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D E C I S I O N
of 29 June 2005

Case Number: T 1076/02 - 3.2.7

Application Number: 93850089.9

Publication Number: 0569343

IPC: B27B 33/08

Language of the proceedings: EN

Title of invention:

Saw blade

Patentee:

Kapman AB

Opponents:

American Tool Companies, Inc.
G-Man Tools AB

Headword:

-

Relevant legal provisions:

EPC Art. 54, 56, 83, 84, 100(a), 100(b), 100(c), 123(2)(3)

Keyword:

"Clarity and added subject-matter of amended claim - not in the proceedings because amended claim 1 corresponds to claims 1 and 2 as granted"

"Novelty (yes)"

"Inventive step (yes)"

"Late filed documents (not admitted)"

Decisions cited:

T 0301/87, T 0367/96

Catchword:

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Case Number: T 1076/02 - 3.2.7

D E C I S I O N
of the Technical Board of Appeal 3.2.7
of 29 June 2005

Appellant: Kapman AB
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Respondent II: G-Man Tools
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
20 August 2002 concerning maintenance of the
European patent No. 0569343 in amended form.

Composition of the Board:

Chairman: K. Poalas
Members: P. A. O'Reilly
C. Holtz

Summary of Facts and Submissions

- I. Oppositions were filed against European Patent No. 0 569 343 as a whole and based on Article 100(a) EPC (lack of novelty and lack of inventive step), Article 100(b) EPC (insufficiency) and Article 84 EPC (lack of clarity).
- II. The Opposition Division decided to maintain the patent in amended form in accordance with the second auxiliary request of the appellant. The Opposition Division held that the subject-matter of claim 1 of the main request was novel and involved an inventive step. The Opposition Division held however that claim 1 of the main request did not fulfil the requirements of Article 84 EPC. The Opposition Division further held that the subject-matter of claim 1 of the second auxiliary request was novel, involved an inventive step and fulfilled the requirements of Article 84 EPC.
- III. The appellant (proprietor) filed an appeal against the decision of the Opposition Division.
- Respondent I (opponent I) also filed an appeal against the decision of the Opposition Division but subsequently withdrew his appeal.
- Respondent II (opponent II) filed no request or argument during the appeal proceedings.
- IV. The appellant requested that the decision under appeal be set aside and a patent be granted on the basis of claims 1 to 3 according to the main request filed with letter of 29 May 2002, or alternatively on the basis of

claims 1 to 2 according to the first auxiliary request filed with letter dated 29 May 2002, or claims 1 to 2 filed as second auxiliary request during the oral proceedings before the Opposition Division on 5 July 2002.

Respondent I requested with his grounds of appeal that the patent be revoked.

V. The independent claim of the main request reads as follows:

"1. Saw blade for sawing of wood wherein the side surfaces (12) have an organic coating, characterized in that the coating has an uneven surface structure with a profile depth of 0.05-0.15 mm peak to peak."

VI. The documents cited in the present decision are the following:

D1: Extract entitled "Red Seal No. 360" from catalogue of W. Tysack, Sons and Turner Ltd, Little London Works, Sheffield

D2: US-A-3 496 973

D3: US-A-5 033 579

D4: US-A-4 267 760

D5: Extract entitled "G 104 Black Prince TEFLON*S Coated Saw" from catalogue of Spear & Jackson

D6: GB-A-21 79 593

- D7: Extract from a brochure for a perthometer manufactured by Feinprüf Perthen GmbH
- D8: Test reports numbers 2001072 and 2001097 of tests carried out by the Technological Institute, Taastrup, Denmark, together with their translation into English
- D9: ASTM Committee E-4 and Grain Size Measurement
- D10: Handbook of Surface Metrology, David J. Whitehouse, Institute of Physics publishing, pages 10 to 13
- D11: Fertigungsmesstechnik in Handbuch für Industrie und Wissenschaft, Warnecke und Dutschke, Springer Verlag, pages 127 to 129.
- VII. The appellant argued with respect to the main request in written submissions essentially as follows:
- (i) Claim 1 corresponds to claim 2 as granted. The Opposition Division was not therefore entitled to examine under Article 84 EPC whether the claim contained all the essential features of the invention since that is not a ground of opposition under Article 100 EPC. This view is supported by decisions T 301/87 and T 367/96. The arguments of respondent I regarding the clarity of claim 1 cannot be examined under Article 84 EPC for the same reason. In any case claim 1 complies with Article 84 EPC.

(ii) The invention is sufficiently disclosed in the patent description. The requirements for producing a coating corresponding to that specified in claim 1 are trivial for the person skilled in the art and moreover there is one example in the description of how to make the coating. There is no need to specify the grain size or the firing temperature for the dry powder lacquering since the skilled person can easily find these out. The profile depth is well known and the skilled person knows how to measure it.

(iii) The subject-matter of claim 1 is novel over D3. D3 does not disclose an organic coating.

