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**D E C I S I O N**  
**of 2 May 2001**

**Case Number:** T 0802/98 - 3.2.3

**Application Number:** 90102682.3

**Publication Number:** 0386492

**IPC:** E02D 17/20

**Language of the proceedings:** EN

**Title of invention:**

System of vegetation strips for protection of slopes against erosion

**Patentee:**

Subic, Franc, Dipl.-Ing.

**Opponent:**

"Hydrogreen" Landschaftsbau Gesellschaft m.b.H. & Co. KG.

**Headword:**

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**Relevant legal provisions:**

EPC Art. 52(1), 54, 56, 84, 123

**Keyword:**

"Amendments to claims as maintained by the Opposition Division  
- allowable"  
"Novely - yes"  
"Inventive step - yes"

**Decisions cited:**

T 0194/84

**Catchword:**

-





Case Number: T 0802/98 - 3.2.3

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.3**  
**of 2 May 2001**

**Appellant:** "Hydrogreen" Landschaftsbau Gesellschaft  
(Opponent) m.b.H. & Co. KG  
Hutweidengasse 5  
1193 Wien (AT)

**Representative:** Müllner, Erwin, Dr.  
Patentwälte  
Dr. Erwin Müllner  
Dipl.-Ing. Werner Katschinka  
Dr. Martin Müllner  
Postfach 159  
Weihburggasse 9  
1010 Wien (AT)

**Respondent:** Subic, Franc, Dipl.-Ing.  
(Proprietor of the patent) Tratnikova 56  
61000 Ljubljana (SL)

**Representative:** Hofinger, Engelbert, Dr.Dr.  
Patentanwälte Torggler & Hofinger  
Wilhelm-Greil-Strasse 16  
6020 Innsbruck (AT)

**Decision under appeal:** Interlocutory decision of the Opposition Division  
of the European Patent Office posted 28 May 1998  
concerning maintenance of European patent  
No. 0 386 492 in amended form.

**Composition of the Board:**

**Chairman:** C. T. Wilson  
**Members:** J. B. F. Kollar  
J. P. B. Seitz

## Summary of Facts and Submissions

I. By its decision dated 19 March 1998 and posted with written reasons on 28 May 1998 the opposition division maintained European patent No. 0 386 492 in amended form in view of the following state of the art:

D1: YU-A-1595/84

D2: "Sicherheitsarbeiten im Landschaftsbau", by Scheichtl, 1973, Callway, München, and

D3: "Ingenieurbiologie", Bergmann and Schiechtl, 1986, Bauverlag GmbH, Wiesbaden.

Independent claim 1 underlying the decision reads, in the form of the feature analysis, as follows:

"1. A system for protection of slopes against erosion comprising a base wire netting (1) spread over the slope and wire netting strips (2), the bottom edges of which are fixed to the base wire netting (1), while the upper edges of the wire netting strips (2) are fixed to points (4) on the base wire netting (1) by means of wires so that each wire netting strip (2) forms a channel to be filled with earth, turf or other similar material,  
characterised in that

(i) the base wire netting (1) comprises strips with longitudinal edges extending in the direction from the top to the bottom of the slope,

(ii) the wire netting strip (2) extending continuously from the left longitudinal edge to

the right longitudinal edge of the base wire netting strip, and

(iii) wherein the individual strips of the base wire netting (1) are fixed to each other."

Comparing the features of claim 1 with the cited prior art the opposition division held that none of the cited documents D1 to D3 disclosed features (i) to (iii) and came to the conclusion that it would not be obvious for a person skilled in the art to combine the teaching of documents D1 to D3 and to thereby arrive at the invention of claim 1.

- II. An appeal against this decision was lodged on 7 August 1998, the appeal fee being paid on 5 August 1998, and Grounds of Appeal being filed on 7 October 1998.
  
- III. In the Annex to the summons to attend oral proceedings dated 13 September 2000, the Board set out its provisional opinion that the main claim as maintained in its amended form would seem to comply with the requirements of Article 123(2) EPC and that its subject-matter would appear to be novel (Article 54 EPC), the question of inventive step thus remaining the main point for discussion in the oral proceedings.
  
- IV. In preparation of the oral proceedings the parties filed their submission on 24 March 2001 (the appellant - opponent) and on 29 March 2001 (the respondent - patentee), respectively and formulated their requests as follows:

The appellant requested that the decision under appeal be set aside and that the patent be revoked, or be

maintained in an amended form limited by claim 2 as granted.

The respondent requested that the appeal be dismissed and that the patent be maintained as amended by the first instance (main request), or on the basis of either his first or second auxiliary requests filed with the letter dated 29 March 2001.

