

DECISIONS OF THE BOARDS OF APPEAL

Decision of Technical Board of Appeal 3.2.1 dated 18 July 2002

T 131/01 - 3.2.1

(Language of the proceedings)

Composition of the board:

Chairman: F. Gumbel

Members: M. Ceyte

G. Weiss

Patent proprietor/Respondent: Mather Seal Company

Opponent/Appellant: CR Elastomere GmbH

Headword: Fresh ground for opposition/MATHER SEAL COMPANY

Article: 54, 56, 100(a), 104(1), 114(2) EPC

Rule: 55(c), 71a(1) EPC

**Keyword: "Admissibility of appeal (yes)" - "Admissibility of opposition (yes)" -
"Ground of lack of inventive step in respect of alleged novelty destroying prior
art raised in the notice of opposition but not specifically substantiated" -
"Fresh ground of opposition (no)" - "Arguments submitted late (not excluded
under Article 114(2) and Rule 71a(1))" - "Request for apportionment of costs
(refused)"**

Headnote

In a case where a patent has been opposed under Article 100(a) EPC on the grounds of lack of novelty and inventive step having regard to a prior art document, and the ground of lack of novelty has been substantiated pursuant to Rule 55(c), a specific substantiation of the ground of lack of inventive step is neither necessary - given that novelty is a prerequisite for determining whether an invention involves an inventive step and such prerequisite is allegedly not satisfied - nor generally possible without contradicting the reasoning presented in support of lack of novelty.

In such a case, the objection of lack of inventive step is not a fresh ground for opposition and can consequently be examined in the appeal proceedings without the agreement of the patentee (see point 3.1 of the reasons).

Summary of facts and submissions

I. The Respondent is proprietor of European patent No. 0 771 398 (application No. 95 926 656.0).

Independent claims 1 and 10 as granted read as follows:

"1. A shaft seal (8), comprising:

an annular plastic disk (14) having an outer edge and an inner edge (35) concentric around a central axis (47) of the disk, said disk having a sealing surface (16) engageable with a shaft surface (18) around the inner edge of the disk and

first (27) and second (29) spiral grooves provided in said sealing surface for pumping liquid through said grooves in both directions of shaft rotation, characterised in that said first grooves (27) are spiralled in a first direction radially outwardly from said

central axis (47) and said second grooves (29) are spiralled in an opposite second direction radially outwardly from said central axis (47); and, each spiral groove (27, 29) defining at least one full spiral turn in each of said first and second directions around the central axis (47), said grooves (27, 29) being staggered so that each turn on said first groove (27) intersects with a corresponding turn on said second groove (29)."

"10. A method for forming a bidirectional hydrodynamic shaft sealing disk (14) from a plastic material, wherein said method comprises forming a first spiral cut (27) in said plastic material which spirals radially outwardly over at least one full spiral turn in one direction (57) and forming a second spiral cut (29) in said plastic material which spirals radially outwardly over at least one full spiral turn in a second direction (58) opposite to said first direction such that said first and second spiral cuts intersect (51) one another."

II. The patent was opposed by the appellant on the grounds of lack of novelty and lack of inventive step, having regard to:

DE-A-2 021 382, hereinafter referred to as DE citation.

In the notice of opposition, the appellant submitted, as a precaution in case the patent proprietor should contest the arguments relating to novelty, that the DE citation anticipated the subject-matter of the claim in such a way that the skilled person would not have to use an inventive step. The appellant did not go into further detail.

III. In a decision posted on 22 January 2001 the opposition division rejected the opposition.

The decision held that

- the opposition was admissible having regard to the ground of lack of novelty, which was properly submitted and substantiated in accordance with Rule 55(c) EPC;

- the allegation of lack of inventive step had not been substantiated in the notice of opposition, but only during the oral proceedings. Since this substantiation was not considered to be relevant *prima facie*, they decided to disregard it making use of their discretionary power in the light of the case law.

According to the minutes of the oral proceedings, reference was made in this respect to Rule 71a(1) EPC and the Guidelines for Examination, E-III, 8-6.

