United States of America
Etats-Unis d' Amérique
Vereinigte Staaten von Amerika

Report Q175

in the name of the US Group
by Philip C. SWAIN

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

Questions

The United States Group hereby responds to the following questions and expresses its opinions as to the current situation in the United States.

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?*

   United States law does include a "doctrine of equivalents" as a means of proving liability for patent infringement. It provides that an accused infringer can be liable for patent infringement, even if the accused device falls outside the literal scope of the written patent claims. It developed to prevent "unscrupulous copyists" from imitating a patented invention, but making minor, unimportant or insubstantial changes or substitutions to the claims to avoid infringement. *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 607 (1950).

   Assessment of the doctrine of equivalents

   Assessment of infringement begins with comparing the accused device or process to the invention described in the literal words of the patent claims, as the claims have been construed by the judge or court, to determine whether there is literal infringement. Literal infringement occurs when every limitation recited in the claim is found in the accused device. *Engel Indus., Inc. v. Lockformer Co.*, 96 F.3d 1398, 1405 (Fed. Cir. 1996).

   Equivalents are assessed after the accused device is compared to the literal words of the claims. If the accused device "performs substantially the same function in substantially the same way to obtain the same result" as the device recited in the claims, it infringes the patent under the doctrine of equivalents. *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 607 (1950). This has been called a "triple identity" test (substantially same function, same way, and same result). Another way of describing the doctrine of equivalents under American law is that, even if there is no literal infringement, the patent may be infringed if there are only "insubstantial differences" between the accused device or process and the device or process described in the literal words of the claims. *Hilton Davis Chemical Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 1521-22 (Fed. Cir. 1995), *rev'd and remanded*, 520 U.S. 17 (1997).

   The patent owner has the burden of proving infringement by a preponderance of the evidence. While the interpretation of the claims is the duty of the judge, the task of assessing infringement, literally or under the doctrine of equivalents, is an issue of fact, to be decided by a jury (if either party has asked that the case be tried before a jury) or the

judge (if both parties consent to trial before a judge). *Markman v. Westview Instruments*, Inc., 517 U.S. 370 (1996).

The assessment of equivalents is decided on an element-by-element basis. Each element, or limitation, in a patent claim is considered to be material to defining the scope of the patent rights. Thus, to prove infringement under the doctrine of equivalents, the patent owner must prove that each and every element, or its equivalent, of the invention described in the claims is found in the accused device or process. *Warner-Jenkinson*, 520 U.S. at 29; *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 935 (Fed. Cir. 1987).

Generally, "pioneer" inventions, early or principal inventions in a field, are accorded a special status and a wider scope of equivalents than mere improvement patents. *Warner-Jenkinson*, 520 U.S. at 27 n. 4.

However, the doctrine of equivalents cannot be used to expand the scope of a patent to encompass a product or process that is within the prior art, or is an obvious variation of the prior art. *Lemelson v. General Mills, Inc.*, 968 F.2d 1202 (Fed. Cir. 1992); *Wilson Sporting Goods Co. v. David Geoffrey & Assoc.*, 904 F.2d 679 (Fed. Cir. 1990).

Source of the doctrine of equivalents

The doctrine of equivalents is a common law doctrine, based on case law, going back to at least 1853, when the United States Supreme Court decided that [an "octagonal and pyramidal" railroad car was equivalent to a "cylindrical and conical" railroad car for purposes of infringement]. *Winans v. Denmead*, 56 U.S. 330 (1853). The Supreme Court considered the doctrine of equivalents a balance against the requirement of formal patent claims. The doctrine of equivalents has been consistently reaffirmed since then, by both the United States Court of Appeals for the Federal Circuit and the Supreme Court. *See, e.g., Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558 (Fed. Cir. 2000), *vacated and remanded*, 535 U.S. ___ , 122 S.Ct. 1831 (2002) ("*Festo*"); *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17 (1997); *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605 (1950).