V. In support of his requests the appellant's arguments can be summarised as follows:

The characterising feature (ii) of claim 1 as maintained by the first instance (cf. Point I above) constitutes subject-matter which extends beyond the content of the application as filed contrary to the requirements of Article 123(2) EPC.

The omission ("das Weglassen") of the essential feature according to claim 2 as granted, i.e. "the wire netting strips (2) are fixed on the base wire netting (1) slantwise under an angle ranging between 20° and 40°", from the main claim of the contested patent conflicts with the requirements of Article 123(2) EPC and said claim in absence of the afore-mentioned feature moreover does not satisfy the requirements of Article 84 EPC - in this respect reference has been made to decision T 194/84, OJ 1990, 059.

Claim 1 as maintained in its amended form is not novel since document D1 shows long "vegetation cores" and since D1 refers in the description to document D2 from which features (i) and (iii) of claim 1 are known the subject-matter of this claim belongs to the prior art.

As to the requirements of Article 56 EPC the appellant asserts that the sole figure of D1 which is a vertical section through the slope protecting system and which illustrates three pockets or cores over its height, together with the disclosure of D1 relating to the proportion between the slope surface which is covered by the cores and the one uncovered by said cores (1:3 to 1:8), is sufficient evidence that the pockets are laterally extending channels in the sense of the patent in suit. As to the characterising feature (ii) of claim 1 the appellant refers to document D2, in particular pages 111 and 208, and asserts that the system of D1 could be modified without involving an inventive step by replacing the "vegetation cores" fixed on the base wire netting by the arrangement according to D2.

VI. The counterarguments presented by the respondent can be summarised as follows:

Feature (ii) of claim 1 is disclosed in the original application; Figures 1 and 2 and the corresponding part of the description disclose (a) strip(s) 2 which is (are) continuous from edge to edge of the base strip 1.

The non-incorporation of claim 2 as granted into claim 1 as maintained contravenes neither Article 84 nor Article 123(2) EPC.

The combination of features according to valid claim 1 is not known from the cited prior art.

Since document D1 does not teach continuous channels running from the left to the right-hand end of a base wire netting strip and document D2 deals with a

different type of slope protection, the combination of D1 and D2 - if combined at all - would not result in the subject-matter of claim 1 which thus fulfills the requirement of an inventive step.

## **Reasons for the Decision**

1. The appeal is admissible.
  
2. *Amendments*
  - 2.1 Claim 1 forming the basis for maintenance of the patent in amended form in accordance with the impugned decision includes all the features of claim 1 as granted but is drafted in the two-part form and is completed by the words "characterised in that" and with additional features (i), (ii) and (iii) specified in section I above.
  
  - 2.2 Feature (i) is supported by the application as originally filed in that it states at page 5, lines 9 and 10 that the base wire netting is fastened at the top of the slope and spread on the slope. Furthermore, Figure 2 as originally filed illustrates base wire strips which are oriented "generally downhill". Therefore, additional feature (i) complies with Article 123(2) EPC.
  
  - 2.3 Figures 1 and 2 as originally filed show that a strip 2 (Figure 1) and a plurality of strips 2 (Figure 2) extend continuously from the left longitudinal edge to the right longitudinal edge of the base wire netting. Therefore, the added feature (ii) complies with the requirements of 123(2) EPC.



- 2.4 The description of the application as originally filed explicitly discloses at page 5, lines 12 and 13 that the "individual strips of (the) base wire netting 1 are fixed to each other". Feature (iii) thus satisfies the requirements of Article 123(2) EPC.
- 2.5 Since the subject-matter of said features (i), (ii) and (iii) is of a limiting character the claim has not been amended in such a way as to extend the protection conferred, and the claim thus satisfies the requirements of Article 123(3) EPC.
- 2.6 The appellant is of the opinion that the disclosure of claim 2 as granted is an essential feature of the invention and objects that this feature is missing in claim 1 as maintained in its amended form. This objection however, falls under Article 84 EPC which is not a ground for opposition. Moreover, the Board taking into account the documents on file as a whole notes that the feature corresponding to claim 2 as granted has been considered consistently as a preferred feature of the invention and as such has never been incorporated in the main claim.

It is true, as the appellant stresses in his submission of 29 March 2001, that when amendments are made to a patent during the opposition proceedings, the Board is required to examine them to ascertain whether the EPC, including Article 84 EPC, has been contravened as a result. However, the Board is not permitted to examine objections based upon Article 84 EPC if they do not arise out of the amendments made, as in the present case in which, as stated above, the subject-matter of claim 2 as granted had not been involved in amendments to claim 1 maintained by the first instance.

Therefore, the appellant's reference to T 194/84 relating to the allowability of amendments to claims during the examining procedure in view of the originally filed documents is not relevant to the present case.

