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File Number: T 173/90 - 3.2.3

Application No.: 82 201 549.1

Publication No.: 0 081 273

Title of invention: Gutter profile for a glasshouse as well as a gutter made from it

Classification: A01G 9/14

D E C I S I O N
of 29 October 1991

Proprietors of the patent: J.M. VAN DER HOEVEN B.V.;
INVEKA B.V.

Opponent: I) Henssler GmbH & Co. KG
II) P.L.J. Bom Beheer B.V./Boal B.V.

Headword:

EPC Article 56

Keyword: "Part-problems technically independent of each other" -
"No combined effect as evidence of inventive step" -
"At least the solution to one part-problem is inventive"

Headnote



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Boards of Appeal

Chambres de recours

Case Number : T 173/90 - 3.2.3

D E C I S I O N
of the Technical Board of Appeal 3.2.3
of 29 October 1991

Appellant : P.L.J. Bom Beheer B.V./Boal B.V.
(Opponent II) Industriestraat 23/Hondert Margen 12
NL - 2671 CT Naaldwijk/De Lier (NL)

Representative : Konings, Lucien Marie Cornelis Joseph
OCTROOIBUREAU ARNOLD & SIEDSMA
Sweelinckplein 1
NL - 2517 GK Den Haag (NL)

Respondents : J.M. VAN DER HOEVEN B.V.
(Proprietors of the patent) Galgeweg 42
NL - 2671 MR Naaldwijk (NL)

INVEKA B.V.
Valkenlaan 6
NL - 2291 BP Wateringen (NL)

Representative : Baarslag A.D.
Nederlandsch Octrooibureau
Scheveningseweg 82
PO BOX 29720
NL - 2502 LS 's-Gravenhage (NL)

Other party : Henssler GmbH & Co. KG
(Opponent I) Forstbergweg 15
W - 7141 Beilstein (DE)

Representative : Dreiss, Hosenthien & Fuhlendorf
Gerokstrasse 6
W - 7000 Stuttgart 1 (DE)

Decision under appeal : Interlocutory decision of the Opposition Division
of the European Patent Office dated
7 December 1989 concerning maintenance of
European patent No. 0 081 273 in amended form.

Composition of the Board :

Chairman : C.T. Wilson
Members : R.E. Gryc
J.H. van Moer

Summary of Facts and Submissions

- I. European patent No. 0 081 273 comprising four claims was granted to the Respondent on 12 March 1986 on the basis of European patent application No. 82 201 549.1 filed on 3 December 1982 and claiming the priority date of 3 December 1981.
- II. A first Opponent filed a first opposition on 5 December 1986 and the Appellant filed a second opposition on 11 December 1986.

The first Opponent requested the revocation of the patent on the ground of lack of inventive step of its subject-matter mainly in view of the following documents:

D1: NL-A-7 017 622 and

D2: A prior use documentation of 1975 including drawing No. 12839/28.

The Appellant requested also the revocation of the patent for lack of inventive step in view of (D1) or:

D3: A prior use documentation of 1977 including a drawing made by the Appellant to show the construction as mounted,

D4: US-A-1 696 159 and

D5: A brochure entitled: "Lips aluminium in de tuinbouw en bloementeelt" published in 1971.

By an interlocutory decision dated 7 December 1989, the Opposition Division maintained the impugned European patent in an amended form on the basis of the description

and claims filed on 25 November 1988 and amended during the course of the oral proceedings on 9 November 1989 before the first instance.

Claim 1 as amended and maintained by the Opposition Division reads as follows:

"Gutter profile for a greenhouse, which profile lies between the roofs and can be connected to the supporting structure, which profile, seen in the cross section, comprises a downwardly and towards the center (14) tapering bottom portion (11), which bottom portion (11) at its edges, which are turned away from the center (14), merges into more steeply inclined upwardly extending side walls (16), which by means of an inwardly and a subsequently outwardly bent portion (17, 12, 13) form upwardly inclined and outwardly directed edge flanges (13) for supporting glass panes and glass rods, the outer edges (18) of the said edge flanges (13) lying vertically above the inward bend (17) of the side walls, characterised in that the inwardly bent section of the side walls (16, 17, 12, 13) extends inwardly and upwardly from the top (17) of the more steeply inclined side wall portion (16), and the inner end of the inwardly bent section merges into a planar vertical, upwardly extending side wall portion (12), the upper end of which merges into said edge flanges (13), such that condensation dripping from a glass pane is caught by said inwardly and upwardly bent section."

III. On 6 February 1990, the second Opponent lodged an appeal and filed simultaneously the Statement of Grounds. The relevant fee was paid on 8 February 1990.

