

# Summary Report



## Question Q175

### **The role of equivalents and prosecution history in defining the scope of patent protection**

This Question was selected for study in view of developments in a number of countries which have highlighted the importance of the role of equivalents and prosecution history in defining the scope of patent protection.

Patent owners are often faced with the challenge of drafting claims which are broad enough to offer an invention protection in practice, while meeting the test of sufficiency. The application process gives applicants the opportunity to enter into a dialogue with the Patent Office, which may result in amendments to the claims, opinions of the office and the applicant on the invention and its place in the art. This may be of interest if the matters discussed in the prosecution arise in an opposition or during an infringement or validity action. The file wrapper of the patent may thus play a role in claim interpretation.

This Question seeks to:

- identify the ways in which countries provide for non-literal infringement of patent claims and infringement by equivalents;
- consider the role of prosecution history in the final scope of patent protection and in the assessment of equivalents; and
- encourage proposals for harmonisation in this field.

It does not concern questions of validity of patent claims in the light of prior art which is alleged to be "equivalent" technology.

The Reporter General received 40 Reports from Argentina, Australia, Belgium, Brazil, Bulgaria, Canada, China, Colombia, Czech Republic, Denmark, Ecuador, Egypt, Estonia, Finland, France, Germany, Hungary, India, Indonesia, Israel, Italy, Japan, Lithuania, Malaysia, Mexico, Norway, Paraguay, Philippines, Poland, Portugal, Republic of Korea, Romania, Russia, Singapore, Spain, Sweden, Switzerland, The Netherlands, United Kingdom and United States. The Reports give an interesting account of the national laws on this topic.

#### **1. If your country has a doctrine of "equivalents", what is it and how are equivalents assessed? Is it provided for by statute or case law?**

The majority of countries provide for patent protection that is broader than the literal scope of the claims. Some Groups describe this as a doctrine of "equivalents" while others are clear that the broader protection is based on a concept of non-literal infringement which does not amount to such a doctrine. Three states were clear that they had no such rule at all - Colombia, Mexico and Paraguay. 15 states describe their rules as based on case law (Argentina, Australia, Canada, Denmark, Finland, France, Germany, Japan, Republic of Korea, Netherlands, Norway, Poland, Spain, United Kingdom and United States). Other countries describe the rule as being based mainly in statute (Brazil, Bulgaria, Hungary, Israel, Portugal and Russia). It is interesting to note that different mem-

ber countries of the European Patent Convention ("EPC") are described as having different bases for the rule, even though the underlying source, the Protocol to Article 69 EPC, is similar in all member countries.

One of the best-known expressions of doctrine of equivalents is that used in the United States. There, assessment of infringement begins with a comparison between the alleged infringement and the literal words of the claims. Equivalents are assessed after that. If the alleged infringement "performs substantially the same function in substantially the same way to obtain substantially the same result" as the invention claimed there is infringement (*Graver Tank v. Linde Air Products*). This is known as the "triple identity" test - substantially the same function, same way and same result. The task of assessing infringement is an issue of fact to be decided by a jury or the judge. Generally, "pioneer" inventions, which are early or principal inventions in a field, are given a special status and a wider scope of equivalents than mere improvement patents (*Warner-Jenkinson*). However, the doctrine of equivalents cannot be used to expand the scope of a patent to encompass a product of the prior art or an obvious variation of the prior art (*Lemelson v. General Mills*).

In Japan, there is a five-step test to infringement:

*"(1) The portion of the claimed invention that is different from the accused product is not a substantial part of the claimed invention;*

*(2) The purpose of the invention is still performed by the accused product which replaces that portion by another thing or process, and the same operation and effect as those of the invention are attained by the accused product;*

*(3) The above replacement could have been easily conceived by a person skilled in the art at the time of manufacture of the accused product;*

*(4) The accused product was not part of any publicly known technology or knowledge at the time of the filing of the application, and could not have been easily conceived by a person skilled in the art based on existing knowledge of the art at the time of filing; and*

*(5) There are no special circumstances such as where the accused product was intentionally excluded from the claim by the patentee during the prosecution of patent (file wrapper estoppel)."*

It is interesting to note that this test includes the idea of file wrapper estoppel.

For the countries of the EPC the rule is set out in Article 69 EPC:

*"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."*

The protocol on the interpretation of Article 69 of the convention provides that:

*"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 contemplat-*

*ed. 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."*

The French Group noted that according to Paul Mathély: "Means having a different structure are equivalent when they perform the same function to achieve a similar result...It is therefore the identity of function which characterises the equivalence".

