From:
Sent: Wednesday, June 09, 2010 11:42 AM
To: patent_quality_comments
Subject: Re: Request for Comments on Enhancement in the Quality of Patents

United States Patent and Trademark Office
Office of the Associate Commissioner for Patent Examination Policy
Office of Patent Legal Administration

Attention: Elizabeth L. Dougherty

Comments attached, as PDF file.

Thank you,

James Judge

Judge Patent Associates
Dojima Building, 5th Floor
6-8 Nishitemma 2-chome, Kita-ku
Osaka-shi 530-0047
JAPAN

U.S. Voicemail/Fax: (703) 997-4565
U.S. Call Forwarding: (305) 938-7119

James W. Judge

JUDGE PATENT ASSOCIATES
Dojima Building, 5th Floor
6-8 Nishitemma 2-chome, Kita-ku
Osaka 530-0047
JAPAN

June 9, 2010

Patents
Honorable Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Attention: Elizabeth L. Dougherty
Office of Patent Legal Administration
Office of the Associate Commissioner for Patent Examination Policy

Comments on Enhancement in the Quality of Patents and on United States Patent and Trademark Office Patent Quality Metrics

- Per Notice in the **Federal Register** / Vol. 75, No. 80 / Tuesday, April 27, 2010 -

ASSURING QUALITY IN PATENT SPECIFICATIONS RENDERED FROM FOREIGN LANGUAGES

I. Introduction

I am a practicing U.S. patent agent writing to suggest ways to assure quality in patents whose specifications originate in foreign languages rendered into English for filing with the USPTO. For reasons that will be clear from the analysis I present below of USPTO patent statistics, my comments will focus primarily on Japanese-origin English specifications, which I am most familiar with in my practice.

Of all foreign-origin U.S. patents issued to date, those originating from Japan constitute the majority by far. Of the cumulative total number of issued patents originating from outside the U.S., Japan-origin U.S. patents constituted 35% prior to 1996, peaked at just over 47% in 1996, and since that year have continued to constitute at least 42% of the foreign-origin U.S. patents issued annually.

What is more, as of the end of calendar-year 2009 nearly 17% of all domestic- and foreign-origin U.S. patents ever issued derived from Japan. Germany, while in second place, is the country of origin of just 7%, two-fifths of the number originating from Japan.

As of the end of 2009, only six other foreign countries are the source of at least a minimal 1% of the total number of U.S. patents issued. The U.K. and Canada together are the source of just under 5% of the total number. The other four of those six are countries where English is not the primary language. France and Switzerland are the countries of origin of just under a combined 4% of the through-2009 U.S. patent total.

The remaining two foreign countries other than Japan where a significant number of U.S. patents originate are, like Japan, countries where the national language is not Indo-European. Taiwan and South Korea together were the source of just over 3% of the total to date. U.S. patents issuing on applications from those countries have, however, been on the rise, with just under 4% originating from Taiwan and over 5% originating from South Korea in 2009.

Looking at these numbers summarily, in 2009, 60% of all foreign-origin U.S. patents issued on applications from Japan, Taiwan or South Korea. Those patents issued on applications whose specifications were rendered into English from the non-Indo-European languages of those countries.

In my professional opinion, translation of Japanese into English by non-native speakers of English is often, but not always, less likely to be of acceptable quality than such translation by native speakers of English. And my educated guess is that translation of Japanese, as well as of Taiwanese and Korean, into English by non-native speakers of English is less likely to be of acceptable quality than translation into English of Indo-European languages, such as German, by non-native speakers of English.

II. Patent Specifications Originating from Japanese

At least 1.5 million words, by my estimate, of Japanese-origin patent English arrive at the USPTO every day that the Office is open for business. Japanese entities file some 300 patent applications with the USPTO every business day; assuming, conservatively, that the written part of each specification averages twenty pages means easily 5,000 words per case. According to the Office's filing statistics for 2008, the latest year for which data broken down by country of origin is available, 82,396 applications, or 18% of the total number of applications filed, were by Japanese applicants. That means the Office took on an at least 412-million-word payload of Japanese-origin patent English in 2008.

But as anyone—examiners, to begin with, and then at least patent practitioners—who must read that English knows, might does not make right: The might of the sheer volume of Japanese-origin patent English does not mean the English is right easy to read and understand. The might of the sheer volume of Japanese-origin patent English does not mean the terminology is right, either. And as many an examiner and practitioner knows full well, some of the Japanese-origin patent English is prohibitively difficult to make sense of, at least not without the undue effort of rereading it several times.

