BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS | BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE | CHAMBRES DE RECOURS DE L'OFFICE EUROPEEN DES BREVETS

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File Number: T 771/90 - 3.2.3

Application No.: 86 106 885.6

Publication No.: 0 203 510

Title of invention: Resiliently-cushioned adhesively-applied floor system and method of making the same

Classification: E04F 15/22

D E C I S I O N
of 8 December 1992

Applicant: Omholt, Ray E.

Headword:

EPC Article 54

Keyword: "Lacking novelty - skilled person"

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Case Number : T 771/90 - 3.2.3

D E C I S I O N
of the Technical Board of Appeal 3.2.3
of 8 December 1992

Appellant : Omholt, Ray E.
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Decision under appeal : Decision of the Examining Division 2.3.03.108 of the European Patent Office dated 2 May 1990 refusing European patent application No. 86 106 885.6 pursuant to Article 97(1) EPC.

Composition of the Board :

Chairman : C.T. Wilson
Members : F. Brösamle
W. Moser

Summary of Facts and Submissions

I. European patent application No. 86 106 885.6, filed on 21 May 1986 was refused by the Examining Division by its decision dated 2 May 1990 inter alia for reasons of lack of inventive step in the light of documents

(D1) US-A-4 233 793, and

(D2) EP-A-0 109 941,

whereby document (D1) was relied on only in the Examining Division's communication preceding the decision.

II. The Appellant (Applicant) lodged an appeal against that decision on 2 July 1990 paying the appeal fee on the same day. The Statement of Grounds of Appeal was filed on 30 August 1990 together with new Claims 1 and 8. The Appellant argued for the existence of a clear teaching of the claims, for the existence of unity of invention and of novelty as well as inventive step and requested to set aside the impugned decision and to continue the proceedings.

III. With the communication pursuant to Article 11(2) RPBA dated 11 August 1992 the Board gave its provisional opinion of the claims according to the Statement of Grounds of Appeal and came to the conclusion that the claimed subject-matter was deprived of novelty in the light of document (D1) in respect of Claims 8 and 12 respectively document (D2) in respect of Claims 1 and 6 when these documents are interpreted by a skilled person.

IV. In the oral proceedings held on 8 December 1992 the Appellant modified his request in that he submitted two

versions (main and auxiliary request) of documents which should form the basis for granting a patent.

V. The independent claims of the main request read as follows:

"1. A resiliently-cushioned adhesively-applied floor system (10, 410) comprised of a plurality of floor panels (14, 314, 414) secured to a support base (16, 116, 316, 416) by an elastomeric adhesive (18, 418) of trowelable consistency, the adhesive being spread on at least one of the floor panels (14, 314, 414) or the support base (16, 116, 316, 416) in spaced ridges (22, 122, 222, 322, 422) of a generally uniform thickness, forming an intimate bond between the floor panels (14, 314, 414) and the support base (16, 116, 316, 416), characterized by:

a plurality of spaced elongated support members (34, 134, 234, 334, 434) fabricated of a pre-cured elastomeric material, the support members (34, 134, 234, 334, 434) having a depth (38) less than the initial thickness (26) of the adhesive ridges (22, 122, 222, 322, 422), the support members (34, 134, 234, 334, 434) being positioned between the floor panels (14, 314, 414) and the support base (16, 116, 316, 416) and being spaced from each other so that the adhesive ridges (22, 122, 222, 322, 422), the spaces (30, 130, 230, 330) between the adhesive ridges (22, 122, 222, 322, 422), and the support members (34, 134, 234, 334, 434) cooperate to provide cushioned resilient support for the floor panels (14, 314, 414)."

