

INSURANCE IP BULLETIN

An Information Bulletin on Intellectual Property activities in the insurance industry

A Publication of - Tom Bakos Consulting, Inc. and Markets, Patents and Alliances, LLC

Introduction

In this issue's feature article, *Writing an Effective Patent Application*, we address the issues an inventor should be aware of when describing how to make and use his or her invention in the specification of a patent application. These are issues we are addressing in our *Examiner Advocate* process which will use outside experts in a "pre-file" examination in order to help patent practitioners (i.e. patent agents or attorneys) provide greater value to their clients.

In our *Patent Q/A* we consider a question on the topic: *Finding a Qualified Patent Practitioner*. This can be surprisingly difficult in the insurance and broader financial services areas due to inherent limitations in our patent system. Our *Examiner Advocate* process is being designed to help with this problem as well.

The Statistics section updates the current status of issued US patents and published patent applications in the insurance class (i.e. 705/004). We also provide a link to the *Insurance IP Supplement* with more detailed information on recently published patent applications and issued patents.

Our mission is to provide our readers with useful information on how intellectual property in the insurance industry can be and is being protected – primarily through the use of patents. We will provide a forum in which insurance IP leaders can share the challenges they have faced and the solutions they have developed for incorporating patents into their corporate culture.

Please use the FEEDBACK link to provide us with your comments or suggestions. Use QUESTIONS for any inquiries. To be added to the Insurance IP Bulletin e-mail distribution list, click on ADD ME. To be removed from our distribution list, click on REMOVE ME.

Thanks,

Tom Bakos & Mark Nowotarski

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Feature Article

Writing an Effective Patent Application

By: Tom Bakos, FSA, MAAA and Mark Nowotarski, Patent Agent
Co-Editors, *Insurance IP Bulletin*

A patent application consists of two basic parts: the Specification and Drawings. The purpose of the specification is to provide a description that will enable any person skilled in the art of the invention to make and use it. The specification concludes with one or more claims distinctly pointing out the subject matter that the applicant regards as his or her invention. Drawings (including tables, equations and flow charts) may be used to provide a better understanding of the subject matter on which a patent is sought.

That sounds like a simple, straightforward exercise but it has in it an assumption which may not apply in a real world setting – that the people who read it will have the training and experience necessary to understand it. The people include patent practioners (i.e. patent agents and attorneys), patent examiners and members of the public. Theoretically and patent application needs to be written so that another person of “ordinary skill in the art of the invention” can read it and understand it.

Patent practioners and patent examiners are normally required to have at least an undergraduate degree in the natural sciences so that they will be “of ordinary skill in the art”. This education and training, however, does not adequately prepare them for inventions in the financial disciplines, such as insurance. It is unlikely that either the patent practitioner handing an application in the financial services area or the patent examiner reviewing the case will have a degree or much expertise in any financial discipline. This places special burdens on applicants (e.g. inventors) to make sure that their patent specifications meet the needs of the people who are likely to read them.

Drafting Options

Applicants have a number of options when drafting a patent application each with its own set of perils. They may, for example, draft the specification description themselves thinking that no one knows their invention better than they do. However, this intimate knowledge of how their invention works may cause them to leave out information necessary for another person, skilled

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in the art, to make and use their invention. That is, they may assume knowledge of pieces of their invention that should be spelled out.

Applicants may rely on a patent practitioner to draft their specification descriptions. If the patent practitioner is well versed in the subject matter of the invention, this may work well as such an expert patent practitioner will develop an understanding of the applicant's invention through discussions with and review of materials produced by the applicant. The expert patent practitioner can then draft an accurate and complete description of how to make and use the invention suitable for a person of ordinary skill in the art of the invention.

But as we've said above, it would be unusual to find a patent practitioner with skill in the subject matter of patent applications typically filed in the insurance and broader financial services areas. Not only are they rare, they may already "be taken". See the Q&A feature in this issue of the Bulletin for why this may be. As a result, the inventor's patent practitioner may not be the best interpreter of the invention and, therefore, not easily capable of providing a description from which the invention could effectively be made and used. They also may simply not have enough background to see where there is important information missing or in error.

In addition, since a high percentage of inventors filing financial patent applications are amateurs themselves (relying on their own consumer experience with business methods in these fields as a basis for their development of better or new processes), an inventor may not be able to convey, even to his patent practitioner, a full understanding of how his invention is uniquely different from prior art. And, of course, the likelihood that the patent examiner may not have such skill either further complicates the situation and sets up a long and frustrating patent examination process.

Our suggestion is to approach the drafting of a patent application as you might the writing of a text book. By this we mean draft the specification description in order to educate the reader. Start with very basic principles and a very basic understanding of the underlying art. Assume that the patent examiner who will be the first to read and evaluate your effort has little or no prior knowledge on the subject matter of your invention – as this is often true in the insurance and financial services disciplines.