IV. On 27 January 2001, the appellant (opponent) lodged an appeal against the decision and paid the prescribed appeal fee.

The statement of grounds of appeal was filed on the same day.

V. Oral proceedings before the Board were held on 18 July 2002.

The appellant (opponent) requested that the decision under appeal be set aside and that the European patent be revoked in its entirety.

The respondent (patentee) requested that the appeal be dismissed and that the patent be maintained as granted. Furthermore, it requested apportionment of costs in case the Board should accept the opposition ground of lack of inventive step.

VI. In support of its request, the appellant essentially made the following submissions:

(i) The European patent had been opposed on the grounds of lack of novelty having regard to the DE citation and lack of inventive step having regard to the same prior

art. It was not disputed that the ground of lack of novelty had been sufficiently substantiated pursuant to Rule 55(c) EPC. The question whether the claimed invention lacked an inventive step vis-à-vis a prior art document arose only if novelty was present, ie if there was some difference between the claimed invention and that prior art. It followed from the above that it was in principle normally not possible to substantiate lack of inventive step having regard to a prior art document without contradicting the previous finding of lack of novelty having regard to such prior art.

If an opponent wanted to be coherent and logical in its findings of lack of novelty vis-à-vis a prior art document and lack of inventive step vis-à-vis such prior art, he had no choice but to argue as in the present case ie to submit that even if certain features of the claimed subject-matter should not be considered to be identical in every detail with those of the prior art document, these differences would in any case be very minor and consequently not sufficient to impart an inventive step to the claimed subject-matter. Thus, in the present case the objection of lack of inventive step having regard to the novelty-destroying prior art could hardly be better reasoned in the notice of opposition and therefore did not constitute a new or fresh ground for opposition.

(ii) The DE citation disclosed a shaft seal having an annular disc made of a plastic material. In order to improve the sealing, the disc was provided with some form of return feed screw or feedback scroll formed by a helical ridge or groove on the seal surface. It was said that by suitable selection of the direction of the helix in relation to the normal direction of the shaft, the effect of relative rotation was to feed back oil tending to leak past the seal.

This known shaft seal was designed to effect feedback of oil in either direction of shaft rotation. It comprised two intersecting oppositely directed sets of helical ridges on the seal surface. Since the helical ridges were provided on the frusto-conical portion of the seal, they also defined a spiral. Furthermore, since it was stated in the

introductory part of the DE citation that the feedback effect may be achieved either by ridges or by grooves, it was immediately apparent to any skilled reader that the ridges of the depicted embodiment could be replaced by grooves. Therefore, the shaft seal of claim 1 differed from the prior art merely in that the grooves defined at least one full spiral around the seal central axis. In the DE citation the active frusto-conical portion of the shaft seal was relatively narrow, so that the groove or ridge which was provided thereon spiralled only for about one half turn. This meant that the alleged invention resided in the obvious choice of a particular length of the spiral. Evidently the skilled person would, in the case of a shaft seal having a frusto-conical portion of larger width, lengthen the spiral in order to achieve a better feedback effect and thus arrive at the claimed shaft seal, which thus lacked an inventive step.

The same applied to method claim 10 with regard to the fact that the additional feature of producing the spiral grooves by cutting was well known in the art (see, for example, US-A-3 857 156).

VII. The respondent (patentee) rejected in detail the arguments brought forward by the appellant and submitted in essence the following:

(i) As to the admissibility of the appeal

In the notice of appeal, the appellant (opponent) had presented arguments solely regarding the lack of inventive step of claims 1 and 10.

It had not contested that the decision relating to the admissibility of inventive step arguments was incorrect, and no comments or substantiation as to why such arguments were admissible had been made.

Accordingly the appeal was inadmissible for lack of adequate substantiation, having regard to established case law (see, inter alia T 213/85, OJ EPO 1987, 482).

(ii) As to the admissibility of the alleged ground of lack of inventive step

In decision G 9/91 and opinion G 10/91 (OJ 1993, 408 and 420) the Enlarged Board of Appeal had held that only the grounds properly raised and substantiated in the notice of opposition should be considered by the opposition division or Board of Appeal.

