Datasheet for the decision
of 20 November 2018

Case Number: T 1156/14 - 3.2.06
Application Number: 08837406.1
Publication Number: 2207443
IPC: A42B3/14
Language of the proceedings: EN

Title of invention:
HEAD SUSPENSION HAVING TRANSITION ARMS AND REAR SUPPORT

Patent Proprietor:
3M Innovative Properties Company

Opponent:
Drägerwerk AG & Co. KGaA

Headword:

Relevant legal provisions:
EPC Art. 54, 84, 123(2)
RPBA Art. 13(1)
Keyword:
Novelty - main request (no)
Claims - clarity - auxiliary requests 1A, 2D - (no)
Amendments - added subject-matter - auxiliary request 2C and 3C (yes)
Late filed auxiliary requests 3D, 4C, 4D - admitted (no)

Decisions cited:
G 0002/10

Catchword:
Case Number: T 1156/14 - 3.2.06

DECISION
of Technical Board of Appeal 3.2.06
of 20 November 2018

Appellant: 3M Innovative Properties Company
(Patent Proprietor)
3M Center
P.O.Box 33427
St. Paul, MN 55133-3427 (US)

Representative: Vossius & Partner
Patentanwälte Rechtsanwälte mbB
Siebertstrasse 3
81675 München (DE)

Appellant: Drägerwerk AG & Co. KGaA
(Opponent)
Moislinger Allee 53/55
23558 Lübeck (DE)

Representative: Uexküll & Stolberg
Partnerschaft von
Patent- und Rechtsanwälten mbB
Beselerstraße 4
22607 Hamburg (DE)

Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted on
29 April 2014 concerning maintenance of the

Composition of the Board:
Chairman: M. Harrison
Members: M. Hannam
J. Hoppe
Summary of Facts and Submissions

I. Appeals were filed by both the appellant (opponent) and the appellant (proprietor) against the interlocutory decision of the opposition division, in which it found that European patent No. 2 207 443 in an amended form met the requirements of the EPC.

II. The opponent requested that the interlocutory decision be set aside and the patent be revoked. The proprietor requested that the appeal be set aside and the patent be maintained as granted or, in the alternative, that it be maintained in amended form according to one of auxiliary requests 1A to 3A or 1B to 3B.

III. The following document is relevant to the present decision:

E2 US-B-6 711 748

IV. The Board issued a summons to oral proceedings and a subsequent communication containing its provisional opinion, in which it indicated inter alia that the subject-matter of claim 1 of the patent as granted appeared to lack novelty over E2 and that the subject-matter of claim 1 of each of the auxiliary requests seemingly failed to meet the requirements of Articles 84 and 123(2) EPC.

V. With letter of 18 October 2018 the proprietor filed auxiliary requests 4A and 4B and, with letter of 13 November 2018, auxiliary requests 2C, 2D, 3C, 3D, 4C and 4D.

VI. Oral proceedings were held before the Board on 20 November 2018, during which the proprietor filed a
replacement auxiliary request 3C (15.30). It furthermore explicitly withdrew auxiliary requests 1B to 4B and 2A to 3A and no longer pursued auxiliary request 4A.

The final requests of the parties were as follows:

The appellant (proprietor) requested that the decision under appeal be set aside and the patent be maintained as granted (main request), auxiliarily that the patent be maintained in amended form according to one of the following auxiliary requests in the given order:
auxiliary request 1A, 2C, 2D, 3C, 3D, 4C, 4D, where auxiliary request 1A was filed with the grounds of appeal, auxiliary requests 2C, 2D, 3D, 4C and 4D were filed with letter dated 13 November 2018 and auxiliary request 3C was submitted during the oral proceedings (15.30).

The appellant (opponent) requested that the decision under appeal be set aside and the European patent No. 2 207 443 be revoked.

VII. Claim 1 of the main request (claim 1 as granted) reads as follows:

"A head suspension (10) comprising:
a headband portion (20) having a length;
two transition arms (16), each transition arm (16) coupled to the headband portion (20) and extending away from the headband portion (20) length at an angle greater than zero degrees, and each transition arm (16) having a pivot (18) having a pivot point (19); characterized by
a rear support portion (21) pivotally connected to each pivot (18) at the distal end (17) of each transition arm (16)."