In the UK the courts give a patent specification a "purposive" construction, rather than a purely literal one. This aims to assess whether the patentee intended as an essential requirement of the invention strict compliance with a particular descriptive word or phrase appearing in a claim so that any variation falls outside the monopoly, even though it has no material effect on the way the invention works. This has been formulated into three separate questions (the "Protocol Questions"):

*Does the variant have a material effect on the way the invention works? If yes, the variant is outside the claim.*

*If no - Would this (i.e. that the variant has no material effect) have been obvious at the date of publication of the patent to a person skilled in the art? If no, the variant is outside the claim.*

*If yes - Would the reader skilled in the art nevertheless have understood from the language of the claim that the patentee intended that strict compliance with the primary meaning was an essential requirement of the invention? If yes, the variant is outside the claims. If no, the variant infringes.*

The first two questions are questions of fact; the third is a question of construction for the Judge to rule on the scope of the protection.

The Dutch Group noted that the test was that "equivalent measures are measures that perform essentially the same function in essentially the same way to achieve essentially the same result". This is very similar to the US test of equivalents, suggesting that there may already be practical, if not legal, harmonisation of the way courts approach the question.

The Canadian and Australian Groups noted their courts' use of the idea of purposive construction. The Australian Group noted that Australian courts sometimes still apply the "pith and marrow" approach which requires an analysis of the scope of claims based on the specification.

It can be seen that certain common themes emerge from the Group Reports:

- in most countries the protection conferred by a patent may be broader than the literal wording of the claims;
- the protection is often aimed at providing protection for the patentee balanced against certainty for third parties;
- while national approaches to assessing equivalents may vary, they all seem to point in the same direction.

These results suggest that it may be possible to arrive at a test which satisfies all National Groups.

**2. Can the scope of patent protection change with time, or is it fixed at a particular date? If it is fixed, at what date (e.g. priority, application date or date of alleged infringement)?**

There was a wide range of answers to this question, ranging from the very earliest to the very latest possible times.

The US Group noted that a patent's written disclosure is fixed as of the earliest effective filing date. Additional description or variations of the invention are considered "new matter". In theory, therefore, the scope of protection is fixed at the time of the application. However, equivalency under the doctrine of equivalents is assessed at the time of the alleged infringement and not at the time the patent was issued or applied for. As a result, the scope of protection under the doctrine of equivalents may change over time, to cover equivalent that exists at the time of infringement but which were not foreseeable at the time the original application was filed. The US Supreme Court decision in *Festo* (28 May 2002) confirms that foreseeable equivalents which were known at the time of the original application are generally not considered to be within the scope of a patent owners rights, even under the doctrine of equivalents.

Other countries where the scope of patent claim is fixed at filing include Colombia, Paraguay, Russia and Mexico. Sweden and Poland, together with Denmark, suggest that under their law the priority date is the appropriate time.

In the UK, the scope is currently assessed at the date of publication of the specification. This is followed in Australia. In Canada new patents are assessed as of the date the application is laid open. In Argentina and Ecuador the scope of protection is fixed at the time of grant.

A number of countries report that the scope of a patent changes with time. These include Japan, France (where infringement is assessed at the date of infringement and later equivalents are included), the Netherlands (where the point is not clear), Czech Republic and Korea. In Brazil and Germany the scope of patent protection may change with time.

A number of countries reported that they have no law on the point. They include Estonia, Israel, China, Hungary, Italy, Norway, Spain, the Philippines and Romania.

The Norwegian Group noted that "well-founded arguments may be raised in respect of both the priority date and the time of the alleged infringement. The latter would be at advantage to the patentee, while the priority date would probably be advantageous regarding legal administration."

Although National Groups report a variety of dates, there does seem to be agreement on the rationale. One view is that the scope of a patent does not change; however the view of what is included within the scope of the claims may change with technical developments. There is to be no enlargement of the scope after grant. Questions arise where new developments lead to alleged infringements. It seems that National Groups agree that the protection should not extend beyond the original idea or concept.

**3. Does the prosecution history play a role in determining the scope of patent protection? If so, how does it work? In particular:**

**a) Is there "file wrapper estoppel"? If so, in what circumstances does it arise?**

**b) Is there a difference between formal (e.g. oppositions) and informal (e.g. discussions with the examiners) actions in the Patent Office?**

**c) Is there a difference between actions taken by the Patent Office and by third parties?**

Answers to all the parts are taken together.

As with question 2, there was a wide range of answers to this question. In the US, Japan, Paraguay, Russia, Sweden, Bulgaria, Norway and South Korea there is a doctrine of file wrapper estoppel. In the US, this generally applies when an amendment is made during prosecution for reasons relating to patentability. It prevents a patent owner from obtaining a scope of protection that would recapture or resurrect protection that was surrendered during the course of prosecution. This type of amendment is not an absolute bar to the application of the doctrine of equivalents. There is a rebuttable presumption that narrowing a claim is for reasons of patentability - but the patent owner may show that protection has not been surrendered. This may be, for example, where the equivalent was "not foreseeable at the time of application; where the rationale underlying the amendment was not connected to the equivalent in question; or where the patentee could not have been reasonably expected to have drafted a claim which would literally have encompassed the equivalent in question".

