

ARTICLE:

**THE DOCTRINE OF EQUIVALENTS
THROUGH THE EYES OF
THE EUROPEAN PATENT CONVENTION**

Alessandro Steinfl*

I. INTRODUCTION

During infringement proceedings, the analysis performed by courts is usually divided into two steps. In a first step the question is whether *literal* infringement is present or not, *i.e.* whether the challenger's product exactly falls within the boundaries of the patentee's claims or not. In the absence of literal infringement, a second step is that of interpreting the claims beyond their strict literal meaning, extending the scope of the claims to features or steps that are *equivalent* to those textually claimed. This second interpretation may be referred to as *the doctrine of equivalents*.

When applied, the doctrine of equivalents includes consideration of the subject matter that was given up during prosecution of the patent. That subject matter may not be recaptured through the concept of equivalence. This limitation is called *prosecution history estoppel*. It prevents patentees from enforcing their claims against an otherwise equivalent feature in an accused device if that feature was excluded by way of amendments to the claims. Such amendment would have been effected during the prosecution of the application to distinguish the invention from the prior art.

II. THE EUROPEAN SITUATION

It is well known that, in the absence of a Community patent system and of Community patent Courts, the European Patent Convention, while providing for a common basis of interpretation and a common scope of protection for European patents in all member states, still assigns to national Courts the duty of deciding nullity and infringement cases relating to granted European patents.

While it is true that a European patent has the same effect and confers the same rights as a national patent in each designated country, the national laws of the various European countries, even if similar among themselves,

* European Patent Attorney, LADAS & PARRY, Los Angeles.

are differently interpreted country by country. This consideration is important because, unlike patent applicants outside the European Patent Convention, who can prepare different applications for each national system and thereby account for differences of interpretation and scope of protection, European Patent Convention applicants are bound by a single description and a single set of claims for enforcement in each national system.

Through the eyes of prosecution history estoppel as applied to the doctrine of equivalents, this also means that a particular action during the European prosecution phase (*e.g.* the insertion of a limiting feature in a claim and the attached comments when explaining such insertion) could be interpreted in different ways by the various national Courts.

One way of overcoming this problem appears to be that of establishing “common” Community Patent Courts, as already provided by the not yet ratified Community Patent Convention. However, the birth of this welcome Community Convention appears very distant. This means that another feasible alternative is that of trying to interpret the European Patent Convention in a common way.

In the following section we will go through some Articles of the European Patent Convention and will also make reference to the Guidelines and decisions of the Boards of Appeal of the European Patent Office. The aim is to give a starting point for interpreting the doctrine of equivalents in the eyes of the European Patent Convention.

III. HOW THE PUBLIC CAN REQUEST A FILE INSPECTION OF A EUROPEAN CASE

A request for file inspection is obviously the first step for assessing the presence of possible limits to be applied to the doctrine of equivalents. Third parties can request a copy of the prosecution history of a granted European patent or of a European patent application pursuant to Article 128 and Rules 93 to 96 of the European Patent Convention. A copy of this Article and of these Rules is attached at the end of the present paper (Annex 1).

A. Before publication

European applications are published eighteen months after their filing date, or priority date if applicable. As a general principle, the files relating to not-yet published European patent applications are not made available for inspection without the consent of the applicant. Therefore, if a third party desires the non-published documents in the file of an European patent application, it has first to obtain the permission of the applicant and then submit this authorization with its request. Alternatively, the EPO will ask the applicant for his consent.

An exception applies in the case of a legal dispute. The European Patent Convention states that any person who can prove that the applicant for a European patent has invoked the rights under the application against

said person may inspect the files prior to the publication of that application and without the consent of the applicant. Should, for example, a person receive a warning letter from the applicant for a European patent, this person could use that letter in order to request the Receiving Section of the European Patent Office to allow inspection of the file relating to that application. As soon as a third party requests inspection of the files under such a procedure, the applicant is notified of the third's party identity. This means that, when requesting inspection of the files on behalf of a third party pursuant to the above provision, the name and address of the third party—the real party in interest—must be given.

