

**Internal distribution code:**

- (A)  Publication in OJ  
(B)  To Chairmen and Members  
(C)  To Chairmen  
(D)  No distribution

**Datasheet for the decision  
of 13 June 2012**

**Case Number:** T 0429/10 - 3.5.03

**Application Number:** 00945267.3

**Publication Number:** 1197119

**IPC:** H04R 1/00

**Language of the proceedings:** EN

**Title of invention:**

Acoustic protective cover assembly

**Patentee:**

Gore Enterprise Holdings, Inc.

**Opponent:**

NITTO DENKO CORPORATION

**Headword:**

Acoustic cover/GORE

**Relevant legal provisions:**

EPC Art. 54, 56, 84, 123(2)

**Relevant legal provisions (EPC 1973):**

-

**Keyword:**

"Novelty (main, 1st, 2nd and 4th auxiliary requests) - no"

"Added subject-matter (3rd auxiliary request) - yes"

"Clarity and inventive step (5th auxiliary request) - no"

**Decisions cited:**

T 0759/91

**Catchword:**

-



Case Number: T 0429/10 - 3.5.03

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.03  
of 13 June 2012

**Appellant:** Gore Enterprise Holdings, Inc.  
(Patent Proprietor) 551 Paper Mill Road  
P.O. Box 9206  
Newark, DE 19714-9206 (US)

**Representative:** Shanks, Andrew  
Marks & Clerk LLP  
120 Bothwell Street  
Glasgow G2 7JS (GB)

**Respondent:** NITTO DENKO CORPORATION  
(Opponent) 1-2, Shimohozumi 1-chome  
Ibaraki-shi  
Osaka 567-8680 (JP)

**Representative:** Horn Kleimann Waitzhofer  
Elsenheimerstrasse 65  
D-80687 München (DE)

**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 22 December 2009  
revoking European patent No. 1197119 pursuant  
to Article 101(3)(b) EPC.

**Composition of the Board:**

**Chairman:** A. S. Clelland  
**Members:** T. Snell  
R. Menapace

## Summary of Facts and Submissions

I. This appeal was lodged by the proprietor against the decision of the opposition division revoking European patent No. EP 1197119 on the grounds that claim 1 of a main request lacked novelty (Articles 52(1) and 54 EPC) with respect to the disclosure of document

D3: US-A-5828012,

and claim 1 of an auxiliary request did not involve an inventive step (Articles 52(1) and 56 EPC) with respect to the disclosure of document

D2: JP-A-08-79865.

II. In the notice of appeal and the statement of grounds, the appellant requested "reinstatement of the patent". In the statement of grounds, the appellant further requested that the impugned decision be set aside and the patent maintained on the basis of the claims of a main request and two auxiliary requests filed with the statement of grounds.

In a response to the notice of appeal, the respondent (opponent) requested that the appeal be dismissed. The respondent raised issues concerning novelty and inventive step. It also referred, *inter alia*, to Articles 84 and 123(2) EPC.

Both parties conditionally requested oral proceedings.

III. In a communication accompanying a summons to attend oral proceedings, the board gave a preliminary opinion

that, *inter alia*, the subject-matter of claim 1 of the main request was not new with respect to the disclosure of D3.

- IV. In a response to the board's communication, the appellant filed a new set of requests comprising a main request and five auxiliary requests intended to replace the requests on file. However, the appellant stated that if the board were minded not to accept the new requests into the proceedings, the requests that accompanied the statement of grounds were maintained.
- V. The respondent subsequently filed two further written submissions. In the first of these, filed on 29 May 2012, the respondent requested that the appellant's new requests be not admitted, *inter alia* because they required a new search for which insufficient time was available. The respondent requested that the board give an advance indication on whether it intended to admit the new requests. The board replied by fax letter that it intended to give no such indication and that the matter would be discussed at the oral proceedings. With the respondent's second submission, two new documents D11 and D12 were submitted that were allegedly relevant to the appellant's new requests. The respondent requested that these documents be admitted to the proceedings, and requested, in view of the relevance of D11 to novelty, that D11 be admitted regardless of whether or not the appellant's new requests were admitted.

VI. Oral proceedings took place on 13 June 2012.

Following a discussion, the board decided to admit all the appellant's requests filed on 14 May 2012. The appellant requested that the decision under appeal be set aside and the patent maintained on the basis of the main request or one of the first to fifth auxiliary requests all as filed on 14 May 2012. The respondent requested that the appeal be dismissed.

At the conclusion of the oral proceedings, after due deliberation, the board gave its decision.

VII. Claim 1 of the **main request** reads as follows:

"A sound transmissive protective cover assembly consisting of:  
a microporous membrane (20) supported around its periphery by and held captive between two adhesive support systems (22, 24) such that at least a portion (20) of said membrane is free to move in response to acoustic energy characterised in that the areal extent of the adhesive support systems is restricted to the area of the microporous membrane supported by and held captive between the two adhesive support systems, wherein the two adhesive support systems are bonded to the membrane to form an inner unbonded region surrounded by an outer bonded region, and wherein the adhesive support systems consist of adhesive or adhesive tape."