In the present case, the notice of opposition only briefly mentioned lack of inventive step as a ground of opposition. No substantiation as required by Rule 55(c) EPC was provided. As highlighted in the opposition division's decision, the objection of lack of inventive step was therefore unsubstantiated, and was not *prima facie* considered relevant.

The appellant was, in effect, raising objections on the basis of lack of inventive step for the first time in the statement of grounds. This was after the opponent had accepted that the original novelty objection (the only objection substantiated in the notice of opposition) was incorrect and that the claimed subject-matter was novel. The main function of appeal proceedings was to review decisions of the department of first instance. It was not acceptable to allow an opponent to submit additional objections which should properly have been submitted in the notice of opposition pursuant to Rule 55(c) EPC.

A ground thus raised for the first time in the appeal proceedings therefore constituted a new ground for opposition, which was consequently inadmissible in the absence of the agreement of the patentee.

(iii) If, notwithstanding the above, the inventive step objection were to be admitted, then it was requested that an apportionment of costs under Article 104(1) EPC be made in favour of the respondent in connection with this new ground.

(iv) In any case the subject-matter of claims 1 and 10 was not rendered obvious by the available prior art.

Reasons for the decision

1. Admissibility of the appeal

The Board is unable to follow the respondent's arguments as to inadmissibility of the appeal.

It is true that decision T 213/85 (supra) cited by the respondent held that the direct lexical meaning of the phrase "statement setting out the grounds of appeal" made it clear that, in order to satisfy the criterion for admissibility, the grounds for appeal must state why in the appellant's view the contested decision cannot be valid, or else - as set out in decision T 220/83 (OJ EPO 1986, 249) - they must state the legal or factual reasons why the decision should be set aside (point 4 of the reasons). This does not however mean that an appeal which does not dispute the reasons given in the appealed decision is automatically inadmissible (see the various decisions listed under point VII-D, 7.5.2 of the Case Law of the Boards of Appeal, 4th edition 2001).

Moreover, in the case under consideration, the opposition division in fact rejected the opposition, which was based on Article 100(a) EPC (lack of novelty and lack of inventive step), taking the view that "the subject-matter of the contested patent meets the requirements of novelty and inventive step". They thus came to the conclusion that the grounds of opposition set out in Article 100(a) EPC did not prejudice the maintenance of the patent as granted (Article 102(2) EPC) and therefore rejected the opposition.

The statement of grounds clearly sets out factual reasons why in the appellant's view this conclusion is not correct and hence the decision should be set aside. There is no

doubt that the ground of lack of inventive step is sufficiently substantiated in the statement of grounds. This is not contested by the respondent (patentee).

It follows that the statement of grounds meets the requirement of Article 108, third paragraph. As the appeal also complies with the other requirements set out in Articles 106 and 107 and Rule 64 EPC, it is admissible.

2. Admissibility of the opposition

In the present case the European patent was opposed under Article 100(a) EPC on the grounds of lack of novelty having regard to the DE citation and lack of inventive step having regard to the same prior art. It is not disputed that the ground of lack of novelty was properly raised and substantiated pursuant to Rule 55(c) EPC in the notice of opposition. The Board is thus satisfied that the opposition is admissible.

Even if one accepted that the notice of opposition contains no substantiation at all as regards the ground of lack of inventive step, as alleged by the opposition division, this would not render the opposition inadmissible regarding that ground, since it is well established in the case law of the Boards that an opposition is admissible if at least one of the grounds of opposition is properly supported in accordance with Rule 55(c) EPC, as is the case here (see point 12 of the reasons for the decision G 9/91, *supra*). In other words, an opposition cannot be "partly" admissible; it is either admissible or inadmissible.

3. Admissibility of the alleged ground of lack of inventive step

3.1 In decision G 7/95 (OJ EPO 1996, 626) the Enlarged Board of Appeal held that the objections of lack of novelty and lack of inventive step under Articles 54 and 56 EPC are different legal bases within Article 100(a) EPC and consequently two different grounds for opposition. Furthermore, according to decision G 9/91 and

opinion G 10/91 (supra) a fresh ground for opposition "may in principle not be introduced at the appeal stage. ...However, an exception to the above principle is justified in case the patentee agrees that a fresh ground for opposition may be considered" (point 18 of the reasons).

