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Datasheet for the decision of 26 November 2019

Case Number: T 1303/17 - 3.2.08

Application Number: 09807461.0

Publication Number: 2378921

IPC: A47B47/04, A47B96/20, F16B12/26, B27N3/02, B32B21/00

Language of the proceedings: EN

Title of invention:
COMPOSED ELEMENT, MULTI-LAYERED BOARD AND PANEL-SHAPED ELEMENT FOR FORMING THIS COMPOSED ELEMENT

Patent Proprietor:
Unilin BVBA

Opponent:
Välinge Innovation AB

Headword:

Relevant legal provisions:
EPC Art. 56
RPBA Art. 13(1)

Keyword:
Late-filed auxiliary requests - admitted (yes)
Late-filed argument - admitted (no)
Inventive step - (yes)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
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Beschwerdekammern

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Case Number: T 1303/17 - 3.2.08

D E C I S I O N
of Technical Board of Appeal 3.2.08
of 26 November 2019

Appellant: (Opponent)	Välinge Innovation AB Prästavägen 513 263 65 Viken (SE)
Representative:	HGF B.V. Zuid-Hollandlaan 7 2596 AL Den Haag (NL)
Respondent: (Patent Proprietor)	Unilin BVBA Ooigemstraat 3 8710 Wielsbeke (BE)
Representative:	Valea AB Box 1098 405 23 Göteborg (SE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 31 March 2017 rejecting the opposition filed against European patent No. 2378921 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	M. Alvazzi Delfrate
Members:	A. Björklund
	C. Schmidt

Summary of Facts and Submissions

I. With the decision posted on 31 March 2017, the opposition division rejected the opposition against European patent No. 2 378 921.

The division considered that the subject-matter of claims 1 and 6 was new and involved an inventive step.

II. The opponent filed an appeal against this decision.

III. Oral proceedings before the Board were held on 26 November 2019.

IV. The requests relevant to the present decision were as follows:

The appellant (opponent) requested that the decision under appeal be set aside and that European patent No. 2 378 921 be revoked, and also that the sole request, filed as the 7th auxiliary request with letter dated 17 October 2019, should not be admitted.

The respondent (patent proprietor) requested that the appeal be dismissed and that the patent be maintained on the basis of the sole request, filed as the 7th auxiliary request with letter dated 17 October 2019, and that the new objection under Article 56 EPC, which was put forward for the first time at the oral proceedings, should not be admitted.

V. The following documents are relevant to this decision:

D1: DE 20 2009 008825 U1
D2: US 6,413,007 B1
D3: WO 2005/046950 A1

D6: DE 20 2005 010 758 U1

D7: "Fachkunde für Schreiner" extract, 1990, pages 128-129

D8a: "The Wood Handbook", 1999, Chapter 10, pages 10-14 to 10-15

VI. Independent of claim 1 of the sole request reads:

a) "Composed element,

b) wherein this composed element comprises at least two panel-shaped elements (2-3),

c) which substantially are formed from a board material;

d) wherein said panel-shaped elements (2-3) are interconnected at an angle by means of coupling means comprising a tongue (13) and a groove (14),

e) which coupling means substantially are made as profiled parts in the board material;

f) and wherein said coupling means also comprise locking elements (15-16) at the tongue and groove,

g) which, in coupled condition, prevent the moving apart of the tongue and groove,

characterized in that

h) the panel-shaped elements (2-3) are formed on the basis of board material in the form of particle board consisting of two or more layers, which layers, in respect to the average fineness of the particles, show a different degree of fineness,

i) respectively a basic layer (138, 139) with coarser particles, more particularly chips,

j) and at least one outer layer (136, 137), or at least a more outward-situated layer, which

is of a finer composition than the composition of the basic layer (138, 139); in other words, with particles, chips, respectively, which on average are finer;

k) and in that the locking element (15) at the tongue (13) is in the form of a projection having a locking surface (142),

l) and that this locking surface (142) is at least partially situated in the material of the respective outer layer (136)."

Feature references added by the Board

VII. The appellant essentially argued the following, in so far as relevant to the decision:

The objection to lack of novelty submitted in writing was withdrawn during the oral proceedings.

Admittance of the sole request

The request filed as the 7th auxiliary request with letter dated 17 October 2019 should not be admitted into the proceedings since it was late-filed.

