BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS

BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE

CHAMBRES DE RECOURS DE L'OFFICE EUROPEEN DES BREVETS

Internal distribution code:
(A) [ ] Publication in OJ
(B) [ ] To Chairmen and Members
(C) [X] To Chairmen
(D) [ ] No distribution

Datasheet for the decision of 7 November 2006

Case Number: T 0584/05 - 3.2.05

Application Number: 98305929.6

Publication Number: 0893075

IPC: A44B 18/00

Language of the proceedings: EN

Title of invention:
Surface fastener

Patentee:
YKK Corporation

Opponent:
Gottlieb Binder GmbH & Co.

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56

Keyword:
"Novelty - yes"
"Inventive step - yes"

Decisions cited:
-

Catchword:
-

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0584/05 - 3.2.05

D E C I S I O N
of the Technical Board of Appeal 3.2.05
of 7 November 2006

Appellant: (Opponent)	Gottlieb Binder GmbH & Co. Bahnhofstr. 19 D-71088 Holzgerlingen (DE)
Representative:	Bartels, Martin Erich Arthur Patentanwälte Bartels und Partner Lange Strasse 51 D-70174 Stuttgart (DE)
Respondent: (Patent Proprietor)	YKK Corporation No. 1, Kanda Izumi-cho Chiyoda-ku Tokyo (JP)
Representative:	Luckhurst, Anthony Henry William Marks & Clerk 90 Long Acre London WC2E 9RA (GB)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted 11 March 2005 rejecting the opposition filed against European patent No. 0893075 pursuant to Article 102(2) EPC.**

Composition of the Board:

Chairman: W. Moser
Members: H. Schram
W. Widmeier

Summary of Facts and Submissions

I. The appellant (opponent) lodged an appeal against the decision of the Opposition Division posted 11 March 2005, rejecting the opposition against the European patent No. 0 893 075.

The Opposition Division held that the grounds for opposition based on Article 100(a) EPC (lack of novelty, Article 54 EPC, lack of inventive step, Article 56 EPC) did not prejudice the maintenance of the patent as granted.

II. Oral proceedings were held before the Board of Appeal on 7 November 2006. The representative of the respondent (patent proprietor) had informed the Board on 4 October 2006 that he would not attend the oral proceedings.

III. The appellant requested that the decision under appeal be set aside and that the European patent No. 0 893 075 be revoked in its entirety.

The respondent requested as main request that the appeal be dismissed. As an auxiliary measure, the respondent requested that the decision under appeal be set aside and that the patent in suit be maintained on the basis of the following documents filed on 23 January 2006:

(i) claims 1 to 3 as first auxiliary request; or
(ii) claims 1 to 6 as second auxiliary request; or
(iii) claims 1 to 3 as third auxiliary request; or

(iv) fourth auxiliary request: claims 1 and 2 of the third auxiliary request; or
(v) fifth auxiliary request : claim 3 of the third auxiliary request.

IV. Independent claim 1 of the main request (claims as granted) reads as follows:

"1. A surface fastener comprising a substrate (2) and engaging elements extending from the substrate (2), said surface fastener being characterized by that the engaging elements have a recess and a cohesive or adhesive material (12) is embedded in the recess".

V. The following documents were *inter alia* referred to in the appeal proceedings:

D1 US-A 6,287,665 and its priority document DE-A 196 46 318 (D1')
D2 US-A 5,636,414
D3 EP-A 0 418 951
D5 Affidavit of Mr Tuma dated 10 February 2003
D6 Statement of Mr Fischer dated 12 February 2002

VI. The appellant argued in writing and at the oral proceedings essentially as follows (the lack-of-novelty argument was presented during the oral proceedings for the first time in the appeal proceedings):

The terms "recess" and "(to) embed, embedded" encompassed in German translation *inter alia* the following meanings: "Ein-, Ausbuchtung, Vertiefung" and "fest verankert, umschließen, einschließen, umgeben". Document D3 showed in Figure 2 a surface fastener

comprising a substrate 32 and mushroom-like engaging elements, each having a base portion 34 with a concave surface extending between the end portion 36 and the land portion 39. Each engaging element, including its concave surface, was coated with a pressure-sensitive adhesive 28 with a view to provide the desired shear and peel properties. In other words, adhesive material 28 was "embedded" in the annular concave surface ("recess"). Since claim 1 of the patent in suit does not explicitly exclude that cohesive or adhesive material was applied outside the recess, it followed that the subject-matter of claim 1 of the patent in suit was not novel with respect to document D3 (Article 54 EPC).