(iv) The subject-matter of claim 1 involves an inventive step. Respondent I has referred to D1 and D5 but failed to give any reasons why the skilled person would modify the saw known from either of D1 or D5.

VIII. Respondent I argued with respect to the main request in written submissions essentially as follows:

(i) Claim 1 of the request is not clear as required by Article 84 EPC. The expression "a profile depth of 0.05-0.15 mm peak to peak" is not clear because it is not indicated how the profile depth should be measured. There is more than one way of measuring profile depth and it is also necessary to indicate the sampling length which is not given in the claim.

- (ii) The skilled person cannot carry out the invention as required by Article 83 EPC. The description indicates that the coating of the saw blade may be obtained by dry powder lacquering and that the grain size and firing temperature should be chosen to give the specified profile depth. However, the description does not explain how the grain size and firing temperature should be chosen and how the profile depth should be measured.
- (iii) The subject-matter of claim 1 is not novel in view of D3. D3 discloses a saw blade having surfaces with an organic coating and an uneven surface structure as visible in figures 2 and 3 of the document. In column 5, lines 37 to 38 the mean granulometry of the powder used for forming the surfaces has an open pore structure varying between 100 and 200 μm and in column 6, lines 10 to 13 a granulometry between 56 and 80 μm is disclosed. It is probable that a sampling length could be found with a profile depth in the range 0.05 to 0.15 mm peak to peak.
- (iv) The subject-matter of claim 1 does not involve an inventive step in view of D1 or D5. According to the description of the contested patent the problem to be solved is to provide the side surfaces with a structure which assists in removing saw dust from the kerf without removing any substance from the cut surfaces, cf. column 1, lines 16 to 19. A saw with a Teflon coating is known from each of D1 and D5. The range of profile depth specified in claim 1 is arbitrarily chosen. No experiment has been described in detail. The

only experiment which is described gives no real information to the skilled person. There is no indication how the profile depth was measured. The type of saw, its type of teeth and their set relative to the blade thickness are not given. Also, the stated reduction of cutting force of 20% was in relation to a conventional saw such as in D1 or an uncoated metallic saw blade. Therefore the stated problem is not solved by the features of claim 1 so that the subject-matter of the claim does not involve an inventive step.

IX. Respondent II made no submission.

Reasons for the Decision

1. *Party position*

Since respondent I, who had filed an appeal, withdrew that appeal, it remains in the proceedings as respondent only.

2. *Amendments - Articles 84 and 123(2) (3) EPC*

2.1 Claim 1 of the main request is a direct combination of claims 1 and 2 of the patent as granted, i.e. its subject-matter corresponds to that of claim 2 as granted. The Opposition Division rejected the main request of the appellant on the basis that it did not fulfil the requirements of Article 84 EPC as required in order for the patent to be maintained in accordance with Article 102(3) EPC. The Opposition Division however was not entitled to examine the claim under

Article 84 EPC. Article 84 is not a ground of appeal under Article 100 EPC. Present claim 1 corresponds exactly to claim 2 as granted which was not open to opposition under Article 84 EPC. In this respect the Board agrees with decisions T 301/87 (see point 3.8 of the reasons) and T 367/96 (see point 6.2 of the reasons).

- 2.2 Since claim 1 was present in patent as granted (as claim 2) and Article 100(c) EPC was not a ground of opposition there is also no basis on which the claim may be examined under Article 123(2)(3) EPC.
- 2.3 The amendments to the description serve to render the description consistent with the amended claims and fulfil the requirements of the EPC.
- 2.4 Therefore the amendments fulfil the requirements of the EPC in the sense of Article 102(3) EPC to the extent that they may be examined for such compliance.

3. *Insufficiency - Article 83 EPC*

- 3.1 The arguments of respondent I concern the profile depth of the uneven surface and how to obtain the profile depth in the range specified in the claim. The patent indicates one method of obtaining the uneven surface using dry powder lacquering. Respondent I argues that the skilled person does not know how to obtain the claimed range, in particular which powder grain size and the temperature at which the powder should be fired for the dry powder lacquering. The appellant has stated that the selection of these parameters is trivial for the skilled person. In the opinion of the Board the

burden of proof lies with respondent I. Respondent I however has offered no evidence in support of his allegations that the skilled person would not know how to obtain the claimed ranges.

With regard to how the measuring of the profile depth should be carried out, the Board notes that from D8 it is apparent that the profile depth is a well-known parameter and that there exists an instrument for measuring it called a stylus profilometer (cf. first page of the English translation of the test report No. 2001072 cf. D8, paragraph beginning "Quantitative measuring..."). There is therefore *prima facie* evidence that measurement of surface unevenness is well known to the person skilled in the art. Respondent I has provided no explanation or evidence as to why it is necessary to explain in the description how the profile depth is measured. Since the burden of proof lies with respondent I to prove his allegations the Board concludes that this burden has not been discharged in this respect also.

