

INVENTION ANALYSIS AND CLAIMING: Independent Embodiment Claims PART II'



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Last month’s column discussed the independent embodiment claim. This is a claim in independent form that includes one or more details of the inventor’s embodiment(s)—details not included in a claim intending to define the invention at its full breadth. Although we can always include embodiment details in one or more *dependent* claims, we saw last month how an independent embodiment claim can actually be broader than a dependent claim reciting those same details. The reason is that details in a dependent claim may render certain limitations in its parent claim(s) no longer necessary to distinguish the invention from the prior art and are thus redundant.

This column focuses more specifically on the formulation of independent embodiment claims.

BALANCING PATENTABILITY AND “INFRINGEMENT”

By design, an independent embodiment claim backs off from our broadest view of the invention. The goal, per the philosophy of the Planned Retreat,² is to give up a certain amount of claim breadth in exchange

for establishing a more secure position of patentability should the broadest claims in the patent application prove to have been too ambitious.

This is no time to get sloppy, however. The limitations included in our less-than-fully-broad claims still need to be chosen with care. If the patent’s broadest claims prove to be invalid, the patent will be substantially valueless if the remaining claims have no chance of capturing at least some of the commercial marketplace. We are backing off from our broadest view of the invention, true enough. But we should not throw all caution to the winds and write down whatever comes to mind. An effective independent embodiment claim optimally balances the competing criteria of patentability and “infringibility.”

Useful starting points for such independent embodiment claims are intermediate versions of claims and problem-solution statements³ that arose when the application’s broadest claim(s) were being drafted. While perhaps not achieving the ultimate in breadth, drafts of claims and problem-solution statements will have benefited from an analysis process that eliminated limitations that were determined to be particularly unnecessary to the invention.

Having taken a first cut at an independent embodiment claim, it is desirable to tweak up the patentability/infringibility balance. The idea is to make a recitation-by-recitation judgment about where it makes sense to back off from our broadest view of the invention to formulate a claim that has an enhanced probability of distinguishing over the prior art while not being *so* specific as to be easily designed-around. For example, we would probably still want to call for “means for fastening [or joining]” rather than “a layer of slow-setting epoxy” in all but the intentionally narrowest of claims.

Every claim should be written with a goal in mind. It may be to capture the invention at its full breadth. Or, as here, the goal may be to draft a claim that includes important features of the embodiment(s) while not limiting the defined boundaries *too* much.

Thus, per the philosophy of the Planned Retreat, we can consider each point of difference between our independent embodiment claim and our problem-solution statement and/or broadest claim(s) and ask whether the independent embodiment claim in question gives up more intellectual property real estate than we had intended.

MARKETED PRODUCT CLAIMS

A particular type of independent embodiment claim achieving an advantageous balance between patentability and infringibility is what author calls a “marketed product claim.” This is a claim that includes those embodiment details most likely to appear in others’ commercial products embodying the inventive concept. Input from the inventor and/or patent owner are, of course, invaluable in assessing which details those are. If their assessment is correct, it may be difficult for a competitor to design around the claim and still have a saleable product, even though the claim recites certain “optional” embodiment details.

The patent owner’s own product, if any, can be a useful guide in this respect. The embodiment details implemented in the patent owner’s product represent at least the patent owner’s view of those features that are the most desirable to be included in a successful marketplace offering. Such features, then, may be more likely than others to also appear in competitors’ versions of the product. Certainly a claim that lines up with the patent owner’s product will be of value if it is believed that competitors will make an exact “knock-off” or something very similar to the patent owner’s marketed product.