I believe that the Office could effect improvement—beneficial to patent owners, the patent legal profession, and to the public who rely upon or consult patents as technical literature—in the quality of English patent specifications originating from foreign languages, and could especially effect improvement in the currently 26% that, of the total number of patents that the USPTO issues, is on applications originating from Japan, Taiwan and Korea. I believe that the specifications for that one-quarter of currently issued patents could be considerably improved without requiring what is presently impossible—that every case be rendered from the Japanese or the Taiwanese or the Korean by translators of skill attested to as acceptable by professionals whose first language is English, or that the specifications be thoroughly revised editorially by qualified professionals.

For the past twenty years I have been professionally involved with editing, and for the past fifteen with translating, Japanese-origin English patent specifications. For the past twelve years I have as a U.S. patent agent prosecuted applications based on such specifications. That experience addressing and resolving problems with Japanese-origin English patent specifications leads me now to propose the following as means for the USPTO to assure quality in U.S. patent specifications originating from foreign languages.

III. Assuring Quality in Foreign-Language-Origin U.S. Patents

Insisting on Terms of Art

In respect of claim language, the PTO already admonishes applicants to use terms of art. MPEP 2106, "Patent Subject Matter Eligibility," under section II.C. states,

> If the applicant asserts that a term has a meaning that conflicts with the term's art-accepted meaning, USPTO personnel should encourage the applicant to amend the claim to better reflect what applicant intends to claim as the invention. If the application becomes a patent, it becomes prior art against subsequent applications. Therefore, it is important for later search purposes to have the patentee employ commonly accepted terminology, particularly for searching text-searchable databases.

(Emphasis added.) Meanwhile, MPEP 2173.05(a), "New Terminology," under section III., "Terms Used Contrary to Their Ordinary Meaning Must Be Clearly Redefined in the Written Description," states, "It is appropriate to compare the meaning of terms given in technical dictionaries in order to ascertain the accepted meaning of a term in the art."

I must note that MPEP 608.01(g), Detailed Description of Invention, seems at first blush to contradict MPEP 2106. MPEP 608.01(g) includes the statement, "An applicant is ordinarily permitted to use his or her own terminology, as long as it can be understood." I do not think, though, that this means that Office policy is to forgive terminology that is the result of mistranslation or overly direct translation. I think that the Office would ordinarily permit an applicant to use his or her own terminology for either of two reasons: One, to be supportive of independent inventors drafting their specifications and prosecuting their applications *pro se*; and two, to allow an applicant to "be his or her own lexicographer," as set forth in MPEP 2173.05(a), "New Terminology," so as to ensure that innovators of technology that is so truly pioneering as to require the creation of new terminology are permitted to do so.

Considering the number of Japan-origin U.S. patents with terminology, in the claims and elsewhere, that is not what is standard in the given art in the U.S. makes me assume that PTO personnel are not going to the trouble of "ascertain[ing] the accepted meaning of a term in the art," in order to compare what appears in Japan-origin English specifications against the accepted terminology.

Yet if the PTO was more rigorous in insisting that art-understood terminology be used in patent specifications, the PTO could assure quality that is at least to the benefit, as the PTO notes in MPEP 2106, of searches, especially when conducted on text-searchable databases.

Metrics for Verifying Terms of Art

The PTO already has a vast, state-of-the art catalog, crucial to the examination search process, of technical terminology. The PTO could exploit that resource as the metrics for assessing whether any given terminology in a patent specification is art-accepted; that metrics is available to the public at large and, through the Office's website, to translators throughout the world.

- That metrics is the **Manual of Patent Classification**.

The burden of ensuring that art-accepted terminology is employed in U.S. patent specifications of course rests initially on the shoulders of the applicant. That burden is not

difficult to shoulder for the majority of U.S. and native-English-speaking applicants because they are conversant in the language, even as it evolves, of their fields of inventive activity, and are likely already employing, if not defining, the art-accepted terminology.

Yet the majority of Japanese applicants for U.S. patents are conversant in a language whose direct equivalents in English sometimes diverge from the art-accepted terminology such that the quality of specifications translated from the Japanese is compromised.

The Japanese terminology in a given art often enough will have evolved based on deliberate, scientific renderings from English that back-translate directly. A fairly good example is 「写真複写機」 (*shashin-fukusha-ki*), or "photocopying machine," "photocopier," usually shortened to 「複写機」 (*fukusha-ki*), just as "photocopier" is shortened to "copier."

Sometimes a Japanese term in a given art will be straightforward rendering of the technical meaning, whereas the art-accepted term in English might have assumed a jargonistic form. An example where the difference is likely not important is 「チップ分割線」 (*chippu bunkatsu-sen*), literally "chip-dividing lines," whose English equivalents in the art include "dicing" or "singulation" lines, or even dicing or singulation "streets." An example where the difference could, however, affect search results is 「異種基板」 (*irui-kiban*), or literally, "different-type substrate," whose English equivalents include "heterosubstrate" or "nonnative substrate."

