Chapter 5

Japanese-to-English Translation of Patent Documents for Filing in the U.S.*

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5.1. Introduction

Japanese-to-English translators working with Japanese patent documents in an effort to produce patent specifications for filing in the U.S. face a set of requirements and problems that are radically different from those faced by their colleagues who translate patent documents for information. Little has been written on this subject for the Japanese-to-English translator, and it is hoped that the following information will serve to fill in some of the gaping holes in the literature.

5.1.1. Market Requirements

It is accepted common wisdom that "for-information" J-to-E patent translation, the type mostly done in the U.S., should closely follow the style and content of the original, including such distinctly Japanese expressions as "characterized by," an expression that almost no patent practitioners in the U.S. would use. In translation for filing, however, following the original style could very well produce a patent specification that is not very useful in the U.S. Because of this, the translator is given much more freedom to adjust the style of the specification to suit U.S. practice. This fact cannot be overemphasized, although it might strike fear in the hearts of J-to-E patent translators accustomed to strict adherence to Japanese patent style.

5.1.2. How Far Can the Translator Go?

The outer limit of the translator's authority to manage the style of the translation is dependent upon the translator's relationship with the client. This is a major distinction between for-information translation and for-filing translation. In the former case, the original author is often 10,000 miles away and almost never accessible by the translator or the reader of the translation. In the latter case, however, the *benrishi* (弁理士) is often a phone call (or even a few stops on the subway) away. With this access – and the ability for

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the client and translator to get to know each other – the relationship can be very different, and depends on a number of factors: how much the *benrishi* trusts the translator, how brave the *benrishi* is, how confident the translator is, and others. For example, I routinely re-order claims when their sequence violates U.S. practice. The client does not mind. I have had clients claim things you can't claim (for example, an effect or advantage of the invention being recited as an element in a claim), and I have removed or changed them (with an intervening phone call or at least a fax saying what I was doing, of course). However, there might be *benrishi* not willing to allow the translator this much freedom.

Although these facts of Japanese patent translation life are not easily knowable from outside Japan, it is quite routine in Japan for a patent practitioner to demand explicitly that the J-to-E translator produce an English patent specification conforming to U.S. patent practice. This obviously precludes translation in the strict sense of the term, and clearly requires the translator to have knowledge of U.S. patent style.

The claims must claim the same invention, and to do so inevitably undergo radical stylistic changes as they are transformed to U.S. patent style. To be able to translate the claims, therefore, one needs to be familiar not only with what the Japanese claims mean in Japan, but also with the language necessary to claim the same invention in accordance with the interpretation placed on U.S. claims language. For interpretation of the claims, the United States Patent and Trademark Office (USPTO) looks only at the English specification, and cannot be expected to allow an invention because it was claimed properly in Japanese. Using English words to write a Japanese-style claim could cause trouble in a courtroom, where many of the most important patents in the U.S. eventually are evaluated. In short, the U.S. claims serve the same purpose as, and must claim the same invention as the Japanese claims – providing, of course, that this is the understanding of the drafter of the claims. When in doubt as to what the invention is, the translator should ask the drafter of the claims, who is usually a *benrishi*.

5.1.3. Differences between Clients

Some clients provide a source text that is nothing more than the patent specification as submitted to the Japanese Patent Office (JPO) for the same invention, and require the translator to make structural rearrangements and stylistic changes to conform to U.S. practice; many others will write a patent specification with the understanding that it will be translated. In the latter case, the source text is often organized like a U.S. patent specification.

5.2. Market Characteristics

5.2.1. Size

Statistics from the USPTO indicate that Japanese inventors have recently been filing more than 30,000 U.S. patent applications each year. Making fairly reasonable assumptions of 8000 words per patent, and about 240 working (translating) days per year, this equates to 1 million words of patent specification production daily to serve the demand for filing in the U.S.

5.2.2. Shift To Off-Shore Providers

A slow shift is being seen to off-shore providers of patent translation for filing. By off-shore I refer not to countries such as India, but rather to places like San Francisco, Seattle, and New York.

An increasing awareness of the need for quality, the very small number of people who can provide that quality in Japan, and the low rates (relative to Japan) in the U.S. are factors which encourage this shift.