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)?*

A patent's written disclosure is fixed as of the earliest effective filing date of the application; any additional description of the invention, or variations of the invention, that are added after the original effective filing date, are considered "new matter." *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473 (Fed. Cir. 1998); *In re Benno*, 768 F.2d 1340, 1346 (Fed. Cir. 1985). Thus, the possible scope of the patent owner's protection, or right to exclude, is theoretically fixed at the time of the application. The scope of the patent's claims is then usually narrowed by amendment during prosecution. Therefore, the scope of protection is arguably fixed at the time the claims are allowed and the patent is issued: at that time, the patent owner has the right to exclude others from making, using, selling, or offering to sell the invention described within the claims of the patent (35 U.S.C. § 154), and equivalents thereof (within the meaning of the doctrine of equivalents).

However, as a result of recent United States Supreme Court and Federal Circuit decisions, "foreseeable" equivalents, equivalent elements of an invention that were known at the time of the original application are generally not considered to be within the scope of a patent owner's rights, even under the doctrine of equivalents. *See Festo*, 535 U.S. at _____; 122 S.Ct at 1840. Determination of "equivalency" under the doctrine of equivalents is at the time of the alleged infringement, not at the time the patent was issued, or at the time the application was filed, or at the time of the application's priority date. *Warn-*

er-Jenkinson, 62 F.3d at 1519, *rev'd on other grounds*, 520 U.S. 17 (1997). Thus, under current United States law, the scope of protection under the doctrine of equivalents may change over time, to cover equivalents that exist at the time of infringement, but which were not foreseeable at the time the original application was filed. Similarly, "equivalents" to the invention described in the claims that are developed later ("later developed equivalents") infringe under the doctrine of equivalents, then it could be said that the scope of patent protection could change.

United States law on this issue appears to differ from the current EPC protocol, which seems to allow equivalents known to persons skilled in the art at the time of the application to be included within the scope of protection.

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

The doctrine of equivalents under United States patent law is limited by the doctrine of prosecution history estoppel (also called "file wrapper estoppel"). If patent claims are narrowed by amendment during the course of prosecution of the patent, the amendments may limit the scope of equivalents that the patent owner may assert in litigation. In other words, the prosecution history may be used to "estop" the patent owner from expanding the scope of his or her protection for certain elements of the claim. *Warner-Jenkinson*, 520 U.S. at 40-41.

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

"File wrapper estoppel" or "prosecution history estoppel" under United States law generally applies when an amendment, for reasons related to patentability, is made during prosecution. *Warner-Jenkinson*, 520 U.S. at 32-33. 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. *Id*.

An amendment to a patent claim during prosecution does not present an absolute bar to the application of the doctrine of equivalents. When a patent applicant chooses to narrow a claim during prosecution, there is a rebuttable presumption that the claim was amended for a reason related to patentability. Thus, there is a presumption that the scope of protection or coverage for that element was surrendered. *Festo*, 535 U.S. at ____; 122 S.Ct. at 1842 ("A patentee's decision to narrow his claims through amendment may be presumed to be a general disclaimer of the territory between the original claim and the amended claim.") The patent owner bears the burden of showing that the amendment does not surrender a particular element. *Id*.

There are only a few cases where an amendment made during prosecution is not viewed as surrendering a particular equivalent: (1) where the equivalent was "not foreseeable" at the time of the application; (2) where the rationale underlying the amendment has "no more than a tangential relation" to the equivalent in question; or (3) where the patent applicant "could not reasonably be expected to have described the substitute in question" (in other words, the patent applicant could not reasonably be expected to have drafted a claim that would have literally encompassed the equivalent in question). *Id*.

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

Prosecution history estoppel applies to any proceedings that take place and are recorded during prosecution of the patent. This includes formal amendments to claims, but could also include arguments or remarks made urging the examiner to

allow the claims, as well as comments to the examiners during interviews, to the extent such comments are recorded in written form in an interview summary. *See Elkay Mfg. Co. v Ebco Mfg. Co.*, 192 F.3d 973, 979 (Fed. Cir. 1999) ("Arguments made during the prosecution of a patent application are given the same weight as claim amendments"); *see also Standard Oil Co. v. American Cyanamid*, 774 F.2d 448 (Fed. Cir. 1985).

