How many of us have changed the way we draft claims when filing a patent application since the American Inventors Protection Act became law in 2000? The American Inventors' Protection Act provided, among other things, a potentially powerful new right to patent holders that should have caused each of us to re-think how we initially present claims upon filing. The part of the Act that this paper addresses concerns "provisional rights" -- rights that are potentially secured upon publication of the pending claims.

Provisional rights give the patent holder the right to obtain a reasonable royalty from any person who: (i) makes, uses, sells, or offers for sale the invention claimed in the published application; and (ii) had actual notice of the published application. There is one major hurdle, however -- the published claims must issue in the patent in substantially identical form. Anyone who has prosecuted a patent application through the Patent Office knows that this is not an easy task. While the full extent of the benefits of provisional rights will not be known for some years until cases are litigated, certain principles can be reasoned based upon the legislative history of the statute and on the practical observations of how patent applications actually get prosecuted through the Patent Office.

This paper, first, provides a brief background of the relevant portion of the provisional rights section of the American Inventors Protection Act, and then, second, provides ten practical pointers for maximizing the potential benefits from this relatively new and unlitigated section of the statute.
A. **A Brief Background of the Relevant Provision of the Statute**

The provisional rights statute was part of the American Inventors' Protection Act, which became law in 1999. The law is provided in 35 U.S.C. § 154(d). The Act moved the U.S. patent laws toward harmonization with the rest of the world, namely Europe and Japan. As part of harmonization, the U.S. agreed to publish U.S. patent applications 18 months after filing. One of the results of publication is that it informs the relevant industry of what others are seeking to patent. One potential downside for the patent applicant is that the competition learns at an earlier time what direction the applicant is taking their product. The section on provisional rights was added to the statute to help balance the downside on patent application publication. The section states:

(i) In addition to other rights provided by this section, a patent shall include the right to obtain a reasonable royalty from any person who, during the period beginning on the date of publication of the application . . .
   (A)(i) makes, use, offers for sale, or sells in the United States the invention as claimed in the published patent application; . . . and
   (B) had actual notice of the published patent application . . .

(ii) *Right based on substantially identical inventions* -- the right under paragraph (1) to obtain a reasonable royalty shall not be available under this subsection unless the invention as claimed in the patent is substantially identical to the invention as claimed in the published application . . .

This law became effective on November 29, 2000 and applies to all patent applications filed under 35 U.S.C. § 111 on or after November 29, 2000, and all patent applications complying with § 371 that result from international applications filed on or after that date.

The legislative history does not offer much guidance to interpretation of this statute. Although some form of this statute was pending as legislation in Congress since at least 1997, the provisional rights statute was a small part of the overall American Inventors Protection Act, which addressed many other provisions in Title 35. The provisional rights portion of the Act is thin, with more attention being paid by Congress to other portions of the Act.
In September, 2003, as part of the Midwest I.P. Institute, Randy Hillson, of Merchant & Gould, and this author published a paper that discussed the importance of providing actual notice of the published application to the accused infringer regarding the acts that give rise to the provisional rights. That paper provided our analyses and opinions as to what would constitute an adequate notice and how declaratory judgment actions might play in this situation. This current paper now deals with the other part of the provisional rights statute -- how to better prepare the published claims for ensnaring the client's competition and maximize the potential royalties that can be accumulated.

The legislative history, although focused mainly on other portions of the American Inventors Protection Act briefly addresses the requirement that the invention as claimed in the issued patent be substantially identical to the invention as claimed in the published application. In particular, the legislative history provides:

Another important limitation on the availability of provisional royalties is that the claims in the published application that are alleged to give rise to provisional rights must also appear in the patent in substantially identical form. To allow anything else than substantial identity would impose an unacceptable burden on the public. If provisional rights were available in the situation where only valid claims infringed first appeared in substantially that form in the granted patent, the public would have no guidance as to the specific behavior to avoid between publication and grant. Every person or company that might be operating within the scope of the disclosure of the published application would have to conduct her own private examination to determine whether a published application contained patentable subject matter that she should avoid. The burden should be on the applicant to initially draft a schedule of claims that gives adequate notice to the public of what she is seeking to patent.


