

Copolymers/Dupont, T124/87, OJ 1989 (1988)
(European Patent Office Boards of Appeal)

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Summary

In this case, the European Patent Office Boards of Appeal (hereinafter: EBoA) decided on the patentability of a class of compounds defined by parameters within numerical ranges. It denied the grant of a patent, finding that the invention lacked novelty and an inventive step.

The facts

The appellant and patent holder in the present case was DuPont Canada Inc. (hereinafter: the appellant) and the respondents were BASF AG (hereinafter respondent I) and Union Carbide Corporation (hereinafter: respondent II). On 19 January 1983 the appellant was granted a patent for a patent application (No. 79 300 004.3. The relevant claim, Nr. 1, reads as follows:

"A copolymer of ethylene and at least one α -olefin having 4-10 carbon atoms, said copolymer having a density in the range of about 0.940-0.960g/cm³ characterised in that it has a melt index in the range 100-200."

The respondents filed notices of opposition on 15 and 18 October 1983, requesting the revocation of the patent in accordance with Art. 100(a) EPC. On 11 November 1986, the Opposition Division revoked the patent, finding that the subject matter of claim 1 lacked novelty and an inventive step in the light of previous disclosure in a document (document (1)). It found that the proposed change of the melt index was novel as such, but lacked the inventive step as it would be the result of any routine experimentation.¹ DuPont Canada lodged an appeal against the decision on 2 April 1987. The proceedings took place on 9 August 1988. The EBoA dismissed the appeal, equally on the grounds of lack of novelty and lack of inventive step.

The legal issues

The issue at hand concerns the question whether a written document comprised in the state of the art makes available to a skilled expert as a technical teaching the subject-matter for which protection is sought in the specific claim. The EBoA had to decide on the aspects of novelty and inventive step of the invention especially with respect to the information disclosed in document (1). The appellant claimed the invention to be novel, as only the various elements, but not the combination thereof had been disclosed in document (1). Furthermore, he argued that it involved an inventive step as the problem of obtaining uniformly successful results in the manufacture of thin-walled containers was solved for the first time and the solution found not obvious to skilled persons.²

¹ See III. of decision, p.2.

² The detailed reasoning can be found on p.3 of the decision.

Novelty of the invention

The Board had to decide whether the invention was novel with regard to the information contained in document (1). The Board quotes Art. 54(1) EPC, stating that what already forms part of the state of the art cannot be patented. According to the Board, written documents comprised in the state of the art must be analyzed as to whether they disclose enough information to make available to a skilled man in a technical teaching the details of the subject-matter for that protection is sought. The Board compared in detail the information disclosed in document (1) and the features of the patent, coming to the conclusion that they either overlapped, were identical or very similar.³ It established that

"a skilled man would have no difficulty in preparing copolymers within the class defined by the claims of the disputed patent, using the process described in document (1)".⁴

Accordingly, the EBoA ruled that the appeal was to be dismissed for lack of novelty.

Inventive step of the invention

The EBoA also found a lack of inventive step in claim 1. It held that a skilled person confronted with the technical problem as it existed in the prior state of the art would immediately consider the solution found by the applicant.⁵ A skilled person would discover the solution suggested by the applicant, in fact, by conducting routine experimentation. The EBoA furthermore underlined that the potential for commercial success would not be a reason for assuming inventive step, especially since there was no urgent need to overcome the problems existing in the prior state of the art.

Points of significance

- If a prior document describes a process for the production of a class of compounds, the members of the class being defined as having any combination of values of particular parameters within numerical ranges for each of those parameters, and if all the members of the defined class of compounds can be prepared by a skilled person following such teaching, all such members are thereby made available to the public and form part of the state of the art. (Headnote of the decision)
- A claim which defines a class of compounds which overlaps with the class described in a prior document lacks novelty. This holds even when the specifically described examples in the prior document only prepare compounds whose parameters are outside the claimed class.
- The EBoA highlighted that its findings did not change the principal admissibility of selection patents under the European Patent Convention. A selection patent is a patent under which a single element or a small segment within a large known group is selected and independently claimed based on a particular feature not mentioned in the large (and previously patented) group.⁶

³ Ibid. §3.4.

⁴ Ibid.

⁵ Ibid. §§5.3 and 5.4.

⁶ WHO, ICTSD, UNCTAD, Guidelines for the examination of pharmaceutical patents: developing a public health perspective, by Carlos Correa, 2007, p. 14. Available at <https://ipaccessmeds.southcentre.int/wp-content/uploads/2019/07/ICTSD-WHO-WorkingPaper.pdf>

The EBoA clarified that the case at hand was different, as both the prior art document and the claimed invention concerned classes of compounds, and not small single elements selected from a larger group.

- The patentability of selection inventions is not mandatory under multilateral minimum standards. WTO Members are free under the TRIPS Agreement to decide to what extent selection inventions should be patentable, as long as the patentability criteria of novelty, inventive step and industrial application are respected. Applied strictly, the novelty requirement could be used to exclude the patentability of selection inventions, based on the understanding that the newly claimed selection was part of the earlier disclosed group (i.e. prior art).⁷ Such approach tends to be beneficial to the producers of generic drugs, as it prevents the extension of patent protection from a previously patented group of compounds to a subsequently selected element of the same group.
- The potential for commercial success is by itself no compelling reason for assuming inventive step. The assessment might be different in cases where in addition, there is an urgent need to solve problems existing in the prior state of the art.

Key words

Patent, patentability, novelty, state of the art, selection inventions, inventive step, Art. 54(1) EPC, European Patent Office, Board of Appeal.

Available at: <https://www.epo.org/law-practice/case-law-appeals/recent/t870124ex1.html>

⁷ UNCTAD, Using Intellectual Property Rights to Stimulate Pharmaceutical Production in Developing Countries: A Reference Guide, p. 84. Available at https://unctad.org/system/files/official-document/diaepcb2009d19_en.pdf