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

Patent prosecution under United States law is generally an ex parte process, and thus does not normally involve statements or participants by third parties. 35 U.S.C. § 122. However, third parties may sometimes become involved in the issuance or re-issuance of a patent, such as through interference proceedings, reexamination, and reissue proceedings. In such instances, a patent applicant's responses or comments to a third party's statement are considered to be part of the patent prosecution record, and may form the basis for an estoppel. *Intermatic Inc. v. Lamson & Sessions & Co.*, 273 F.3d 1355 (Fed. Cir. 2001) (amendments during reexamination can create prosecution history estoppel); *Phillips Petroleum Co. Huntsman Polymers Corp.*, 157 F.3d 866 (Fed Cir. 1998)(interference proceedings are part of the prosecution history); *Howes v. Medical Components, Inc.*, 814 F.2d 638 (Fed. Cir. 1987)(reissue proceedings are part of the prosecution history).

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

Because the determination of equivalence is a determination of fact, estoppel or admissions from a number of sources outside the prosecution can limit the scope of protection and/or the doctrine of equivalents. Statements or admissions by the inventors or patent owners, whether orally, or in documents, can be introduced to prove what is or is not within the scope of equivalents to the invention, as can the testimony of experts, texts and trustees, and the prior art. *Graver Tank*, 339 U.S. 605, 609-610 (1950).

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

The United States' recent experience with the doctrine may be helpful on the issue of harmonization. Because the doctrine of equivalents is based on a notion of fundamental fairness and equity, it will be difficult to develop uniform guidelines to implement it. Since the 1980s, the United States Court of Appeals for the Federal Circuit has made several attempts to define bright-line standards for implementing the doctrine, in order to promote certainty in application of the doctrine. For example, in the original *Festo* case, the Federal Circuit established a rigid rule that any amendment to a claim of a patent during prosecution creates an absolute bar, or an absolute estoppel, to any equivalents for the element of the claim that is amended. *Festo*, 234 F.3d 558 (Fed. Cir. 2000). The United States Supreme Court unanimously reversed, adopting a flexible bar. *Festo*, 535 U.S. _____; 122 S.Ct. 1831 (2002).

Given this experience, it is likely that the most that could be achieved in terms of harmonization is for all countries to at least recognize that the doctrine should be applied in some instances. In addition, some form of prosecution history estoppel should apply to keep the patent owner from seeking to recapture the scope of protection he or she gave up to obtain the patent.

Summary

The doctrine of equivalents is an important aspect of the law of patent infringement. It is necessary for purposes of fairness and equity, to prevent unfair subversion of the rights accorded to the owner of a patent. However, application of the doctrine of equivalents should not allow a patent owner to recapture the scope of protection given up during prosecution in order to get patent claims allowed. Therefore, prosecution history estoppel or file wrapper estoppel should serve as a limit to the scope of protection under the doctrine of equivalents, and will aid in giving the public fair notice of the limits of the doctrine of equivalents for any patented invention.

Résumé

La doctrine d'équivalents est un aspect important de la loi d'infraction de brevet. Elle est nécessaire pour les buts d'impartialité et d'équité, et pour empêcher la subversion injuste des droits selon le propriétaire d'un brevet. Cependant, l'application de la doctrine d'équivalents ne doit pas permettre à un propriétaire de brevet reprendre l'étendue de protection qu'il a renoncé pendant l'accusation dans l'ordre pour recevoir les réclamations de brevet permises. Donc, estoppel d'histoire d'accusation ou estoppel de papier de fichier doit servir comme limite à l'étendue de protection sous la doctrine d'équivalents, et aidera a donner la notification juste publique des limites de la doctrine d'équivalents pour n'importe quelle invention de brevet.

Zusammenfassung

Die Lehre von den Gegenwerten ist ein wichtiger Bestandteil der Vorschriften über Patentrechtsverletzungen. Sie verhilft den Grundsätzen der Billigkeit und Gerechtigkeit zur Durchsetzung, indem sie eine unrechtmäßige Aushöhlung der Rechte des Patentinhabers verhindert. Allerdings darf die Anwendung dieser Lehre nicht dazu führen, dass der Schutzbereich des Patents wiederum die Bestandteile erfasst, derer sich der Patentrechtsinhaber im Rahmen der Durchsetzung seiner patentrechtlichen Ansprüche begeben hat. So begrenzt diese Einschränkung die Reichweite der Lehre von den Gegenwerten dergestalt, dass die Öffentlichkeit die Grenzen einer patentierten Erfindung erkennen kann