In another portion of the legislative history, the Congress provided guidance for what was meant by "substantially identical." Specifically:

The requirement for "substantially identical" in this section is based, by analogy, upon the decisional law for establishing intervening rights under the reissue statute. In § 252 of Title 35, the term "identical" has, heretofore, been used without
qualification, but the courts have interpreted that term to encompass claims that are "substantially identical." Slim Fold Mfg Co., Inc. v. Kinkead Indus., Inc., 810 F.2d 1113, 1 USPQ2d 1563 (Fed. Cir. 1997). That standard has been adopted here for provisional rights and has now been explicitly codified in § 252 of Title 35 by conforming amendment. No change in the law of intervening rights is intended by that conforming amendment and it is intended that the same standard be applied in the context of provisional rights.


The legislative history, therefore, instructs that: to evaluate whether an issued claim is "substantially identical" to the published claim, the case law interpreting intervening rights under reissue and reexamination situations should be reviewed. A problem with this approach, as Hillson and the present author opined in our previous paper, is that the principles of this interpretation of "substantially identical" in the context of intervening rights have never been very clear. The legislative history, although not very instructive, does make it quite clear that "substantial identity" between the published claim and the issued claim is important. Anything else is "an unacceptable burden" to the public. The burden, without doubt, is placed squarely upon the shoulders of the applicant to draft claims so that the public is provided with adequate notice.

In view of these directives from the legislative history, the question asked at the beginning of this paper is repeated: How many of us have changed the way we draft claims when filing a patent application? Drastically amending a claim during prosecution introduces issues today that not only potentially forfeits infringement judgments under the doctrine of equivalents, but now also potentially forfeits the right to collect a reasonable royalty under the provisional rights statute.

The bottom line: It is now more important than ever to issue claims in a form that is the same as the claims as originally filed. Tips for achieving this objective, as well as for maximizing the amount of potential royalties available, are discussed in the next section.
B. Ten Tips to Prosecute an Unamended, Valid Claim and Maximize Potential Available Royalties

1. No § 112's are allowed.

Probably the simplest, but most important, point for prosecuting an unamended, valid claim is to ensure that the claim is definite as filed. While there are some Examiners who will insist on finding § 112 problems in even a perfectly written claim, Examiners who properly do their jobs will not reject claims under § 112 or force amendment if, as filed, the claim is reasonably definite. Some tips for avoiding rejections under § 112 include:

- If the patent claim is in a technology where the client has pursued patents in the past, review old file histories to determine whether there are any phrases that draw indefiniteness rejections from the Examiners in that art, and then avoid use of those phrases.

- If the specification was written to include a short-hand definition for a more complete, definite phrase, to avoid an initial rejection, do not use the short hand definition in the original claim -- write the original claim using the complete definite phrase.

- Thoroughly review the claim for adjectives and adverbs. In many instances, these types of words in the claim are terms of degree and are usually indefinite. Pay attention to any words that end in "ly". Revise the claim to delete the term of degree, or substitute concrete definitions for the word. For example, instead of reciting a "polymeric widget with a high melting point," recite "a polymeric widget having a melting point of at least 400º F."

Usually, this is a straight-forward exercise that requires only careful thought and proofing up-front. No patent attorney wants to have to explain to the client that the reason it lost a large sum in royalty payments is because the claim had a § 112 problem that had to be fixed. There is no excuse for sloppy claim writing on the front end. This is especially true now that provisional rights are at play.
2. **Write a narrow claim to the preferred embodiment.**

If the client is making a hot product, it will likely be copied. Write a narrow independent claim to cover the embodiment that will probably be copied. The object is to have a claim survive prosecution, without amendment, which will be valid over prior art and cover the preferred embodiment. The claim need not need be a picture claim and narrowly cover all aspects of the invention--but in areas in which the product distinguishes the prior art, the claim should be quite specific and quite narrow. Again, remember that the object is to achieve a first action allowance of this claim.

Such claims will, by definition, recite many details that may be easy to avoid; so easy to avoid that one may question the value of such a narrow claim. But, keep in mind that preventing others from designing around the patent is *not* the purpose of *this* claim. There will be other claims to accomplish that task. The purpose of this claim is to stop those competitors who actually want to make exact knock-offs, to, in effect, pass off their products for the client's patented product. Such a claim will operate to help stop the copycats in their tracks.