Claim 1 of auxiliary request 1A reads:

"A head suspension (10) comprising:
a headband portion (20) having a length;
two transition arms (16), each transition arm (16) coupled to the headband portion (20) and extending away from the headband portion (20) length at an angle greater than zero degrees, each transition arm (16) having a pivot (18) having a pivot point (19), and each transition arm (16) having a length in a range from 2 to 10 cm, wherein the length is defined by a linear distance between a bottom edge of the headband portion (20) and the pivot point (19); and a rear support portion (21) pivotally connected to each pivot (18) at the distal end (17) of each transition arm (16)."

Claim 1 of auxiliary request 2C reads:

"A head suspension (10) comprising:
a headband portion (20) having a length;
one or more top bands (15) that extend over a user's head with each end of the top bands being joined to the headband portion (20);
two transition arms (16), each transition arm (16) coupled to the headband portion (20) and extending away from the headband portion (20) length at an angle greater than zero degrees, each transition arm (16) having a pivot (18) having a pivot point (19); and a rear support portion (21) pivotally connected to each pivot (18) at the distal end (17) of each transition arm (16)."
Claim 1 of auxiliary request 2D reads as follows:

"A head suspension (10) comprising:
a headband portion (20) being an elongated element
having a length extending along a headband plane (Hp);
one or more top bands (15) that extend over a user’s
head with each end of the top bands being joined to the
headband portion (20);
two transition arms (16), a proximal end of each
transition arm (16) coupled to the headband portion
(20) and extending away from the headband portion (20)
length at an angle (θ) greater than zero degrees being
formed by the intersection of the headband plane (Hp)
and a transition arm axis (Tp), the transition arm axis
being a straight line extending generally along the
length direction of the transition arm, each transition
arm (16) having a pivot (18) having a pivot point (19)
at its distal end,
each transition arm (16) having a length in a range
from 2 to 10 cm, wherein the length is defined by a
linear distance between a bottom edge of the headband
portion (20) and the pivot point (19) at its distal
end; and
a rear support portion (21) pivotally connected to each
pivot (18) at the distal end (17) of each transition
arm (16)."

Claim 1 of auxiliary request 3C reads:

"A head protection device comprising a head suspension
(10) comprising:
a headband portion (20) having a length;
one or more top bands (15) that extend over a user's
head with each end of the one or more top bands being
joined to the headband portion (20);
two transition arms (16), each transition arm (16) coupled to the headband portion (20) and extending away from the headband portion (20) length at an angle greater than zero degrees, each transition arm (16) having a pivot (18) having a pivot point (19); a rear support portion (21) pivotally connected to each pivot (18) at the distal end (17) of each transition arm (16); a head protection element (50) attached to the head suspension (10) and a head protection attachment element (40) that couples the head protection element to the headband portion of the head suspension (10).

Claim 1 of auxiliary request 3D reads as claim 1 of auxiliary request 2D with the following feature preceding the claim:

"A head protection device comprising"

and the following feature appended to the claim:

"and a head protection element (50) that is coupled to the head suspension (10) by a head protection attachment element (40) and that is carried by the head suspension (10)."

Claim 1 of auxiliary request 4C reads as claim 1 of auxiliary request 2C with the following feature preceding the claim:

"A head protection device comprising"

and with the following feature appended to the claim:

"and a welding helmet (50) that is pivotally coupled to the head suspension (10) by a head protection
attachment element (40) to allow the welding helmet to pivot relative to the head suspension, and wherein the welding helmet is carried by the head suspension (10)."

Claim 1 of auxiliary request 4D reads as claim 1 of auxiliary request 2D with the following feature preceding the claim:

"A head protection device comprising"

and the following feature appended to the claim:

"and a welding helmet (50) that is pivotally coupled to the head suspension (10) by a head protection attachment element (40) to allow the welding helmet to pivot relative to the head suspension, and wherein the welding helmet is carried by the head suspension (10)."