A surface fastener manufactured by the appellant with the article No. 25440 was made available to the public under the brand names "Mikroklett" and "Klettoplast" before the priority date of the patent in suit (see document D5, page 2, last paragraph, and page 3). The engaging elements of this surface fastener were mushroom-shaped and were produced according to the method described in documents D1 and D1', both having been published after the priority date of the patent in suit. This surface fastener No. 25440 was a precursor of the surface fastener No. 25445 examined in document D6 and its engaging elements had similar concave indentations in the mushroom head as shown in Figures 28.475 and 28.511 of document D6. The person skilled in the art, starting from surface fastener No. 25440, and seeking to improve the shear and peel properties of said surface fastener, would apply for that purpose a cohesive material on the engaging elements of said surface fastener as taught by document D2 (see

Figure 1), and thus arrive at the invention without exercising inventive skills (Article 56 EPC).

VII. The respondent argued in writing essentially as follows:

Whilst novelty was not argued in the statement of grounds of appeal, for the avoidance of doubt it was submitted that the subject-matter of claim 1 of the patent in suit was novel over the cited art documents (Article 54 EPC).

The invention as defined in claim 1 of the patent in suit was not obvious over a combination of document D2 with the alleged prior use of the surface fastener No. 25440. There is nothing in document D2 that suggested that coating of a concave surface with a cohesive material yielded the benefit of increased hooking forces. On the contrary, it would be apparent to the person skilled in the art that a coated concave surface would not yield any benefits because of the reduced likelihood of contact with a cooperating surface. The subject-matter of claim 1 of the patent in suit was thus non-obvious and involved an inventive step (Article 56 EPC).

Reasons for the Decision

Main request (claims as granted)

1. *Objection of lack of novelty*

1.1 Interpretation of claim 1

The first characterizing feature of claim 1 reads: "the engaging elements have a recess". In the judgement of the Board, the person skilled in the art will understand this feature in the context of the patent specification as meaning that a recess is formed in the (surface of the) engaging element.

For example, if the engaging element takes the form of a hook (cf. paragraph [0002] of the patent in suit, wherein a hook-type of surface fastener known from document D2 is described; see also Figures 1 to 6 of the patent in suit), it is clear to the person skilled in the art that the claim requires that a recess is to be formed in the hook (cf. paragraph [0017] of the patent in suit, wherein it stated that "*A groove 8 serving as a recess in the invention is formed on the outer surface 10 of the hooks 4.*"). Many types of engaging elements known in the art, for example hook-, loop-, mushroom- or T-shaped engaging elements (see document D2, column 4, lines 29 to 31), typically have a concave portion. In the judgement of the Board, the person skilled in the art would categorize hook-, loop-, mushroom- or T-shaped engaging elements without a recess formed therein as falling outside the ambit of claim 1.

It follows from the above that an interpretation of said first characterizing feature of claim 1 as proposed by the appellant, which aims at interpreting this feature as merely requiring that the engaging element has a concave surface, cannot be accepted.

1.2 Document D3 discloses a surface fastener having engaging elements in the form of "bulbous surface aberrations", viz. protuberances having an enlarged, generally rounded or pear-shaped end portion exhibiting a mushroom-like cross-sectional appearance (see page 3, lines 30 to 33, and page 4, lines 14 and 15). Portions of said engaging elements and/or said substrate are coated with a cohesive material (see page 9, lines 16 to 30).

There is however no recess in the sense of the invention formed in the mushroom-like engaging elements (see page 5, lines 14 and 15, and Figure 2, of document D3).

The subject-matter of claim 1 is thus novel over document D3.

1.3 The alleged prior use of the surface fastener No. 25440 was not contested by the respondent, nor did he contest that said surface fastener had mushroom-shaped engaging elements having a concave indentation ("recess") in the head part.

The surface fastener No. 25440 - assuming that it be regarded as being comprised in the state of the art (Article 54(2) EPC) - is not novelty destroying for the subject-matter of claim 1. As admitted by the

appellant, there was no cohesive or adhesive material embedded in the concave indentation in the head part of the engaging elements of the surface fastener No. 25440.

