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Case Number: T 2161/12 - 3.3.09

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Title of invention:
Surf board

Patent Proprietor:
Yeh, Tzong In

Opponent:
Rightfair International Ltd.

Headword:

Relevant legal provisions:
EPC R. 99(2), 101
EPC Art. 56

Keyword:
Admissibility of appeal - (yes)
Inventive step - (yes)

Decisions cited:

Catchword:

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Case Number: T 2161/12 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 17 November 2015

Appellant: (Opponent)	Rightfair International Ltd. Unit 8-10, 11/F Metropole Square 2 On Yiu Street Siu Lek Yuen; Shatin Hong Kong (CN)
Representative:	Hellmich, Wolfgang European Patent and Trademark Attorney Lortzingstrasse 9 / 2. Stock 81241 München (DE)
Respondent: (Patent Proprietor)	Yeh, Tzong In 12F. No. 111, Sec. 4, Meichuan E. Rd., Beitun District Taichung City 406 (TW)
Representative:	Viering, Jentschura & Partner mbB Patent- und Rechtsanwälte Grillparzerstrasse 14 81675 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 25 July 2012 concerning maintenance of the European Patent No. 1457312 in amended form.**

Composition of the Board:

Chairman	W. Sieber
Members:	N. Perakis
	D. Prietzel-Funk

Summary of Facts and Submissions

I. This decision concerns the appeal filed by the opponent against the interlocutory decision of the opposition division maintaining European patent No. 1 457 312 in amended form.

II. The patent was opposed on the grounds of Article 100(a) (lack of inventive step) and Article 100(c) EPC.

The documents filed by the opponent included the following:

D3: US 4 850 913 A;
D4: US 5 211 593 A; and
D5: US 4 270 768 A.

III. By an interlocutory decision the opposition division maintained the patent in amended form on the basis of claims 1 to 6 filed as a first auxiliary request during the oral proceedings of 26 June 2012. Independent claims 1 and 3 read as follows (amendments over claims 1 and 3 as granted in bold):

"1. A slider, comprising:

a foam core (1) having a top surface (10), a bottom surface (11) and edge surfaces (12);
a top layer (4) entirely heat laminated to said top surface (10) and edge surfaces (12) of said foam core (1);
a first pattern (3a) formed within said top layer (4), said first pattern (3a) being visible from outside of said top layer (4); and
a bottom layer (5) entirely heat laminated to said bottom surface (11) of said foam core (1),

wherein said foam core (1) is a polyethylene foam board and said top layer (4) comprises:

a first outer film (41) having a top surface (411) and a bottom surface (412), **said first pattern (3a) being printed on said bottom surface (412) of said first outer film (41)**; and
a first inner film (42) having a bottom surface (422) being heat laminated to said top surface (10) and edge surfaces (12) of said foam core (1) and a top surface (421) being heat laminated to said bottom surface (412) of said first outer film (41), said first pattern (3a) being between said bottom surface (412) of said first outer film (41) and said top surface (421) of said first inner film (42), whereby said first pattern (3a) is overlaid,

wherein said first outer film (41) and first inner film (42) are made of plastic; and
wherein said bottom layer (5) comprises:

a first polyethylene foam skin (51) having a top surface (511) heat laminated to said bottom surface (11) of said foam core (1) and a bottom surface (512), and said first polyethylene foam skin (51) having a density greater than said foam core (1); and
a plastic board (52) having a top surface heat laminated to said bottom surface (512) of said first polyethylene foam skin (51), wherein said plastic board (52) has a thickness greater than said first outer film (41) and said first inner film (42), **wherein said first outer film (41) has a thickness in the range from 0.02 mm to 0.15 mm**

and said first inner film (42) has a thickness in the range from 0.01 mm to 0.15 mm and said plastic board (52) has a thickness in the range of 0.3 m to 1.5 mm."