and

"6. A method of making a resiliently-cushioned adhesively-applied floor system (10, 410) over a support base characterized by the steps of:

providing a support base (16, 116, 316, 416) and a plurality of floor panels (14, 314, 414) to be secured to the support base (16, 116, 316, 416);

providing an elastomeric adhesive (18, 418) having a trowelable consistency;

applying the adhesive (18, 418) to at least one of the floor panels (14, 314, 414) or the support base (16, 116, 316, 416) in spaced ridges (22, 122, 222, 322, 422) of a generally uniform thickness (26);

positioning a plurality of spaced elongated support members (34, 134, 234, 334, 434) between the floor panels (14, 314, 414) and the support base (16, 116, 316, 416), the support members (34, 134, 234, 334, 434) being fabricated of a pre-cured elastomeric material, the support members (34, 134, 234, 334, 434) having a depth (38) less than the initial thickness (26) of the adhesive ridges (22, 122, 222, 322, 422); and

pressing the floor panels (14, 314, 414) toward the support base (16, 116, 316, 416) so that the adhesive ridges (22, 122, 222, 322, 422) form an intimate bond between the floor panels (14, 314, 414) and the support base (16, 116, 316, 416), the adhesive ridges (22, 122, 222, 322, 422), the spaces (30, 130, 230, 330) between the adhesive ridges (22, 122, 222, 322, 422), and the support members (34, 134, 234, 334, 434) cooperating to provide cushioned resilient support for the floor panels (14, 314, 414)."

and

"8. A resiliently-cushioned adhesively-applied floor system characterized by a plurality of floor panels (514, 614) secured to a support base (516, 616) by an adhesive (518, 618), the adhesive (518, 618) of a generally uniform thickness, the floor panels (514, 614) including a plurality of spaced elongated support members (534, 634)

fabricated of a pre-cured elastomeric material and having a depth generally greater than the thickness of the adhesive (518, 618), the support members (534, 634) being secured to the undersurface of the floor panels (514, 614), the adhesive (518, 618) forming a bond between the support members (534, 634) and the support base (516, 616), the adhesive (518, 618) and the support members (534, 634) cooperating to provide cushioned resilient support for the floor panels."

and

"12. A method of making a resiliently-cushioned adhesively-applied floor system over a support base characterized by the steps of:

providing a support base (516, 616) and a plurality of floor panels (514, 614) to be secured to the support base (516, 616);

providing an adhesive (518, 618);

applying the adhesive to the support base (516, 616) with a generally uniform thickness;

securing a plurality of spaced elongated support members (534, 634) to the underside of the floor panels (514, 614), the support members (534, 634) being fabricated of a pre-cured elastomeric material, the support members (534, 634) having a depth generally greater than the thickness of the adhesive (518, 618); and

pressing the floor panels (514, 614) toward the support base (516, 616) so that the adhesive (518, 618) forms a bond between the support members (534, 634) and the support base (516, 616), the adhesive (518, 618) and the support members (534, 634) cooperating to provide cushioned resilient support for the floor panels."

The auxiliary request comprises Claims 1 to 7 only, which claims are identical to the claims with the same numbering of the main request.

VI. The essential arguments of the Appellant for supporting his main and auxiliary request can be summarised as follows:

- documents (D1) and (D2) do not disclose the invention as now claimed because the essential feature of the invention, namely "cooperating to provide cushioned resilient support for the floor panels" is not known from these documents;

- the modules according to Figure 5 of document (D2) are not glued to the base "B" and there cannot be derived any such information from document (D2) taken as a whole, since it is mentioned in this document that for example rain water can flow into the space beneath the plane of the flooring itself;

- due to the fact that document (D2) does not disclose an adhesive for fixing the modules, no cushioning effect can exist in the known floor system;

- a skilled person would not derive from document (D1) anything other than that an initial support system "16, 16" is envisaged there;

- the support beads disclosed in document (D1) cannot be seen as elongated support members;

- only an ex post facto analysis of documents (D1) and (D2) leads to the findings that the subject-matter claimed is not patentable;

- a skilled person would not combine the teachings of documents (D1) and (D2);

- documents (D1) and (D2) are not novelty destroying and cannot render obvious the claimed floor system when considered singly or in combination.

The request to set aside the impugned decision and to grant a patent on the basis of the main or the auxiliary request was maintained.

VII. At the end of the oral proceedings the Chairman announced the Board's decision to dismiss the appeal.

Reasons for the Decision

1. The appeal is admissible.

2. Amendments (Article 123(2) EPC)

2.1 Main request

This request is essentially based on the originally filed documents since in Claims 1 and 8 only method features have been deleted, and both of these claims define a floor system. The omission of these features is not to be seen as a contravention against the requirements of Article 123(2) EPC but rather as a clarification of the product claims in the sense of obtaining a clearer differentiation of patent categories in the meaning of Article 84 EPC.