VIII. The arguments of the appellant (opponent) relevant to the present decision may be summarised as follows:

Main request
The subject-matter of claim 1 lacked novelty over E2. Lacking a definition in the patent of what head suspension was, there was no reason for a head suspension to have to carry the entire weight of any protective headwear. The headband of E2 doubtless did carry at least some weight of the protective headwear. The 'nubs' at the end of the headband in E2 could be considered as transition arms since these had only to be 1 cm long according to examples in the patent.

Auxiliary request 1A
Claim 1 lacked clarity. The bottom edge of the headband could be undulating or curved. This would lead to the skilled person being unable to clearly identify which
part of the bottom edge to measure the transition arm length to. Claim 1 also covered the possibility of a plurality of bottom edges in its scope. Two bottom edges were also depicted in the figures of the patent such that the skilled person would not know which bottom edge was being referred to in claim 1.

Auxiliary request 2C
The subject-matter of claim 1 did not meet the requirement of Article 123(2) EPC. The feature at the end of paragraph [0024] concerning a head protection attachment element was disclosed in combination with all other features in the paragraph, which should thus be included in claim 1.

Auxiliary request 2D
Claim 1 lacked clarity. No relationship was indicated between the headband plane and the bottom edge of the headband such that this amendment changed nothing over the finding in auxiliary request 1A.

Auxiliary request 3C
This request should not be admitted due to it having been late filed. The subject-matter of claim 1 prima facie failed to meet the requirement of Article 123(2) EPC. The claim included within its scope top bands running from front to back of the user's head. Such an embodiment was not in the originally filed documents.

Auxiliary requests 3D, 4C and 4D
These requests should not be admitted as they each met with objections already raised against the preceding requests.

IX. The arguments of the appellant (proprietor) relevant to the present decision may be summarised as follows:
Main request
The subject-matter of claim 1 was novel over E2 which failed to disclose a 'head suspension' and 'transition arms' in the sense to be understood from the patent. The skilled person understood a head suspension as needing to carry substantially the entire weight of the protection element of the helmet, not simply as holding the protection element in position on the wearer's head as the headband of E2 did (see col. 3, lines 3 to 8 and col. 8, lines 28 to 35 of E2). The headband arrangement of E2 supported no part of the weight since the headrest pad 162 fulfilled this function (see col. 1 lines 36 to 37).

The transition arms were claimed to 'extend away from the headband' and thus had to have some recognisable extension which the 'nubs' of E2 did not have. The 'nubs' were also only disclosed in the schematic figures with col. 5 line 63 onwards, which described the headband in detail, providing no written indication of their presence let alone their purpose. The patent discussed comfort benefits achieved by the transition arms which the 'nubs' of E2 could not possibly fulfil.

Auxiliary request 1A
Claim 1 was clear. A headband implicitly had an elongated form always with, at least over part of its length, an essentially straight bottom edge. A curved or undulating bottom edge was a theoretical construct which would be dismissed as unreasonable by the skilled person. A straight edge was broadly depicted in Fig. 1 of the patent, the bottom edge in question there being a virtual extension of the straight bottom edge of the headband 20 below the head protection attachment element 40. In the event of more than a single bottom
edge being identifiable, the skilled person would immediately understand that the bottom edge in the vicinity of the transition arm was the bottom edge in question for measuring the transition arm length. Any other interpretation of how to understand the bottom edge was unreasonable.

Auxiliary request 2C
The subject-matter of claim 1 met the requirement of Article 123(2) EPC. The features added to claim 1 were taken from paragraph [0024] and the figures of the application as filed, the attachment element 40 having nothing to do with the top bands and lacking any structural or functional relationship thereto. Just because a feature was disclosed in the same paragraph did not imply a combined disclosure.

Auxiliary request 2D
Claim 1 was clear. The headband plane and transition arm axis formed a coordinate system. It was clear that the bottom edge of the headband should be understood as being parallel to the headband plane. A mind willing to understand the disclosure would derive nothing else.