"3. A slider, comprising:

a foam core (1) having a top surface (10), a bottom surface (11) and edge surfaces (12);
a top layer (4) entirely heat laminated to said top surface (10) and edge surfaces (12) of said foam core (1);
a first pattern (3a) formed within said top layer (4), said first pattern (3a) being visible from outside of said top layer (4); and
a bottom layer (5) entirely heat laminated to said bottom surface (11) of said foam core (1), and **both** edges of said bottom layer (5) **and said top layer (4) are connected with each other and sealed** so as to seal said foam core,

wherein said foam core (1) is a polystyrene foam board and said top layer (4) comprises:

a first outer film (41) having a top surface (411) and a bottom surface (412), **said first pattern (3a) being printed on said bottom surface (412) of said first outer film (41);**
a first inner film (42) having a top surface (421) and a bottom surface (422), said top surface (421) being heat laminated to said bottom surface (412) of said first outer film (41), said first pattern (3a) being between said bottom surface (412) of said first outer film (41) and said top surface (421) of said inner film (42), whereby said first pattern (3a) is overlaid; and

a first bonding film (6a) having a top surface being heat laminated to said bottom surface (412) of said first inner film (41) and a bottom surface being heat laminated to said top surface (10) and edge surfaces (12) of said foam core (1),

wherein said first outer film (41) and first inner film (42) are made of plastic; and
wherein said bottom layer (5) comprises:

a second bonding film (6b) having a top surface heat laminated to said bottom surface (11) of said foam core (1) and a bottom surface;
a first polyethylene foam skin (51) having a top surface (511) heat laminated to said bottom surface of said second bonding film (6b) and a bottom surface (512), said first polyethylene foam skin (51) having a density greater than said foam core (1); and
a plastic board (52) having a top surface heat laminated to said bottom surface (512) of said first polyethylene foam skin (51), wherein said plastic board (52) has a thickness greater than said first outer film (41) and said first inner film (42); **wherein said first outer film (41) has a thickness in the range from 0.02 mm to 0.15 mm and said first inner film (42) has a thickness in the range from 0.01 mm to 0.15 mm and said plastic board (52) has a thickness in the range of 0.3 mm to 1.5 mm".**

IV. The opposition division considered that auxiliary request 1 complied with the requirements of the EPC, in particular of Articles 123(2) and 56 EPC.
With regard to the amendments, the location of the first pattern (3a) was disclosed in claim 2 as filed;

the thickness of the first outer film (41), the first inner film (42) and the plastic board (52) were disclosed in the description as filed (page 4, line 23; page 5, line 1; page 6, line 12).

With regard to inventive step, D3 was the closest prior-art document. The claimed subject-matter differed from the disclosure of D3 in the location of the pattern (3a) and the thickness of the plastic board (52). The technical problem in view of D3 was the provision of a slider with a clearly visible and well protected pattern. The solution as provided by the subject-matter of independent claims 1 and 3 was not obvious from the cited prior art.

V. The opponent (in the following the appellant) filed an appeal against the decision of the opposition division. The appellant requested that the decision of the opposition division be set aside, that the patent be revoked and that the appeal fee be refunded on the basis of an alleged substantial procedural violation, namely that the impugned decision lacked sufficient reasoning why the inventive step attack based on D4 was not successful.

VI. By letter dated 26 March 2013 the patent proprietor (in the following the respondent) filed observations on the appeal together with auxiliary requests 1-8. The respondent requested that:

- the opposition be considered inadmissible because the inventive step objection was insufficiently substantiated in the notice of opposition;
- the appeal be considered inadmissible because the objection under Article 100(c) EPC, raised against

the claims as upheld by the opposition division, was insufficiently substantiated;

- the appeal be dismissed, ie the patent be maintained as upheld by the opposition division; or,

- the patent be maintained on the basis of the claims of one of auxiliary requests 1-8.

VII. In a communication dated 5 August 2015 the board gave its preliminary non-binding opinion on some of the issues raised in this appeal.

