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# Datasheet for the decision of 22 June 2010

**Case Number:** T 0543/08 - 3.2.03

**Application Number:** 99203328.2

**Publication Number:** 0969164

**IPC:** E04F 15/14, E04F 15/02, E04F 13/08, E04F 15/04

**Language of the proceedings:** EN

**Title of invention:**
A method for laying and mechanically joining floor panels and a method for producing a floor

**Patentee:**
Välinge Innovation AB

**Opponents:**
I UNILIN FLOORING N.V.
II Akzenta Paneele + Profile GmbH et al
III KRONOTEX Fussboden GmbH
IV E.F.P. Floor Products Fussböden GmbH
V Spanolux SA

**Headword:**
-

**Relevant legal provisions:**
EPC Art. 56

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

**Keyword:**
"Inventive step: no"

**Decisions cited:**
-

**Catchword:**
-

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**Case Number:** T 0543/08 **-** 3.2.03

# D E C I S I O N
**of the Technical Board of Appeal 3.2.03**
**of 22 June 2010**

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**Decision under appeal:**
**Interlocutory decision of the Opposition Division of the European Patent Office posted 31 January 2008 concerning maintenance of the European patent No. 0969164 in amended form.**

**Composition of the Board:**

**Chairman:** U. Krause
**Members:** Y. Jest
K. Garnett

## Summary of Facts and Submissions

I. By its decision dated 31 January 2008 the Opposition Division maintained European Patent No. 0 969 164 in amended form on the basis of an amended claim 1 having the following wording:

"A method of laying and mechanically joining rectangular laminated or wooden floor panels (1,2a,2b) having short and long edges in parallel rows,
wherein relative positions of the panels during the method can be defined as including first and second mutual positions,
a first mutual position in which (i) the two panels are held in an angled position relative to each other and (ii) upper portions of adjacent edges of the two panels are in mutual contact, and
a second mutual position in which the two panels are (i) located in a common plane, (ii) mechanically locked to each other in a first direction (Dl) that is at right angles to the common plane, (iii) mechanically locked to each other in a second direction (D2), that is at right angles to said first direction and to the adjacent joint edges, as a result of a first locking member (14) disposed at one of the adjacent edges being connected to a second locking member (8) disposed at the other one of the adjacent edges, and (iv) being displaceable in relation to each other in the direction of the adjacent joint edges,
said first and second locking members (6, 8, 14) comprising a locking groove (14) which extends parallel to and space from the joint edge (4) of one (2) of said panels, termed groove panel, and which is open at the rear side (16) of the groove panel (2), and a locking

strip (6) integrated with the other (1) of said panels, termed strip panel, said strip (6) extending throughout substantially the entire length of the joint edge (3) of the strip panel (1) and being provided with a locking element (8) projecting from the strip, such that when the panels are joined together, the strip (6) projects on the rear side of the groove panel (2) with its locking element (8) received in the locking groove of the groove panel (2), in which second mutual position the panels can occupy a relative position in said second direction (D2) where a play (Δ) exists between the locking groove (14) and a locking surface (10) on the locking element (8) that is facing the joint edges, whereby the joint edge (3) of the strip panel has a lower bevel (70), which cooperates during laying with a corresponding upper bevel (72) of the joint edge (4) of the groove panel, allowing said mutual contact,

wherein said method comprises the steps of:

(a) bringing a new one of the panels by angling into an intermediary position where (i) a previously laid first one (1) of the panels is located in a first row, (ii) a second one (2a) of the panels is located in a second row and the long edge being in said first mutual position in relation to the long edge of the first panel, and (iii) the new panel (2b) is located in the second row and is in said second mutual position in relation to the second panel and is in a position relative to the first panel (1) such that a mutual distance is present between the upper portions of the adjacent joint edges of the new panel and the first panel;

(b) while maintaining said second mutual position between the short edge of the new panel (2b) and

the short edge of the second panel (2a), displacing the new panel relative to the second panel into said first mutual position in relation to the first panel; and

(c) angling the new panel (2b) and the second panel (2a) together into said second mutual position in relation to the first panel (1), whereby the mechanical locking, i.e. the second mutual position is achievable on both the short and the long edges of the floor panels, while said locking allows repeated disassembly and reassembly, without causing damage to the panels."