3. *Novelty*

Document D1 describes a system of vegetation cores for protection of slopes against erosion. The vegetation cores of D1 are formed by strips 1 the lower edges of which being fixed to the base wire netting B and the upper edges being fixed to points 3 on the base wire netting B by means of wires 2 so that the strips 1 form "vegetation cores" or "pockets" to be filled with earth, turf or other similar material.

According to D1 the strips 1 are of about 80cm width and are arranged in appropriate spacing (3 to 8 metre). The ratio between the surface covered with vegetation cores and the rest of the surface is according to D1 within the range 1:3 and 1:8. On the basis of the above dimensions the appellant estimating the lateral width of the strips 1 at 1 metre argues that the only possibility for a realization of the system according to D1 would be continuous channels running from the left- to the righthand edges of the base wire netting B and therefore anticipating the subject-matter of claim 1.

However, this calculation by the appellant was based on a spacing between the top of one pocket and the bottom of the next higher pocket of 3 metres. The respondent, however, agreed that the spacing of 3 metres was between the bottoms of successive pockets, which would

allow separate pockets.

Since the Board was not able to establish from D1 which spacing was correct, it has reached the conclusion that D1 must be considered to leave open the construction of the base wire netting B and the actual lateral extent of the pockets afixed thereto so that the characterising features (i), (ii) and (iii) of claim 1 are thus novel over D1.

The subject-matter of claim 1 as maintained in its amended form thus satisfies the requirements of Article 54 EPC.

4. *Inventive step*

4.1 It is established jurisprudence of the Boards of Appeal that the objective assessment of inventive step has to be preceded by the determination of the technical problem which the invention addresses and solves and that the technical problem is to be formulated in the light of the closest state of the art.

Document D1 is the closest prior art with respect to the subject-matter of the independent claim 1 as maintained in its amended form.

4.2 The disclosure of D1 taken as a whole leads to the conclusion that "the vegetation cores" or "pockets" are short in length and do not extend to any great extent over the width of the slope. Because of their shape they suffer from an insufficient protection against erosion of the filling material at the respective end regions of said "pockets", especially on steep slopes, i.e. slopes with inclines exceeding 45°.

Moreover, installation of the "pockets" and setting out vegetation in said "pockets" is difficult on steep slopes.

- 4.3 The technical problem underlying the invention is thus the provision of a system for protection of slopes which allows for better retaining of filling material by the strips and the simplification of the installation thereof on steep slopes.

The Board is satisfied that the problem underlying the patent in suit has successfully been solved, (see the description of the patent at page 3, lines 16 to 36 of the patent specification).

- 4.4 On the question of whether or not the proposed solution of this problem is obvious in the light of the cited prior art the following is observed:

- 4.5 Document D1 does not give an incentive to the skilled person to the solution of the above defined technical problem.

- 4.6 The argumentation of the appellant that the skilled person would have understood in view of document D2 (in particular pages 208 and 111) that the system of document D1 could be modified by replacing the "vegetation cores" fixed on the base wire netting by channels of strips fixed to the base wire as defined in claim 1 of the patent in suit does not convince the Board.

Document D2 does not deal at page 208 with the vegetation on slopes but with a completely different approach, i.e. mechanically holding loose stones on the

slope by wire netting. At page 111 of D2 it is suggested to make cuttings in the slope and then set out vegetation in said cuttings. These cuttings however weaken the slope during a certain period of time before the vegetation has grown in the slope body.

- 4.7 The skilled person would not have had any reasons to expect that by replacing in the system of D1 "vegetation cores" by "wire netting" or "cuttings" according to D2 an improved protection against erosion of slopes could be realised. Even if he had made this replacement, he would not have arrived at the subject-matter of claim 1.

The fact that with hindsight "similarities" can be found between parts of documents D1 and D2 and the opposed patent does not present evidence that it was obvious for the skilled person starting from document D1 to arrive at the present invention.

- 4.8 In the present case, once it has been stated that the wire netting strip 2 must have a certain extension according to feature (ii) of claim 1, the arrangement of the base wire netting according to (i) and (iii) appears straight forward. However this should not distract from the fact that the present invention is the first time that the aforementioned problem has been identified and consequently the first time a solution has been offered to this problem.

- 4.9 The other documents cited in the proceedings likewise give no hint of the subject-matter of claim 1. Their teaching could therefore neither *per se* nor in combination with the teaching of the documents disclosed in the foregoing paragraphs lead the skilled

person to a system according to this claim.

4.10 In view of the above, the Board concludes that the subject-matter of claim 1 as maintained in its amended form involves an inventive step within the meaning of Article 56 EPC.

For these reasons the appeal cannot be allowed.

### **Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:

A. Counillon

C. T. Wilson