5.2.3. Shift Away from Using Patent/Law Offices in Japan as a Go-Between

Another factor in the shift to off-shore providers is an increasing awareness on the part of Japanese manufacturers (employers of inventors) that Japanese patent/law offices often add price but not much value to translations, and merely act as brokers for the services of U.S. patent attorneys. Another factor is the desire of translation providers in Japan and elsewhere to obtain work directly from Japanese entities.

5.3. U.S. Patent Application Requirements

In the material below, the following abbreviations will be used in citing sources.

MPEP Manual of Patent Examining Procedure.
This huge document (or rather several hundred pages thereof) is a must for a patent translator, and is easy to obtained – for free, as will be explained.

37 CFR Title 37 - Code of Federal Regulations
Patents, Trademarks, and Copyrights

35 U.S.C. Title 35 - United States Code
Patents (commonly referred to as the Patent Law)

The required parts of a patent application are:

- Written application
- Specification
- Drawing(s) (when necessary)
- Oath by the applicant

The specification and the accompanying drawings are virtually the only parts of the filing documentation that need the attention of the translator.

5.3.1. Parts of the Specification

Title of the Invention (MPEP 606)

The title of the invention is placed at the top of the first page of the specification. It should be brief but technically accurate and descriptive, preferably from two to seven words.

Background of the Invention (MPEP 608.01(c))

The "Background of the Invention" usually has two parts:

1. Field of the Invention:
   A statement of the field of art to which the invention pertains.

2. Description of Related Art:
   Paragraph(s) describing the prior art or other information disclosed known to the applicant, including references to specific prior art or other information where appropriate.

Summary of the Invention (MPEP 608.01(d))

This is a brief summary of the invention, which may include a statement of the object of the invention, and is located before the detailed description of the embodiments.

Brief Description of the Drawings (MPEP 608.01(f))

Description of the Preferred Embodiments (Detailed Description of the Invention) (MPEP 608.01(g))

A detailed description of the invention and drawings follows the general statement of invention and brief description of the drawings. This detailed description must be specific enough to enable any person skilled in the art related to the invention to make and use the invention without requiring extensive experimentation (this sometimes being referred to as the "enabling" requirement). The applicant (and, by extension, the translator) is ordinarily permitted to use his or her own terminology, as long as it can be understood.

Reference characters must be properly applied to elements of the invention. No single reference character, of course, can be used for two different parts or for a given part and a modification of such part. In the latter case, the reference character, applied to the given part, with a prime (apostrophe) affixed may be applied to the modification as its reference character. Every feature specified in the claims must be illustrated, but there should be no superfluous illustrations. In rare cases – namely, when they are not required – there will be no drawings. These requirements with respect to reference character duplication and superfluous drawings are things which the translator should keep in mind. Japanese patent documents, as handed to the translator, are often less than perfect in this respect. Wrongly applied reference characters are a particular problem. I recommend the use of an real-time typing enhancer (more on this later) as an aid in maintaining consistency of numbering and terminology.

Important statutory language for the translator:

> The description (of the preferred embodiments) is a dictionary for the claims and should provide clear support or antecedent basis for all terms used in the claims.

Claims (MPEP 601.01(i))

The specification must conclude with a *claim particularly pointing out and distinctly claiming* the subject matter which the applicant regards as the invention.

This says it all: the claims (supported, of course, by the preceding descriptive part of the specification) are the invention. This, and the fact that claim structure differs so greatly between Japan and the U.S., present the most difficult challenges to the J-to-E patent translator.

Abstract of the Disclosure

The abstract of the disclosure is added as a convenience for searching, and in no way bears on the breadth of the claimed invention. The translator should use a style that is close to that of the descriptive part of the specification, and should not use the word "said," as it is used in claims.

5.3.2. Statutory Classes of Inventions

It might seem unnecessary to the translator to worry about what statutory classes of inventions exist; it is not, as will be demonstrated.

Machine or apparatus

Process or method

Article of manufacture

Composition of matter

For the purpose of translation, machine or apparatus inventions and articles of manufacture inventions are very similar, but process or method inventions are quite different in terms of the elements that make up the invention as recited in the claims.

5.4. Converting a Japanese Specification into a U.S.-Formatted Specification

The basic sequence of a U.S. patent specification as requested by most of my clients and the locations of equivalent content in a Japanese patent are given below. Note that this sequence differs slightly, for example with regard to the placement of the abstract, from the published sequence you will encounter in already-granted U.S. patents. The following is only what is normally requested by most of my clients. The actual sequence desired should be verified with the client before you start the job.