Admittance of the new objection under Article 56 EPC put forward at the oral proceedings

Although the objection under Article 56 EPC based on the interpretation that feature j) removed the need for feature l) was raised for the first time at the oral proceedings, it was *prima facie* relevant for the question of inventive step of claim 1 and relied on documents already in the proceedings. It should therefore be admitted into the proceedings.

Inventive step

D2 disclosed a composed element with an inclined surface 30 on the tongue which was a locking surface within the meaning of claim 1.

The subject-matter of claim 1 differed from the composed element of D2 only in the material used. The choice of particle board did not have any particular technical effect, and the problem solved by the choice of material was therefore that of providing a cost-effective version of the composed element.

Three-layered particle board was a commonly known material for use in furniture, as evidenced by D3, D7 and D8a. It was thus an obvious choice for the composed element of D2. Using such particle boards, the locking surface on the tongue of the composed element of D2 would be situated at least partly in the material of the outer layer with a finer composition. The skilled person would thus arrive at the subject-matter of claim 1 without needing inventive skill.

Similar reasoning applied starting from the composed element in figure 3 of D6. The claim merely required that "at least a part" of the locking surface was situated in the outer layer with finer particles. Therefore, it was sufficient if only a very small portion of the locking surface was situated in this layer. Thus technically it made no difference if no part of the locking surface was situated in this layer. Should this be seen as a difference, moving the locking surface closer to the surface of the panel would not solve any technical problem. Paragraph [0009] of D6 explicitly suggested the use of particle board. Following this teaching, and using a commonly known

three-layered particle board for the panel-shaped element 10 to provide an alternative composed element, the locking surface 13 would be at least partly situated in the material of the outer layer with a finer composition. The skilled person would thus arrive at the subject-matter of claim 1 without using any inventive skills.

The subject-matter of claim 1 also did not involve an inventive step if starting from the composed element disclosed in figure 35 of D1. This drawings showed a "fifth aspect", which according to paragraph [0034] could be made of particle board. It was obvious to the skilled person to make this composed element from three-layer particle board in order to provide a cheaper alternative. The skilled person would thus arrive at the subject-matter of claim 1.

Finally, starting from the composed element in figure 27 of D1, the skilled person would also arrive at the subject-matter of claim 1 without any inventive skill. Paragraph [0213] taught that the locking elements, and consequently the locking surfaces, should be situated in the finer material. The technical effect of using a finer particle board was not demonstrated. The problem to be solved was therefore merely that of finding a cheaper alternative material. It would have been obvious for the skilled person to use a finer particle board for the layer with the coupling elements in figure 27 in order to solve this problem.

VIII. The respondent essentially argued the following, in so far as relevant to the decision:

Admittance of the sole request

The request, which was filed as the 7th auxiliary request, corresponded to the patent as granted, apart from the independent claim 6 and the claims dependent only upon claim 6 having been deleted. It did not introduce any new matter into the proceedings and should therefore be admitted into the proceedings.

Admittance of the new objection under Article 56 EPC put forward at the oral proceedings

Features j) and l) were already included in claim 1 as granted. The appellant should therefore have submitted the objection based on the alternative interpretation of feature j) in the opposition proceedings.

This objection was submitted shortly before the end of the oral proceedings and completely changed the appellant's case. It should therefore not be admitted into the proceedings.

Inventive step

The tongue of the composed element of D2 had an inclined surface 30, with an angle C relative to the plane parallel to the plane of the panel of around 135°, as could be seen in figure 3. This surface was inclined to permit the tongue to be introduced into the groove, as shown in figures 4 to 6.

Only the surfaces of the tongue and the groove which were actually in contact could be considered to be locking surfaces. It was only the inner corner of the inclined surface 30, just where it met surface 26, shown in detail in figure 3, which contacted the corresponding locking surface of the groove formed by the corner of the undercut connecting the surfaces 40

and 44. This could be seen in figure 7, and was clear with regard to the detailed geometries shown in figure 3. The locking surface therefore did not extend all the way to the outer side surface of the panel.

The locking surface 13 of the tongue 12 of the composed element shown in figure 3 of D6 also did not extend all the way to the outer side surface of the panel-shaped element 10, but was located closer to the middle of the panel. It was therefore in a sufficiently stable position irrespective of the material used, and the skilled person would have no reason to change this universally applicable geometry.

Finally, the locking surface of the tongue 13 on figure 35 of D1 did not extend all the way to the outer side surface of the panel-shaped element 2.

It was true that three-layered particle boards were generally known, but the skilled person would not have have deemed such boards suitable for making composed elements with the geometries of D2, D6 or figure 35 of D1.