Claim 1 of the **first auxiliary request** is the same as claim 1 of the main request except for the appending of the wording:

"and wherein the two adhesive support systems are bonded to the membrane to form an inner unbonded region surrounded by an outer bonded region, such that upstream sound pressure waves can effect mechanical vibration of the inner unbonded region and transfer of the mechanical vibration of the membrane to airborne energy downstream of the sound transmissive protective cover assembly."

Claim 1 of the **second auxiliary request** is the same as claim 1 of the main request except for the deletion of the of wording "or adhesive tape" at the end of the claim.

Claim 1 of the **third auxiliary request** has the same preamble as claim 1 of the main request; the characterising part reads as follows:

"characterised in that the areal extent of the adhesive support system is restricted to the area of the microporous membrane supported by and held captive between the two adhesive support systems, wherein the two adhesive support systems are bonded to the membrane to form an inner unbonded region surrounded by an outer bonded region, such that upstream sound pressure waves can effect mechanical vibration of the inner unbonded region and transfer of the mechanical vibration of the membrane to airborne energy downstream of the sound transmissive protective cover assembly, and wherein the microporous membrane has a mass between 1 and 40 grams/m<sup>2</sup> and a Gurley number of between 1 and 10 seconds, and wherein the assembly has an acoustic transmission loss of less than 3dB in the range of

frequencies 300 to 3000Hz and a long term water entry pressure of at least 9.8 kPa (1 metre water column) for at *[sic]* minimum of 30 minutes."

Claim 1 of the **fourth auxiliary request** is the same as claim 1 of the first auxiliary request except that the wording "wherein the adhesive support systems consist of adhesive or adhesive tape" is replaced by "wherein the adhesive support systems consist of adhesive tape".

Claim 1 of the **fifth auxiliary request** is the same as claim 1 of the first auxiliary request except that the wording "wherein the adhesive support systems consist of adhesive or adhesive tape" is replaced by "wherein the first adhesive support system is a single-sided adhesive and the second adhesive support system is a double-sided adhesive".

## **Reasons for the decision**

### 1. *Admissibility of the appellant's main and first to fifth auxiliary requests*

For reasons of procedural expediency, the board decided to exercise its discretion under Article 13(1) RPBA to admit the appellant's main and first to fifth auxiliary requests filed on 14 May 2012. In view of the board's decision not to allow any of these requests, it is not necessary to go into the board's reasons in detail.

2. *General*

The patent in suit concerns a "sound transmissive protective cover assembly", eg for a transducer, such as a microphone or a loudspeaker of an electronic device. In essence, the cover assembly comprises a microporous membrane "held captive" between two adhesive support systems which, in accordance with claim 1 of the main request, consist of adhesive or adhesive tape. In the main embodiments described in the patent, the adhesive support systems are ring shaped. The membrane has a bonded region which is bonded to the adhesive support systems and an unbonded region which is free to move to enable the transmission of sound. The stated intention of the appellant is to claim a sound transmissive protective cover assembly "consisting [only] of" the membrane and the two adhesive support systems.

3. *Main request - claim 1 - interpretation of the expression "consisting of"*

Although the expression "consisting of" is conventionally taken to mean "consisting only of" (see eg T 759/91, point 2.2 of the reasons, which refers to "the unequivocal character of the words "consisting of" as compared to "comprising""), the respondent argued that the case law was only concerned with examples from the field of chemistry and that in the present case the phrase should not be construed so narrowly. The board however sees no logic in giving the phrase a meaning which differs depending on the technical field concerned.



Hence, in the present case, the expression "consisting of" is interpreted in the sense of "consisting only of".

4. *Main request - claim 1 - novelty*

4.1 It was common ground between the parties that document D3, in particular Fig. 4, discloses a sound transmissive protective cover assembly *comprising* (as opposed to *consisting only of*) all the features of claim 1. In this respect, a microporous membrane 22 is held captive between adhesive support layers 24 and 20. These layers may be an adhesive in liquid or solid form, or a pressure-sensitive tape (cf. col. 6, lines 24-34), which the board understands to be adhesive tape. In addition to these features, all embodiments of D3 include a further porous support layer 30 extending over the whole of the bonded and unbonded areas.

4.2 The appellant argued, as indeed did the opposition division in its impugned decision, that the subject-matter of claim 1 was new with respect to the disclosure of D3, because the cover assembly of D3 did not only consist of the features of claim 1 but comprised an additional support layer 30.

However the board agrees with the respondent that the three layers 20, 22 and 24 by themselves constitute a sound transmissive protective cover assembly consisting only of the features of claim 1. In other words, Fig. 4 of D3 can be viewed as the combination of a sound transmissive cover assembly in accordance with claim 1 and the support layer 30.