TITLE OF THE INVENTION [from 発明の名称]

BACKGROUND OF THE INVENTION

1. Field of the Invention
   [from 産業上の利用分野]

2. Description of the Related Art
   [from 従来技術, but note that seldom will the content of that section in Japanese satisfy U.S. requirements as is.]

SUMMARY OF THE INVENTION
[from 発明が解決しようとする課題 and 課題を解決するための手段]

BRIEF DESCRIPTION OF THE DRAWINGS
[from 図面の簡単な説明, which it should be noted appears after 実施例 in Japanese patent publications]

DESCRIPTION OF THE PREFERRED EMBODIMENT
[from 実施例]

What is claimed is: [or similar language – see Section 5.8]
[Claims themselves–taken from 特許請求の範囲, appearing at the beginning of the Japanese specification]

ABSTRACT
[from 要約, but does not include a separate 目的 section as found in Japanese patent publications]

[Drawing material inserted here. The format of presenting material within drawings will be very client-specific, because of the different ways in which the drawings can be prepared. For example, most of my clients ask for everything in drawings to be typed in all caps and in a location so that the draftsman will know how to label the English version of the drawings.]

Again, the actual sequence to be used will often be specified by the client, and will not necessarily be the same as the sequence you see in published U.S. patents.

5.5. Object of the U.S. Patent Specification

For the translator, the purposes of the specification are:

- to inform the examiner of the invention as perceived by the inventor; and
- to convince the examiner that the invention is novel.

5.6. Terminology

Although patent terminology is often discussed as if there were some magic set of terms that translators need to discover the equivalents for, there is surprisingly little technical terminology that is unique to patents. Most patent glossaries also include much terminology that the patent translator would have needed to know even before thinking about starting patent translation. The *Japanese-English Dictionary of Patent Terms* by Yukisato Iida and the accompanying E-J volume are examples of this mix of patent and general technical terminology.

5.6.1. Statutory Guidelines

MPEP 608.1(g)

> An applicant is ordinarily permitted to use his or her own terminology, as long as it can be understood.

MPEP 608.01(o)

> The meaning of every term used in any of the claims should be clear from the descriptive portion of the specification, with clear disclosure as to its import; and in mechanical cases, it should be identified in the descriptive portion of the specification by reference to the drawing, designating the part or parts therein to which the term applies. A term used in the claims may be given a special meaning in the description. No term may be given a meaning repugnant to the usual meaning of the term.

When a translator is asked to translate only the claims of a patent, the above language should be recalled, as it clearly indicates that the USPTO recognizes the importance of the descriptive portion of the specification in understanding the meaning of the claims, and understanding the claims is an obvious requirement for translating them.

5.6.2. Two-Character Japanese Compounds

One type of Japanese terminology that plagues J-to-E patent translator on both sides of the filing fence is the two-kanji compound form that is often used to describe how elements of an invention are connected or otherwise interrelated.

Examples:

突設　　枢設　　巻設　　係止　　螺合

These terms are almost always ignored by reputable terminology organizations and dictionaries, and until recently I was under the impression that the only books that even mentioned them were ones written for lay people (Ishii 1988 and 1990) as I mentioned in my talk at IJET-5 Conference (Fifth International Japanese/English Translation Conference, held in Chiba in 1994). This view has turned out to be mistaken. A patent client called me recently with a job to translate a list of over 300 of just this class of compound. The list is included in the Appendix at the end of this chapter.

5.6.3. Developing a Stock of English Terminology

"There + preposition" constructions:

> thereafter, thereagainst, therealong, thereamongst, therearound, therebecause, therebefore, therebeneath, therebetween, therebeyond, thereby, thereduring, therefor, therefrom, therein, thereon, therethrough, therethroughout, thereto, thereunder, thereupon, therewith, therewithin

The above are all very official sounding, and some may think that these words serve no purpose other than to make the patent specification author sound unctuous. Nevertheless there is a reason for having even some of the most bizarre of the above terms, and that is to avoid having to use both singular and plural forms in a case in which either condition applies. For example:

> Plate 23 has one or two apertures, a bushing being fitted to the inside edge thereof

versus

> Plate 23 has one or two apertures, a bushing being fitted to the inside edge of the aperture or apertures.