A Basic Form

A good form to use for the specification is to first define the ***field of the invention*** so that a reader of the description will be able to tune in for a better understanding of what comes next. Then provide ***background*** that will be necessary to a better understanding of how the invention

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works and in a **summary** describe, on an overall basis, how to make and use the invention. Finally, fill in **details** of the various essential parts of the invention referring to any **drawings** provided to enhance the description. Of course, the specification always ends with one or more **claims** drawn from the description provided. Since the claims require some precision and conformity with a jargon that has developed over many years, it is usually best for claims to be drafted by a patent practitioner. As is typical, however, claims usually undergo revision during the examination process so it is important for an inventor to work closely with his or her patent practitioner to assure that nothing important is lost during the revision process. Since most financial service inventors are new to the patent process, they should expect to spend a fair amount of time learning the requirements of claims so as to be sure that their invention is properly described.

It may be helpful to engage an outside consultant who is skilled in the art of the invention to review or even help write the specification description. This will assure, at least, that the description will be understood well enough by a person of ordinary skill to make and use it. Also, remember that to make the examination process as efficient as possible very little should be assumed – everything for which a specialized knowledge would be required for an understanding should be explained and defined. If you create a description that starts at the beginning and gradually builds on the facts, information, and clear definitions provided, you will have created an instructional text the examiner will find easy to read and comprehend. Therefore, any questions or objections raised by the examiner will be based on a clear understanding of what your invention is intended to be and the examination process will become much more efficient.

The fact of the matter is that if the specification description is not written on a level easily understandable by the examiner when filed, you will be required to provide additional explanation during the examination process – lengthening the examination. You cannot expect an examiner to allow claims for an invention he or she doesn't understand. Such a patent might well become an embarrassment when read by true experts in the field. If reviewed by an expert beforehand, however, it is much more likely to be respected.

Patent Q & A

Finding a Qualified Patent Practitioner

Question: How do I find a patent practitioner (i.e. agent or attorney) that understands insurance?

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Disclaimer: *The answer below is a discussion of typical practices and is not to be construed as legal advice of any kind. Readers are encouraged to consult with qualified counsel to answer their personal legal questions.*

Answer: (by Mark) It's not easy. The best answer for the average insurance inventor is to find a competent practitioner then hire an additional technical consultant to be an independent resource for that practitioner.

Details: As Tom and I have been reviewing published insurance patent applications in anticipation of the launch of *Examiner Advocate* (see "[An Experiment in Better Patent Examination](#)"), it's becoming increasingly clear that there is a fundamental problem with the current standard practices for patent drafting. Many of the applications we have looked at in the insurance and broader financial services areas have serious errors in their specifications, despite being prepared by some of the most prestigious law firms in the country. It appears that the majority of patent practitioners who are preparing these cases do not have sufficient background in insurance to properly understand what applicants are telling them. We believe that this is a systemic problem associated with the foundations of the patent system and as such, will require a new process for financial patent drafting in order to resolve. The foundations that are causing the problem of finding a patent practitioner of ordinary skill in the financial disciplines are:

1. The prohibition against conflict of interest for a patent practitioner
2. The lack of patent practitioners with formal accreditation in the financial disciplines
3. The small number of insurance patent applications that are filed

The prohibition against conflict of interest for a patent practitioner

A patent practitioner must decline proffered employment "if the exercise of the practitioner's independent professional judgment in behalf of a client will be or is likely to be adversely affected by the acceptance of the proffered employment" ([37 CFR § 10.66](#)) In practice, this means that patent law firms avoid taking on clients that might be competitors. This, in turn, means that the patent business in any given specialty is spread out among many different law firms. In the insurance field, for example, 373 different law firms prepared the 676 patent applications that were published over the past five years. No single firm filed more than 15 applications. In half of the cases, the practitioner preparing the application had never prepared an insurance application before.

The lack of patent practitioners with formal accreditation in the financial disciplines

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In order to be qualified to sit for the patent bar and become a registered patent practitioner, a person must have a four year degree (or equivalent) in the natural sciences ([37 CFR § 11.7](#)). This requirement has been established so that a practitioner may render “valuable service” to his or her clients (e.g. understand what the invention is, know how to describe it, know how to distinguish it from other similar inventions). The natural sciences include physics, biology, engineering and, more recently, computer science. It does not yet include any of the financial disciplines, such as actuarial science, accounting, securities, financial planning or even mathematics. This means that the only financial background that a patent practitioner is likely to have is what he or she has learned from representing previous clients. But, as we’ve said above, if a patent law firm already has clients with inventions in given financial specialty, it may not be able to take on any others.