In the present case, the respondent (patentee) submitted that the objection of lack of inventive step was a fresh ground for opposition and did not agree to its introduction at the appeal stage. The question therefore arises as to whether the ground of lack of inventive step in the present circumstances is a fresh ground for opposition and more precisely, whether this ground needed to be reasoned in detail, bearing in mind that if prior art destroys the novelty of the claimed subject-matter, such subject-matter obviously cannot involve an inventive step, as emphasised in decision G 7/95 (point 7.2 of the reasons).

Standard form EPO 2300.2-04.89 indicates in the relevant box that the subject-matter of the European patent is not patentable (Article 100(a) EPC). The box indicating that it lacks an inventive step (Articles 52(1), 56 EPC) has been marked with a cross. Moreover, it is apparent from the last paragraph on page 4 of the notice of opposition that the claimed subject-matter was not considered inventive vis-à-vis the DE citation even if there were any features in claim 1 which were not identically present in this prior art, since those features would be obvious for a skilled person.

Before making this statement the appellant had explained in detail in its notice of opposition why in its view there was no difference between the claimed shaft seal and the one disclosed in the DE citation, concluding that the claimed subject-matter lacked novelty having regard to this prior art. Even if this substantiation was presented within the framework of lack of novelty it should be taken into account, when examining the alleged ground of lack of inventive step, that the issue of inventive step, having regard to the same single prior art document, can from a

logical point of view only be considered if there is some difference between the invention and the prior art, i.e. if novelty can be identified.

Although in decision G 7/95 (supra) it was decided that the grounds of lack of novelty and lack of inventive step are two different grounds for opposition, this does not mean that there is no substantive connection between these two grounds, at least in a case in which the claimed invention is to be compared with the same relevant prior art document in both respects. If the claimed invention is not considered novel having regard to a prior document, it is not logically possible to assess whether this claimed invention is inventive having regard to this prior art. Substantiating a lack of inventive step objection in such a case necessarily involves looking at possible differences between the claimed subject-matter and the prior art document and would thus lead to the risk of two conflicting reasonings within the same notice of opposition, ie a first reasoning in support of lack of novelty where it is concluded that there is no difference and the further reasoning presented in support of lack of inventive step submitting that there are indeed some differences between the same claimed subject-matter and the same prior art document. In the circumstances of the present case it was thus not possible for the opponent to substantiate the ground of lack of inventive step in more detail than it did by stating that a comparison of the known shaft seal disclosed in the DE citation and that claimed in claim 1 revealed no difference, and if there were some differences which could not be seen at this time, these could only be so minor that they would not be able to impart an inventive step to the claimed subject-matter.

Summarising, in a case where a patent has been opposed under Article 100(a) EPC on the grounds of lack of novelty having regard to a prior art document and lack of inventive step having regard to the same prior art and the ground of lack of novelty has been substantiated pursuant to Rule 55(c) EPC, a specific substantiation of the ground of lack of inventive step is neither necessary - given that novelty is a prerequisite for determining whether an invention involves an inventive step and

such prerequisite is allegedly not satisfied - nor generally possible without contradicting the reasoning presented in support of lack of novelty.

In such a case, the objection of lack of inventive step is not a fresh ground for opposition and can consequently be examined in the appeal proceedings without the agreement of the patentee.

3.2 In any case the Board cannot accept the respondent's allegation that no substantiation at all of the alleged ground of lack of inventive step was provided in the notice of opposition as required by Rule 55(c) EPC. This provision requires that the notice of opposition should contain "an indication of the facts, evidence and arguments presented in support" of the grounds on which the opposition is based. Such "indication of the facts, evidence and arguments" in support of the grounds of opposition is often referred to as the "substantiation" of the grounds of opposition (see T 1002/92, OJ EPO 1995, 605, point 3.1 of the reasons).