B. After publication

Subsequent to the publication of the European patent application, the files relating to such application and the resulting European patent may be inspected without the need to satisfy any particular condition, subject however to some restrictions. The most relevant restriction is that the name of an inventor shall be excluded from inspection, should this inventor have waived his right to be mentioned as such.

C. General considerations

A request for file inspection must be filed in writing and an official fee must be paid. No particular form is required. An exemplary form for an on-line request can be found on the EPO web site (www.epo.co.at). As soon as the EPO agrees with the request, it issues a decision allowing inspection. Should the requester have paid a separate fee for directly obtaining the copies, the EPO will forward the copies to the requester, together with an invoice for the cost of the copies.

It is worth noting that according to the European Patent Convention, the file of an application can also contain observations of third parties, filed according to Article 115 of the European Patent Convention. These observations are an integral part of the files, and as such are open to inspection in accordance with Article 128. This means that observations are open to inspection even if a third party has asked that these observations be treated confidentially.

IV. FILE INSPECTION REQUESTED BY A COURT

The above restrictions for unpublished applications do not apply in the case in which a national state court is asking for an inspection of files. This is due to the fact that the European Patent Convention provides that the European Patent Office and the courts or authorities of contracting states shall, on request, give assistance to each other by communicating information or opening files for inspection. Moreover, where the European Patent Office lays files open to inspection by courts, public prosecutors' offices or

central industrial property offices, the inspection shall not be subject to the above restrictions.

V. INTERPRETING THE EXTENT OF PROTECTION OF A EUROPEAN PATENT

In order to correctly assess the scope of a claim of a granted European patent, national Courts should, of course, be aware of provisions of the European Patent Convention, which has been signed by all Countries who are a part thereof.

The European Patent Convention generally tries to offer a harmonized system of claim interpretation, together with uniform rules for patentability. In particular, Article 69 attempts to guide the members of the European Patent Convention in the direction of uniform equivalent analysis. The first paragraph of Article 69 (see Annex 2) provides that “the extent of protection conferred by a European patent or a European patent application shall be determined by the *terms* of the claims.” The terms of the claims are, in turn, interpreted in light of the description and drawings.

This approach of the European Patent Office was intended to fall somewhere between two rather extreme views of looking at claim interpretation, the first one adopted in the United Kingdom and the second one in Germany.

According to United Kingdom practice, literal (or “textual”) infringement typically was the patentee’s only remedy. Although placing a heavy burden on patent attorneys in drafting claims, this practice of course facilitated subsequent infringement evaluation. However, quite broad claims were normally granted by the UK Patent Office, probably as a reflex of the strict interpretation of the local courts.

In contrast, the German approach to both claim interpretation and infringement relied on interpreting patent claims broadly. Therefore, the claim language was heavily stretched beyond its strict literal meaning when adopting the doctrine of equivalents. This also had the consequence that the German Patent Office required more specific, concrete claim language, due to the more liberal interpretation of the claims by local courts.

In order to better substantiate the “intermediate” position of the European Patent Office, a Protocol on the Interpretation of Article 69 (See Annex 3) was adopted. The Protocol makes clear that the extent of protection is not intended to be limited “by the strict, literal meaning of the wording used in the claims.” Instead, the Protocol indicates that Article 69 seeks a scope of protection that balances “fair protection for the patentee with a reasonable degree of certainty for third parties.” This scope falls therefore between a strict, literal interpretation of the claims and a mere use of the claims as a guideline.

However, Article 69 gave (and gives) rise to several issues in Europe. In fact, while it is true that Article 69 and the Protocol permit a claim to be construed more broadly than its literal language, it is also true that they fail to specifically define that breadth. This means that European practitioners were (and are) more or less still forced to interpret the Article under the national patent system of their home states.

For example, British practitioners try to find the answer to their strict and literal interpretation of the claim language in the expression that the scope of protection “shall be determined by the terms of the claims.” German patent attorneys, on the other hand, see in the wording “terms” of the claims something which has to be interpreted differently from the claim “language.” In particular, they see a suggestion for deriving by interpretation the essential content of a claim.