4.3 The appellant argued further that the method of manufacture of the cover assembly of D3 was such that at no point would a skilled person be provided with the claimed invention (which the board understands in the sense that at no point in time during manufacture would the three layers 20, 22 and 24 exist together as a separate assembly distinct from the support layer).

However, since as stated above the support layer 30 can be regarded an external element to the sub-assembly 20, 22, and 24, in the board's view it makes no difference to novelty whether the sub-assembly is at some point in time separate from the support layer 30 or is bonded to it.

The board concludes that the subject-matter of claim 1 is not new (Articles 52(1) and 54 EPC).

4.4 *Claim 1 - first, second and fourth auxiliary requests*

The same reasoning in respect of lack of novelty raised above in connection with the main request applies, *mutatis mutandis*, to claim 1 of each of these further requests. The appellant did not argue otherwise.

The board therefore concludes that the subject-matter of claim 1 of each of the first, second and fourth auxiliary requests is not new either (Articles 52(1) and 54 EPC).

5. *Third auxiliary request - claim 1 - added subject-matter*

5.1 Claim 1 of this request is the same as that of the first auxiliary request with the addition of the features that the microporous membrane has a mass between 1 and 40 grams/m<sup>2</sup> and a Gurley number of between 1 and 10 seconds, and the assembly has an acoustic transmission loss of less than 3dB in the range of frequencies 300 to 3000Hz and a long term water entry pressure of at least 9.8 kPa (1 metre water column) for at [sic] minimum of 30 minutes.

5.2 With the exception of the feature that the acoustic transmission loss is to be less than 3dB in the range of frequencies 300 to 3000Hz (to be referred to as "the transmission loss feature"), these additional features are in principle derivable from page 10, first paragraph of the international application as published, WO-A-01/03468. The transmission loss feature is disclosed in claim 1 of the application as published. However, it is not directly and unambiguously derivable from the application as filed that a microporous membrane having the parameter ranges set out on page 10, first paragraph has the stated transmission loss. Furthermore, not all the properties of the membrane material of those listed in the first paragraph of page 10 are included in claim 1 of this request (eg the pore size, pore volume and air permeability have not been included). The skilled person reading this passage would not derive directly and unambiguously that these parameters may be omitted. Claim 1 therefore embraces an undisclosed intermediate generalisation.

Claim 1 accordingly comprises subject-matter extending beyond the content of the application as filed. The board concludes that claim 1 of the third auxiliary request does not comply with Article 123(2) EPC.

6. *Claim 1 - fifth auxiliary request*

6.1 *Clarity*

Claim 1 of this request requires that the first support system is a "single-sided adhesive" and the second support system is a "double-sided adhesive". In the view of the board the concept of single and double-sided adhesive only makes sense in the case of an adhesive applied to a substrate, eg tape. However, in the previous requests the term "adhesive", as opposed to "adhesive tape", had been construed by the appellant to mean an adhesive without a substrate. There is therefore doubt in construing the scope of protection sought by the terms "single" and "double-sided" adhesive. Furthermore, an adhesive substrate which is sticky when applied later becomes dry on the outside if not bonded to another layer. Hence a double-sided adhesive attached on one side later arguably becomes a single-sided adhesive. In the view of the board, claim 1 of this request is therefore not clear within the meaning of Article 84 EPC.

6.2 *Inventive step*

6.2.1 In view of the appellant's position that the terms "single and double-sided adhesive" were intended to embrace adhesive tape, which, as stated above, is also proposed in document D3, the board, notwithstanding the

above-mentioned lack of clarity, will comment on the issue of inventive step with respect to document D3.

6.2.2 The board agrees with the appellant that the subject-matter of claim 1 of this request is new since both the layers shown in D3, Fig. 4 are double-sided. The appellant argued in the letter dated 14 May 2012 that there would be no incentive to replace either of these layers by a single-sided adhesive [tape], since the sole purpose of the adhesive in D3 is to attach the membrane to an external support. However, in the board's view the purpose of the adhesive layer 24 in D3 is not solely to attach the membrane to an external support. The person skilled in the art of transducer cover assemblies would recognise that further effects provided by this layer are the giving of support, eg to prevent the membrane from peeling off the other adhesive support system (cf. paragraph [0041] of the patent in suit), and the provision of a clearance between the membrane and the mounting surface of the external support, eg of a mobile phone. In order to provide these other effects, the skilled person starting out from D3 would, on the basis of common knowledge and without the exercise of inventive skill, readily contemplate the use of single-sided tape.

The board concludes that the subject-matter of claim 1, insofar as it can be understood, does not involve an inventive step (Articles 52(1) and 56 EPC).

7. *Late-filed documents D11 and D12*

As these documents are not relevant to the board's decision, they are disregarded (Article 114(2) EPC).

8. *Conclusion*

The board concludes that none of the appellant's requests is allowable. It follows that the appeal must be dismissed.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:

G. Rauh

A. S. Clelland