Furthermore, even if the skilled person had used such three-layered boards, it would not have resulted in the composed elements of claim 1. The drawings of D2, D6 and D1 were schematic, and therefore the precise position of the locking surfaces of the tongues relative to the outer side surface of the panels could not be determined from the drawings alone. Nor were the respective positions of these locking elements described in D2, D6 or D1. Therefore, even if the composed elements of D2, D6 or figure 35 of D1 were made of three-layer particle board, it was not inevitable that the locking surface would be at least

partly situated in the material of the respective outer layer as required by feature l).

Regarding the embodiment in figure 27 of D1, there was no teaching for the skilled person that finer chips of particle board were suitable for the shown coupling means. D1, paragraph [0207] taught the use of MDF or HDF. The only coupling means made of particle board which were disclosed in D1 were those shown in figure 21, where the locking surfaces were located close to the middle of the board and not close to the outer surface.

Starting from the composed elements of D2, D6 or the different embodiments on figures 27 respectively 35 of D1, the skilled person would therefore not have arrived at the subject-matter of claim 1 without the involvement of inventive skills.

Reasons for the Decision

1. Admittance of the sole request

The sole request was filed as the 7th auxiliary request with the letter dated 17 October 2019.

Compared to the patent as granted, independent claim 6 and the claims dependent only thereon have been deleted. This request therefore does not add any new matter into the proceedings.

For this reason, the Board decided to admit this request into the proceedings (Article 13(1) RPBA).

2. Admittance of the new objection under Article 56 EPC put forward during the oral proceedings

Close to the end of the oral proceedings before the Board, the appellant put forward an objection under Article 56 EPC based upon an alternative interpretation of feature j), according to which feature l) was optional.

This objection had neither been presented in the opposition proceedings, nor at any time during the appeal proceedings. However, claim 1 of the sole request corresponds to claim 1 of the patent as granted. Thus, the filing of this request cannot be seen as a reason for the new objection under Article 56 EPC, but the appellant should have presented it already during the opposition proceedings.

Furthermore, although it is true that the new objection is based upon documents which are part of the appeal proceedings, it completely changes the appellant's case, and took both the Respondent and the Board by surprise.

The Board therefore decided not to admit the new objection under Article 56 EPC (Articles 13(1) RPBA).

3. Inventive step

3.1 Starting from D2

D2, figures 1 to 7, discloses a composed element in the form of a desk with two panel-shaped elements 10 and 12, which are coupled via a tongue and groove with locking elements.

The material from which these elements are made is not mentioned. The subject-matter of claim 1 therefore differs from the composed element of D2 in features c), e), h) to j) and l).

The appellant argued that the use of particle board had no technical effect, and therefore the problem to be solved was merely that of providing a cost-effective composed element.

It is not disputed that three-layer particle board with finer outer layers was well known to the skilled person, as disclosed e.g. in D3 page 1, paragraphs 2 and 3, and D8a, page 10-15, second and third paragraphs in the left column. However, even if the skilled person had used such three-layer particle board to make the composed element of D2, this would not necessarily have resulted in a composed element according to claim 1.

As shown in figures 4 to 7 of D2, and in particular in figure 3, the tongue has a projection 28 with an inclined surface 30. In figure 7 it can be seen that it is the inner part of the inclined surface 30, just where it connects with the surface 26, which is in contact with the corner of the undercut closest to surface 40 of the groove. It is this physical contact which prevents the tongue from being pulled out of the groove, or in other words, it locks the tongue and groove. This inner part of the inclined surface 30 is therefore a locking surface. The remainder of the inclined surface 30 does not have any contact with any corresponding surface of the groove, and does therefore not have any locking function. It is thus not a locking surface.

The exact position of the locking surface in the direction of the thickness of the panel-shaped element cannot be determined from the schematic drawings in D2. It is also not described.

From this it follows, that even if the skilled person had used a three-layer particle board to make the composed elements of D2, it is not inevitable that the locking surface would be situated at least partly in the material of the outer layer of finer composition, as required by feature l). It could also be located in the coarser inner layer of the particle board.

The subject-matter of claim 1 is therefore not obvious to the skilled person starting from the composed element of D2.

3.2 Starting from D6

Figure 3 of D6 discloses a composed element with two panel-shaped elements 1 and 10 having a tongue 12 and groove 2. The projection 13, or locking element, on the tongue 12 has a locking surface which cooperates with the undercut 3 of the groove, see paragraph [0021].