The Appellant requested the revocation of the patent on the grounds that its subject-matter is not new or is deprived of an inventive step in comparison with the prior

art already cited by him in the course of the opposition procedure. To support his view, the Appellant argued mainly that Claim 1 was not clear enough to distinguish its subject-matter from the state of the art described in D1 or D5 and that it was not inventive to make a selection between only two alternatives i.e. to guide the flow of condensation water inside or outside the gutter.

The first Opponent took the opportunity to be a party to the appeal and, referring to his previous argumentation before the first instance, he pointed out that the problems solved by the invention were independent of each other, that the patent does not disclose the invention in a manner sufficiently complete for it to be carried out by a person skilled in the art, and that Claim 1 is anticipated by the prior use according to D2.

In reply, the Respondent contested the arguments of the Opponents and contended mainly that the invention lies in the configuration of the profile above the more steeply inclined side wall portion and that it should be considered as a combination of features leading to a resistant gutter which allows to collect the rain and condensation waters separately.

- V. Oral proceedings took place on 29 October 1991 in the absence of the first Opponent who had informed the Board by letter of the 10 October 1991 that he would not be attending.

At the hearing, the Appellant mainly referred to the prior use according to D3 and contended that it anticipates the subject-matter of Claim 1 in so far as foils and glass panes could be considered as alternatives and that it has not been proved that the vertical position of the gutter would be essential. He argued also that the skilled practitioner could already learn from D4 that an

external means should be provided on the outside surface of the gutter to catch the condensation water.

The Respondent contested this argumentation and pointed out that the reality of the prior use according to D3 had not been proved. He contended also that, since a foil is not rigid like a glass pane but vibrates by wind, they cannot be considered as alternatives. With regard to D4, in his opinion it would lead the skilled person in the opposite direction to the invention in so far as the gutter of D4 comprises a ridge which collects the condensation water and does not let it run along the underside of the profile.

At the end of the hearing, the Appellant requested that the decision under appeal be set aside and the opposed patent be revoked.

The Respondent requested by implication, that the appeal be dismissed and the patent be maintained as amended before the first instance.

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC and is admissible.
2. Admissibility of the amendments to Claim 1 as granted (Art. 84 and 123 EPC).

Present Claim 1 as maintained by the first instance differs from granted Claim 1 as follows:

- 2.1 Column 3, lines 58 and 63 of the patent specification:
The term "turned" and the phrase: "for supporting glass panes and glass rods" have respectively been added. This can be found or deducted from the content of the

application as originally filed and contributes to clarify the text of Claim 1. Since moreover that does not extend but limit the scope of protection of Claim 1, no objection is raised with regard to Articles 84 and 123 EPC.

2.2 Column 4, lines 2 and 4:

The term "at" and the phrase: "subsequently upwardly by means of a" were replaced respectively by the phrases: "and upwardly from" and "the inner end of the inwardly bent section merges into a planar vertical upwardly extending side wall".

Support for these amendments can be found in the description of the application as originally filed (of page 3, lines 31 to 36) and also in Figures 1 and 3. Since these modifications also do not extend the scope of protection of Claim 1, and clarify its subject-matter, no objection can be raised under Articles 84 and 123 EPC.

3. Clarity and Sufficiency of the disclosure
(Art. 100(b) EPC)

In his statement of grounds, the Appellant objected that Claim 1 does not make clear that no vertical part is incorporated either in the more steeply inclined part or in the inwardly bent portion; moreover in his opinion Claim 1 would not give any teaching about the height of the vertical section though this feature is essential with regard to the bending resistance.

According to Rule 29, the matter for which protection is sought should be defined in the claims in terms of the technical features of the invention and a disclaimer can be accepted only if the subject-matter remaining in the claim cannot be defined by positive technical features (c.f. Decision T 04/80 - OJ EPO 1982, 149). Moreover, the description and drawings shall be used to interpret the claims (Art. 69 EPC).

Since in the present case, Figures 1 and 3 of the opposed patent show clearly that neither the more steeply inclined part nor the inwardly bent portion incorporate a vertical part, Claim 1 should be interpreted accordingly and there is no need to add a disclaimer.

Regarding the height of the vertical part, it need also not be specified in Claim 1 since the aim of the invention consists in a more general sense in an improvement of the bending resistance of the gutter and this result would be obtained by the provision of any vertical portion in the sidewalls whatever its height might be.

As far as the first Opponent is concerned, he objected too that the disclosure of the invention was insufficient because no solution to avoid condensation dripping down has been given in the patent. The Board cannot accept this objection because the manner in which dripping of the condensation water is eliminated according to the invention is clearly described in Column 2, lines 5 to 12 of the specification wherein it is explicitly stated that this water runs along the underside of the profile towards the lowermost portion where it can be collected in a condensation gutter.