VIII. On 17 November 2015 oral proceedings were held before the board. During these proceedings the respondent withdrew the request that the opposition be considered inadmissible. Furthermore, the appellant withdrew the objection under Article 100(c)/123(2) EPC against the claims upheld by the opposition division, as well as the request to reimburse the appeal fee. Thus the only remaining issues were the admissibility of the appeal and the inventive step of the claimed subject-matter.

IX. The relevant arguments put forward by the appellant in its written submissions and during the oral proceedings may be summarised as follows:

- The appeal was admissible because in the statement setting out the grounds of appeal the appellant had disputed the inventive step analysis of the opposition division, who had considered D3 as the closest prior art.

- The subject-matter of claim 1 did not involve an inventive step as it was obvious from the

combination of D3 with D4. D3 was the closest prior-art document. The claimed subject-matter differed from D3 only as regards pattern (3a), which was printed on the bottom surface of the outer polyethylene film layer (see figures 2 and 3, column 3, lines 42-48). The technical problem in view of D3 was the provision of a system for applying sharp, distinct and wear-resistant graphics to a foam core. The solution of this problem was disclosed in D4, which specifically disclosed that graphic-imprinted skin patterns were applied to the top riding surface of the slider board (column 5, lines 5-6). The skilled person would obviously have combined the disclosure of D4 with that of D3 and would have arrived at the subject-matter of claim 1 without the exercise of any inventive step.

- It would have been obvious to the skilled person to entirely heat-laminate the top film layer to the surface and the edges of the foam core, since this was derived from figure 3 of D3.

- It would have been obvious to the skilled person to slightly modify the thickness of the top outer or bottom outer film layer of D3 - they were disclosed to have the same thickness. This was so, because in claim 1 the difference in thickness of the bottom plastic board layer and the top layer was very small. The bottom plastic board layer had a minimum thickness of 0.3 mm and the top layer had a maximum thickness of 0.3 mm.

- The subject-matter of independent claim 3 also lacked an inventive step in view of the obvious combination of D3 and D4. In addition to what was

said in the context of claim 1, D3 disclosed that among the appropriate materials for the foam core was Arcel foam (column 3, lines 48-50); this was a foam comprising polystyrene, i.e a foam core according to claim 3. As regards the additional bonding layers (6a and 6b) of claim 3 - necessary to laminate the polystyrene core with the polyethylene film layers - they were obvious, since D4 disclosed that additional layers could be used in the laminate structure (see column 5, lines 2-4).

X. The relevant arguments put forward by the respondent in its written submissions and during the oral proceedings may be summarised as follows:

- The appeal should be considered inadmissible because the grounds of appeal did not sufficiently substantiate why the claimed subject-matter lacked an inventive step.

- Contrary to the assertions of the appellant, the subject-matter of claim 1 involved an inventive step. D3 was the closest prior-art document. D3 did not disclose (i) that pattern (3a) was printed on the bottom surface of the first outer film, (ii) that the pattern was located between two film layers (iii) that the top film layer was entirely heat laminated both to the core top surface and to the edges surfaces of the foam core, and (iv) that the thickness of the bottom plastic board layer (52) was greater than the total thickness of the first outer film (41) and the first inner film (42) of the top layer.

- The technical problem solved over D3 was the provision of a slider, the upper surface of which provided sufficient protection for the imprinted pattern and made the slider more comfortable for its user. The claimed laminated structure solved the technical problem. The solution was not obvious since it was neither disclosed nor hinted at by the state of the art. D4 might have disclosed the pattern feature, however, there was no hint in D4 regarding the other distinguishing features. Therefore, even if the skilled person had combined D3 and D4, he would not have arrived at the claimed subject-matter.

- In view of the above reasoning the subject-matter of independent claim 3 also involved an inventive step. Even if it was admitted that D3 disclosed a polystyrene foam core and that D4 disclosed that other layers, such as the intermediate layers (6a) and (6b) of claim 3, could be used, the claimed laminated structure would not have been obtained unless the skilled person had used an *ex post facto* analysis.