2.2 The main request is therefore not open to any objection under Article 123(2) EPC and was allowed into the

proceedings although only submitted in the oral proceedings before the Board, i.e. at a very late stage.

2.3 The auxiliary request is narrower than the main request since only Claims 1 to 7 of the main request are upheld and since Figures 11 and 12 of the drawings and the parts of the description related to them were deleted. No objections under Article 123(2) EPC have therefore to be raised against the auxiliary request either.

3. Main request

3.1 Claim 1

3.1.1 This claim no longer contains method features so that the objection under Article 84 has been overcome by deleting the method features from this product claim.

3.1.2 Nearest prior art document is (D1), see particularly Figures 2 and 3 and corresponding text of columns 5 and 6.

From document (D1), a resiliently-cushioned adhesively-applied floor system "10" is known which comprises a plurality of floor panels "20" secured to a support base "12" by an elastomeric adhesive "14" of trowelable consistency (see column 5, line 65), the adhesive "14" being spread on at least one of the floor panels or the support base in spaced ridges of a generally uniform thickness forming an intimate bond between the floor panels and the support base. These features are contained in the pre-characterising clause of Claim 1.

Document (D1) discloses, however, also the characterising features of Claim 1, namely a plurality of spaced elongated support members "16" fabricated of a pre-cured

elastomeric material (see column 6, lines 4 to 13) having a depth less than the initial thickness of the adhesive ridges, the support members being positioned between the floor panels and the support base and being spaced from each other so that the adhesive ridges, the spaces between the adhesive ridges and the support members cooperate to provide cushioned resilient support for the floor panels.

3.1.3 From above remark under paragraph 3.1.2 it can be seen that the Board has interpreted the known support beads "16" as "elongated support members" as claimed in the characterising clause of Claim 1. In the Board's opinion this interpretation is justified since the support beads "16" collectively have their main extension in one direction along the spaces between the adhesive ridges so that the plurality of beads in each space can be seen as "elongate". Due to the fact that they consist of elastomeric material as highlighted above they act as support members **not only** initially as mentioned several times in document (D1), but also **permanently** even if the latter function is not explicitly disclosed from the document under discussion. The support beads "16" consisting of elastomeric material and being elongated, the conclusion is justified that they achieve under these circumstances the same effect as is claimed in the present application, namely a permanent support of the floor panels and, due to their elastic behaviour, also a cushioned resilient support for the floor panels.

The subject-matter of Claim 1, in other words, can be seen in a two-way support system, namely one system acting **directly** between the floor panels via the adhesive ridges and the base and the other system acting indirectly by incorporating elongated support members. As exemplified above, a skilled person can and would derive this teaching of Claim 1 already from document (D1) independently of

what is disclosed expressis verbis in this document; in addition the specifically claimed effect, namely cushioned resilient support of the floor panels, of the subject-matter of Claim 1 is already achieved in the known floor system, since the identical structural features of Claim 1 and of document (D1) necessarily must produce the same technical effects. Document (D1) is therefore seen by the Board as a novelty destroying document in respect of the subject-matter of Claim 1 (Article 54 EPC).

3.1.4 In the Board's opinion a skilled person would derive from document (D1) the teaching that the known support members "16" have a double function even if one function is highlighted only in that document. A simple trial would demonstrate the second function, namely the permanent support function of the support beads "16, 16" and its side effect of cushioning. It is therefore not necessary to interpret the teaching of document (D1) in an ex post facto analysis as brought forward by the Appellant so that as a result all arguments of the Appellant against the relevance of document (D1) have to be rejected.

3.2 Claim 6

This claim is closely related to the teachings of Claim 1 with the only difference that the structural features are linked by method features such as applying an adhesive, positioning of the support members, pressing the floor panels toward the support base ... . These method steps are, however, also known from document (D1).

Detailed arguments are dispensable here since document (D1) has been dealt with in above remarks under paragraphs 3.1.2 to 3.1.4 including a discussion of the effects to be achieved by the known floor system such as the cooperation of the floor panels, the support members and the adhesive

ridges to provide cushioned resilient support for the floor panels. In respect of document (D1) the teaching of Claim 6 is also not novel (Article 54 EPC).