4. Novelty (Art. 54 EPC)

It appears clearly from the drawings of D1, D2, D4 and D5 that none of the prior gutter profiles disclosed in said anticipations comprises an inwardly bent section of the side walls extending upwardly from the top of the more steeply inclined side wall portion.

With regard to the gutter profile of D3, no upwardly inclined and outwardly directed edge flanges in the meaning of the invention and no planar vertical side wall portion can be seen in the drawings.

Consequently the Board is convinced that, in comparison with the state of the art referred to during the proceedings, the subject-matter of Claim 1 is novel.

5. The state of the art closest to the invention

Since the gutter profile described in D1 is the one among all the profiles referred to during the proceedings that comprises the most features similar to those of the profile according to Claim 1, it should be considered as the state of the art closest to the invention from which the person skilled in the art would start in accordance with the introductory part of the description of the opposed patent.

The subject-matter of Claim 1 differs from this closest state of the art by the technical features of the characterising portion of the claim.

6. Problem and Solution

6.1 As already clearly stated in the introductory part of the description of the impugned patent (c.f. Column 1, lines 17 to 48), the gutter profile according to D1 has the following drawbacks: it has a relatively low resistance to bending and gives a relatively large shadow due respectively to its small height and large width; moreover, with this known profile, the condensation water would partly be collected in the gutter and would mix with the rain water.

6.2 The problem to be solved by the present invention can, therefore, be expressed in the form of three part-problems, namely:

- (i) Condensation water should neither be discharged into the gutter nor drop downwardly on the plants of the greenhouse;
- (ii) The broadness of the gutter should be reduced so that it gives less shadow;
- (iii) The longitudinal moment of inertia of the gutter should be increased.

6.3 These three part-problems are then respectively solved, to the satisfaction of the Board, by the three characterising features of Claim 1, namely:

- (a) The inwardly bent section of the side walls extends upwardly under the outer edge flange supporting the glass panes instead of downwardly;
- (b) This bent section extends from the top of the more steeply inclined side wall portion instead of from the end of an outwardly less steeply inclined extension of said portion;
- (c) The inner end of the inwardly bent section merges into a planar vertical section instead of a curved side wall portion.

7. Inventive step

7.1 In agreement with the previous argumentation of the first Opponent before the first instance, it appears from the description of the opposed patent that the above mentioned part-problems are technically independent of each other

and that no link is to be found between the solutions given in Claim 1.

Also the Respondent failed to demonstrate that the characterising features of Claim 1 support each other in terms of effect i.e. that a functional interaction exists between the characteristics which produces an effect greater than the sum of the separate effects resulting from each measure taken separately.

Consequently, no combined effect can be taken into consideration as evidence of inventive step and it must be examined whether the claimed measures taken separately are derived in an obvious way from the prior art (c.f. Decision T 130/89, OJ EPO 1991, 514).

7.2 Regarding the feature (a) above, consisting of inclining upwardly the inwardly bent section such that condensation dripping from a glass pane is caught by said bent section the following observations are made:

When starting from the gutter according to D1, the skilled practitioner who wants to collect separately the condensation and rain water would normally first of all stop the holes through the bent portion and possibly also increase the width of said portion so that it forms a lateral gutter for condensation water as taught by D5.

Moreover, the skilled person would learn from D4 that, when the water of condensation is to be led along the outer side of the gutter down to its lower position, a means like a ridge should be provided on the outer surface in order to spread or disperse the streams of water, otherwise there is a risk that the water will overflow before finding its way down to the lower portion of the gutter.

Consequently, these teachings would not provide any indication to the skilled person to just incline upwardly the inwardly bent section of the side walls of the gutter according to D1 such that the condensation dripping down be caught by said bent section and flow freely on the outer surface of the gutter without being dispersed.

For the foregoing reasons, the Board is convinced that the modification of the gutter profile known from D1 in order to obtain a gutter according to the terms of Claim 1 does not follow plainly or logically from the prior art but implies an inventive step in the meaning of Article 56 EPC.

- 7.3 Given that the Board sees an inventive step in feature (a) of paragraph 6.3 above, it is not necessary to investigate to what extent, if any, features (b) and (c) could also be considered to contribute to the inventive step of the subject-matter of Claim 1.

Therefore the subject-matter of amended Claim 1 maintained by the first instance at the end of the Opposition proceedings is to be acknowledged as patentable.

8. Dependant Claims 2 and 3 concern particular embodiments of the connection of two profile lengths according to Claim 1 and are therefore likewise allowable.

Order

For these reasons, it is decided that:

The appeal is dismissed.

The Registrar



N. Maslin

The Chairman



C.T. Wilson

R.G.