VI. THE GUIDELINES FOR EXAMINATION OF THE EUROPEAN PATENT CONVENTION

The results of this intermediate approach to patent prosecution are quite well reflected in the Guidelines for Examination of the European Patent Convention. These Guidelines explicitly state that it is not necessary that every feature should be expressed in terms of a structural limitation, and allow applicants to include functional features in the claims. In order not to give to applicants an overly broad protection, the Guidelines also point out that claims which attempt to define the invention by a mere result to be achieved should not be allowed.

However, it is also pointed out that these claims could be allowed if:

the invention either can only be defined in such terms or cannot otherwise be defined more precisely without unduly restricting the scope of the claims and if the result is one which can be directly and positively verified by tests or procedures adequately specified in the description or known to the person skilled in the art and which do not require undue experimentation.

A “famous” example in the Guidelines relates to an ashtray of a particular shape and dimensions to allow a smoldering cigarette end to be automatically extinguished. It is written that, as long as the construction and shape of the ashtray are specified as clearly as possible in the claim, the relative dimensions can be defined by reference to the result to be achieved, provided that the specification includes adequate directions to enable the reader to determine the required dimensions by routine test procedures.

In addition to this, according to the Guidelines, a claim may broadly define a feature in terms of its function, even where only one example of the feature has been given in the description, provided that the skilled reader would appreciate that other means could be used for the same function. However, if the entire contents of such an application give the impression

that a function is to be carried out in a particular way, with no suggestion of alternative means, and a claim is formulated in such a way as to embrace other means, or all means, of performing the function (like for example a means plus function claim), then it is not allowed. Moreover, the description cannot merely state in vague terms that other means may be adopted, if it is not reasonably clear what they might be or how they might be used.

The paragraph above should therefore give a clear, albeit contentious rule on how to interpret the scope of a “means plus function” feature under the European Patent Convention. Moreover, care should be taken in evaluating whether, during prosecution, statements which could be restrictive on the interpretation of such feature have been made.

VII. USE OF THE TERM “EQUIVALENT” IN THE CASE LAW OF THE BOARDS OF APPEAL

When applying the doctrine of equivalents under national law, it is of interest to analyze the use of the word “equivalent” in the case law of the EPO Boards of Appeal.

A first issue relates to the assessment of novelty of an application in view of the disclosure of a prior-art document. According to the EPO, a prior-art document for novelty cannot be considered to include equivalents of the features which are explicitly or implicitly disclosed in such document. Equivalents can only be taken into account when it comes to considering *inventive step* (obviousness). This is pointed out in decision T 517/90. The Guidelines also expressly state that “when considering novelty, it is not correct to interpret the teaching of a document as embracing well-known equivalents which are not disclosed in the document; this is a matter of obviousness.”

In my opinion, the national courts should not look at this decision when assessing presence/absence of infringement under the doctrine of equivalents. A patent document should always be seen to be like a “spring.” This spring has to be compressed when the patent is used as a prior-art document, but has to be expanded when the patent is used against an infringing device or process. In the first case, the patent should be seen as a technical document, while in the second case the patent should be seen as a property right.

With reference to the inventive step (obviousness), in decision T 697/92 the Boards of Appeal of the European Patent Office dealt with the concept of “equivalent means,” by adopting a point of view which looks similar to the well-known U.S. “tripartite test.” According to the EPO, two means were equivalent if, despite having different structures, they fulfilled the same function with regard to the same result. Both means were deemed to perform the same function if they shared the same basic idea, *i.e.*, if they applied the same principle in the same way. Further, in order to be considered as equivalents, the means had to achieve the same kind and quality of result. As a consequence of this, equivalence was missing if, because of its

different structure, a first feature led to a result of the same kind but of a different quality or degree of effectiveness to that of a second feature. In the case at issue, the Board held that there was an inventive step, as the means were not equivalent. They had the same function, but they differed in the quality of the result achieved.

VIII. THE EUROPEAN BAR AGAINST THE FILING OF ADDITIONAL “EQUIVALENT” SUBJECT MATTER

In line with the above, the decision T 416/86 of the Technical Board of Appeal held that the fact that a technical means (in this case an aperture having a particular shape) was known did not take away the novelty of its equivalents (in this case apertures of different shapes producing the same effect), even if the equivalents were themselves well known. Consequently, the equivalents of a disclosed technical means, if not mentioned in the original documents, had to be considered new and therefore not disclosed. A further consequence is that the replacement of a specific feature disclosed in the invention by a broad general statement is considered an inadmissible introduction of new matter, when this general statement implicitly introduces for the first time specific features other than those originally disclosed. Therefore, the substitution in the claim of a structurally defined element of that claim by its known or disclosed function was considered as introducing new matter.