Auxiliary request 3C
This request should be admitted. The subject-matter of claim 1 prima facie met the requirement of Article 123(2) EPC. With the head band being defined to have a length, it clearly also had an end which, as shown in the figures, resulted in it not being possible for claim 1 to be interpreted such that the top bands extended from front to back of the user's head.

Auxiliary requests 3D, 4C and 4D
The arguments presented with respect to auxiliary
requests 2D and 2C applied equally to the objections made against these requests.

**Reasons for the Decision**

1. **Main request**

1.1 **Novelty (Article 100(a) EPC)**

The ground for opposition under Article 100(a) EPC prejudices maintenance of the patent as granted due to the subject-matter of claim 1 lacking novelty with respect to E2.

1.1.1 E2 discloses all features of claim 1 as follows:

A head suspension (see Fig. 5; headband 218, rear support portion 220) comprising:
- a headband portion (218) having a length;
- two transition arms (unlabelled 'nubs' at the rear-most ends of the headband 218, turning downwards towards the pivot points 222), each transition arm coupled (integrally coupled in Fig. 5) to the headband portion (218) and extending away from the headband portion (218) length at an angle greater than zero degrees (see Fig. 5), and each transition arm having a pivot (220) having a pivot point (see Fig. 5);
- wherein
  - a rear support portion (220) is pivotally connected to each pivot (220) at the distal end of each transition arm (see Fig. 5).

1.1.2 The proprietor's argument that a 'head suspension' as claimed had to carry substantially the entire weight of the helmet is not accepted. Claim 1 itself provides no
such limitation as to how the term should be understood, nor is any limiting definition to be found in the description. The proprietor also failed to provide any evidence that this term had any recognised meaning in the art, either through common general knowledge or otherwise. The proprietor's assertion for such a limited interpretation of the term thus lacks any support. The Board finds that the claimed 'head suspension' must, in the light of the patent as a whole, be given its broadest, technically reasonable interpretation; this could be seen simply as the head suspension providing the interface between protective headgear and a wearer's head.

1.1.3 However, even if the expression were understood to imply that it must carry some weight, there is absolutely no basis to conclude that the entire weight of any helmet must be carried by a head suspension. The proprietor's reference to col. 3, lines 3 to 11 of the patent in which the head suspension is disclosed as being suited for 'carrying a head protection element' does not change the above finding. This passage of the patent certainly does not imply that the entire weight of the helmet needs to be carried by the head suspension. At most it might be understood to imply that at least some of the head protection element weight needs to be carried by the head suspension, in order to give the word 'carry' some context. This however is achieved by the headband and rear support portion arrangement of E2 which, when appropriately tightened to fit the user's head, will necessarily carry at least some of the weight of the head protection element.

1.1.4 The proprietor's allegation that the headrest pad 162 of E2 carried the weight of the helmet such that no
weight would be taken by the headband 218, cannot be followed. While it can be accepted that the headrest pad 162 would likely rest on the user's head when worn, the corollary that the headband 218 thus carries no weight at all is technically unreasonable. An appropriately tightened headband would indeed be capable of carrying some of the headgear weight through the friction between the headband and the wearer's head. The headband 218 thus evidently has more than simply a positioning function for the headgear, it also providing a degree of weight bearing. In this regard it is also noted that the headrest pad 162 and headband 218 arrangement of E2 is not different to the top bands 15 and headband 20 arrangement of the patent itself. If the claimed arrangement should be considered a 'head suspension' in the more limited sense as understood by the proprietor then exactly the same applies to the arrangement of E2. The proprietor's argument thus fails whichever way this term is understood.