The exact location, in the direction of the thickness of the panel-shaped element 10, of the locking surface on the tongue 12 which contacts the corresponding surface of the groove 2 is not described in D2, nor can it be determined from the schematic drawing. It can however be seen that the projection 13 does not extend all the way to the side surface of the plate-shaped element 10.

Paragraph [0009] of D6 suggests the use of wooden materials and mentions particle board as one suitable

option. It is however not stated that the particle board has three layers. The features a) to g) and k) are therefore disclosed in D6, such that the subject-matter of claim 1 differs therefrom in features h) to j) and l).

The appellant argued that the choice of a three-layer particle board solved the problem of providing an alternative composed element. The appellant also argued that the effect of having the locking surface at least partly in the outer layer of a particle board had not been demonstrated by the respondent-proprietor. Even if this argument is accepted, the claimed composed element is not obvious.

Making the composed element in figure 3 of D6 from a three-layer particle board does not inevitably result in the composed element of claim 1. As already set out above, the position of the locking surface on the tongue 12 of the panel-shaped element 10 in the direction of the thickness of the element cannot be determined from the schematic drawing. Therefore, making the composed element in figure 3 from three-layer particle board would not inevitably result in the locking surface being at least partly situated in the outer layer of the particle board with a finer composition, as required by feature l). It could also be located in the coarser inner layer of the particle board.

Finally, the appellant argued that shifting the locking surface to the outer layer would not solve any technical problem.

While it is true that the skilled person could change the geometry of the tongue and the locking projection

shown in figure 3 to move the locking surface closer to the side surface of the panel-shaped element, neither D6 nor any other prior art provides any reason for doing so.

The subject-matter of claim 1 is therefore not obvious to the skilled person starting from the composed element of D6.

3.3 Starting from D1

It is not disputed that the claimed priorities of claim 1 are not valid. Consequently, D1 belongs to the prior art under Article 54(2) EPC.

3.3.1 Embodiment on figure 35

Figure 35 discloses a composed element with two panel-shaped elements 2 and 3 having a tongue 13 and groove 14 with respective locking elements 15 and 16.

As described in paragraph [0231], the material is preferably medium density fiber board (MDF) or high density fiber board (HDF). The embodiment in figure 35 therefore shows features a) to g) and k), and the subject-matter of claim 1 differs therefrom in features h) to j) and l).

Paragraph [0034] explains that particle board could be used for this embodiment. According to the appellant, this teaches the skilled person to use three-layer particle board, and using this to make the composed element on figure 35 would result in the composed element of claim 1.

The exact position, in the direction of the thickness of the panel-shaped element, of the locking surface on the projection 15 on the tongue 13 which physically contacts the corresponding surface of the groove can however not be determined from the schematic drawing in figure 35. If anything, the figure shows that the projection 15 does not extend all the way to the side surface of the plate-shaped element 2.

Therefore, even if making the composed element in figure 35 from three-layer particle board, the skilled person would not inevitably arrive at a composed element having feature l), since the locking surface could also be located in the coarser inner layer of the particle board.

The subject-matter of claim 1 is therefore not obvious to the skilled person starting from the composed element on figure 35 of D1.

3.3.2 Embodiment in figure 27

The embodiment in figure 27 shows composed elements which have a first material layer 56 made of MDF or HDF, and a second layer 57 made of particle board. The grooves and tongues with their locking elements resulting in a snap connection of slitted coupling means are formed in the MDF or HDF layer. The embodiment in figure 27 therefore shows features a) to g) and k), and the subject-matter of claim 1 differs therefrom in features h) to j) and l).

The appellant argued that paragraph [0213] taught the skilled person to make the locking elements from a finer material, and that it would have been obvious to

use finer particle board instead of MDF or HDF in order to find a cheaper alternative.

However, as put forward by the respondent, all similar slitted coupling means with a snap connection which are disclosed in D1 are made from a finer material in the form of MDF or HDF. There is no teaching in D1, nor in any other of the presented prior art, which suggests that such slitted coupling means can be made from particle board. It would therefore not have been obvious to the skilled person, to make the first material layer 56 from particle board with a finer composition.

The subject-matter of claim 1 is therefore not obvious to the skilled person starting from the composed element on figure 27 of D1.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division with the order to maintain the patent on the basis of claims 1 to 16 of the main request filed as auxiliary request 7 with letter dated 17 October 2019 and a description and drawings to be adapted.

The Registrar: The Chairman:

C. Moser M. Alvazzi Delfrate

Decision electronically authenticated