Yet sometimes the Japanese terminology will have evolved based on a divergent technical perspective or independent engineering approach, such as to lead to terminology that back-translates into language that might, with some effort, be understandable to persons skilled in the art, but is not the standard, art-accepted terminology in the U.S. An example is 「環境ホルモン」 (*kankyō horumon*), literally "environmental hormone," better known and understood by the art-accepted term, "endocrine disruptor." Another example is 「パルスモータ」 (*parusu mōta*), commonly referred to not as a "pulse motor," but as a "stepper motor" or "stepping motor." A still further example is 「ＣＲ回路」 (*CR kairo*), or "CR circuit," more commonly referred to as an "*R-C* circuit"—a *resistance-capacitance*, not capacitance-resistance circuit—in the U.S.

It is instructive to look at some numbers regarding this last example. An Internet-based search through *Scirus.com* on the Boolean search string <"CR circuit" AND ("United States Patent and Trademark Office")> yields 701 issued U.S. patents and published U.S. patent applications. A full 85% of those patents and applications originated in Japan. And many, if not most, of the remaining 15% originated from outside the U.S. On the other hand, a *Scirus.com* search on the Boolean string <"RC circuit" AND ("United States Patent and

Trademark Office")> yields 10,762 issued U.S. patents and U.S. patent-application publications. Only 8.5% of those patents and applications originated in Japan, 5.5% originated in Taiwan, and less than 2% originated in Korea.

Sometimes the Japanese terminology will come about based a unique "Japanese-English" usage, in which case the terminology simply does not back-translate intelligibly. An example is 「ジャストの基板」 (*jasuto no kiban*), which over-literally is "a just substrate," but would at least be rendered "an exact substrate" by a diligent or experienced translator; more understandably in the art, however, the article is termed "a nominal substrate."

And sometimes the Japanese terminology appearing in patent specifications is based on trademarks or trade names popularized in Japan, but that do not back-translate without becoming misleading or even unintelligible. The classic example is 「マジックテープ」 (*majiku-tēpu*), a Japanese trademark which in directly equivalent English is "Magic Tape"—a term that in the U.S. would be a brand in 3M Company's Scotch Tape family, but in Japan is used to refer generically to hook-and-loop fasteners (Velcro™). A trade-name derived example, meanwhile, is 「ブラウン管」 (*barun-kan*), literally, "Braun tube," which is commonly known as a cathode-ray tube in the U.S.

Again looking at the numbers: There are 1,144 issued U.S. patents in which the term "Braun tube" appears. As MPEP 608.01(v), "Trademarks and Names Used in Trade," notes,

> Names used in trade are permissible in patent applications if:
> (A) Their meanings are established by an accompanying definition which is sufficiently precise and definite to be made a part of a claim; or
> (B) In this country, their meanings are well-known and satisfactorily defined in the literature.

Yet it would seem that in 1,144 issued U.S. patents, PTO examiners did not enforce the requirements set forth in MPEP 608.01(v). Perhaps the examiners in those cases knew the history of the CRT, or consulted appropriate reference works to learn that the CRT was invented by the German physicist Ferdinand Braun—hence the Japanese term—and thus forgave the usage of the nonstandard terminology. Still, the fact that the art-accepted term was not employed in those 1,144 issued U.S. patents is a hindrance to the patent search process, thus affecting the quality of patentability searches, examination searches, patent evaluation searches, and invalidity searches—not to mention the quality of the 1,144 patents themselves.

Of course, translators and others responsible for preparing foreign-origin U.S. patent specifications can consult technical dictionaries, references and textbooks to do their best

to ensure they are employing the art-accepted terminology. But with a language as vastly different from English as is Japanese, and depending on the technical field and how close the subject matter is to the vanguard of that field, finding the art-accepted English equivalent of the Japanese is not an easy job.

That job would be made easier for translators foremost, but also for others responsible for preparing foreign-origin U.S. patent specifications, if the Office would:

(1) Rigorously enforce the requirement that art-accepted terminology be employed, not only in the claims, but in the specification as well; and

(2) Make the Manual of Patent Classification a resource suited, in addition to the roles it presently serves, to the purpose of ensuring that art-accepted terminology is employed in patent specifications.

Implementing my first suggestion above could, of course, be simply by making it incumbent upon examiners to be vigilant for suspect terminology when examining claims and going through the specification.

The Office already urges examiners to require of applicants that their specifications be intelligible. MPEP 608.01(g), referenced earlier hereinabove, further states, "Necessary grammatical corrections, however, should be required by the examiner." There the MPEP then immediately pulls its punch by adding, "It must be remembered that an examination is not made for the purpose of securing grammatical perfection." Yet I would urge, in particular with regard to specifications translated from non-Indo-European languages, that, based on the simple necessity of intelligibility and ease of understanding—not grammatical perfection—of all patent specifications, PTO examiners could be much more diligent in requiring "necessary grammatical corrections."