1.1.5 The proprietor's argument that the 'nubs' of E2 failed to show the claimed extension away from the headband is also not accepted. It is firstly noted that the 'nubs' are depicted in Figs. 2, 3 and 5 as clearly diverging downwards from the linear extension of the headband 218, the depicted location of the pivot point 222 in each figure also indicating that the 'nubs' at the end of the headband must extend at least beyond the depicted pivot point 222. The 'nubs' of E2 thus clearly 'extend(ing) away from the headband portion length' as defined in claim 1. Whilst the length of the 'nubs' is undefined in E2, it is noted that no dimension of the transition arms is given in claim 1 either. Even though col. 3, line 56 discloses a transition arm length of as short as 1 cm, this is simply an example. No definitive minimum length of transition arm is given in the
1.1.6 The proprietor's contention that the 'nubs' of E2 were solely disclosed in the schematic figures and thus lacked technical relevance is unconvincing. Figs. 2, 3 and 5 are each consistent in their depiction of the downwardly turned 'nubs' and allow the pivot point 222, to which the rear support portion is attached, to be located at a position below the level of the headband 218. As indicated in col. 3, lines 8 to 11 of the patent, a pivotal coupling of the rear support portion low on the user's head allows this to avoid certain pressure points; this will apply equally to E2 such that a technical 'irrelevance' of the 'nubs' depicted in E2 is not accepted, these allowing the rear support portion 220 to avoid pressure points on the back of the user's head.

1.1.7 Regarding the proprietor's additional argument that the patent discussed comfort benefits achieved by the transition arms which the 'nubs' of E2 could not possibly fulfil, this is again not accepted. It is firstly noted that an alleged comfort benefit of the transition arms is not included in claim 1. Notwithstanding this, the basis for the claimed head suspension to provide comfort benefits is that discussed in 1.1.6 above, i.e. that the low pivoting of the rear support portion enables this to avoid pressure points on the user's head. However, with the transition arm length not being defined in the claim and the 'nubs' of E2 therefore structurally mirroring the transition arms, no difference can be seen in the comfort provided by the head suspension as claimed over that disclosed in E2.
1.1.8 In summary therefore, E2 indeed discloses both a 'head suspension' and two 'transition arms' such that all features of claim 1 are known from E2. The proprietor also did not contest that any other feature was not disclosed in E2. The ground for opposition under Article 100(a) EPC thus prejudices maintenance of the patent as granted as the subject-matter of claim 1 lacks novelty with respect to E2. The main request is therefore not allowable.

2. Auxiliary request 1A

2.1 Article 84 EPC

Claim 1 is at least not clear, contrary to the requirements of Article 84 EPC.

2.1.1 Relative to claim 1 as granted, the following feature has been added to claim 1 of the present request: 'each transition arm having a length in a range from 2 to 10 cm, wherein the length is defined by a linear distance between a bottom edge of the headband portion and the pivot point'. In order for the above definition of the transition arm length to be understood, it is necessary for the 'bottom edge of the headband portion' to be clearly defined. This seemingly requires at least two conditions for the bottom edge:

1. There must be just a single bottom edge, else the skilled person would not know to which bottom edge the length was to be measured.
2. The bottom edge must be straight and at least the position on the bottom edge to which measurement is made must be defined. If the bottom edge were, for example, curved or undulating, and the position to which measurement is made were not defined, the length between the pivot point and the bottom edge would vary
dependent upon the precise location along the bottom edge to which measurement was made. Neither of these conditions are included in claim 1 such that it would be unclear to the skilled person, on the basis of the claim alone, to which bottom edge (n.b. 'a' bottom edge is claimed, which includes more than just one) or to which part of the bottom edge, the measurement of transition arm length was to be made.

2.1.2 The patent claims should be clear in themselves, without requiring reference to the description. However, even if reference were to be made to Fig. 1 as suggested by the proprietor, this fails to resolve the lack of clarity inherent in claim 1. Fig. 1 depicts two 'bottom edges' of the headband 20: that in contact with the forehead of the wearer; and another below the head protection attachment element 40. Even allowing for Fig. 1 being a highly schematic drawing, there is an undisputable difference between the levels of these bottom edges such that their respective virtual extensions, as depicted by the lines 1 and 2 in the annotated version of Fig. 1 appended to the opponent's letter of grounds of appeal, result in it being unclear to which 'bottom edge' the transition arm length is to be measured. Which bottom edge to measure the transition arm length to is thus clear neither from the claim wording itself, nor even from Fig. 1 relied upon by the proprietor.

