

Strategic success with Intellectual Property complexities prevailing in US markets.

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Translates concepts to profits, consistently!

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United States patent law probably ranks as one of the most sophisticated and complex bodies of law in the world. Under the U.S. patent law, a patent not only serves as a technical disclosure for an invention to be protected, but also defines the boundaries of exclusive rights granted by the U.S. government to protect the invention. As a legal document, a U.S. patent is subjected to legal interpretation and strict scrutiny of the U.S. court system. As more companies from non-English speaking regions start pursuing patent protection in the United States, it would be to their advantage to be aware of general strategies and considerations when preparing U.S. patent applications or, more particularly, specifications and claims of the U.S. patent applications.

Importance of Carefully Drafted Specifications and Claims-

Many people, including patent attorneys, often pay more attention to drafting claims than drafting specifications. In reality, however, the specification is as important as, if not more important than, the claims. To take just one example, *the claims can be amended during the prosecution to redefine the scope of patent protection. But the specification can rarely be changed during prosecution, which means the applicant only gets one opportunity to explain how the invention works.*

In the world of patent litigation, specifications and claims always go hand-in-hand. A carefully drafted specification is particularly important when the federal district judge interprets the patent claims, for the claims must be read in light of the specification. Of course, carefully drafted claims are also essential for any patent protection because the claims directly set the scope and boundaries of the patent rights. A careless mistake, no matter how small or innocent, may have the biggest impact on the outcome of a patent litigation.

For example, in *Chef America, Inc. v. Lamb-Weston, Inc.*, Chef America tried to protect a cooking step for heating a dough *at* a certain temperature inside an oven. But Chef America drafted the claim to read "heating the . . . dough *to* a temperature in the range of about 400 degrees F. to 850 degrees F." The Federal Circuit reasoned that "to" is not "at" and, thus, the claim required the dough (not the oven) to be heated to the specified temperature. The Court then ruled that the claim was not infringed. In fact, under the Court's claim construction, this claim could not possibly be infringed unless one wanted to make burned dough.

Another example shows the importance of carefully choosing alternative language when drafting claims. In *Kustom Signals, Inc. v. Applied Concepts, Inc.*, Kustom Signals added the limitation "selecting either a greatest magnitude or highest frequency search" to the claim during prosecution and later sued Applied Concepts for patent infringement. But Applied Concept's device searched both magnitude and frequency. The Federal Circuit reasoned that "or" is not "and/or" and the claim only covered a choice between either one of two alternatives, not both. The Court then affirmed a ruling of non-infringement by Applied Concept's device. The outcome was indeed unfortunate for Kustom Signal, but it could have avoided the problem by carefully drafting the claim to read, for example, "selecting at least one of a greatest magnitude search and a highest frequency search."

Drafting the Specification-

Astute drafters of U.S. patent applications always follow a list of "do's and don'ts." A brief review of them can help an organization's efforts to obtain strong and broad patent claims in the United States. *Additionally, this point, among many others is a critical factor in an organization's Intellectual property Strategy Design & Implementation.*

Avoid Patent Profanity. Patent profanity refers to those words in the specification that call attention to a particular aspect or embodiment of the invention and thus unnecessarily limit the scope of the invention. Patent profanity should, therefore, be avoided when one prepares the patent specification. A failure to filter out those words almost always leads to undesired consequences in a future patent litigation.

For example, consider the problem that arose in *Inpro II Licensing, S.A.R.L. v. T-Mobile USA, Inc.*, where the disputed claim term was a "host interface." Inpro drafted the specification without avoiding patent profanity and characterized direct bus interfaces as a "very important" feature of the invention. Because of the unnecessary emphasis on the host interface's being a direct bus interface, the claim term "host interface" was constructed as requiring a direct parallel connection. The Federal Circuit thus held that Inpro's patent was not infringed.

Another example of patent profanity involves words such as "critical," "special," "peculiar," and "superior." In *Pharmacia & Upjohn Co. v. Mylan Pharm., Inc.* because Upjohn argued that the use of spray-dried lactose was "a critical feature" of the claimed invention during patent prosecution, the Federal Circuit held that such language was reasonably interpreted as disclaiming the use of lactose that was not spray-dried.