In Japan, the Supreme Court has held that "once a patentee excludes a technology from the technical scope of a patented invention by intentionally excluding it from the scope of the claim during a patent prosecution or otherwise, while a patentee commits another act it can be outwardly interpreted as doing so, the patentee cannot make assertions that would contradict such an exclusion since such a contradiction would not be permitted in view of the legal doctrine of estoppel".

The Swedish Group noted that the preparatory documents behind the joint Nordic patent legislation (of 1963) say that "the documents of the prosecution ... maybe of relevance" when interpreting unclear claims. However, there is a limited number of decisions in this area.

A second group of countries reported that the prosecution history may be presented to the court and may be relevant to claim interpretation. The argument may be presented in different ways. Thus in Spain, Portugal and Brazil the concept of *venire contra factum proprium* prevents a patentee from denying previous acts or their consequences. In Argentina, there is a general estoppel to prevent the patentee taking opposing positions. In Israel, matters which appear on the record are important. This raises the question whether applicants may prefer to deal with patent offices orally to avoid the creation of a written record. In the Czech Republic, the record may be relevant in exceptional cases. In China, the honesty and credibility of the patentee are important.

A third group of countries in general do rely on the prosecution history to interpret the claims. This includes the UK, France, the Netherlands, Finland, Australia, Colombia, Germany, Hungary, Mexico, Canada and Switzerland.

The Ecuadorian Group noted that it would be "unfair and illegitimate for a patentee to implicitly or explicitly obtain waived claims and then try to make such protection valid in front of third parties".

The Canadian Group which describes the prosecution history as "irrelevant and inadmissible for the purpose of determining the scope of protection granted by a patent".

In the US any comments to the examiner may be relevant, and in cases in which third parties are involved (e.g. in interference or re-examination) the patentee's responses to

a third party are also relevant. In Japan, matters on the record are relevant and third party involvement is not relevant. The Dutch Group noted that in general, more weight is likely put towards the remarks of the examiner than to those of a third party. The Polish Group noted that declarations of the patent owner may be used as evidence against a funding of infringement.

In Denmark, both formal and informal actions in the patent office are relevant and statements in an opposition may be relevant. In Mexico, informal actions do not appear on the record.

Other countries (including France, the UK, Paraguay, Russia, Ecuador and Argentina) say that the matters in question 3(b) and (c) are not really an issue.

National Groups may consider whether it would be desirable for the specification or grant to show any concessions and limitations agreed by the patentee to secure the grant of the patent and that following any opposition concessions and limitations made there are also included. This would require a detailed record to be kept by the patent office, and informal communications could be discouraged.

**4. Is there any way the scope of claims can be limited outside prosecution, e.g. by estoppel or admissions?**

It appears that many Groups saw question 4 as asking about general ways in which scope might be limited. A large majority of countries answered this question "yes", giving a range of reasons how this might happen. A number of Groups said that courts will restrain unconscionable activity and noted the civil law concept of *venire contra factum proprium*. The Australian Group noted three classes of restriction of claims including the doctrine of "*approbate/reprobate*" which might prevent the patentee from adopting opposing positions on the same point; *res judicata* and issue estoppel.

The Japanese Group noted that the following may be taken into account for purposes of claim interpretation:

- (a) the description of the prior art cited in the application;
- (b) an allegation made during the prosecution of the original application in the case of a divisional application;
- (c) statements made in corresponding foreign patent applications;
- (d) statements made during negotiations for licensing; and
- (e) statements made during actions for an injunction or other actions for a declaratory judgment.

It is even the case that a Japanese court has adopted statements made in a lecture by the inventor 15 years after the invention was made as evidence for deciding the technical scope of the invention.

Groups also noted that the patentee's action or reactions might be relevant. For example in the Czech Republic claims may be relinquished; in Estonia they may be voluntarily amended.

Five countries answered the question "No", - Canada, China, Columbia, Denmark and Mexico. The Danish Group noted that the restriction through contract might be effective. The remaining Groups expressed no view on the point.

**5. Do you have any recommendations for harmonisation in this area?**

The US Group suggests that it is likely that the most that can be achieved in terms of harmonisation is for all countries to at least recognise that the doctrine should be applied in at least some cases. In addition, some form of prosecution history estoppel should apply to keep the patent owner from seeking to recapture the scope of protection given up to obtain the patent. The US Group notes that the doctrine of equivalents is based on a notion of "fundamental fairness and equity". Accordingly, they suggest it will be difficult to develop uniform guidelines to implement it. The United States have adopted a flexible approach.