In the case under consideration the notice of opposition does contain an indication of the facts and evidence presented in support of the alleged ground of lack of inventive step, in that it contains the DE citation, its analysis and the comparison made between the known shaft seal disclosed therein and that claimed in claim 1. It also contains an indication of the related arguments in support of lack of inventive step, ie that such comparison revealed no difference and if there were some differences which could not be seen these would not be of such a nature as to impart an inventive step to the claimed subject-matter, having regard to the general knowledge of a skilled person. Accordingly this substantiation in support of the ground of lack of inventive step satisfies at least formally the requirements of Rule 55(c) EPC.

The respondent's argument that the objection of lack of inventive step is not substantively relevant concerns the substantive merits and thus the allowability of

this ground for opposition and not its admissibility. It is immaterial, as far as the question of the admissibility of a ground for opposition is concerned whether or not this ground prejudices the maintenance of the patent.

3.3 It should additionally be noted that the above findings do not contradict the principles set out in the previously cited decision G 7/95 of the Enlarged Board of Appeal:

Firstly, the case dealt with by the Enlarged Board of Appeal is different to the present case in that in the latter the ground of lack of novelty, not the ground of lack of inventive step, was properly raised and substantiated in the notice of opposition.

Secondly, the above-mentioned decision of the Enlarged Board of Appeal cannot simply be applied by analogy to a case where a patent has been opposed only on the ground of lack of novelty in view of a prior document and the ground of lack of inventive step was not covered by the notice of opposition, since in the case decided by the Enlarged Board of Appeal the later finding of lack of novelty inevitably led to the conclusion that the claimed subject-matter still could not involve an inventive step whereas a finding of lack of inventive step, presupposes that the claimed subject-matter is novel vis-à-vis the closest prior art.

Finally, the above decision of the Enlarged Board of Appeal concerns a new ground of opposition which was not both raised and substantiated in the notice of opposition. It does not concern a ground for opposition which was raised but allegedly not substantiated in the notice of opposition, because both referral decisions T 937/91 and T 514/92 concern the case where a new ground of opposition was raised for the first time in the appeal proceedings.

All this indicates that the question dealt with in the present decision was left unanswered by decision G 7/95 of the Enlarged Board of Appeal.

4. *Arguments introduced late*

4.1 During the oral proceedings before the opposition division the opponent stated why in its view the skilled person would obviously have arrived at the claimed subject-matter with the aid of the DE citation.

The opposition division erred in deciding not to admit this oral submission under Rule 71a(1) EPC. As stated in Guidelines E-III, 8.6 cited by the opposition division, Rule 71a(1) EPC makes it clear that the opposition division may disregard new facts and evidence not filed before the date indicated in the summons, unless they have to be admitted because the subject-matter of the proceedings has changed.

Hence, the only possible new submissions to be disregarded if not submitted in due time are those set out in Rule 71a(1) EPC, namely "new facts and evidence".

It follows that new relevant arguments in respect of previously submitted facts presented after the time indicated in the summons must be taken into account by the opposition division under that provision.

As is apparent from the minutes of the oral proceedings, no new facts and evidence were submitted. Document DE was cited and analysed in the notice of opposition, so that its content does not constitute new facts.

4.2 The Board can also see no justification for the opposition division not having admitted new arguments presented at the oral proceedings in the exercise of their discretion under Article 114(2) EPC. This provision, as worded in all three languages, is also concerned with facts and evidence which are introduced late, but not with arguments ("Tatsachen und Beweismittel" in the German text and "faits et preuves" in the French text). In its opinion G 4/92 (OJ EPO 1994, 149) the Enlarged

Board defines "new arguments" as being not new grounds or evidence, "but reasons based on the facts and evidence" (see point 10 of the reasons).

Therefore in the Board's view arguments introduced late cannot be excluded under Article 114(2) EPC.

5. *Novelty*

The Board is satisfied that the subject-matter of claims 1 and 10 as granted is novel vis-à-vis the DE citation.

Since this was not disputed in the appeal proceedings there is no reason for further detailed substantiation.

6. *Inventive step*

6.1 In the patent in suit, prior art document US-A-4 118 856 (hereafter called US citation) is taken as the starting point for the claimed invention.