Similarly, in *Bayer AG v. Elan Pharmaceuticals Research Corp.*, during the prosecution, Bayer also argued the importance of a particular SSA range of 1.0 to 4 m²/g as having a "special" plateau effect, providing the "peculiar" effect of maintaining a high blood level of nifedipine, producing "unique" results, and being a "superior" and inventive range. Because of this strong language, the Court held that any SSA range above 4 m²/g was beyond the scope of Bayer's patent, so it affirmed a ruling of non-infringement of Bayer's patent.

Many other words should be avoided so as not to unnecessarily limit the scope of claims. Examples of common patent profanity include "necessary," "essential," "key," etc. the list goes on.

Watch Out for "The Summary" and "The Abstract." All parts of the specification should be carefully drafted, because any part of it can be used in the claim construction. For example, the Federal Circuit explicitly relied on statements in the "Summary of the Invention" and the "Abstract" for its claim construction.

In *C.R. Bard, Inc. v. U.S. Surgical Corp.*, when drafting the specification of the patent at issue, Bard described an inventive surgical plug as having a pleated surface, even though the claims did not require the pleated-surface limitation. The Court held that statements made in the "Summary of the Invention" and "Abstract" were descriptions of the invention as a whole and read the pleated-surface limitation into the claim term "plug." Needless to say, Bard lost its claim for infringement in the litigation.

Know Common Issues. Certain issues appear more frequently in patent applications in certain technical fields, and the drafter of a patent application should be familiar with those common issues. For example, in the arts of electrical engineering and mechanical engineering, drafters must carefully consider "means-plus-function" language.

Contrary to their broad appearance, claims written in means-plus-function language do not cover every means for performing a recited function. Instead, they are limited to the specific structures, materials, or acts disclosed in the specification, plus any equivalents, that are clearly linked to performing the function. Just recently, the Federal Circuit again made this point clear in *Aristocrat Technologies, Inc. v. International Game Technology*. In this case, Aristocrat Technologies claimed a gaming apparatus using the disputed term "control means." The patent specification described the structure corresponding to the "control means"

as a standard microprocessor-based gaming machine with appropriate programming, but without disclosing any specific algorithm for performing the recited function. The Federal Circuit held that merely stating in the specification that a standard microprocessor is the structure, without more, is not sufficient and the claim was invalid.

Consequently, it is always a good idea to disclose some specific structures, materials, or acts in the specification as exemplary embodiments, even if the original claims do not include "means-plus-function" language.

Drafting the Patent Claims-

Savvy drafters of U.S. patent claims also follow some "do's and don'ts." A brief review shows their importance.

Be Consistent. Claims should always be drafted consistently. In other words, a claim term should be used in a consistent way. Claims containing inconsistent claim terms can cause unintended consequences in a patent litigation. For example, in *Jeneric/Pentron, Inc. v. Dillon Co.*, the claim term at issue was "about." Jeneric drafted the asserted claim using the term "about" to qualify the values of many variables: the range of the maturing temperature, the coefficient of thermal expansion, and the weight percentage of leucite crystals. But Jeneric did not use "about" to qualify the weight of dental compositions recited in the same claim. Because the weight of the dental composition was not qualified by "about," the Federal Circuit held that the claim contained a mixture of imprecise and precise claim limitations, so it further imposed a strict numerical precision to the weight of the dental composition. Under the strict numerical precision, Jeneric's claim for infringement failed.

Focus on the Objective of Literal Infringement. Claims should be drafted to target literal infringement. Although the doctrine of equivalents can be used to ensnare some devices that do not literally infringe, a patent applicant should not depend on the doctrine of equivalents when drafting the claims. The doctrine of equivalents is limited by several factors, such as prosecution-history estoppel, and it often becomes unavailable in a patent litigation.

