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Improving Patent Clarity

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A patent is a very valuable piece of intellectual property (or “IP”) as it provides the patent owner with a limited monopoly in her invention, a right provided for expressly in the US Constitution. This right allows the patent owner to prevent others from making, using or selling the patented invention altogether, or to grant a license permitting such activity. Generally, a patent contains a written description of the invention, figures showing the invention, and one or more sentences (i.e., “claims”) that must particularly point out and distinctly describe the invention. It is these claims, supported by the written description, that describe that which others may be prevented from making, using or selling, and thus it is critical that both the claims and the written description be unmistakably clear.

The claims of a patent, and ultimately the patent itself, represent the legal boundaries of the invention. As the old adage goes, “good fences make good neighbors.” Indeed, the United States Supreme Court has recently reconfirmed that “it is the claim that defines the invention and gives notice to the public of the limits of the patent monopoly.”¹

The US patent laws codify this concept of clear notice of the invention in 35 U.S.C. § 112. Paragraph 1 of this Section states the “enablement requirement” for a patent’s written description, known as a specification:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such **full, clear, concise, and exact terms** as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same (emphasis added).

35 U.S.C. § 112 paragraph 2 states the “definiteness requirement” for the claims:

¹ *Warner Jenkinson Co., Inc. v. Hilton Davis Chemical Co.* (95-728), 520 U.S. 17 (1997) at <http://www.law.cornell.edu/supct/html/95-728.ZO.html> .

The specification shall conclude with one or more claims **particularly pointing out and distinctly claiming the subject matter** which the applicant regards as his invention (emphasis added).

Despite these statutory requirements, the boundary of the invention claimed in a patent is sometimes elusive. Although any number of factors may lead to the ambiguity, one contributing factor often arises from the use of claim terms that are without meaning in the written description of the invention. For example, in the recent *Halliburton* case, the patent owner used the term “fragile gel” in claiming the invention without clearly stating in the written description what was meant by “fragile.”² In that case, the Court of Appeals for the Federal Circuit (CAFC) held all claims invalid because the patent did not adequately explain the meaning of “fragile” and thus did not place any limit on the scope of what was invented; i.e. the patent’s boundary was not clear enough for others to avoid it.

If the boundary created by the patent claims is ambiguous, the public has inadequate notice of the invention and it is more likely that people will inadvertently infringe. Patent (and underlying technology) licensing is a very large and important business that seeks to provide a clear and orderly method, outside of the courts, of granting permission to others to use patented inventions. However, the lack of clear boundaries creates problematic ambiguity. This ambiguity means that parties attempting in good faith to avoid claims can be accused of infringing a patent because of differences in claim interpretation. The result is often expensive lawsuits to determine the meaning of the claims, and a costly judgment if those parties are ultimately found to have interpreted the claims, in good faith, incorrectly, or costly settlement in advance of litigation.

Establishing clarity of patent claims is the responsibility of patent applicants, the United States Patent and Trademark Office (USPTO), and the courts. These interested groups need to do their part in order to more fully achieve the definitional and notice functions of all patent claims as required by the patent laws.

² *Halliburton Energy Services, Inc v M-I LLC* (Fed. Cir. 2008) at <http://www.ll.georgetown.edu/federal/judicial/fed/opinions/07opinions/07-1149.pdf>

APPLICANTS

A patent applicant must describe her invention in her application for a patent submitted to the USPTO. The application must be composed according to a very specific set of rules and laws, including those mentioned above.³ However, despite all the regulations, an applicant has a relatively large degree of freedom in claiming her invention and she should exercise the freedom responsibly by unmistakably and clearly defining the boundaries of the invention. A number of techniques should be used by the applicant in drafting the patent to improve clarity.

Use plain language, and make sure it is in the specification

First and foremost, applicants should write their claims in plain language to the extent possible, and avoid the use of overly complicated sentences populated with uniquely defined terms and phrases. This is especially important because the clearer the claim language, the clearer her patent boundary will be to the public as well as the courts.

The applicant's claim terms must also be consistent with the description of the invention provided in the specification. USPTO examiners frequently permit claims that contain terms not defined, or not even appearing, in the specification as long as the terms are discernible; i.e. the meaning is clear to a hypothetical "person having ordinary skill in the art" (PHOSITA). The PHOSITA standard will be discussed further in the USPTO section below, however exactly what level of skill constitutes "ordinary" is itself open to interpretation and inconsistently applied, so the discernibility requirement is neither clear nor as predictable as it should be.

