INVENTION ANALYSIS AND CLAIMING: Definition Claims[1]

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Dependent claims come in different "flavors," depending on the function they are intended to serve.

Most common is the fallback feature claim, which recites feature(s) that we believe may add something new and non-obvious to a parent claim. Fallback feature claims anticipate the possibility that prior art teaching the subject matter defined by the parent claim may surface after the application is filed, rendering the parent claim unpatentable (during prosecution) or invalid (after issuance). A fallback feature claim intentionally retreats from the boundaries defined by its parent claim to a narrower but possibly more patentably secure position.[2]

This month's column focuses on another type of dependent claim—the "definition claim." A definition claim is not intended to retreat from the boundaries of what the inventor regarded as her invention. It serves, rather, to more specifically define the invention boundaries that were intended all along.

Any words added to a claim necessarily narrow it. Thus a definition claim does narrow the subject matter of its parent. But in contrast to a fallback feature claim, the subject matter that a definition claim gives up is not anything we ever regarded as the invention.

Definition claims address two types of potential deficiencies in the parent claim not addressed by fallback feature claims.

- the parent claim may read on §102/103 prior art that does not disclose the inventive concept—so-called "invention-irrelevant" prior art
- the parent claim may be deemed indefinite, violating the requirements of §112, ¶2.

PARENT CLAIM POTENTIALLY READS ON INVENTION-IRRELEVANT PRIOR ART

Consider independent claim 1 reciting the combination of a bimetallic switch with a doodad.

1. Apparatus comprising a bimetallic switch, and a doodad connected to the bimetallic switch.

The term "bimetallic switch" is intended to refer to a known type of electrical switch made up of two strips of metal having different coefficients of expansion, such as brass and invar. Such a switch bends with changes in temperature and is used in thermostats. The inventor has discovered that adding a doodad to a bimetallic switch provides some advantage.

Assume that the examiner uncovers the invention-relevant prior art shown in FIG. 1(a). This invention-relevant prior art discloses what the inventor thought *she* was the first to come up with—a two-strip switch that bends with temperature connected with a doodad. There is no hope for a claim as broad as claim 1 in this situation. Patentability will have to be predicated on a fallback position defined by a fallback feature claim such as claim 2, which calls for the (assumedly inventive) addition of a "gizmo" to the subject matter of claim 1.

2. The apparatus of claim 1 further comprising a gizmo connected to the doodad.

Assume, on the other hand, that the examiner cites the invention-*irrelevant* prior art shown in FIG. 1(b). The dictionary defines "bimetallic" simply as "consisting of two metals." Therefore, *any* switch made from two kinds of metal is a "bimetallic switch," broadly speaking. The prior art of FIG. 1(b) is a copper-and-aluminum wall switch combined with a doodad. Although not teaching the inventor's contribution, this invention-irrelevant prior art also anticipates claim 1.

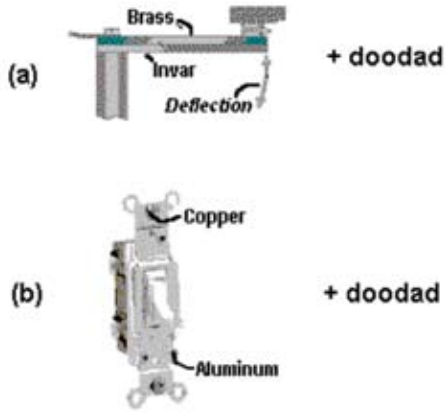

FIG. 1

The wall switch prior art of FIG. 1(b) does not, however, anticipate the inventive concept. The inventor never intended her claim to encompass the wall switch prior art, which doesn't exhibit the problem she set out to solve and certainly does not solve it.

Establishing a position of patentability in *this* situation does *not* require falling back to a more limited parcel of intellectual property, such as defined by "gizmo" claim 2. The invention boundaries defined by claim 1 are *just fine* if only the term "bimetallic switch" is firmed up to say what was meant by that term all along. There is no need to retreat from the intended claim boundaries—just to clarify them.