2.1.3 The proprietor's suggestion that the bottom edge in the vicinity of the transition arm would be the only one considered by the skilled person when measuring the claimed length is not accepted. There is absolutely no basis for this conclusion, both bottom edges in Fig. 1 being depicted as straight and each requiring, and both enabling, a virtual extension to be made towards the
transition arm to allow a measurement of the claimed length between the pivot point and the bottom edge. Why, of the two, the bottom edge closer to the transition arm should be favoured, when neither of the two bottom edges without the suggested virtual extension allows the measurement to be made, was not further argued by the proprietor. It may be added here that even the 'virtual extension' proposed by the proprietor as being what should be understood is also not part of the claim, let alone disclosed as such in the description.

2.1.4 The further argument that it was unreasonable to select any but the bottom edge closest to the transition arm is additionally not accepted. The claim includes more than a single bottom edge in its scope (solely 'a' bottom edge being claimed) and it does not clearly identify which bottom edge was intended for measurement of the transition arm length. The skilled person would thus be in a complete quandary as to which bottom edge to select, it being evident from Fig. 1 that the bottom edge selected, and even any point on this to where a measurement might possibly be taken, would result in a markedly different measurement of transition arm length.

2.1.5 As regards the position on the straight bottom edge to which measurement is made having to be defined in order to allow the transition arm length to be measured, the proprietor's argument that at least a portion of the bottom edge of every headband was straight is simply unfounded. No evidence was presented to support this allegation and plausible headband arrangements were suggested by the opponent in which the bottom edge followed a curved line, for example in order to pass around the wearer's ear. Such a curved bottom edge
would result in the skilled person being unable to identify the bottom edge, or its virtual extension, to which measurement of the transition arm length should allegedly be made.

2.1.6 The proprietor's argument that a curved or undulating bottom edge was a theoretical construct which would be dismissed as unreasonable by the skilled person is entirely without foundation. Claim 1 does not define the bottom edge of the headband to be straight over any of its extent, the opponent having provided a plausible arrangement of a curved headband as indicated above. A curved headband, with a resultant non-straight bottom edge, is thus neither simply theoretical nor is it an unreasonable arrangement, such that it would be unclear for the skilled person what constitutes the bottom edge to which the transition arm length should be measured.

2.1.7 Claim 1 of auxiliary request 1A thus at least lacks clarity, contrary to the requirements of Article 84 EPC. The request is therefore not allowable.

3. **Auxiliary request 2C**

3.1 **Article 123(2) EPC**

Notwithstanding the question whether this request should not be admitted into the proceedings under Article 13(1) RPBA, the subject-matter of claim 1 fails at least to meet the requirement of Article 123(2) EPC.

3.1.1 Relative to claim 1 as granted, claim 1 of the present request has had the following feature added: 'one or more top bands that extend over a user's head with each end of the top bands being joined to the headband portion'. 
This feature has been taken from paragraph [0024] of the description. This paragraph, however, in addition to disclosing the feature taken-up into claim 1, includes the feature that 'the head suspension includes a head protection attachment element'. The question thus presents itself as to whether the omission of this further feature from claim 1 amounts to an inadmissible intermediate generalisation of the content of the originally filed application.

3.1.2 In this regard, the terminology 'inadmissible intermediate generalisation' is to be understood to refer to an undisclosed combination of selected features lying between an original broad disclosure (in this case, claim 1 as originally filed) and a more limited specific disclosure (in this case, paragraph [0024] of the application as filed). Such an objection to an intermediate generalisation underlies the requirement for an amendment to be directly and unambiguously derivable, using common general knowledge, and seen objectively and relative to the date of filing, from the whole of the application as filed, which is well established in the case law of the Boards of Appeal (see e.g. G2/10)

3.1.3 When analysing which features are disclosed in combination in a specific embodiment, and thus which features must be taken-up into the claim, a clearly recognisable functional or structural relationship among the features of the specific combination is considered. In the present case, contrary to the opinion of the proprietor, the head suspension including one or more top bands joined to the headband is indeed disclosed in a structural combination in paragraph [0024] with the head suspension including a head protection attachment element, not least since the
head suspension is disclosed to physically include the head protection attachment element and to also include one or more top bands.

