I'll Be A Billionaire Soon Enough.

But Now I'll Just Buy This Book on Patent Writing on thriftbooks.com.

This Patent Stuff and My Semiconductor Business – Part 8

Welcome to this post about patents and chips. Not a lot has been written about this combination, but there is a lot to know, especially for the innovators and entrepreneurs themselves. In this three-weekly series, I talk about various aspects, from my dual points of view of a patent agent and a semiconductor entrepreneur. If you like the article and read it on LinkedIn, give it a thumbs up, and/or click on Follow. If you like to work with us for your next patent, "contact us" info is on www.icswpatent.com. You can also subscribe/unsubscribe for short email alerts when the next post is available.

I love thriftbooks.com, and if you can get that book for $4.39 in *Good* condition or $4.89 in *Very Good* condition, then isn't it worth it? Yes, I think so—it will tell you many things that I may not get to, and it will almost certainly give you a better understanding of the patenting process. What's more, the US Patent and Trademark Office is known to bend over backwards to support inventors who attempt to apply for their own patent.

Still, I think it is not a good idea if you write your own patent application, and you'd be much better off working with me or even some folks I might occasionally sneer at in this column. Why?

(I want the fun of doing your patent, of course! Isn't that why I write this column in the first place?)

In all fairness, many of the most brilliant inventors are not the best communicators, and they are often not too eager on documenting their own work. Not many inventors have been trained to write a technical explanation that is understandable for anybody but themselves. But, since you are planning to buy that book about patenting your invention yourself, you might actually have some experience writing a document that could be understood by a recent EE graduate—which is what you need to do for a patent application.

Suppose you can write a good background section that explains the problem that you're trying to solve, how others before you have approached the problem, and what the downsides are to their solutions. And suppose that you can write a good detailed description section, that first explains your invention in the broadest sense, and then step by step narrows it down to relevant implementations (that you call *embodiments* just because that's what you do). So, you are able to write an enabling description of your invention, rather than a reformatted scientific publication or a spiced-down

sales brochure. And by sheer luck you don't write something that takes away the opportunity for future patents on aspects of your invention that you're still working on. Now you got to write the claims.

Let me make it clear:

YOU CANNOT WRITE THE CLAIMS

Don't even try it. You can't. You cannot write the claims!

(unless you have been trained to do so)

It takes study, on-the-job training, and hard experience to learn to write patent claims. Have you ever studied the Manual of Patent Examination Procedure (MPEP) to get an idea about the number of rules? Writing claims requires a strategy to capture the maximum value of your invention. It requires a strategy to make the claims address potential infringers. It requires a strategy to have dependent claims that give you material for changing your independent claims when they get rejected for being too broad (and yes, the independent claims should be as broad as possible, but not so much that they are ridiculous). It requires knowledge of a twisted form of language that no educated person would no uneducated person could speak—or write. It also requires knowing blacklisted common words, phrases, and grammar that would surely get you in trouble—possibly beyond hope. My friend Joachim recommended that I show you why. For example, look at the following phrases that you may consider for your most important claim (claim 1):

1. An apparatus comprising A, B and C
2. An apparatus comprising A, B, or C
3. An apparatus comprising at least one of A, B and C
4. An apparatus comprising at least one of A, B, or C
5. An apparatus consisting of A, B and C
6. An apparatus consisting of A, B, or C
7. An apparatus consisting of at least one of A, B and C
8. An apparatus consisting of at least one of A, B, or C

Now, where it say "apparatus" in the above, replace that by your most valuable IC or IP design, and where it says A, B, C, fill in the three most important features that make it different than any of your competitors. When you file in the US, which of these very similar phrases is going to get you a great patent, a rejection by the examiner, or worse – no rejection but a patent without value? Let me not spill the beans – but by far most of the above are not good for you.

So, please do not try to write the claims yourself. If you really want to be proactive, just make a bullet list of what you believe is innovative about your invention, and talk it through with your patent practitioner. Make sure that he or she fully understands you. He or she will also tell you the answer about the above phrases. (Then again, the book that you bought might just tell you somewhere 😊.)

There are plenty of practitioners who are happy to take your detailed description and add some antiquated (this is a euphemism) words, phrases and sentences to make it look formal. I'm not one of those myself. Sure, I'd use your document for inspiration, and I might plagiarize from it. When I totally rewrite it I wouldn't use conversational language either because we are expected to follow some decorum—but I need to have free reign to structure and build the explanation and all its variations. You might find me not using some or any of your simulation results, characterization results, and only touching on some of the implementation choices or fully describing other implementation options. In some cases, I generalize and broaden so much that you really need to pay attention to recognize your invention, until I zoom in on its embodiment(s). Usually, I really don't care about a voltage being 0.34 or 2.9, or a current being this or that. I care about your invention, the heart of it, and how you build it, in an enabling way. I care about that there may be quite different ways to achieve the same thing.

Sometimes I tell an inventor to give me more. If I believe that it will be very tough to get a patent on the proposed innovation, then I might push the inventor to tell me what his or her next steps are going to be. And I'll get those in there. In some cases I discuss with a customer doing a prior art search first. That search sometimes yields a prior patent or publication that is very similar to what the customer is proposing. In those cases, I nudge towards aspects of the invention that allow me to claim elements that the prior art doesn't have.

Many (perhaps most) practitioners work differently than I do. Some are bound by guidelines from their employer, others make the guidelines. Each practitioner has her or his own strong points. If you want to become the billionaire that you plan to be, then focus on your own strong points and hire experts for anything else. Please go talk with a couple of practitioners to select one whom you feel comfortable with. Then negotiate a deal that makes a win for yourself and a win for your practitioner. I hope you still read the book, because knowledge and understanding don't hurt.

Upcoming:

9 My CTO Can't Explain His Invention to Me. But He Is the Smartest Guy in the World.

10 Should I Do a Provisional, Non-Provisional, Or a PCT?

11 My Invention is Vital for My Business Plan. But I Don't Have Much Money Yet. How Can I Save?

12 I Want to Protect It Now—But Am Still Working Out Architecture Details. Can I Add Those Later?

13 I Want to Use an FPGA Before an ASIC. Can It Be One Patent?

Published so far (find the articles on www.icswpatent.com or #ThisPatentStuff):

1 So You Got This Great Idea That Will Wipe Out Competition. Now What?

2 Developing an IP Protection Strategy for Your Semiconductor Company – PART I

3 Developing an IP Protection Strategy for Your Semiconductor Company – PART II
4 In What Countries Should I Patent, Anyway?
5 Choosing the Right Patent Person for Your Inventions
6 How is a Chip or Firmware Patent Different than Other Patents? What About a Software Patent?
7 Woohoo! I Invented a Huge Improvement over My Competitor's Invention!
8 I'll Be A Billionaire Soon Enough. But Now I'll Just Buy This Book on Patent Writing on thriftbooks.com.

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