1.4 None of the other documents cited by the appellant discloses a surface fastener with all the features of claim 1. Since this was not contested by the appellant, there is no need for further substantiation.

It follows from the above that the subject-matter of claim 1 is novel within the meaning of Article 54 EPC.

2. *Objection of lack of inventive step*

2.1 The problem to be solved and its solution

The problem of the prior art which the invention seeks to solve is to prevent that coatings of cohesive material applied to mechanical surface fasteners is easily worn off during use, or even before use (see column 1, lines 10 to 54, and column 2, lines 31 to 34, of the patent in suit).

This problem is solved by the surface fastener according to claim 1, in particular by the characterizing features "the engaging elements have a recess" and "a cohesive or adhesive material (12) is embedded in the recess".

2.2 Document D2, which is cited in paragraph [0002] of the patent in suit and which represents the closest prior art, discloses a fastening system consisting of a first and second fastener portion 12, 14, whereby the first

fastening portion 12 comprises a substrate and engaging elements extending from the substrate (see Figure 1, at the right), whereby portions of said engaging elements and/or said substrate are coated with a cohesive material, and whereby the amount and type of cohesive material, and the manner of applying, can be varied to obtain the desired shear and peel force resistance of the engaged fastening system (see column 2, lines 22 to 26, and column 3, lines 1 to 17). Document D2 does not address the problem identified in the patent in suit, viz. that a layer of cohesive/ adhesive material may be worn off during use, or that the retention of the cohesive/adhesive material to the engaging elements must be improved.

The subject-matter of claim 1 differs from the surface fastener ("first fastening portion 12") known from document D2 in that:

(i) the engaging elements have a recess, and

(ii) cohesive or adhesive material is embedded in the recess

2.3 The appellant has argued that, since it was known from document D2 to apply a cohesive coating on, for example, the convex outer portion of hook-shaped engaging elements of a surface fastener for the purpose of obtaining a desired shear and peel force resistance, it was obvious to the person skilled in the art to apply a cohesive coating on the head part of the mushroom-shaped engaging elements of the surface fastener No. 25440 for that purpose and thus to arrive at the invention.

2.4 Document D2 does not give any advice as to which part or parts of engaging elements of a first fastening portion 12 having a stem and a head part with a concave indentation therein (such as the surface fastener No. 25440) should be coated to obtain the desired shear and peel force resistance if engaged with a second fastening portion 14. There are various possibilities to coat the head part alone: the coating could be applied to (a) the complete head part, or (b) only to the portion of the head part where the concave indentation is, or (c) to the head part except for the portion where the concave indentation is.

In case (c) the resulting coated surface fastener No. 25440 would not comprise engaging elements having cohesive or adhesive material embedded in a recess therein. In case (a) the resulting coated surface fastener No. 25440 would formally comprise the two characterizing features of claim 1, but it would also have cohesive or adhesive material which is not embedded in the recess. Whilst cohesive or adhesive material not being embedded in a recess is, arguably, not explicitly excluded by claim 1, such material would be subject to wear during use and such an embodiment would not solve the problem posed.

The person skilled in the art would realize that, if the thickness of the coating is small relative to the depth of the indentation, the coating may not be able to perform its function, i.e. to engage the complementary part of the surface fastener. The person skilled in the art is thus discouraged from coating the

indentations in the head parts of the engaging elements.

In the judgement of the Board, the person skilled in the art, starting out from the surface fastener No. 25440 and seeking to obtain a desired shear and peel force resistance by applying a cohesive or adhesive material thereon, is therefore not in a one-way street situation, whereby he or she would inevitably arrive at the subject-matter of claim 1.

In the judgement of the Board, the arguments of the appellant are based on an ex post facto analysis based on hindsight, i.e. in knowledge of the invention.

The Board thus comes to the conclusion that the subject-matter of claim 1 is not obvious to the person skilled in the art and thus involves an inventive step within the meaning of Article 56 EPC.

Auxiliary requests

3. Since the main request of the respondent is allowable, there is no need to consider any of the auxiliary requests (i) through (v) of the respondent.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Meyfarth W. Moser