3.1.4 Moreover, the skilled reader wishing to understand such an arrangement would refer to the figures which indicate a specific location of the head protection attachment element relative to the positions in which the top bands connect with the headband, this location indicating that the weight of any head protection element carried by the head protection attachment element would be transferred relatively equally to the top bands. This thus indicates a functional relationship also existing between the top bands and the head protection attachment element i.e. that they are located to take the weight of the head protection element and transfer this comfortably to the wearer's head.

3.1.5 The proprietor's argument that the fact that both features were disclosed in the same paragraph did not imply a combined disclosure misses the point of what is important in the analysis of a combined disclosure. Rather than simply being in the same paragraph or not, of importance is the technical relationship between the features disclosed particularly, as analysed above, whether there is a structural or functional relationship between the features disclosed as a whole in combination. In the present case, with there indeed being both a structural and functional relationship between all the features in paragraph [0024], the omission of the features to the head suspension including a head protection attachment element from claim 1 presents the skilled person with new information in the form of a new combination of features which is not directly and unambiguously
derivable from the application as originally filed, thus contravening the requirement of Article 123(2) EPC.

3.1.6 Auxiliary request 2C is thus not allowable.

4. Auxiliary request 2D

4.1 Article 84 EPC

Claim 1 is not clear, contrary to the requirements of Article 84 EPC.

4.1.1 Relative to claim 1 of auxiliary request 1A, found not to meet the requirements of Article 84 EPC, claim 1 of the present request additionally includes inter alia reference to a headband plane (H_p) along which the headband portion extends and with which a transition arm axis (T_p) intersects. These additions however fail to overcome either of the fundamental clarity issues of that request i.e. the lack of a clearly defined, single bottom edge, and the position on the straight bottom edge to which measurement is made not being defined. These shortcomings result in it being unclear what pertains to be the claimed bottom edge in order for the transition arm length to be measured.

4.1.2 The proprietor's argument that the coordinate system formed by the headband plane and the transition arm axis resulted in the bottom edge of the headband clearly being parallel to the headband plane lacks any basis. Neither the description of the patent, let alone claim 1 itself, provides any indication of a relationship between the headband plane and a bottom edge of the headband. The presence of the headband plane in claim 1 thus places no limitation on how the
bottom edge of the headband is to be understood, neither that it should be parallel to the headband plane nor restricting its interpretation in any other way.

4.1.3 The proprietor's allegation that a mind willing to understand would understand the disclosure being of a single, straight bottom edge is not accepted. The wording of claim 1 is much broader than this, covering multiple and non-straight bottom edges. The proprietor's arguments are based on an interpretation of claim 1 with the figures of the patent in mind, which cannot be used to limit the scope of claim 1 which is defined solely by its specific wording. The proprietor's argument that defining a headband plane, which is anyway not the bottom edge referred to in the claim nor is it further defined, should in some way then prompt a skilled person to consider drawing a line parallel to the headband plane to arrive at a line which would be a bottom edge or a virtual extension thereof, is without any credible basis; no such parallel line is mentioned at any point in the patent, as also argued by the opponent. The proprietor's chosen wording thus simply fails to accurately define the bottom edge of the headband, including interpretations of multiple and non-straight bottom edges, which results in claim 1 being unclear contrary to Article 84 EPC.

4.1.4 Auxiliary request 2D is thus not allowable.

5. Auxiliary request 3C (15.30)

5.1 Admittance (Article 13(1) Rules of Procedure of the Boards of Appeal, RPBA)
5.1.1 Article 12(2) RPBA specifies that the statement of grounds of appeal and reply shall contain a party's complete case. After filing the grounds of appeal or reply, any amendment to a party's case may be admitted and considered at the Board's discretion, which is set out in Article 13(1) RPBA, such discretion being exercised inter alia in view of the need for procedural economy. As is established case law of the Boards of Appeal, such procedural economy implies that amended requests should at least be prima facie allowable in order to be admitted.