Consider what happened in *Glaxo Wellcome Inc. v. Impax Laboratories, Inc.* Glaxo amended certain claims during prosecution to recite hydroxypropyl methylcellulose (HPMC) as a sustained-release agent, in response to an enablement rejection. Glaxo's asserted claim, however, originally recited HPMC but was never amended. Nevertheless, the Federal Circuit held that prosecution-history estoppel applied to the unamended claim because the subject matter surrendered through claim amendments was also relinquished for other claims containing the same limitation. Glaxo's claim was not allowed to cover non-HPMC products, so it lost the infringement argument under the doctrine of equivalents.

Pay Attention to Markush Group Claims. Markush group claims refer to claims written in an alternative expression reciting members as belonging to a certain group. Markush group claims are frequently used in patent applications in the fields of chemical engineering and biological and pharmaceutical engineering. Although Markush group claims provide convenience and flexibility to claim drafting, they should be carefully written to avoid any potential problems.

The Problem of "Lost in Translation"-

Companies from non-English speaking countries seeking U.S. patent protection may face the issue of translation during the prosecution of patent applications and in any later patent-infringement litigations. When preparing U.S. patent applications that are directly translated from foreign patent applications, care should be taken to ensure that accurate and clear claim terms are used. Ambiguities caused by the "lost in translation" phenomenon can cause a lot of trouble in a patent litigation.

The U.S. Supreme Court explained this point in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.* According to the Court's reasoning in *Festo*, the U.S. Patent and Trademark Office might require the applicant to clarify an ambiguous term to improve the translation of a foreign word under § 112 of the U.S. Patent Law. But if a § 112 amendment is necessary and narrows the scope of the patent, even if only for

the purpose of better description, prosecution-history estoppel still applies. Thus, prosecution-history estoppel can greatly limit the reach of a patent claim and diminish the value of the patent.

Another "lost in translation" example may arise when the defendant alleges that the patent owner engaged in inequitable conduct so that the patent is unenforceable. In *Semiconductor Energy Laboratory Co. v. Samsung Electronics Co.*, Semiconductor Energy Laboratory (SEL) filed an Information Disclosure Statement during prosecution to cite a Japanese reference. SEL also submitted a partial translation of the reference along with the Japanese-language reference. Samsung asserted inequitable conduct as defense.

According to Samsung, untranslated portions were highly material to claims, the translated disclosed portion was not as material, and SEL omitted key teachings in the reference that rendered the claims unpatentable. The Federal Circuit agreed with Samsung and viewed the submission of the partial translation as an attempt to influence the examiner not to obtain a full translation of the reference, because the inventor's native language was Japanese. The Court held that SEL committed inequitable conduct and the patent was unenforceable. Consequently, patent applicants must be careful when citing foreign references or any translation of the foreign reference in the U.S. Patent and Trademark Office or in the U.S. courts.

Conclusion-

The issue is just not to decide how to draft a patent for submission to USPTO. Rather, the broader picture lies in the fact that, companies need to have an explicit IP (Intellectual Property) strategy in place... even the nitty-gritties such as documenting "who and/or how" a CC and Bcc of emails should be marked, distributed and recorded.

A carefully developed IP strategy can create highly valuable intellectual property and can save millions of dollars in potential litigation costs.

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Shruti Accelerates ROI ...

For the past 18 years, Shruti has been consistently endorsed as - “Thought Leader par excellence”, and “Strategy Expert” spearheading profitable business process improvement initiatives for her clients.

Her mantra is to "Create a Positive Change" in an organization by providing "Strategic, Substantial and Pragmatic advise" to meet organization's "Fast to Market", "Lean Processes" and “Super-Profit” objectives.

Shruti has her handle on Enterprise wide strategy including- Business strategy, Business process re-engineering & continuous improvement, Intellectual property management & capitalization, Organizational leadership & team development, Market expansions, mergers & acquisitions, Startup & early stage business development & growth, Quality risk management, Quality by design, Strategic alliances & Business process outsourcing. Through her customized “ROI strategy design”, Shruti provides cutting-edge concepts of innovation to create affordable quality products that are "Tough to copy".

She is a gold-medalist, with PhD, MBA from ITM- Southern New Hampshire University School of Business, USA with numerous patents and publications to her credit.

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