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D E C I S I O N
of 14 March 1996

Case Number: T 0812/94 - 3.2.3

Application Number: 89202214.6

Publication Number: 0357151

IPC: E04G 11/04, E04B 1/16

Language of the proceedings: EN

Title of invention:
Method for manufacturing a building structure

Patentee:
International Dome Systems

Opponent:
P.I.R.S. S.A.

Headword:
-

Relevant legal provisions:
EPC Art. 106, 56

Keyword:
"Reformatio in peius (main request of the non-appealing party rejected) - inventive step (affirmed for auxiliary request)"

Decisions cited:
G 0009/92

Catchword:
-



Case Number: T 0812/94 - 3.2.3

D E C I S I O N
of the Technical Board of Appeal 3.2.3
of 14 March 1996

Appellant:
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Decision under appeal: Interlocutory decision of the Opposition Division
of the European Patent Office dated 8 July 1994,
posted on 26 July 1994, concerning maintenance of
European patent No. 0 357 151 in amended form.

Composition of the Board:

Chairman: C. T. Wilson
Members: F. Brösamle
M. Aúz Castro

Summary of Facts and Submissions

I. With its decision of 8 July 1994, posted on 26 July 1994 the Opposition Division upheld the European patent No. 0 357 151 in amended form i.e. on the basis of granted Claims 1 to 3 (but not granted Claim 4).

II. Claim 1 thereof, (see EP-B1-0 357 151 Claim 1), reads as follows:

"1. Method for manufacturing a building structure in which an inflatable form (1) which has been provided with an entrance lock (12) is mounted in an airtight manner on a base or foundation (7) which form (1) by means of suitable devices is inflated and after having obtained its correct shape by inflation a foam resin layer (2) is sprayed upon the innerside of the form (1), anchors, each having a perforated foot plate (8) to which an anchoring rod (19) is attached, are placed with their plate-shaped feet (8) on said foam resin layer (2), whereby said anchoring rods (10) are inwardly directed, reinforcing rods (4) are attached to said anchoring rods (10) after spraying a first layer concrete (5') upon the foam layer (2), characterized in that primarily the foam resin layer (2) is manufactured until its final required thickness is obtained, that only thereafter the anchors (8, 10) are placed and fixed to the foam layer (2) by inserting of bent portions (9) which are cut free from the plate (8) and bent over into a position perpendicular to the plane of the plate (8) and turned away from said rod (10) and that the first concrete layer (5) is sprayed over the feet (8) of said anchors which lie against the innerside of the foam layer (2)."

Claim 1 is followed by two dependent claims, (see Claims 2 and 3 of EP-B1-0 357 151).

III. In the light of

(D1) US-A-3 277 219, and

(D2) US-A-4 155 967

and the alleged prior use of the anchor "ERICO JONES" the Opposition Division in the above decision came to the result that Claim 1 was based on an inventive step since even if it were assumed that this anchor was publicly available at the priority date it was not clear in which way this anchor had to be applied.

IV. With telefax of 26 September 1994 the Opponent - Appellant in the following - filed an appeal against the above decision paying the fee on the same day. The Statement of Grounds of Appeal was filed on 2 November 1994.

V. The Appellant requests to set aside the impugned decision and to revoke the patent.

VI. The Respondent requests dismissal of the appeal and "maintenance of the patent preferably in the original form but at any rate in the form as amended."

VII. Appellant's arguments can be summarized as follows:

- the ERICO JONES anchor has to be seen as prior art so that Claim 4 as granted cannot be upheld;
- the combination of an ERICO JONES anchor with (D1) directly leads to the method of granted Claim 1;

- the ERICO JONES anchor overcomes any possible disadvantages of the hanger or clip in form of a barbed wire according to (D1), see especially Figure 6 and column 6, lines 4 to 14, so that it would be applied in combination with a method as in (D1);
- no difference can be seen between (D1) and granted Claim 1 as far as the application of the anchor with respect to the foam layer is concerned;
- the feature that the reinforcing rods are attached to the anchors **after** spraying a first layer of concrete upon the foam layer is contained in the preamble of granted Claim 1 so that even the Respondent admits that this feature is known;
- apart from this fact it is observed that this feature is contradictory to the description of granted Figures 3a to 3f giving the impression that the reinforcing rods are fixed to the anchors after the concrete layers have been applied to the anchors;
- with respect to the problem of anchor-loosening, an article from "Bulk Solids Handling", March 1995, is filed in which article Mr van Eeden - inventor of EP-B1-0 357 151 - has indicated that the anchors are placed by punching in the foam exactly as in (D1) and that the reinforcing rods are fixed to the anchors before concrete layers are applied;
- Claim 1 as granted can therefore not define inventive subject-matter so that the patent has to be revoked.