The Opposition Division found that the grounds of opposition, namely lack of novelty and inventive step, did not prejudice the maintenance of the patent in this amended form.

II. Appeals were lodged against this decision by the Proprietor of the patent and by Opponents IV and V.

Opponents I and III withdrew their opposition during the opposition procedure, while Opponent II, who originally lodged an appeal, withdrew its opposition with its letter of 29 May 2008.

The parties remaining in the appeal proceedings and the corresponding relevant dates are:

(a) Appellant I - Proprietor:

Appeal filed on 10 April 2008, appeal fee paid on the same day and the statement of the grounds of appeal received on 10 June 2008;

(b) Appellant II - Opponent IV:
Appeal filed on 10 April 2008, appeal fee paid on the same day and the statement of grounds of appeal received on 10 June 2008;

(c) Appellant III - Opponent V:

Appeal filed on 12 March 2008, appeal fee paid on the same day and the statement of grounds of appeal received on 9 June 2008.

III. The relevant prior art is as follows:

D2: US-A-4 426 820
D9: US-A-2 430 200
D11: DE-C- 29 40 945.

IV. During the oral proceedings on 22 June 2010, the following requests were made:

Appellant I (Proprietor) requested that the patent be maintained in the amended form on the basis of claim 1 as maintained by the Opposition, i.e. that the appeals filed by Opponents IV and V be dismissed.

Appellants II and III (Opponents IV and V) requested that the decision under appeal be set aside and the patent Nr. 0 969 164 be revoked.

At the end of the oral proceedings the Board announced its decision.

V. Appellants II and III submitted essentially the following arguments:

The method was known or obviously derivable from prior art document D2.
With regard to the description of the method for laying panels in D2 at column 5, lines 35 to 51, and as illustrated in Figure 17, the skilled person would have corrected the passage relating to arrow 66 and understood that this corresponded not to a rotation but a sliding movement of the third panel along its edge engaged in the cooperating edge of the second panel (column 5, line 43). This was in fact supported by a corrected text in D11 (column 2, lines 42 to 44), which was a patent family member of D2. The method of D2 thus showed the method-steps (a) to (c) of claim 1.
Further, the method disclosed in D2 could be used for laying different types of panels, including panels for bowling surfaces (column 1, lines 6 to 13), which were usually made of wooden panels.
The skilled person would also haven been prompted by D9 to provide bevels on the locking elements so as to ease the angling engagement of the edges of two adjacent panels.

VI. The arguments presented by Appellant I (Proprietor) can be summarized as follows:

The subject-matter of claim 1 as amended was new and involved an inventive step.

The invention differed from the prior art disclosed in D2 by four features, namely:

- the material of the panels: D2 indicated plastics as preferred material (for instance column 2, line 16); wood was not cited,
- the provision of a play: such a play was excluded in D2 since it required that panels be connected to each other by a tight and sealed engagement at their edges prohibiting any displacement (column 2, lines 13 to 15, column 5, lines 28 to 34),
- the provision of bevels: the surfaces of the locking elements of D2 were inclined as a whole and thus lacked bevels within the meaning of the invention,
- the laying in parallel rows: it was apparent from the illustration shown in Figure 17 of D2 that the laying method would result in a herringbone arrangement of the panels.

Only the groove edge 9 in D9 was provided with a bevel 14; the cooperating tongue 17 had a planar upper surface. Further the groove-and-tongue engagement according to D9 did not allow displacement lengthwise of two assembled panels (column 2, lines 3 to 7, column 4, lines 13 to 17). Document D9 would therefore not have prompted the person skilled in the art to provide a play in the locking area of the panels shown in D2 enabling lengthwise sliding of two panels.