5.1.2 The proprietor filed the present auxiliary request during oral proceedings before the Board. The request thus represents a change to its complete case as defined in Article 12(2) RPBA and its admittance may be considered at the Board's discretion under Article 13(1) RPBA.

5.1.3 The alleged basis for the feature 'one or more top bands that extend over a user's head with each end of the one or more top bands being joined to the headband portion' was given as paragraph [0024] as was that for the feature regarding the 'head protection attachment element that couples the head protection element to the headband portion of the head suspension'. With the claimed wording however not being explicitly taken from paragraph [0024], the skilled person would refer to the figures, particularly Fig. 1, in order to interpret the disclosure. In doing so the skilled person would note that all figures pertain to a rather specific embodiment of the head suspension, additional features being detailed in specific figures e.g. the head protection element 50 in Fig. 3 and rear support 21 in Fig. 5. These figures however, wherever the top bands are depicted, show these as passing across the top of
the user's head from left to right (i.e. from one side to the other side of a user's head). However, the wording of claim 1 is entirely unspecific in this regard and simply defines the top bands as extending over a user's head, each end being joined to the headband portion. Such wording includes an arrangement, also argued by the opponent during the oral proceedings (also with regard to previous requests), whereby the top bands pass from front to back across a user's head from a headband portion located at the front and the back of the user's head (such a headband location admittedly not being depicted in any figure, yet clearly included within the scope of claim 1). Such a top band arrangement is not part of the content of the application as filed, being in particular not disclosed in any of the figures and this demonstrates prima facie that the subject-matter of claim 1 extends beyond the content of the application as originally filed.

5.1.4 The proprietor's argument that the expression 'a headband portion having a length' indicates the headband portion as having an end, is not accepted. A continuous headband encircling a user's head would also be considered to have a length, this being the circumference of the headband. There is thus no reason why the cited expression would be understood by the skilled person as implying the headband portion as having an end, let alone defining where the end might actually be located. The further recitation of the headband portion length in which each transition arm extends away from the headband portion length at an angle greater than zero also does not unambiguously imply the headband having an end, the expression rather defining that the angle subtended by the transition arm is to the length direction of the headband portion rather than, for example, to a headband depth
direction. The interpretation of claim 1 as including top bands passing from front to back of the user's head is thus indeed within the claim's now-defined scope, this subject-matter extending *prima facie* beyond the content of the application as filed (as already explained above).

5.1.5 The subject-matter of claim 1 thus *prima facie* fails to meet the requirement of Article 123(2) EPC. Therefore, the subject-matter of claim 1 is not *prima facie* allowable, which would be necessary for fulfilling the need for procedural economy and consequently admitting the request into the proceedings. Accordingly, the Board exercised its discretion under Article 13(1) RPBA not to admit auxiliary request 3C.

6. *Auxiliary requests 3D, 4C and 4D*

6.1 *Admittance (Article 13(1) RPBA)*

6.1.1 The admittance and consideration of these requests, having been filed after presentation of the proprietor's complete case, were also subject to the discretion of the Board in accordance with Article 13(1) RPBA.

6.1.2 To the Board's observation made during oral proceedings that claim 1 of auxiliary requests 3D and 4D appeared to lack clarity for precisely the same reasons as did claim 1 of auxiliary request 2D, the proprietor submitted no counter-arguments. It similarly presented no arguments in support of the subject-matter of claim 1 of auxiliary request 4C overcoming the finding that the subject-matter of claim 1 of auxiliary request 2C did not meet the requirement of Article 123(2) EPC. The Board thus sees no reason to change it's preliminary
findings with respect to these auxiliary requests and the Board thus confirmed same.

6.1.3 Auxiliary requests 3D, 4C and 4D are thus *prima facie* not allowable. The Board thus exercised its discretion not to admit these auxiliary requests into the proceedings.

**Order**

**For these reasons it is decided that:**

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

M. H. A. Patin M. Harrison

Decision electronically authenticated