Each and every claim term should be required to appear in the specification in order to provide context and meaning. One method for achieving compliance with this requirement is for the applicant to submit a checklist of claim terms that identifies at least one location in the specification where each term appears. The examiner would then check off each item for verification.⁴ This method would be necessary for applications submitted in hardcopy. With today's electronic submissions,⁵ there are tools that can

³ These rules are generally set forth in the patent laws, United States Code Title 35, the patent regulations, Code of Federal Regulations Title 37, and the USPTO Manual of Patent Examining Procedure (MPEP).

⁴ This would be very similar to the existing practice of an applicant submitting a list of references on an information disclosure statement, which the examiner checks off as he considers each one.

⁵ The USPTO's 2008 Annual Report gives a preliminary percentage of 72.1% of 2008 applications filed electronically. http://www.uspto.gov/web/offices/com/annual/2008/mda_05_02_03.html

highlight the location in the specification of terms used in the claims. It would be a relatively straightforward task to improve these tools to be more user-friendly and efficient. A goal would be to have an electronic filer simply submit the output of one of these improved tools along with her application, with minimal workload impact for her as well as the examiner. It would also be possible for the examiner to run the tool, although having the applicant do so would highlight any issues that could be corrected prior to submission.

Use numerals to identify claim elements

Another way to improve patent claim clarity would be to adopt the European Patent Office (EPO)'s requirement to include numerals within the claims to identify claim elements. The USPTO currently requires every claim element to be shown in figures (drawings) that are provided with the specification and the claims; each claim element shown must be identified with a specific number and the number is in turn referenced when the element is described in the specification. This allows someone reading the application to correlate the description of items in the figures with the description in the specification. Although the EPO further requires that the claims include the same numerals as shown in both the figures and the specification, the USPTO does not. The addition of numerals in the claims would add clarity and make the task of claim interpretation much easier. It would also help ensure that the name of a claim element that appears within a claim would be consistent with the name used in the specification and the figures, an infrequent occurrence in current practice. When numerals are used, the exact portion of the specification being referenced is easy to locate and there is less room for argument that the claim means something other than what was described and shown.

Some might object to using numerals as unduly narrowing the claims. Applicants generally desire broad claims to potentially enlarge the class of infringers. As an initial matter, the applicant is given wide freedom in depicting the invention and naming the claim terms. Further, more precise claims do not necessarily mean narrower claims; in some cases it can make them broader. Such precision would avoid ambiguity; when courts attempt to interpret ambiguous claims, judges will either narrowly interpret claims or invalidate them altogether. Precise claims are better for applicants than invalid ones.

Define the terms

One of the freedoms granted to applicants is the ability to be their own lexicographers. Simply stated, this means that any term may be used, even a newly created word, as long as “any special meaning assigned to a term is clearly set forth in the specification.”⁶ Some applicants provide a glossary within a specification to clearly define any specialized terms. If an applicant desires to apply a specific meaning to a term, the applicant should be required to provide a glossary defining the term; if she fails to do so, then the conventional meaning of the term should be applied. In some situations, however, establishing the conventional meaning is controversial; there are many technical dictionaries and manuals that are not necessarily consistent with one another. Accordingly, if the applicant has not expressly provided a definition of the term within the specification, there should be an order of precedence established for conventional meanings of terms. The first authority would be a dictionary cited by the applicant as the controlling dictionary, to the extent that the dictionary is publicly available. If the first authority has no definition, as a secondary authority, the USPTO should formally adopt and refer to one well known general dictionary as the USPTO controlling dictionary. While this may not provide a definition in all possible instances, it would serve to provide a conventional meaning in most instances, and also provide consistency and predictability. Specific technology groups could follow by adopting dictionaries specific to their area as a third authority. Whatever the method chosen, consideration should be given to how often the meanings would be updated, because changes over the life of a patent (up to 20 years) could radically alter the meaning of the claims and erode the clarity that was the goal in the first place.