Indeed, in cases where merely making "necessary grammatical corrections" would be like putting a Band-Aid™ on a hemorrhaging laceration, MPEP 608.01(q), "Substitute or Rewritten Specification," noting that **"**the specification is sometimes in such faulty English that a new specification is necessary," provides that "in such instances, a new specification should be required." In my entire career I have encountered such a requirement from an examiner only on a couple of occasions, but on many more occasions I have thought that a substitute or rewritten specification would have tremendously benefited the application.

- A more systematic approach to implementing my first suggestion above might be to **require that the "search query" terms**, as listed in the "Examiner's Search Strategy and Results" often appearing in the Image File Wrapper for a case, **be vetted against the class definitions** for the classes in which an invention has be categorized into.

- Implementing the second suggestion above would require, at least as I am urging by these comments, **making the class definitions**, indexed in the PTO's patent classification system, **text searchable online**.

MPEP 902.02 notes that "All classes and subclasses (class definitions) in the USPC [U.S. Patent Classification System] are available online to USPTO personnel."

- Why not make that information available online to the general public—in particular, to translators and others responsible for preparing foreign-origin U.S. patent specifications?

The fact that the PTO updates the information in the Manual of Patent Classification every two months (MPEP 902.01) and includes definition notes (MPEP 902.02(a)) doubtless would make the USPC an invaluable tool for the patent-application preparing and prosecuting, and patent-using, public.

A corollary suggestion I have to my foregoing two suggestions is to:

(3) Require, not just encourage (MPEP 608.01(c))**, that the "Field of the Invention" statement at the head of patent specifications paraphrase or match the applicable class definitions.**

I believe that this would go a long way toward ensuring that art-accepted terminology is employed, to the extent possible, in U.S. patent specifications.

Titles

Lastly, a word on titles in Japan-origin U.S. patent specifications. MPEP 606 requires that the title of the invention "must be as short and specific as possible." Most important, the view under U.S. practice is that the title is indeed *of the invention*. Titles at the head of patent specifications originating in Japan, however, rarely seem to be a name specific to the invention, but instead seem to be a title *for* the invention, or really, the specification—in effect, just a category into which the specification may be placed.

For example, the term "Image-Forming Apparatus" appears in the titles of 13,656 issued U.S. patents, of which 12,907, or 94.5%, are of Japanese origin. Such terms make a title a non-title: Such terms are of little value for searching, of little meaning in and of themselves. What, after all, is an "image-forming apparatus"? A pencil? And whatever an image-forming apparatus is, as a stand-alone title among, or a major component of, those 13,656 titles, why does the image-forming apparatus appear to have been invented hundreds, if not thousands, of times over?

- In a Federal Register notice a few years ago, it was noted that the U.S. patent statute does not require specifications to include a title of the invention. Yet titles that are truly *of the invention*, and not *for the specification*, and that are "as short and specific as possible" would be of tremendous benefit to the patent-searching public.

IV. Conclusion

- The PTO can readily and economically implement measures to assure better quality in more than one-quarter of the patents it issues—in patents that originate in Japan, Taiwan and South Korea.

- A principal means of assuring better quality, and the metrics for assessing that that quality is being achieved, is the PTO's patent classification system, but only if made available to the public in text searchable form, online, so that the Office and applicants can work toward ensuring that specifications employ art-accepted terminology to the extent possible.
  - In addition to the PTO on its own updating the patent classification system, the Office could invite industry experts and standard-setting bodies to contribute to updating and enhancing the system.

- Specifications employing, to the extent possible, terms of art, and that are headed by meaningful titles will be of immense help to the patent search and evaluation process.

- The PTO should no longer ignore the need to improve the quality of specifications originating from Japan, as well as from South Korea and Taiwan, especially as the Office is doubtless anticipating an eventual deluge of applications originating from China, where problems—owing to translation—similar to problems with Japanese-, Korean-, and Taiwanese-origin specifications are sure to arise.

- I believe that assuring quality in patent specifications rendered from foreign languages, especially non-Indo-European languages, will:
  - Expedite the search and examination processes;
  - Improve the results in patentability searches;
  - Positively influence standards setting;
  - Assist patent evaluation and valuation; and
  - Help in claim interpretation in clearance searches, opinions, and litigation proceedings.

Assuring quality in U.S. patent specifications from Japan ultimately will help Japanese companies as the owners of large portfolios of U.S. patents in the evaluation of those portfolios—in the first place to determine the business value of continuing to pay maintenance fees.

Respectfully submitted,

/James Judge/
Reg. No. 42,701