Decision T 118/88 holds that the obviousness of a feature to be added is no replacement for the original disclosure.

Finally, in decision T 265/88, the Board refused to allow originally undisclosed equivalents to be added by using a wider technical term in place of the single technical means originally disclosed.

This last decision is of particular interest with reference to the prosecution history doctrine. In particular, is this “unlucky attempt” of the applicant of relevance during a subsequent infringement proceeding? What if the infringing device falls within the scope of the amended, not-granted claim, but does not fall within the scope of the non-amended granted claim? Does the national court have to interpret the refusal of the EPO to include a broader statement in the claim as a limitation of that claim under the doctrine of equivalents? Or, does the national court have to interpret the refusal of the EPO only to the extent that the granted patent, when considered as a prior-art document (the compressed spring) should not disclose more than what is really disclosed?

The latter looks to be the correct answer, and it is also in line with the concept of “dependent patent.” In this respect, imagine that patent A claims a broad feature and that patent application B claims an important subset of that feature. It is well known that patent B can be granted, but that a device construed under the teachings of patent B could still infringe patent A. How is this possible? The manner in which this occurs is clear when we look at

the above example of the spring. When used as a prior-art document, patent A is in its “compressed” condition; while, when used as a priority right, patent A is in its “expanded” condition.

**IX. THE INTERGOVERNMENTAL CONFERENCE
OF NOVEMBER 2000, AND PROPOSED CHANGES
TO THE EUROPEAN PATENT CONVENTION**

In June 1999, an intergovernmental conference of the Contracting States discussed some issues relating to a revision of the European Patent Convention. The Conference will continue in November 2000 with a view towards adopting a revised text of the Convention. With reference to the discussion in this paper, the Administrative Council’s Committee on Patent Law has been mandated to study some new proposals, including a proposal to amend Article 69. The aim of this amendment should be to strengthen European patents by clarifying the extent of protection of the terms of a claim, with a view to both the doctrine of equivalents and prosecution history estoppel.

As pointed out above, Article 69 of the European Patent Convention fails to specifically define how broadly claim language can be construed. This new formulation of the Article (or of the Protocol) could, for example, express with more precision the extension of the construction of a claim.

As an alternative, the Protocol could contain a “test” for the construction of claim language. This test could also make some reference to prosecution history estoppel, by making reference, for example, to the fact that a claim should be interpreted not only in light of the description and of the claims, but also in light of the documents which make up part of the file history of the patent containing the claim.

ANNEX 1

ARTICLE 128 - Inspection of files

- (1) The files relating to European patent applications, which have not yet been published, shall not be made available for inspection without the consent of the applicant.
- (2) Any person who can prove that the applicant for a European patent has invoked the rights under the application against him may obtain inspection of the files prior to the publication of that application and without the consent of the applicant.
- (3) Where a European divisional application or a new European patent application filed under Article 61, paragraph 1, is published, any person may obtain inspection of the files of the earlier application prior to the publication of that application and without the consent of the relevant applicant.
- (4) Subsequent to the publication of the European patent application, the files relating to such application and the resulting European patent may be inspected on request, subject to the restrictions laid down in the Implementing Regulations.
- (5) Even prior to the publication of the European patent application, the European Patent Office may communicate the following bibliographic data to third parties or publish them:
 - (a) the number of the European patent application;
 - (b) the date of filing of the European patent application and, where the priority of a previous application is claimed, the date, State and file number of the previous application;
 - (c) the name of the applicant;
 - (d) the title of the invention;
 - (e) the Contracting States designated.

RULE 93 - Parts of the file not for inspection

The parts of the file which shall be excluded from inspection pursuant to Article 128, paragraph 4, shall be:

- (a) the documents relating to the exclusion of or objections to members of the Boards of Appeal or of the Enlarged Board of Appeal;
- (b) draft decisions and opinions, and all other documents, used for the preparation of decisions and opinions, which are not communicated to the parties;
- (c) the designation of the inventor, if he has waived his right to be mentioned under Rule 18, paragraph 1;
- (d) any other document excluded from inspection by the President of the European Patent Office on the ground that such inspection would not serve the purpose of informing the public about the European patent application or the resulting patent.