3. **Write the same narrow claim to cover the preferred embodiment, as mentioned above, but this time, substitute means plus function language.**

The statute and an ample body of case law purports to instruct on how means plus function language should be interpreted. The mere fact that there exists such a high volume of case law is, in this author's opinion, evidence itself of substantial unclarity in the law. Ask a patent attorney who has practiced for more than 25 years or so, and he will tell you how when he was just learning how to write claims, means plus function clauses were the broadest possible way to claim something. In the late 80's to early 90's, the pendulum swung in the opposite direction - - it was considered one of the narrowest possible ways to claim something. The point is that claim interpretation on means plus function language has been subject to large swings in the law. The only thing that can be said with certainty about means plus function clauses now is that their interpretation is subject to ample argument.

Given all this, one may wonder whether the client should be burdened with the
baggage and potential expense of using means plus function language. As part of a complete claim set, with a number of different claims of varying scope, this author's opinion is a resounding yes. In many cases, the upside potential can outweigh the potential additional expense of arguing over interpretation. The statute instructs that means plus function language shall cover the structure described in the specification and any equivalents. The "any equivalents" clause may be just enough to provide the client with the leverage of a well-founded argument for coverage of the competitor's close (but not quite identical) copy of the client's patented product.

4. **Write a "ladder" claim.**

A ladder claim is one that starts broad (the lowest step on the ladder) and adds a series of dependent claims (steps), each dependent claim being dependent upon the immediately previous claim. After the independent claim, order the dependent claims in the ladder by reciting, first, the dependent claims having limitations that tend to distinguish the prior art the best. As the number of dependent claims increases (and one is high on the ladder), start adding in dependent claims that, although further define the invention, may not be critical in distinguishing it from prior art.

These types of claims can be rewritten into independent form, at the point that the Examiner determines allowability. A dependent claim that has been rewritten into independent form should, in theory, be the same claim as one that was published (even though it was published in the form of a dependent claim). It is not known how the courts will actually interpret this, but because the regulations do provide that claims can be written in this shorthand form (as dependent claims), there should be no difference between a published, narrow dependent claim and an issued independent claim of the same scope. The public would have had warning to stay away from that claim when it was published, regardless of whether it was published as an independent claim or as a dependent claim.
5. **Before filing the application, conduct a prior art search and thoroughly interview the inventor about previously existing things.**

Conducting a prior art search and thoroughly interviewing the inventor about previously existing things have always been at the foundation of a good, solid patent practice. The reasons for following these practices are now more important than ever. Not only do the implications of Festo and estoppel principles come into play when amending the claims, but amending the claims now also may cost the client money in the form of potential royalties. Of course, there needs to be an understanding of the market and what the client intends to sell—but it is almost of equal or greater importance to understand what is in the prior art. To state the obvious: if a claim that issues is invalid, it will be of no assistance to the client. This, of course, has always been the case. The new wrinkle is this: If a claim as filed and published is too broad (it reads upon the prior art), it will be of no assistance to the client. The claim that publishes must be patentably distinct over the prior art. This can only be achieved by having a thorough understanding of what exists in the prior art. A prior art search and thorough interview with the client will help substantially.

6. **Before filing the application, review the client's previous patent file histories.**

The client will likely be pursuing patents in the same technology area repeatedly. Reviewing the old file histories can provide valuable insight into how claims prosecute in that technology area. Behaviors and patterns exhibited by the Examiners in this specific technical art can be detected. Knowledge gleaned from this exercise will permit the claims to be adjusted up-front, when filing, to hone in on the types of claim styles and limits that result in allowances in this specific art. Remember that the target is a first action allowance.

Even though all Examiners are charged with applying the same law in determining patentability, because of the "human component" involved in examination, there can be high variability between art units and between individual Examiners. This "human component," can be factored into the claim-writing exercise by studying the
client's previous patent file histories, dealing straight-away with any problems that are typical with certain art units or Examiners, and thereby increasing the likelihood of achieving a first-action allowance.