## Reasons for the Decision

1. The appeals are admissible.

2. *Novelty - Inventive step*

2.1 Prior art document D2 describes several constructional embodiments of flooring panels differing by the shape of their locking means, as well as a method for laying panels.

The panels are mechanically locked to each other in a first direction perpendicular to the common plane and then in a second direction, that is at right angles to said first direction and to the adjacent joint edges, as a result of the engagement of a first locking member, i.e. a recess (see for instance recess 11' in Figure 3 or recess 41' in figure 14) disposed at one of the adjacent edges being connected to a second locking member (locking strip 11 in Figure 2 or locking strip 41 in figure 15) disposed at the other one of the adjacent edges, both extending parallel to and space from the joint edge.

The laying method is illustrated in Figure 17, and detailed in the description at column 5, lines 35 to 51 and claimed in claim 10. It is general and applies to the various types of panels proposed in D2. It includes the following steps:

- laying a first panel 1 in a first row,
- bringing a second panel 1' in a second row into a first mutual position (angled) in relation to the long edge of the first panel 1 (arrow 63 in Figure 17), whereby the second row is parallel to the first row, even if it might have a different width as compared to the first row in the case of a herringbone laying design (claim 1 lacks any details on how the rows are to be parallel and

covers also herringbone patterns with several spaced parallel rows),

- bringing a new panel 1'' into angled engagement with the second panel 1' (arrow 64), the new panel 1'' being located in the second row,
- rotating the new panel 1'' so as to make it coplanar with the second panel 1' (arrow 65) and in a position relative to the first panel 1 in which the upper portions of the adjacent joint edges of the new and first panels are parallel but distanced from each other;
- sliding the new panel 1'' along its edge engaged with the second panel into contact with the first panel 1 at an angled relative position (arrow 66); and
- angling down the new panel 1'' and the second panel 1' together into coplanar engagement with the first panel 1 (arrow 67).

The method-steps (a) to (c) of claim 1 are thus disclosed by D2.

2.2 It may be worth noting that the text at column 5 relating to the slight rotation in the directions of arrows 65 and 66 contains an obvious mistake. When analysing Figure 17 it appears unambiguously that a single rotation as illustrated by curved arrow 65 is required to bring the new panel 1'' into a coplanar position with the second panel 1'; the straight arrow 66 does not show a further rotation but rather a translational movement towards the first panel 1.

It is indeed mandatory from geometrical considerations that the new panel 1'', after having been rotated into

a coplanar position with the second panel 1' (arrow 65), has to be slid lengthwise along the second panel so as to bring its locking means into contact with the locking means of the first panel 1 prior to the achievement of the final coupling following mutual rotation of the new and second panels (arrow 67) into the plane of the first panel. An engagement of the new panel into the first panel could not be performed simply by a rotation relative to the second panel because the edge of the new panel would in its resulting position merely face the locking means of the first panel but still be spaced from it. Obviously a final sliding movement (arrow 66) in order to push the edge of the third panel into contact with the first panel must therefore follow the rotation shown by arrow 65.
This understanding is confirmed by claim 10 of D2, defining the laying method, which reads: "inserting a second locking member of the third panel into the aforementioned first locking member of the first panel" (the third panel being the claimed new panel).

The correction of the text at column 5, line 43 of D2 is thus obvious and unique for the person skilled in the art when applying his general technical knowledge.

2.3 It has been disputed by Appellant I that a play exists between the locking groove and a locking surface on the locking element in the mutual coplanar position of the panels in a direction perpendicular to the joint. Appellant I relied on the fact that the person skilled in the art would have tried to reduce the surface friction by providing a lubricant (soap, grease) on the coupling parts, such as to enable the relative sliding

movement of two engaged panels. This approach was agreed with by the Opposition Division and forms the basis for the grounds of the contested decision.