Claim 3 is a definition claim that addresses this situation, defining the term "bimetallic switch" in the sense that the inventor always intended, thereby excluding such invention-irrelevant prior art as the wall switch arrangement.

3. The invention of claim 1 wherein the bimetallic switch comprises at least a pair of substantially overlapping metal strips having different coefficients of expansion.

Claim 3 is not a fallback feature claim because it does not retreat from the intended boundaries of the parent claim 1. It simply makes clearer what those boundaries were always intended to be.

PARENT CLAIM IS POTENTIALLY INDEFINITE

As noted above, the second function served by definition claims is to anticipate the possibility that a parent claim may be indefinite. This is a violation of §112's requirement of claiming the invention "distinctly." A claim is indefinite if the public cannot determine with reasonable certainty what the boundaries of the claimed subject matter are.[3] Potential infringers have to be able to determine whether their products will be covered by the claim or not.[4] No mere formality, indefiniteness renders a claim invalid.[5]

Claim 4's use of the word "complexity" probably renders it indefinite.

> **4. The invention of claim 1 wherein the complexity of the first algorithm is less than the complexity of the second algorithm.**

How does one measure the complexity of an algorithm? It is a) the number of steps or branch points? b) the level of the sophistication of its underlying mathematics? c) the time required to execute it? Absent an explicit definition in the specification—"as used herein, the term 'complexity' means ...."—there is no way for the potential infringer to know whether his algorithm meets the criterion of claim 4.

Claim 4 needs to be backstopped by a definition claim that gives some meaning to the term "complexity."

Other examples of potentially indefinite terms are the italicized words in the following recitations:

- *high-resolution* filter
- *intelligent* processor
- *vigorous* agitation
- *acceptable* level of pliability.

How much resolution is *high* resolution? When is a processor *intelligent*? How vigorous is *vigorous* agitation? What level of pliability is *acceptable*?

It is not crucial to distinguish between terminology that may be indefinite ("complexity") and terminology that might cause a claim to read on invention-irrelevant prior art ("bimetallic"). We simply need to focus on each word or phrase in a claim and consider whether either situation may obtain. If so, we should consider drafting a definition claim that backstops the terminology in question.

QUESTIONS AND ANSWERS

Q: Why not wait to see what prior art the examiner has found and then amend the pending claims to define a term during prosecution if this proves necessary?

A: Amending during prosecution is fine, but may not be possible if the definition to be relied on is not at least implicit in the specification. Focusing at the outset on the possibility that we may need to rely on a definition claim ensures that the specification provides the necessary support.

Moreover, the issue may only come up after the patent issues—during a licensing negotiation or a litigation—when it is too late, or at least inconvenient, to amend the claims.

Q: *Since a definition claim defines what we meant all along, why not put the definition into the parent claim at the outset and not bother with a separate definition claim?*

A: There is always a danger that a definition will be more restrictive than we might have contemplated, thereby giving up claim coverage that we didn't intend to give up.

Q: *Virtually any word or phrase has the potential to be interpreted in an unanticipated way. Isn't it impractical to backstop every term with a definition claim?*

A: Yes, it is impractical. The key is to identify terms that intuition and experience say are more likely to need backstopping than others. Terms that are the most crucial for patentability should get particular attention. IPT

Next month: Reaching for Breadth—Part III

ENDNOTES

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2. Although fallback feature claims are typically thought of as being in dependent form, an independent claim containing the fallback feature in question serves the same function.
3. See, e.g., In re Borkowski, 422 F.2d 904, 164 USPQ 642 (CCPA 1970).
4. See, e.g., Personalized Media Communications, LLC v. Int'l Trade Comm'n, 161 F.3d 696, 705, 48 USPQ2d 1880, 1888 (Fed. Cir. 1998).
5. See, for example, Intellectual Prop. Dev. Inc. v. UA-Columbia Cablevision, 336 F.3d 1308, 67 USPQ2d 1385, 1392 (Fed. Cir. 2003); Intel Corp. v. VIA Tech. Inc., 319 F.3d 1357, 65 USPQ2d 1934 (Fed. Cir. 2003).