out that claim 3 of the application as filed was dependent on claim 2, the subject-matter of which has not been introduced into claim 1 of the main request.

2.2 In the Examining Division's view, omitting the definition of the stem of the shuttle being hollow amounted to a non-allowable intermediate generalisation.

The Board notes that the extent of protection is not decisive for the assessment whether the intermediate generalisation introduces subject-matter extending beyond the content of the application as filed, contrary to the requirements of Article 123(2) EPC. This article is concerned with disclosure, not with the extent of protection. For example, the application (through claim 1 of the main request) may protect an oxygen administration apparatus comprising a valve with a solid stem. However, the claim does certainly not disclose such a valve. It simply leaves it undefined.

Assessing compliance of the intermediate generalisation with Article 123(2) EPC requires assessing whether the omitted feature of the stem being hollow forms an inextricably linked combination, from a technical point of view, with the features present in claim 3 as filed and introduced into claim 1 of the main request.

If it were so, the omission of the feature would present the person skilled in the art with the new information that this feature of the combination was merely optional, contrary to the teaching of the application as filed, which would present it as technically indispensable for the combination.

The Board notes that the features of claim 3 as filed, introduced into claim 1 of the main request, concern the displacement of the shuttle and the location/ interaction of the fusible stop with the body of the valve for preventing closure of the valve if the fusible stop is not fused.

It is technically evident that providing a shuttle with a stem displaceable within a complementary hollow stem of a hollow body has the function of ensuring that the movement of the shuttle is properly guided, such that the valve does not remain stuck open upon fusion of the fusible stop. Whether the stem of the shuttle is hollow or solid plays no role in that respect and is instead linked with the flow of the oxygen. As the appellant argued, whether the oxygen flows through the hollow stem or, for example, in a passage between the stem of the shuttle and the stem of the body is not related, from a technical point of view, to that function.

2.3 Claim 1 of the main request also omits the feature of claim 2 as originally filed, that the distal end of the stem of the shuttle abuts against the fusible stop. However, this feature is not inextricably linked with the features of claim 3 as originally filed either. Claim 1 of the main request defines a fusible stop preventing the closure of the valve and engaging the interior of the stem of the valve body. Whether the

closure of the valve is prevented by the fusible stop abutting the distal end of the stem of the shuttle, as disclosed in claim 2 as originally filed, or, possibly, some other parts of the shuttle, is recognised as equally suitable alternatives by the person skilled in the art.

2.4 In conclusion, the main request complies with Article 123(2) EPC.

3. Clarity

In the impugned decision the Examining Division raised two clarity objections against the then pending second auxiliary request under points 20.4.2 and 20.4.3.

The first objection, directed to the lack of an antecedent of "the stem (28)" in claim 1 of that request, is overcome by the amendment in claim 1 of the present main request, which now recites "a stem (28)".

As regards the second objection, the Examining Division held that, according to the wording of claim 1, a hollow body having a hollow stem or the stem of the shuttle were not effectively claimed.

The Board does not agree, since the claim specifically defines a stem **of** the shuttle, the shuttle being clearly claimed as a part of the safety valve, and a fusible stop **engaging** the interior of the stem of the body.

Hence, the subject-matter of claim 1 of the main request is clear, in compliance with Article 84 EPC.

4. Novelty and inventive step

In view of the fact that in the impugned decision the Examining Division considered the patentability requirements, albeit in respect of the then pending main request, the Board decides to assess those requirements for the present main request in accordance with Article 111(1) EPC.

The Examining Division did not raise any novelty objection, but considered inventive step on the basis of the combination of D1 or D2 with D3 or D4.

Both D1 and D2 (their respective figures, for example) clearly disclose apparatuses for oxygen therapy, including a source of oxygen, an oxygen administration device, a flexible oxygen-conducting line connectible at one end to the source of oxygen and at another end to the oxygen administration device.

As also noted by the Examining Division, they do not disclose a safety valve as defined in claim 1 of the main request.

By closing the oxygen line in case of a fire, the safety valve addresses the problem of avoiding major accidents in case of an incautious use of the apparatus for administering oxygen.

The Examining Division held that the person skilled in the art would look at D3 or D4 and implement the safety valves disclosed in these documents in the apparatuses for administering oxygen of D1 or D2.

The Board notes that both D3 and D4 concern fire preventing measures in connection with gas pipes (D3,

paragraphs [0001] and [0020]; D4, column 1, lines 1 to 11). It is unlikely that the person skilled in the art, for solving a problem in a device specific for medical technology, would consider these documents altogether. The fluid, the pressure and the flow involved are completely different.

Even if the person skilled in the art were to consider these documents, implementing the valves disclosed in D3 (Figures 1 and 2) or D4 (Figures 1 and 2) in the apparatuses of D1 or D2 would not lead to the claimed subject-matter, since the valves of D3 and D4 do not comprise the claimed configuration of the fusible stop and the stems.

The other documents mentioned in the International Search Report are less relevant.

It follows that the subject-matter of claim 1 of the main request, and a fortiori of the dependent claims, is novel (Article 54(1) and (2) EPC) and inventive (Article 56 EPC) over the cited prior art.

5. Formal matter

The description is adapted to the new claims and mentions the documents representing the closest prior art. The independent claim is in the two-part form. Reference signs are present in the claims.

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 on the basis of:

   - claims 1 to 13 of the main request, filed with letter dated 17 April 2020;

   - description pages 1 to 7, filed with letter dated 1 May 2015;

   - Figures 1 and 2 of the application as published.

The Registrar: The Chairman:

D. Hampe M. Alvazzi Delfrate

Decision electronically authenticated