The Japanese Group, supporting the five conditions for the doctrine of equivalents applied in Japan, suggests that the doctrine of equivalents should not be overly used as it may harm businesses and even research and development due to the fact that it brings some legal unpredictability. The Group noted two major characteristics of the Japanese approach. The first is that the ease of replacement is considered based on technology available at the time of infringement. The second is that the prosecution history estoppel prevents use of the doctrine by the patentee for the narrowed forfeit of the claim. The continued technological development may broaden the scope of claims unless the scope of claims is fixed to a certain time.

The UK Group believes that the UK "Protocol questions" have served as a useful guideline and could provide a useful model for harmonisation providing they are not too rigidly applied and are subject to certain refinements and suggest that it is not obvious that any one approach is better than another. In relation to the second Protocol question, it suggests it should be enough to satisfy the requirement that an immaterial variant is "obviously" so, if it would have been apparent that it was highly likely that the particular variant would have no material effect on the way the invention works. The UK Group believes that harmonisation can only be achieved through a consistent approach by the judiciary which retains flexibility to ensure that a fair balance is achieved.

The French Group supports the approach taken by the French courts and suggests the following test for the doctrine of equivalents:

*"Giving a claimed means and similar means in an alleged infringing item, there would be infringement if a claim modified in order to encompass:*

- *either the patent means described in its functionality,*
- *or both the patent means and the infringing means*

*would have been patentable at the filing date."*

The French Group believes that the introduction of estoppel is not desirable.

The Australian Group supports the middle position between that of the Australian and German Courts which could enable infringement to be found where a variant contains one or more equivalent elements, and [proposes that] this approach be tempered by taking into account matter excluded from the scope of the claims during the prosecution of the patent application.

The Dutch Group suggests that the invention should not be analysed "feature by feature" but rather as a whole. It knows that while it may be desirable to disregard the file history in assessing the scope of protection, the EPO often disregards its duty to make sure that the applicant amends the description accordingly.

The Argentinean Group supports the concept of estoppel. The Brazilian Group supports harmonisation based on the work of WIPO's standing Committee on Patents. The Swedish Group notes the SPLT the work of Q170. WIPO Document SCP/8/3 records Draft Regulations under the Substantive Patent Law Treaty. Rule 13(5) of this draft deals with equivalents. The Estonian Group supports the US approach to equivalents.

The Finnish Group notes WIPO's Draft Treaty of 1990 which suggests that infringement should include equivalents where:

- "(i) the equivalent element performs substantially the same function in substantially the same way and produces substantially the same result as the element as expressed in the claim, or*
- (ii) it is obvious to a person skilled in the art that the same result as that achieved by means of the element as expressed in the claims can be achieved by the means of the equivalent element."*

The Spanish Group supports the text of the protocol to Article 69 EPC which was agreed at the Inter-Governmental Conference 2000. This provided a new Article 2 on Equivalents.

*"For the purpose of determining the extent of protection conferred by a European patent, due account shall be taken of any element which is equivalent to an element specified in the claims."*

The Swiss Group favours the amendments to Article 69 EPC proposed but not adopted at the Inter Governmental Conference 2000. These provide:

*"Equivalents*

- (1) For the purpose of determining the extent of protection conferred by a European patent, due account shall be taken of means which at the time of the alleged infringement are equivalent to the means specified in the claims.*
- (2) A means shall generally be considered as being equivalent if it would be obvious to a person skilled in the art that using such means would achieve substantially the same result as that achieved through the means specified in the claim.*

*Prior statements ("Prosecution history estoppel")*

- (3) For the purpose of determining the extent of protection, due account shall be taken of any statement unambiguously limiting the extent of protection, made by the applicant or the proprietor of the patent in the European patent application or patent, or during proceedings concerning the grant or the validity of the European patent, in particular where the limitation was made in response to a citation of prior art."*

The Portuguese Group suggests harmonisation based on Article 69 EPC.

The Polish Group supports projection for pioneering inventions. The Hungarian Group believes that the scope of the patent protection should not change with time and that the question of equivalents should be determined at the filing date of the patent. Further, the prosecution history should be taken into account in consideration of infringement suits. The South Korean Group suggests limiting statements made by the applicant which can form an estoppel to those statements associated with narrowing the scope of claims by amendment in order to overcome the prior art projections.



The Philippines Group notes that the dilemma lies in significant differences in the application and interpretation of practically similar tests on equivalency, since boundaries within cannot be drawn with accuracy or precision.