3.2 The Board therefore concludes that the description fulfils the requirements of Article 83 EPC.

4. *Novelty*

4.1 Respondent I alleged lack of novelty over D3. Two features are disputed by the appellant as being disclosed in this document. The first feature is whether the coating disclosed in D3 is organic. Organic is not *per se* defined in the patent but examples of the coating are stated to be synthetic lacquer based on epoxy, polyester or mixtures of these (column 2, lines

16 to 17). The Board concludes therefore that the meaning of the term organic in the context of the contested patent is the normal chemical meaning which is the chemistry of carbon. The coating of D3 is metallic particles (cf. claim 1 of the document) which are inorganic, i.e. not carbon. A material fills the pores or interstices of this coating (cf. column 2, lines 19 to 23) which can be organic including epoxy resins (cf. column 3, lines 38 to 42).

In the opinion of the Board a layer of metallic particles with organic material in its pores cannot reasonably be considered to constitute an organic coating. Where a coating is specified to be organic then this must be reasonably interpreted to mean that the coating is at least predominantly organic. This is not the case for the coating disclosed in D3.

Respondent I also argued that the claimed profile depth would probably be found for the coating known from D3 providing a suitable sampling length is found. It is not however sufficient that a feature is probably disclosed in a prior art document. It must be shown that the feature actually is disclosed. Respondent I has referred in this respect to the granulometry of the powder used for forming part of the surface of the prior art saw. However the powder is used in a flame spray technique wherein the powder is brought to a molten condition before being sprayed (cf. column 5, lines 25 to 35). There is therefore no reason to assume that there is any direct link between the particle size used in the flame spray and the pore size produced on the surface. There is thus no information disclosed in D3 regarding the profile depth of the surface.

4.2 D1, D2 and D5, which are discussed by the Opposition Division, each describe a saw with organic coating, e.g. polytetrafluoroethylene copolymer (D2). However, in these documents there is no indication of surface unevenness or any information regard profile depth.

4.3 Therefore, the subject-matter of claim 1 is novel in the sense of Article 54 EPC.

5. *Inventive step*

5.1 D1, D2, and D5 each describe a saw blade with features which correspond to the preamble of claim 1.

The characterising features of claim 1 solve the problem of providing the side surfaces of the saw blade with a structure which assists in removing saw dust from the kerf without removing any substance from the cut surfaces, cf. patent description, column 1, lines 16 to 19. Respondent I has argued that these features do not succeed in solving the problem since the description does not give enough details of the saw. The Board cannot agree with respondent I in this respect. The description in column 2, lines 1 to 10 explains how the uneven surface structure specified in the characterising portion of the claim solves the problem of removing sawdust by ensuring that the saw blade has a similar friction to the cut surface so as to produce a rolling motion of the sawdust particles. The specified range of the profile depth may be seen as a definition of what is meant by "uneven". The Board is therefore satisfied that the characterising features of claim 1 provide a solution to the stated problem.

The saw blades disclosed in D1, D2 and D5 each have a frictionless surface. The skilled person would therefore be lead away from the characterising features of claim 1 when considering these documents. D3 has a coating to reduce noise. As already explained above (see point 4.1) the surface properties of the coating disclosed in this document are not mentioned in the document. Therefore none of the cited documents leads the skilled person towards providing an uneven surface for a saw blade. The documents in fact lead the skilled person away from providing this feature.

5.2 D4 discloses a saw blade provided with two ribs to remove the saw dust particles. The ribs have a height of approximately 740 μm (calculated from the values in column 3, lines 2 to 5) which allows them to keep constant contact with the cut surface and hence remove sawdust from the kerf (cf. column 3, lines 2 to 5). D4 therefore provides a different solution to the problem.

5.3 Therefore, the subject-matter of claim 1 of the main request involves an inventive step in the sense of Article 56 EPC.

6. *Late filed documents*

6.1 Respondent I referred to documents D6 to D11. D6 was filed by the proprietor during the opposition proceedings and the Opposition Division decided not to admit the document into the proceedings. D7 was filed by the proprietor during the opposition proceedings but the Opposition Division did not take a decision on its admittance. D8 was filed by opponent I during the

opposition proceedings and was admitted into the proceedings by the Opposition Division. D9 to D11 were filed for the first time by respondent I with his grounds of appeal.

- 6.2 Since respondent I gave no indication of the relevance of D6 this document is not admitted into the appeal proceedings. Respondent I referred to D7 and to D9 to D11 in connection with his ground under Article 84 EPC. Since as explained in point 2.1 above Article 84 EPC may not be examined in the present case also these documents are not admitted into the appeal proceedings pursuant to Article 114(2) EPC. D8 is already in the proceedings.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance with the order to maintain the patent with the following documents:

Claims: 1 to 3, filed as main request with
letter dated 29 May 2002;

Description: columns 1, 2 as granted;

Figures: the single figure as granted.

The Registrar:

The Chairman:

G. Nachtigall

K. Poalas