XI. The final requests of the parties were as follows:

The appellant requested that the decision under appeal be set aside and that the European patent be revoked.

The respondent requested that the appeal be dismissed as inadmissible or as unallowable, or, alternatively, that the patent be maintained on the basis of the claims according to any of auxiliary requests 1 to 8 filed with letter of 26 March 2013.

Reasons for the Decision

1. Admissibility of the appeal

1.1 The respondent argued that the appeal should be considered inadmissible because the objection concerning lack of inventive step was insufficiently substantiated.

1.2 The provisions of the EPC concerning the rejection of an appeal as inadmissible are set out in Rule 101(1) EPC, which requires that the appeal complies with Rule 99(2) EPC, the latter stipulating that:

"In the statement of grounds of appeal the appellant shall indicate the reasons for setting aside the decision impugned, or the extent to which it is to be amended, and the facts and evidence on which the appeal is based."

1.3 In the statement setting out the grounds of appeal the appellant contested the decision of the opposition division on its finding regarding Articles 100(c)/123(2) and 56 EPC. As the objections under Articles 100(c)/123(2) EPC were withdrawn during the oral proceedings before the board, the examination of the admissibility of the appeal boils down to the lack of inventive step objection. In the statement setting out the grounds of appeal, the appellant argued that the subject-matter of the claims as upheld by the opposition division lacked an inventive step on the basis of the alleged obvious combination of D3, D4 and D5 (see pages 2-6). The appellant thus indicated the reason for setting aside the impugned decision, namely lack of inventive step, as well as the facts and

evidence substantiating this reason, namely D3, D4 and D5, and arguments. Since, the timely filed statement of grounds of appeal undoubtedly fulfils the requirements of Rule 99(2) EPC, the appeal has to be considered admissible.

1.4 Apparently the argument of the respondent, that the appeal is insufficiently substantiated as regards the alleged lack of inventive step, is based on a subjective qualitative analysis of the arguments of the appellant. There is no such qualitative requirement in the relevant provisions of the EPC cited above. The evaluation of the arguments and counter-arguments submitted by the parties, in this case the arguments of the appellant which were contested by the respondent, is carried out when the relevant issue is examined as to its merits. Thus, the evaluation of the arguments is an issue separate from and subsequent to the issue of admissibility.

1.5 In view of the above, the appeal is admissible under Rules 99(2) and 101(1) EPC.

2. Inventive step of claim 1

2.1 Closest prior art

2.1.1 The board agrees with the opposition division and the respondent that D3 is the closest prior-art document. Even the appellant relied on D3 as the closest prior art in its sole inventive step attack in the appeal proceedings.

D3 discloses a sports board having a shaped polyethylene foam core to which a polyethylene film/ polyethylene foam sheet laminate is heat laminated over

substantially all the surfaces of the core. The polyethylene film is positioned so as to be the outer surface of the board. The polyethylene foam of the sheet laminate is denser than the core foam. Additionally, colour patterns may be incorporated into the polyethylene film/polyethylene foam sheet laminate by adding a colour concentrate in a pattern configuration to the film surface immediately prior to lamination to the foam sheet (column 1, lines 36-44; column 2, lines 12-16, 25-31, 43-47 and 53-57; column 3, lines 42-48; claim 1).

2.1.2 The board concurs with the respondent that the subject-matter of claim 1 differs from the disclosure of D3 in that:

- the top layer comprises **two films**, a first outer plastic film (41) and a first inner plastic film (42), whereas in D3 the top layer comprises a plastic **film** and a **foam** sheet (figure 1; column 2, lines 38-40);

- a pattern is **printed** on the bottom surface (412) of the outer film (41) of the top layer (4), whereas in D3 a pattern is **obtained simply by adding** a colour concentrate between the polyethylene film and the polyethylene foam sheet of the top layer (see column 2, lines 53-57);

- **one and the same** film/film laminate is entirely heat laminated to both the top surface and the edge surfaces of the foam core, whereas in D3 **a first** film/foam laminate is heat laminated to the top surface and **a second** film/foam laminate to the edge surfaces of the foam core (column 2, lines 46-48); and

- **the thickness** of the plastic board (52) of bottom layer (5) **is greater** than the total thickness of the first outer film (41) and the first inner film (42) of top layer (4), whereas in D3 it is simply disclosed that **the thickness** of the top and bottom layers **is the same** (figure 3; column 3, lines 63-65).