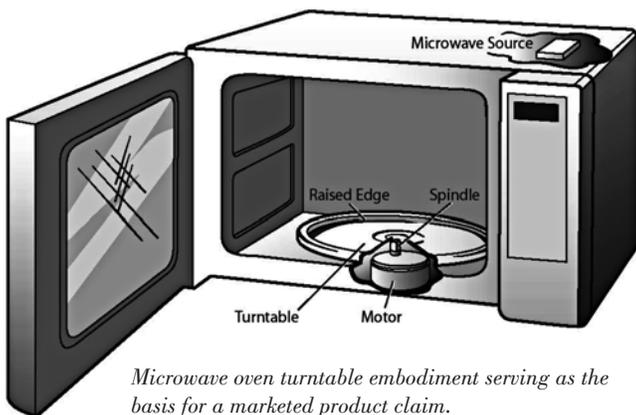
Consider, for example, the invention of the microwave oven turntable discussed in a previous column.⁴ The concept underlying this invention is to engender relative motion between the food in the microwave oven and the microwave energy source as a way of solving the problem of non-uniform heating. Claim 1 is direct to that concept:

**1. Apparatus for heating food in a microwave oven cavity, the apparatus comprising
a microwave energy source, and
means for engendering relative motion during the heating process between the food and the microwave energy source.**

And claim 2 is a marketed product claim for this invention. Claim 2 specifically calls

for a turntable as the “means for engendering relative motion.” Claim 2 also recites two features of the turntable—a raised edge, which keeps liquids from spilling onto the floor of the enclosure, and a motor-driven spindle that removably supports the turntable, allowing the latter to be readily removed for, say, cleaning.

2. A microwave oven comprising an oven enclosure, a microwave energy source, a spindle projecting from the floor of the enclosure, a motor for rotating said spindle when microwave energy from said source is being introduced into said enclosure, and a turntable removably supported on said spindle in such a way that rotation of the spindle causes rotation of the turntable, the turntable having a raised edge that prevents at least some amount of liquid on the turntable from spilling onto the floor of the enclosure.



Microwave oven turntable embodiment serving as the basis for a marketed product claim.

It is possible to market a microwave oven without those details. But the patent owner might well have been of the opinion that it would be difficult for a competitor to do without them and still sell many microwave ovens.

There are often differences between the patent owner’s product and competitors’ versions. Thus we do not want to go overboard in packing details into a marketed product claim—particularly since many of those details may not enhance patentability in any event. Rather, we should pursue the goals of the Planned Retreat, undertaking to isolate a set of the marketed product’s embodiment details that are most likely to a) show up in commercially practical embodiments and b) enhance the claim’s patentability. One or more of the inven-

tion’s fallback features⁵ will typically meet these dual requirements. If more than one set of fallback features seems advantageous in this regard, any number of marketed product claims can be drafted.

Even if the patent owner is not actually marketing a product embodying the invention, the same thought process can be brought into play by attempting to identify those embodiment features that are mostly likely to show up in competitors’ marketplace offerings.

Picture Claims

Another type of independent embodiment claim that may prove useful is the *picture claim*. This is a very narrow claim—heavy on structure, light on function, and, most significantly, heavy on the details of a particular disclosed embodiment. The basis for the designation “picture claim” may be that the claim presents a picture of the embodiment—albeit a picture drawn in words. Another explanation is that a picture claim is a detailed description of the “picture”—that is the depiction of the embodiment as presented in the patent drawing.

A picture claim is more likely to be allowed than a claim of broader scope; the more limitations a claim has, the less likely is there to be prior art that meets them all. On the other hand, a picture claim is usually very easy for a competitor to design around by simply leaving out at least one of the claim’s elements—usually not a difficult task when there are so many

elements to choose from. So a picture claim is not likely to capture others’ embodiments unless the product is a simple one, or unless there is reason to believe that a competitor will slavishly copy the patent owner’s product.

On the other hand, inclusion of a picture claim in the patent application increases the likelihood that a patent will issue, and sometimes the patent owner’s goal is to just get a patent, no matter what the breadth of its claims.

Next month: Inventive-Departure-Based Claims

ENDNOTES

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2. “Dependent Claims and the Planned Retreat,” *Intellectual Property Today*, June 2007.
3. “Inventions Are Concepts,” *Intellectual Property Today*, July, 2007.
4. “Reining In Overbreadth,” *Intellectual Property Today*, March 2008.
5. “Dependent Claims and the Planned Retreat,” *Intellectual Property Today*, June 2007.