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**Datasheet for the decision  
of 3 September 2013**

**Case Number:** T 1505/09 - 3.2.02

**Application Number:** 03252573.5

**Publication Number:** 1356844

**IPC:** A61M 16/06, A61M 16/08

**Language of the proceedings:** EN

**Title of invention:**  
Ergonomic and adjustable respiratory mask assembly with frame

**Applicant:**  
ResMed Limited

**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 54, 56, 123(2)

**Keyword:**  
"Added subject-matter (no)"  
"Novelty (yes)"  
"Inventive step (yes)"

**Decisions cited:**  
-

**Catchword:**  
-



Case Number: T 1505/09 - 3.2.02

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.02  
of 3 September 2013

**Appellant:**  
(Applicant)

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**Representative:**

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**Decision under appeal:**

**Decision of the Examining Division of the  
European Patent Office posted 9 February 2009  
refusing European patent application  
No. 03252573.5 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

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

## Summary of Facts and Submissions

- I. On 9 February 2009 the Examining Division posted its decision to refuse European patent application No. 03252573.5 for lack of inventive step.
- II. An appeal was lodged against this decision by the applicant by notice received on 16 April 2009, with the appeal fee being paid on the same day. The statement setting out the grounds of appeal was received on 19 June 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 8 filed in electronic form on 19 December 2008 (refused by the Examining Division) or, in the alternative, claims 1 to 6 filed as a 1st auxiliary request with the statement of grounds of appeal.
- III. The following documents are of importance for the present decision:
- D1: US-A-2002/0005198  
D2: EP-A-1 027 905  
D3: EP-A-1 334 742  
D4: EP-A-1 099 452.
- IV. Claim 1 as refused by the Examining Division reads:
- "A respiratory mask assembly (10) for delivering gas to a person, the mask assembly comprising a frame (20) having a front surface, and a rear surface, opposite the front surface, and arranged in use, to face the person, and a cushion (40) attached to the frame (20) at the rear surface of the frame, the cushion (40) being

arranged in use to contact the person's face and to space a main body (20a) of the frame (20) from the person's face,  
the mask assembly (10) being **characterised in that** the cushion (40) is removably attached to the frame (20) such that the cushion and frame are repeatably engagable with and disengagable from one another,  
in that, to form the removable attachment,  
the frame (20) has an inner wall (28) and an outer wall (30) which extend from the rear surface of the frame (20) and define a channel (26) therebetween, and  
the cushion (40) has a side wall (215) which is insertable into said channel (26) to removably attach the cushion (40) to the frame (20),  
in that to removably interlock the cushion (40) within the frame (20), the side wall (215) of the cushion (40) has a first interlocking surface (431, 215a) which is arranged to engage and interlock with a second interlocking surface (33, 26a) provided within the channel (26) of the frame when the side wall (215) of the cushion (40) is inserted within the channel (26) to attach the cushion to the frame."

Claims 2 to 8 are dependent claims.

V. The appellant's arguments are summarised as follows:

Documents D1 and D4 failed to disclose a cushion and frame being repeatedly engageable and disengageable and neither disclosed nor rendered obvious interlocking means in accordance with claim 1. Furthermore, the detailed structure of the cushion having a side wall and the frame being provided with an inner wall and an outer wall defining a channel therebetween could not be

derived from these documents. D2 failed to disclose or render obvious a corresponding configuration and even appeared to direct the person skilled in the art away from the claimed subject-matter. The Examining Division had failed to provide any argument, let alone support for such argument, to justify their conclusion of obviousness in view of the disclosure of document D1 combined with the common general knowledge. Even worse, the references cited by the Examining Division as general support for their position failed - even in combination - to disclose all the features of claim 1. Finally, in the reasons for the decision the Examining Division referred to document D1 as generally disclosing the subject-matter according to claim 1, with further reference being made to D4 with regard to the provision of a channel and a protruding member to be received inside the channel, while additional reference was made to document D2 as teaching releasability of the mask frame and the cushion as well as allegedly disclosing interlocking means. Such a step-wise approach requiring reference to **three** prior art documents was an indication of the presence of an inventive step rather than obviousness.