VIII. Respondent's arguments are as follows:

- it is contested that the ERICO JONES anchor forms part of the prior art;
- apart from the question whether or not the ERICO JONES anchor forms part of the prior art it is observed that even then (D1), (D2) and the ERICO JONES anchor seen singly or in combination do not render obvious the method of granted Claim 1;
- though the deletion of granted Claim 4 was accepted in the opposition proceedings and the Respondent did not appeal against the decision of the Opposition Division it is considered to be justified to restore granted Claim 4;
- not knowing whether or not the Opponent would appeal against the decision of the Opposition Division the Proprietor would have endangered the validity of the whole patent by simply appealing himself; under these circumstances it is asked to consider the question and eventually put this question to the Enlarged Board of Appeal.

The fact that the decision of the Enlarged Board of Appeal included the opinion of a minority makes clear that a too strict application of said decision is not always justified.

Reasons for the Decision

1. The appeal is admissible.

2. *Novelty*

The issue of novelty needs no detailed arguments since the impugned decision correctly comes to the result that the method according to granted Claim 1 is novel which statement was not contested by the Appellant.

3. *Nearest prior art, problem to be solved and its solution*

3.1 Granted Claim 1, a method claim, has to be seen as a **combination of features**, (method steps), which are carried out **in a specific order**, namely application of a foam resin layer "2", placing of anchors on the foam layer of its final required thickness, application of the first concrete layer "5'" (not reference sign "5" as in granted Claim 1!) and attaching reinforcing rods "4" to the anchoring rods "10" (not reference sign "19" as in granted Claim 1!). It is not mentioned in Claim 1 that the first concrete layer "5'" is followed by (a) further concrete layer(s) but it is immediately clear to a skilled person that the reinforcing rods "4" have to be fully embedded in a further concrete layer.

3.2 According to EP-B1-0 357 151, see column 1, (D2) - consisting of a method in which the foam layer is applied layer by layer while the foot plates of the anchors are attached by means of adhesive to the first foam layer - is seen as the starting point of the claimed invention whereby the application of adhesively bonded anchors which are afterwards fully embedded with

their foot plates in a further foam layer should be avoided so that the progress of the work is not disturbed by anchors which do not maintain their proper position.

3.3 Starting from (D2) the above problem is solved by the features of granted Claim 1, namely with the steps as listed above in point 3.1.

3.4 With this method it is achieved that the foot plates of the anchors can penetrate into the full size foam layer without causing problems to the outer skin "1", furthermore that the foot plates due to their bent portions "9" protruding from the perforated foot plates "8" really get into full and reliable contact with the foam layer of the final size whereby after the application of the anchors to the final size foam layer the anchor plates are covered by a first concrete layer "5'" which in combination with the protruding bent portions safeguards a reliable mounting of the anchors so that no reason can be seen why the anchors should cause problems when the reinforcing rods "4" are attached to their anchoring rods "10".

3.5 It is obvious that with respect to (D2) the mounting of the anchors is more reliable and that the problem of the invention, (see above point 3.2), is fully solved by the combination of features laid down in granted Claim 1.

4. *Inventive step*

The assessment of the issue of inventive step leads to the following result:

4.1 The first choice to be made by a skilled person confronted with manufacturing a building structure is to decide which anchor should be relied on. The anchor

according to (D2), see Figure 3 in particular, is fully adapted for adhesively bonding its foot plate to the foam layer.

- 4.2 The question whether the ERICO JONES anchor was available to the public at the priority date of the patent in suit can be left undecided as the Opposition Division stated correctly, since even if it is assumed that the anchor did form part of the state of the art, its teaching would not lead the skilled person to the proposed solution as explained hereafter.
- 4.3 Firstly, it cannot be seen as requiring an inventive contribution of a skilled person to turn to the ERICO JONES anchor which has cut free portions and protruding bent portions which can penetrate into a foam material to achieve a solid mounting thereto. The next step to be decided by a skilled person is, however, the way in which the ERICO JONES anchor can be applied within a method for manufacturing a building structure.
- 4.4 The relevant prior art is reflected by (D2) and (D1). As set out above (D2) relies on **adhesively bonding** and is not helpful in combination with an ERICO JONES anchor having protruding bent portions and requiring a different application scheme. Even when applying an ERICO JONES anchor in combination with (D2) a skilled person is not led to the method of granted Claim 1.
- 4.5 In respect of (D1) it is doubtful whether a skilled person would turn at all to this document since its building structure is based on anchors in the form of barbed wire articles, (see reference sign "42" in Figure 6 and column 6, lines 6 to 14 thereof), which "hangers" or clips" as they are named in column 5, line 66 or column 6, lines 5 of (D1), bring their specific configuration only into effect after they are

loaded with forces in that they penetrate with their bent-over ends into the foam layer and by that resist further loads. Such a load bearing mechanism is, however, not suitable for an ERICO JONES anchor which has a base plate which prevents the anchor from penetrating too deeply into the foam layer and excludes the possibility that the outer skin is damaged.