The Board does not share this analysis, for the following reasons.
The feature relating to the play in claim 1 is not defined in terms of values or dimensions but merely by its function, namely to allow mutual displacement of the panels, and only in the description, see column 9, lines 22 to 28. The sliding movement of the new or third panel 1'' lengthwise with the joining edge of the second panel 1', which enables the edge of the third panel 1'' to come into engagement with the first panel 1 (arrow 66 in Figure 17 of D2), implicitly requires a minimum play in the area of the locking elements of the second and third panels.
If this was not so, the Board would have expected the definition of the method at column 5, lines 35 to 51 of D2 to include explicitly some other additional step required for laying panels, as for instance coating edges with lubricant prior to assembling. The application of a lubricant would certainly not have been envisaged as an implicit additional step either by the skilled person, because it would not only unduly lengthen and render the laying process more expensive but it would negatively affect the surface appearance of the resulting wooden flooring.

Furthermore, the mere fact that D2 refers to the tight and sealed quality of the panel joints does not prohibit, as argued by Appellant I, the provision of a limited play between two panels in their plane and perpendicular to their joined edges. This quality

actually refers to the upper surface of the flooring being free of gaps. A slight play enabling the sliding of the third panel along the second panel over a very short distance, just enough to bring it into engagement with the first panel, is different from a rather loose connection of panels. The slight play does not harm the quality of the joints and does not exclude high surface quality with tight and sealed joints. Indeed, a high quality requirement is almost inherent to any laying technique and certainly also for the laying method of the patent itself.

The Board would not have seen an inventive step in providing a small play at the locking area of panels if one had considered that a play was not implicit from the description of the method according to D2.
The person skilled in the art of laying flooring panels would by way of a first attempt have provided the locking elements with an adapted play because this would provide a technically simple and economically cheap solution as compared to parallel but less obvious solutions requiring for the application of significant forces (such as hammering, which could damage the edges) or of an anti-friction material (soap, wax, which would harm the appearance of the laid surface).

2.4 The Appellant I further disputed that the inclination of the whole upper and lower surfaces of the tongue, namely of the locking groove as disclosed in D2, did not fall under the scope of what is usually understood by the expression "bevel" as used in claim 1.

The Board is not convinced that a bevel is concerned only with a limited extension of a surface. According

to the Board both constructions, i.e. either partly or entirely inclined surfaces, are actually equivalent in the present context since they both equally contribute to an easing of the angling and the insertion of the tongue. In addition the skilled person would have found a hint for providing bevels at the engaging surfaces in prior art document D9. Bevels fulfilling the same function, namely to ease engagement by angling (see figures 2 and 3, column 3, lines 5 to 7), are provided on restricted portions of cooperating surfaces of a tongue-and-groove connection.

In conclusion, such, if any, distinguishing constructional detail, which obviously has no functional interaction with the provision of a play for allowing translational motion, would not itself involve an inventive step either.

2.5 The claimed method clearly differs from D2 by the wooden material of the panels to be used with the method and is therefore new in the meaning of Article 54(1) EPC.

However this difference does not define an additional or amended method-step which could characterise the laying method further or substantially limit its scope. It consists merely in the selection of the material for the panels which are laid according to the method. In this respect, the method of D2 appears to be perfectly suitable for laying not only panels made of plastics but also wooden panels. The description of D2 even gives a hint itself when referring to sports grounds and specifically to bowling surfaces (see column 1, lines 6 to 13), which are generally known to

be made, predominately though not exclusively, of wooden material.
Applying the laying method of D2 to wooden panels would therefore have been an obvious choice for the skilled person.

The claimed method does thus not involve an inventive step and infringes the requirements of Articles 52(1) and 56 EPC.

## Order

## For these reasons it is decided that:

1. The impugned decision is set aside.

2. The European Patent Number 0 969 164 is revoked.

The Registrar: The Chairman:

A. Counillon U. Krause