7. **If faced with a rejection, interview the Examiner before filing an amendment.**

Regardless of how careful the prior art is researched and the client is interviewed, there will be instances in which, after filing the claims, prior art is discovered, and the claim is rejected. In these instances, it may be possible to minimize amendments by interviewing the Examiner before an amendment is filed. By interviewing the Examiner, it may be possible to convince the Examiner to adjust the interpretation that the Examiner is putting on the pending, published claim. If the record is carefully addressed, it may be possible to have the pending claim issue in the form that is still substantially identical to the published claim, even when the claim was subject to a rejection. The key is to get the Examiner to change the Examiner's position on what the words of the claims actually meant upon filing, and to reason that the published claim actually did define over the prior art used in the rejection.

8. **Describe and claim the reasonable alternatives.**

The competition may know that the client is a patent-savvy company, which endeavors to protect itself with patents. Regardless of whether the client marks its products with patent pending, before the client's application claims publish, the competition may try to respond to the client's product by offering an alternative. Interview the client when writing the application in an effort to try to describe and claim all of those alternatives. Don't merely broaden the claim language out to try to cover the alternatives -- the claim breadth may not be patentable, or it may be subject to some sort of rejections requiring amendment. The reasonable alternatives should be illustrated, described, and claimed. When the claims publish, not only will the client's preferred embodiment be covered, but the reasonable alternatives possibly pursued by the competition will also be covered. This will help to build a taller picket fence around the client's product.
If the product has already been copied, publish a narrowly tailored set of claims focused to cover the copy.

There may be instances in which, after a patent application is filed, but before publication, the client's product is copied. If not copied, it could be that the product is close enough to come within the scope of the application but not within the currently pending claims. In such instances, it may be beneficial to file a divisional application with focused claims, along with a request for expedited publication. The claims should be: (a) narrowly tailored to cover the competitor's product; (b) concrete in language to avoid rejections for definiteness; and (c) focused to avoid rejections over prior art.

The intent behind this claim set is to achieve an issued claim set that reads upon the competitor's product and prosecutes without rejections. The intent of this claim is not to reach for the breadth of protection to which the client may ultimately be entitled. When asserting published claims against the competitor, a narrowly tailored set of claims focused to cover the competitor's product will avoid the distractions of arguments on other claims that: (i) do not necessarily cover the competitor's product; and/or (ii) may have a breadth of questionable patentability. A sharp set of claims that cleanly prosecutes and quickly issues will be of benefit to the client. Pursuing claims of greater breadth in order to cover all of the inventive aspects to which the client is entitled are best left to divisionals or continuations.

To maximize potential royalties, write a system claim and method claims.

To claim the "system," claim the thing that was invented in combination with its environment of use. This strategy will provide the client with a stronger argument for a larger reasonable royalty. Suppose the invention is an O-ring gasket having special properties, with a preferred use in aeronautics. Of course, write a claim to the O-ring gasket alone, with its inventive properties. But also, write a system claim directed to a solid rocket booster having the inventive O-ring gasket providing a seal in a specific place on the rocket. By doing so, the client is provided with an argument for a larger royalty
base (the solid rocket booster, as opposed to merely an O-ring gasket) when that claim publishes.

With respect to the method claims (for example, method of making and method of using), in normal practice, these claims will likely be subject to a restriction requirement. Although the claims will be subject to a restriction requirement, if filed with the original batch of claims, the claims will be published. Of course, the claims can be pursued immediately in a divisional application. On the other hand, it may behoove the client to save these claims for later prosecution. In the meantime, the damages will be accumulating after the claims are published and notice of coverage of the claim is provided. Significantly, the method claims may be patentably broader than the corresponding apparatus claims.

C. **Summary**

Provisional rights apply to patents with claims that are substantially identical to those in the published application. To maximize the potential advantages of provisional rights protection, the patent practitioner must challenge herself to re-think what claims are being filed for publication. Amending a claim during prosecution will not only potentially forfeit infringement judgments under the doctrine of equivalents, but now also potentially forfeit the right to collect a reasonable royalty under the provisional rights statute.

Certain fundamentals at the foundation of a good patent practice still apply. Those practices include thoroughly interviewing the inventor about previously existing things, conducting a prior art search, learning about and claiming the reasonable alternatives, and carefully reviewing the claims for indefiniteness problems. Other claim approaches should be considered, based upon the situation, including writing narrow claims to the preferred embodiment, using means plus function language, writing system claims, and studying the client's previous file histories to learn patterns and strategies for how to prosecute a claim in a particular technology area. Creative ways in addressing rejections, including interviewing the Examiner before filing an amendment, should also be considered.
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