4.6 Irrespective of the question whether or not a skilled person would consider (D1) it is evident that replacement of the known hanger or clip is only one step towards the method of granted Claim 1. A further step is the way in which an ERICO JONES anchor could be safely applied to the final size foam layer.

4.7 In (D1) a skilled person is taught that an anchor can simply be pressed into the final size foam layer whereby according to (D1) the reinforcing rods **immediately thereafter** are attached to the anchors.

4.8 This is, however, not the teaching of granted Claim 1 since there the placed anchors are embedded in a first concrete layer which covers the foot plates of the anchors. The anchors are therefore secured twofold, namely with their protruding bent portions and also with a concrete layer over their foot plates, so that a self-supporting dome structure after hardening of the concrete is in existence **before** the anchors are subject to forces from the attached reinforcing rods. The danger of failure is therefore considerably diminished when an ERICO JONES anchor is applied as in granted Claim 1 compared to the teachings of the anchors and their application in (D1).

4.9 Even if a combination of teachings according to (D1), (D2) and the ERICO JONES anchor is considered by a skilled person confronted with the solution of the

problem according to above point 3.2 there is no direct way to the method of granted Claim 1 since the skilled person would have to leave known ways of anchor mounting and to find for himself a way in which this problem could be reliably solved.

4.10 Granted Claim 1 defines therefore inventive subject-matter so that this claim is to be maintained.

4.11 Claims 2 and 3 as granted are dependent claims to granted Claim 1 and are likewise to be maintained since it is not necessary that they define inventive subject-matter for themselves. The objection of the Appellant that the dependent claims lack support by the description or suffer from incomplete disclosure in the description has not been substantiated in Appellant's letter of 11 December 1995, so that this objection is irrelevant.

5. Appellant's further arguments are also not convincing:

It is irrelevant in the present case in which way the inventor has commented on a method for manufacturing a building structure in an article published years after the priority date of the attacked patent, (see article from "Bulk Solids Handling" filed by the Respondent with letter of 11 December 1995).

Due to the fact that the ERICO JONES anchor comprises a foot plate there is a considerable difference in its application to the foam layer and when thrust-loaded compared to the wire-like anchor of (D1), so that Appellant's counterargument is not supported by the facts.

As set out above the Board would have preferred a one part form of Claim 1 but was bound by the request(s) of the Appellant. Nevertheless granted Claim 1 clearly distinguishes its method from the teachings of (D1) and (D2). A clarity objection, namely figures being contradictory to their description, is again not envisaged in Article 100 EPC and therefore also irrelevant for the validity of the patent.

6. *Request of the Respondent*

- 6.1 The maintenance of the patent as granted, that is with the inclusion of claim 4 takes priority in the Respondent's request. Only as an auxiliary measure he requests the maintenance of the patent as amended which corresponds to the dismissal of the appeal.

The maintenance of the patent as granted would amount to a reformatio in peius for the Appellant insofar as he then would be placed in a worse position than without the appeal.

The Enlarged Board in its Decision of 14 July 1994 - G 9/92, OJ EPO 1994, 875 - has decided this question, reaching the conclusion that requests by non-appealing parties to the appeal proceedings which go beyond the Appellant's original appeal request pursuant to Rule 64(b) EPC are not admissible. Therefore, the Respondent is in this case restricted to defending the patent in the form in which it was maintained by the Opposition Division.

- 6.2 The allegation of the Respondent that he did not want to endanger the validity of the whole patent by appealing himself is erroneous.

If he had appealed, then of course the principle of the prohibition of reformatio in peius would have applied also to him. If he had been the only Appellant, the patent in amended form would not have been in danger. If he had not been the only Appellant, the risk of losing the whole patent would have been the same as it is now with the Opponent being the only Appellant. But additionally the Respondent would have had the possibility of requesting the maintenance of the patent as granted.

- 6.3 The Respondent's suggestion to refer in view of the opinion of a minority the question of reformatio in peius again to the Enlarged Board is not followed because it is not considered appropriate. The decision of the Enlarged Board is not even two years old and is in line with other decisions of the Enlarged Board which all restrict the applicability of Article 114(1) EPC and which are referred to in that decision. The Board therefore has no reason to believe that the Enlarged Board will change its jurisprudence in the near future.

Since this decision is in favour of the Respondent oral proceedings have not to be carried out.

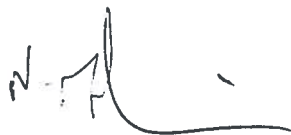
Order

For these reasons it is decided that:

The appeal is dismissed.

The request of the Respondent to set aside the decision under appeal and to maintain the patent as granted is rejected.

The Registrar:



N. Maslin

The Chairman:



C. T. Wilson