3.3 Claim 8

3.3.1 The most relevant document for the floor system according to Claim 8 is document (D2).

3.3.2 In this document, page 6, lines 18/19, page 11, lines 15 to 18 and page 10, lines 25 to 27 in combination with Figures 1, 2 and 5 are of particular importance. Document (D2) discloses therefore a floor system based on a plurality of floor panels "1, 2, 3, 4, 6" which are secured by an adhesive to the support base "B", the floor panels including a plurality of elongated support members "13" fabricated of a pre-cured elastomeric material and having a depth generally greater than the thickness of the adhesive, the support members being secured to the undersurface of the floor panels such that the adhesive forms a bond between the support members and the support base to provide cushioned resilient support for the floor panels (see page 11, lines 15 to 18 and page 10, lines 25 to 27).

3.3.3 The Appellant argued against the existence of an adhesive in document (D2); he could, however, not convince the Board that this interpretation would be followed by a skilled person. For the Board, page 6, lines 18/19 of document (D2) has to be seen as an instruction to use an adhesive ("for fixed laying") for fixing the floor panels to the support base. The two alternatives mentioned in this respect are "free laying" and "fixed laying", whereby in the latter case the connection between adjacent modular elements is strengthened by gluing, see page 6, paragraph 4 of document (D2). The Board derives therefrom

that "fixed laying" is an instruction for a skilled person not to be restricted by the possibility that the modules can be dismantled, but that under some specific conditions the modules are fixedly connected to the support base. Though in this context no adhesive is mentioned expressis verbis in document (D2), the Board is of the opinion that the instruction for "fixed laying" of the panels would be understood by the person skilled in the art as an instruction to use an adhesive as the means to fix the modules to the support base.

3.3.4 This interpretation of document (D2) is not brought into question by the possibility that in the case of fixed laying adjacent modules are strengthened by gluing, see Claim 10 or page 6, paragraph 4, or are interconnected according to Figure 2 by a dovetail connection. Even the possibility shown in Figure 2 and described on page 10, paragraph 4 of document (D2) that water, for example rain, can flow through holes "8" and into the space beneath the plane of the flooring itself, is not contradictory to the possibility to use an adhesive for fixing the modules to the support base, since this document is not restricted to only outdoor floor systems, see page 10, lines 1/2 and page 4, paragraph 3 of document (D2).

3.3.5 As set out above the Board derives from document (D2) the existence of an adhesive for fixing the modules to the support base so that the possibility of a cushioned resilient support for the floor panels is implicit and cannot be accepted as a distinguishing feature between Claim 8 and document (D2) even if in that document other possibilities for influencing the stiffness of the support members are mentioned, see page 3, paragraph 3 thereof, such as dimensioning the pegs, varying the density and distribution of the pegs and varying the material of them. Again, it must be concluded that an adhesive layer in

combination with elongated support members in Claim 8 respectively in document (D2) produces the same cushioning and resilient effects.

3.3.6 As a result of the foregoing observations Claim 8 is fully anticipated by the teaching of document (D2) when interpreted by a skilled person. In this context it is not necessary to rely on the teaching of the attacked application (ex post facto analysis) since the document (D2) itself discloses the teaching of Claim 8 (Article 54 EPC).

3.4 Claim 12

This claim is closely related to the teaching of Claim 8 so that the considerations expressed in respect of Claim 8 under remarks 3.3.1 to 3.3.5 are applicable in respect of Claim 12. Its basic features defining the "method of making a ... floor system" are applying an adhesive, securing a plurality of spaced elongated support members, pressing the floor panels toward the support base ... . These method steps are, in the Board's opinion, however, known from document (D2) so that this claim is also not allowable in respect of Article 54 EPC.

3.5 Summarising, the main request is not allowable.

4. Auxiliary request

This request is narrower than the main request in that its Claims 1 to 7 literally correspond to Claims 1 to 7 of the main request. Under these circumstances the auxiliary request cannot be allowed either.

Order

For these reasons, it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

N. Maslin C.T. Wilson

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