2.2 Technical problem and solution

The respondent considered that the technical problem underlying the invention of claim 1 in view of D3 was the provision of a slider which:

a) provided sufficient protection for the pattern, and
b) was more comfortable for the user.

The board has no reason to doubt that the laminated structure of the slider according to claim 1 does indeed solve this problem. The appellant did not raise any objection in this context.

2.3 Obviousness

The board does not contest that the skilled person starting from the disclosure of D3 and aiming at the provision of a slider with improved protection of the pattern would find in D4 the hint to use a pattern which is printed on the bottom surface of the outer polyethylene film layer. Indeed D4 deals with the difficulty of creating graphic images on the film skin adhered to a foam core of a bodyboard and proposes as a solution a sheet of non-opaque polyethylene with

graphic images imprinted on one side (column 1, lines 22-25 and 57-60; column 3, lines 59-62). However, besides the obvious suggestion in D4 of how to improve the pattern protection, this document is of no help when it comes to the other differentiating features of claim 1 over D3, which are related to the provision of a protected board with a better level of comfort for the user of the slider. Indeed D4 does not disclose or hint:

(a) that a second plastic film has to be used within the laminate of the top layer [D4 discloses a bottom skin laminate (40) including two polyethylene films (42) and (44) (figure 3, column 3, lines 38-43)];

(b) that the thickness of the bottom outer layer has to be greater than that of the two plastic films of the top layer [D4 discloses that the bottom outer layer (42) is thinner than the top outer layer (32), namely in the range of 2-5 mils (ie 0.05-0.125 mm) compared with one-quarter-inch (ie 6.25 mm), (figures 3 and 4; column 3, lines 27-29 and 43-45)]; and

(c) that the laminate forming the top layer also has to be laminated to the edge surfaces of the foam core [D4 discloses that the top layer is laminated only to a part (not the totality) of the edges (figure 3; column 3, lines 27-32)].

The board thus concludes that, even if the skilled person combined D3 with D4, he would not arrive at the subject-matter of claim 1. Moreover, he would not consider the above-identified differences obvious unless based on hindsight.

2.4 In view of the above the subject-matter of claim 1 involves an inventive step.

3. Inventive step of claim 3

3.1 Basically, the slider of claim 3 differs from the slider of claim 1 in the chemical nature of the core foam material (polystyrene instead of polyethylene) and the use of additional bonding films (6a) and (6b),ie two bonding layers which are necessary to laminate the top and bottom layers to the polystyrene foam core (patent, paragraph [0019]). For the embodiment of claim 3 D3 is still the closest prior-art document, as it discloses an alternative foam core made of Arcel (column 3, lines 48-50), which, according to the appellant, comprises polystyrene.

3.2 The technical problem remains the same as for the slider of claim 1, and its solution is not obvious, basically for the reasons set out above concerning the inventive step of claim 1. In particular, even if the skilled person combined D3 with D4, this combination would not provide a slider with a structure as required in claim 3.

3.3 Thus the subject-matter of claim 3 involves an inventive step.

4. Dependent claims

Dependent claim 2 corresponds to a preferred embodiment of claim 1 and dependent claims 4-6 to preferred embodiments of claim 3. Thus their subject-matter involves *mutatis mutandis* an inventive step.

5. In view of the above, the claims as upheld by the opposition division are patentable, with the consequence that the appeal has to be dismissed.

6. As it is decided that the main request is patentable, any discussion dealing with the auxiliary requests is redundant.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

M. Cañueto Carbajo W. Sieber

Decision electronically authenticated