RULE 94 - Procedures for the inspection of files

(1) Inspection of the files of European patent applications and of European patents shall either be of the original document, or of copies thereof, or of technical means of storage if the files are stored in this way.

The means of inspection shall be determined by the President of the European Patent Office. Inspection of files shall be subject to the payment of an administrative fee.

(2) The inspection shall take place on the premises of the European Patent Office and, for such time as the file is with the central industrial property office of a Contracting State pursuant to an agreement concluded under the Protocol on Centralization, on the premises of the latter office. However, on request, inspection of the files shall take place on the premises of the central industrial property office of the Contracting State in whose territory the person making the request has his residence or principal place of business.

(3) On request, inspection of the files shall be effected by means of issuing copies of file documents. Such copies shall incur fees.

(4) The European Patent Office shall issue on request certified copies of the European patent application upon payment of an administrative fee.

RULE 95 - Communication of information contained in the files

Subject to the restrictions provided for in Article 128, paragraphs 1 to 4, and in Rule 93, the European Patent Office may, upon request, communicate information concerning any file of a European patent application or European patent subject to the payment of an administrative fee. However, the European Patent Office may require the exercise of the option to obtain inspection of the file itself should it deem this to be appropriate in view of the quantity of information to be supplied.

RULE 95a - Constitution, maintenance and preservation of files

(1) The European Patent Office shall constitute, maintain and preserve files relating to all European patent applications and patents.

(2) The President of the European Patent Office shall determine the form in which the files relating to European patent applications and patents shall be constituted, maintained and preserved.

(3) Documents incorporated in an electronic file shall be considered to be originals.

(4) Files relating to European patent applications and patents shall be preserved for at least five years from the end of the year in which:

- (a) the application is refused or withdrawn or is deemed to be withdrawn;
- (b) the patent is revoked pursuant to opposition proceedings; or
- (c) the patent or the extended term or corresponding protection under Article 63, paragraph 2, lapses in the last of the designated States.

(5) Without prejudice to paragraph 4, files relating to European patent applications which have given rise to divisional applications under Article 76 or new applications under Article 61, paragraph 1(b), shall be preserved for at least the same period as the files relating to any one of these last applications. The same shall apply to files relating to any resulting European patents.

RULE 96 - Additional publications by the European Patent Office

- (1) The President of the European Patent Office may provide that, and in what form, the data referred to in Article 128, paragraph 5, shall be communicated to third parties or published.
- (2) The President of the European Patent Office may provide for the publication of new or amended claims received after the time mentioned in Rule 49, paragraph 3, the form of such publication and the entry in the European Patent Bulletin of particulars concerning such claims.

ANNEX 2

ARTICLE 69 - Extent of protection

- (1) The extent of the protection conferred by a European patent or a European patent application shall be determined by the terms of the claims. Nevertheless, the description and drawings shall be used to interpret the claims.
- (2) For the period up to grant of the European patent, the extent of the protection conferred by the European patent application shall be determined by the latest filed claims contained in the publication under Article 93. However, the European patent as granted or as amended in opposition proceedings shall determine retroactively the protection conferred by the European patent application, in so far as such protection is not thereby extended.

ANNEX 3

**Protocol on the Interpretation of Article 69 of the Convention,
adopted at the Munich Diplomatic Conference for the setting up
of a European System for the Grant of Patents on 5 October 1973**

Article 69 should not be interpreted in the sense that the extent of the protection conferred by a European patent is to be understood as that defined by the strict, literal meaning of the wording used in the claims, the description and drawings being employed only for the purpose of resolving an ambiguity found in the claims. Neither should it be interpreted in the sense that the claims serve only as a guideline and that the actual protection conferred may extend to what, from a consideration of the description and drawings by a person skilled in the art, the patentee has contemplated. On the contrary, it is to be interpreted as defining a position between these extremes which combines a fair protection for the patentee with a reasonable degree of certainty for third parties.