USPTO

Once an applicant has submitted a complete and proper patent application, it is the task of the USPTO examiners to decide whether the grant of a patent is warranted. The Board of Patent Appeals and Interferences, the administrative law tribunal of the USPTO,

⁶ Memorandum to Technology Center Directors and Patent Examining Corps from John Love, Deputy Commissioner for Patent Examination Policy, titled “Indefiniteness rejections under 35 U.S.C. 112, second paragraph” page 3 at http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/section_112_2nd_09_02_2008.pdf

has recently lowered the threshold that allows a USPTO examiner to declare a claim indefinite, holding that

...if a claim is amenable to two or more plausible claim constructions, the USPTO is justified in requiring the applicant to more precisely define the metes and bounds of the claimed invention by holding the claim unpatentable under 35 USC Section 112, second paragraph, as indefinite.⁷

This lower threshold is appropriate for several reasons. First, the examiner cannot properly examine what is incomprehensible, and thus should reject the claims accordingly. It is also appropriate because the claims are still malleable during prosecution, as opposed to being relatively fixed once issued.⁸ In addition to applying this lower threshold of indefiniteness, there are some other approaches that the patent office can use in order to increase patent clarity as outlined below.

Expanded use of Rule 105

During prosecution, an examiner is able to use 37 C.F.R. § 1.105 (“Rule 105”) to require applicants to submit factual information reasonably necessary to examine the application. Examiners should make greater use of Rule 105 to ask appropriate, factual questions regarding the clarity of claims, such as the location in the specification where a claim term is defined. It must be noted, however, that responses to Rule 105 inquiries are subject to 37 C.F.R. § 1.56 (“Rule 56”) which imposes a duty to disclose information material to the patentability of the application. As such, any response to the examiner’s question could be construed as material to patentability, regardless of the question or the true materiality of the response; the applicant may be held to have violated Rule 56 by not submitting truthful information. A way to resolve this conflict and address applicants’ concerns that a response to a Rule 105 question may be viewed as a failure to disclose information giving rise to a claim of inequitable conduct, would be for the USPTO

⁷ *Ex parte Miyazaki*, Appeal No. 2007-3300 (BPAI 2008) (precedential opinion) pages 11-12 at <http://www.uspto.gov/web/offices/dcom/bpai/prec/fd073300.pdf>

⁸ The claims of a patent application can be substantively amended after issuance, but only to narrow their scope.

to deem applicant responses to Rule 105 questions to be in compliance with Rule 56, regardless of materiality.

A more consistent PHOSITA standard

Under the patent laws, one standard for determining whether the language of a claim is clear and definite is whether a hypothetical “person of ordinary skill in the art” (PHOSITA) would view the claim as clear and definite. A PHOSITA standard generally seeks to establish the educational degree and number of years of industry experience that a person of “ordinary skill” in the field of the invention possesses. Unfortunately, the PHOSITA standard is often set either too high or too low, or applied inconsistently among different issues for the same patent application. When the level of “ordinary skill” attributed to the PHOSITA is too low, the claims will be declared indefinite; if too high the claims will be allowed. To make matters more complicated, the PHOSITA standard is also called for in determining whether or not claims are obvious in light of what is known, and the two PHOSITA standards may not be the same. If the ordinary skill attributed to the PHOSITA in this instance is too low, the claims will be improperly allowed; if too high, they will be improperly rejected. Applying a consistent level of skill to the PHOSITA would promote clearer and more predictable patents.⁹

Clearer reasons for allowance

If a patent is to be issued, the final communication from the examiner may give a reason for granting the patent, and if one is given, he will sometimes point to the elements in the claim that distinguish over the prior art. Some examiners merely reproduce the claim language without any explanation; however some examiners take the time to identify, in clear, concise terms, what elements in the claims led to the allowance. Note that the applicant is able to respond to correct any perceived inaccuracies in the examiner’s reasoning.

It would greatly help claim clarity if all examiners provided a clear statement regarding the inventive distinctions in a reason for allowance, along with the assumed definition of claim terms. This would help resolve post-issuance disputes over claim mean-

⁹ For more on this topic see “Time to reconsider the PHOSITA” in the November 2008 issue of *managingip.com*

ings. Encouraging examiners to clearly identify inventive distinction would also help them to focus on making sure claims are particularly well-defined at that point of distinction.

Adding claim definiteness review to post grant procedures

When the examiner is satisfied that an application has passed all the necessary hurdles, and all appropriate fees have been paid, a patent is issued, at which point the patent owner is granted the right to exclude others from making, using, and selling the invention. One way to challenge the granting of a patent is through a process called “reexamination”. A challenger, either the patent owner or a third party, provides evidence to the USPTO that a substantial new question of patentability exists, and if the USPTO agrees, the patent will be examined again. Currently the only basis for initiating a reexamination is prior art: a document such as another patent or technical paper dated before the invention claimed in the challenged patent. While this practice should continue, a challenger should be permitted to also raise claim indefiniteness issues in any post-grant procedure, including a reexamination as well as an application for reissue¹⁰ or an interference.¹¹ Since the patent is already being looked at in detail, this would be a more efficient and better use of USPTO resources, and permit a timely clarification or invalidation of claims as necessary.