### **Reasons for the Decision**

1. The appeal is admissible.
  
2. Amendments

The last feature in the preamble of claim 1 is supported by Figure 1 and page 9, lines 15 to 17 of the application as originally filed. The additional wording

in the characterising portion of claim 1 ("to removably attach ...", "to form the removable attachment" and "to removably interlock ...") is supported by the overall disclosure and the corresponding features which were already present in original claim 1. Claim 2 is supported by original claim 2. Claim 3 is based on Figures 27a to 27e, lines 18 to 20 and 24 to 30 of page 42 in combination with lines 25 to 29 of page 46 as originally filed. The leading edge 45 or the retention lip 44 is clearly concerned with facilitating insertion of the cushion into the frame, rather than with its engagement, and as such is not required to be included in a definition of the interlocking means in claim 3. Claim 4 corresponds to original claim 3. Claim 5 is supported by the passage at page 45, line 34 to page 46, line 3 and Figures 27a to 27e of the application as originally filed. There is nothing in the specification to require the provision of sealing means in conjunction with means, such as the relieved portion 50, provided to facilitate assembly/disassembly. Claims 6 to 8 correspond to original claims 4 to 6, respectively. The Board is thus satisfied that the requirements of Article 123(2) EPC are met.

3. Novelty

None of the available prior art documents discloses in combination the features of claim 1. Document D3, which is state of the art under Article 54(3) EPC, shows in Figure F44 interlocked parts of a frame and cushion. The retaining ring 510 to fasten the frame and cushion and the frame and cushion cannot engage, detachably or otherwise, because, as set out in column 31, lines 47 to 51 of D3, "[t]he channel 500...is preferably wide enough

that the cushion can be inserted in the channel without rubbing against the side walls of the channel". The passage at column 31, lines 34 to 40 of D3 relates to a prior art arrangement in which a lip around a cushion engages a flange around a shell. D3 dismisses such an arrangement as not being easy enough to assemble or disassemble in favour of the clip arrangement of Figure F44. There is no description of, reference to, or illustration of, interlocking means on the cushion and frame in D3. Accordingly, D3 is not novelty-destroying for the subject-matter of claim 1.

4. Inventive step

Document D1, which constitutes the closest prior art, discloses a respiratory mask according to the preamble of claim 1.

As outlined at the beginning of the section "Mask Frame and Cushion Connection System" (paragraphs [0098] to [0102] of the original application as published), the technical effects of the distinguishing features as defined in the characterising portion of claim 1 are that the mask frame and the cushion can be detached and then re-attached repeatedly, thus allowing for effective cleaning and maintenance and also replacement if a part is worn out. Moreover, a combination of mask frame and cushion may be manufactured that allows for the independent determination of forces for engagement of the cushion to and disengagement of the cushion from the frame. This is of particular advantage for properly adjusting the respective settings in order to avoid disengagement of the cushion due to the treatment

pressure and serves to avoid causing annoyance to the user when engaging or disengaging the cushion.

The objective technical problem solved by the distinguishing features is to provide a respiratory mask assembly which is safer and more convenient to use.

D1 itself gives no hint in the direction of removability and the advantages achievable thereby. On the contrary, in paragraphs [0057] and [0069] it is explicitly stated that the cushion 30A, 30B is "adhered or otherwise secured" to the flange 48 of the mask body 46 (the latter corresponding to the frame 20 in claim 1). No disclosure can be found in D1 that the "side wall 36 of the cushion builds up a channel for receiving a member protruding from the mask frame", as stated in the impugned decision. The scalloped edge 36 of the side wall 32 of the **cushion** is depicted as planar in Figures 1 and 2. In Figures 8 and 9 the scalloped edge 36 seems to comprise a channel, but claim 1 requires that the channel is formed in the **frame**. Moreover, there is no disclosure or suggestion whatsoever that this channel is to receive any other component, in particular not "a member protruding from the mask frame". The mask body 46, corresponding to the frame 20 in claim 1 as indicated above, does not comprise any protruding member, but merely a flange 48 to which the cushion is adhered.

Document D2 merely discloses a mask frame 11 comprising a rib 15 for holding a cushion 13 by means of a clip 14 (Figure 3). D2 (including its paragraph [0021], cited in the impugned decision) is silent on removability and any interlocking surfaces. In particular, it fails to



disclose the claimed feature of a cushion sidewall which is insertable into a channel of the frame.

Document D4 (Figure 7) discloses a sealing lip 9 (comprising a cushion 23) glued to frame 1 (column 11, lines 29 to 32), and thus teaches away from the invention.

It follows that the subject-matter of claim 1 is based on an inventive step (Article 56 EPC).

5. Since the application documents forming the basis of the impugned decision meet the requirements of the EPC, there is no need for the Board to address the 1st auxiliary request in the present decision.

## 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 with the order to grant a patent on the basis of the following documents:
  - Claims 1 to 8 filed in electronic form on 19 December 2008;
  - Description pages 1 to 50 filed in electronic form on 14 February 2008;
  - Figures 1/56 to 56/56 as originally filed.

The Registrar:

The Chairman:

D. Hampe

E. Dufrasne