This US citation relates to a shaft seal having a sealing surface engageable with a shaft surface, and circular ridges or grooves provided on the sealing surface for pumping liquid in both directions of shaft rotation.

More particularly, this citation relates to a method for making such shaft seal by forming on it, while it is in the flat state as a ring or disc, a series of ridges or grooves in the shape of non-concentric segments of circles and then forming at least a portion of the ring or disc into a frusto-conical shape such that the circular ridges or grooves become helical or elliptically shaped.

The manufacture of this known shaft seal thus necessitates a two-step method, a first step of forming non-concentric grooves on a flat annular disc and a second step of forming the radially inner portion of the disc into a frusto-conical shape.

Therefore the technical problem to be solved by the present invention may be seen to consist in providing a shaft seal with improved sealing and which is easier to manufacture.

This problem is solved by the following features stated in claim 1.

(i) The grooves are spiralled radially outwardly in opposite directions and extend for at least one full turn.

(ii) The shaft seal is in the form of an annular plastic disc.

During the process of installing the shaft seal according to the claimed invention, the annular plastic disc has its radially inner portion bent axially in order to ride on the shaft and provide the said sealing surface. The claimed shaft seal is simpler to manufacture since it does not require the further step of forming its radially inner portion into a frusto-conical shape and the spiral grooves can be manufactured by a continuous cutting operation. It further provides a large contact area between the grooves and the shaft and thus has improved feedback and pumping effects.

6.2 The shaft seal disclosed in the DE citation is significantly different in type and configuration from that of the patent in suit. Whereas the main element of the claimed seal is a flat annular plastic disc comprising two flat axial end faces, the shaft seal of the DE citation is a moulded sealing ring of channel or U-shaped cross-section comprising a cylindrical outer wall, a frusto-conical inner wall and a radially extending bridging portion. The oppositely directed sets of helical ridges or grooves are moulded on the frusto-conical inner wall of the sealing ring. The outer cylindrical

wall of the sealing ring is stiffened by an L-section insert whereas the frusto-conical wall is embraced by a garter spring.

The use of spirally formed grooves which extend at least over a full spiral turn (distinguishing feature (i) above) is neither disclosed nor suggested in the DE citation and accordingly cannot be considered to be rendered obvious by the teaching of this citation.

The Board cannot accept the appellant's argument that providing grooves which extend over a full turn is the only way of improving the seal according to the DE citation in order to broaden the relatively narrow frusto-conical inner wall for a better sealing effect. For example, the cross-sectional dimensions of the grooves and their pitch could be altered, and other modifications could be made. Furthermore this submission is based upon ex post facto reasoning, since there is no suggestion at all in this DE citation that providing a full spiral turn would indeed lead to an improved seal.

There is thus no disclosure or suggestion in the DE citation of the above distinguishing features (i) and (ii). Therefore, even if the skilled person considered applying the teaching given in the DE citation to the known shaft seal in the US citation, it would not arrive at the claimed teaching.

6.3 Accordingly, in the Board's judgment the subject-matter of claim 1 cannot be derived in an obvious manner from this prior art and consequently involves an inventive step (Article 56 EPC).

7. Dependent claims 2 to 9 concern particular embodiments of the shaft seal claimed in claim 1 and are likewise allowable.

Since the shaft seal according to claim 1 is new and inventive vis-à-vis the prior art, the same necessarily applies to independent claim 10 for a process which inevitably results in the manufacture of the shaft seal claimed in claim 1.

The method according to independent claim 10 therefore also involves an inventive step (Article 56 EPC).

8. The opposition grounds thus do not prejudice the maintenance of the patent as granted.

9. Request for apportionment of costs

The request for apportionment of costs if the Board were to accept the opposition ground of lack of inventive step is apparently based on the alleged late substantiation of that ground. However, as has been explained above, the objection of lack of inventive step vis-à-vis the DE citation was properly raised in the notice of opposition and in the circumstances of the present case its substantiation could not be criticised. That request is therefore unfounded and must be rejected.

Order

For these reasons it is decided that:

1. The appeal is dismissed.
2. The request for apportionment of costs is rejected.