The small number of insurance patent applications that are filed

There are very few insurance patents filed relative to the total number of patents. Even for boutique law firms that specialize in business methods, the number of insurance patents filed still represents a small fraction of their total business. The top 10 insurance patent law firms, for example, filed 110 insurance patent applications over the past five years. That may sound like a lot, but their total patent application output was close to 50,000.

Conclusion

The challenges of finding adequate representation for an insurance patent are daunting. As we have indicated in the feature article in this issue, we need to start looking at new ideas for leveraging existing technical expertise into the patent drafting process. We are exploring the idea of a “pre filing review” through the ***Examiner Advocate*** process where outside experts in the financial disciplines review a patent application before it’s filed to help patent practitioners provide more value to their clients. For those wishing to participate in this development, we welcome your inquiries.

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Statistics

An Update on Current Patent Activity

The table below provides the latest statistics in overall class 705 and subclass 4. The data shows issued patents and published patent applications for this class and subclass.

Issued Patents as of 12/29/2009		
	Class 705	Subclass 4
YEAR	#	#
2009	3,018	78
2008	2,664	89
2007	2,062	43
2006	2,216	44
2005	1,448	30
2004	998	23
2003	962	21
2002	887	15
2001	880	19
2000	1,062	29
1999	1,006	36
1998	744	20
1978- 1997	2,778	47
1976- 1977	80	0
TOTAL	20,805	494

Published Patent Applications as of 12/31/2009		
	Class 705	Subclass 4
YEAR	#	#
2009	8,432	279
2008	8,705	199
2007	6,987	183
2006	6,115	169
2005	6,301	148
2004	5,586	156
2003	6,006	129
2002	6,130	164
2001 *	1,327	30
TOTAL	55,589	1,457

* Patent applications were first published 18 months after filing beginning with filings dated March 15, 2001.

Class 705 is defined as: DATA PROCESSING: FINANCIAL, BUSINESS PRACTICE, MANAGEMENT, OR COST/PRICE DETERMINATION.

Subclass 4 is used to identify claims in class 705 which are related to: *Insurance* (e.g., computer implemented system or method for writing insurance policy, processing insurance claim, etc.).

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Issued Patents

In class 705/4, 23 new patents have been issued to close out the year for a total of 78 in 2009. Patents are issued on Tuesdays each week.

Patents are categorized based on their claims. Some of these newly issued patents, therefore, may have only a slight link to insurance based on only one or a small number of the claims therein.

The [Resources](#) section provides a link to a detailed list of these newly issued patents.

Published Patent Applications

In class 705/4, 46 new patent applications have been published since 10/30/2009 for a total of 279 for all of 2009. Patent applications are published on Thursdays each week.

The [Resources](#) section provides a link to a detailed list of these newly published patent applications.

A Continuing reminder -

Patent applications have been published 18 months after their filing date only since March 15, 2001. Therefore, the year 2001 numbers in the table above for patent applications are not complete and do not reflect patent application activity in the year 2001. A conservative estimate would be that there are, currently, close to 250 new patent applications filed every 18 months in class 705/4. Therefore, there is approximately that number of pending applications not yet published.

The published patent applications included in the table above are not reduced when applications are either issued as patents or abandoned. Therefore, the table only gives an indication of the number of patent applications currently pending.

Resources

[Recently published U.S. Patents and U.S. Patent Applications](#) with claims in class 705/4.

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The following are links to web sites which contain information helpful to understanding intellectual property.

United States Patent and Trademark Office (USPTO): *Homepage* - <http://www.uspto.gov>

United States Patent and Trademark Office (USPTO): *Patent Application Information Retrieval* - <http://portal.uspto.gov/external/portal/pair>

Free Patents Online - <http://www.freepatentsonline.com/>

Provides free patent searching, with pdf downloading, search management functions, collaborative document folders, etc.

US Patent Search - <http://www.us-patent-search.com/>

Offers downloads of full pdf and tiff patents and patent applications free

World Intellectual Property Organization (WIPO) - <http://www.wipo.org/pct/en>

Patent Law and Regulation - <http://www.uspto.gov/web/patents/legis.htm>

Here is how to call the USPTO Inventors Assistance Center:

- Dial the USPTO's main number, 1 (800) 786-9199.
- At the first prompt press 2.
- At the second prompt press 4.
- You will then be connected to an operator.
- Ask to be connected to the Inventors Assistance Center.
- You will then listen to a prerecorded message before being connected to a person who can help you.

The following links will take you to the authors' websites

Mark Nowotarski - Patent Agent services – <http://www.marketsandpatents.com/>

Tom Bakos, FSA, MAAA - Actuarial services – <http://www.BakosEnterprises.com>