Adopt a controlling dictionary

As referenced above, establishing an order of precedence in determining the conventional meaning of claim terms would give the public more certainty with respect to the overall meaning of a claim. The USPTO should formally adopt a controlling dictionary that would be the cited authority in the event that the applicant failed to provide her own definition of the term and the definition of the term was essential to the interpretation of the claim. The dictionary would aid the applicant in the drafting of the application itself, add to the efficiency of the examination process, and give the public a reliable method to define conventional claim terms.

¹⁰ A patent owner requests a reissue in order to correct errors that affect the patent’s validity. See MPEP Section 1402 at http://www.uspto.gov/web/offices/pac/mpep/documents/1400_1402.htm#sect1402

¹¹ An interference occurs when inventorship is disputed between two competing applications, or an application and a recently issued patent. See MPEP Chapter 2300 at <http://www.uspto.gov/web/offices/pac/mpep/documents/2300.htm#chap2300>

THE COURTS

Adopt a lower threshold of ambiguity

It is important to note that once a patent issues, a presumption of validity attaches to the claims. As a consequence, and in contrast to the standard by which the USPTO evaluates a claim, courts use a much higher threshold of determining whether a claim is indefinite (where a finding of indefiniteness of a claim invalidates the claim). When courts consider the issue of indefiniteness, they will invalidate claims only if reasonable efforts at claim construction prove futile; they will choose a narrow interpretation if given the choice in order to avoid invalidity.¹²

[C]ourts, at their discretion, can rely on evidence outside the patent specification and prosecution history to interpret the ambiguous claim language, if the ambiguity cannot be resolved without such evidence [citing a string of cases]. An accused infringer cannot, however, possibly determine with any reasonable degree of certainty how the court will construe ambiguous language because, prior to trial, it will not be apparent which evidence the court will rely on or how it will be interpreted.¹³

Since allowing courts to interpret the claim in this way only adds to the ambiguity of the boundary of the invention, courts should adopt a lower threshold of ambiguity and a more predictable method for resolving claim interpretation disputes at trial. For example, the use of intrinsic evidence such as the patent specification should be highly favored over extrinsic evidence such as expert testimony, which should only be permitted in limited circumstances. If a court cannot reasonably and predictably determine a narrow interpretation, it should be found invalid.¹⁴

Construe ambiguity against the drafter

In the *Halliburton* case mentioned above, the court found many ambiguities in claim terms, and reasoned that the applicant should not benefit from them, but instead should be

¹² *Ex parte Miyazaki*, page 10.

¹³ Joseph A Biela, *Claim Interpretation: A Claim Indefiniteness Analysis Proposal*, 47 IDEA 561, 562-63

¹⁴ See the Biela article for a more thorough discussion of this topic.

required to “give proper notice of the scope of the claims to competitors.”¹⁵ While the court did not explicitly state that ambiguity should be construed against the drafter, it came very close. This is a principle worthy of importing from contract law, where contract terms are interpreted less favorably to the one who wrote the contract.¹⁶

It could be argued that it is not just the applicant that creates claim language; the USPTO examiner is an integral part of the process of arriving at a final choice of terms. However, while the examiner may make suggested wording changes for the applicant to pass all the necessary hurdles, it is the applicant who ultimately accepts the expression of the boundary for her patent. As such, she should be responsible for any ambiguities. Adoption of this principle would likely mean a lower threshold of ambiguity than currently used in the courts, and a more frequent, and proper, finding of invalidity. It would also encourage greater attention to this issue by the applicant.

CONCLUSION

Implementation of any of these proposals would help to increase patent clarity by making claim boundaries more visible and at the same time getting the patent system nearer to the goal of bringing law and practice closer together. Applicants, the USPTO, and the courts each have a role to play in creating a system where inhabitants of the intellectual property space, whether they are patent holders or not, can be good neighbors.

¹⁵ *Halliburton*, page 16

¹⁶ Note that the application of this principle in contract law is highly dependent on the specific language in the contract at issue.