The latter rendering is clearly strange, and the use of "edge of each aperture" also sounds strange when there is only one aperture.

5.6.4. Terminology Used in U.S. patents

Patent drafters make use of an arsenal of terminology that is broader than normally found in technical writing. Some of it appears superfluous, and is indeed superfluous. Yet, some of the arcane terms used in U.S. patents have gained a foothold for reasons that the translator should know. In the world of patents, the author of the specification (and most certainly, the drafter of the patent claims) wishes to keep the language used as generic as possible.

In the interest of maintaining the generic nature of the terminology, and therefore the breadth of the description of the invention, opening or aperture will often be seen for hole. "Cutting means" allows the author to include scissors, razor blades, nail-clippers, and virtually any other device that can cut in the description of an element that cuts. "Propulsion means" can include an internal combustion engine, a jet engine for a fighter plane, or a battery-driven motor for a toy. The diligent translator should become aware of such terminology, as well as the many shape-describing terms which are encountered in U.S. patents.

The translator should strive to develop not only a stock of such terms, but also the sense of when to use them. The best way to do this is simple, but not easy; it is to read as many U.S. patents as you can obtain. With the World Wide Web available, obtaining U.S. patents is not a problem, and involves only the cost of a local telephone call.

5.7. General Style and Structure

5.7.1. Referring to the Invention

The invention can be referred to in a number of ways. The translator does not need to spend time worrying about this. Some of the ways are:

the present invention
the invention
this invention (first use, followed by the present invention)
the disclosed invention (sometimes used in the abstract)
the instant invention
my invention
our invention.

My choice happens to be "present invention," which is by far the most common expression used in patents. This expression happens also to avoid the problem of wondering, in some cases, whether there are two or more inventors (Remember, even though the assignee is a company in most cases, the application is filed by the inventor or inventors). To achieve consistency with such constantly recurring expressions as "present invention," I use a real-time typing enhancer, calling "present invention" up by typing "pri" followed by a space or other break character.

A brief comment about real-time typing enhancers is in order. Because the version of word-processor that I use has a very inconvenient abbreviation-expansion function, I use an outboard program for this function – one which runs with whatever applications I select. My particular typing enhancer is Thunder 7, but there are many others. This type of program is of great value to patent (and other) translators because: (1) it saves a great amount of typing (i.e., makes you money); and (2) it improves consistency, an essential quality in patent translation. I routinely use a general patent abbreviation glossary (which has such commonly used equivalents as: "pri" = "present invention," "api" = "according to the present invention," and "atc" = "according to claim"), and a job-specific abbreviation dictionary which I develop as I go along for each job, this glossary typically including abbreviations for elements of the invention (which can be quite long spelled out fully), thereby both saving the typing effort and expressing the name of the element (and the accompanying reference character) the same way each time.

5.7.2. One-Sentence Rule

The one-sentence rule – essentially the rule of practice that says that a claim is a single sentence (more precisely, a noun clause which forms a sentence when appended to the introduction to the claim) – has absolutely no affect on the way the translator treats sentences in the descriptive part of the specification. Outside of the claims, the translator is free to break sentences up or combine them as required by the translation task and the target U.S. patent style. Translators who find this either distressing or appalling should reread the Market Requirements section; in this respect, translation for filing is clearly different than translation for information. The application of the one-sentence rule to claims language will be discussed as part of the claims problem.

5.7.3. Articles

In the claims, an indefinite article is used upon the first occurrence of an element, and the definite article is used at subsequent occurrences.

Outside of the claims, however, this rule is not always followed, especially when a number of different embodiments are being described, each having a repetition of elements from a previous embodiment. A patent author might very well describe valve 23 as "a valve 23" in the second embodiment, even if it has already appeared as "a valve 23" in the first embodiment.

5.7.4. "Said"

This almost universally used substitute for the definite article need not be used. The word "the" serves the same purpose. An investigation of many recent U.S. patents indicated that "the" is gaining ground, but very slowly; most patent practitioners and translators still cling to "said." I suspect that Japanese clients would be more fearful of using "the" than U.S. practitioners, and the translator might want to think about that before becoming a pioneer in patent style reform.

Having said the above about "said," I would offer the following rules:

- Don't use "said" outside of the claims, regardless of how much the Japanese patent document uses 該, 当該, 前記, or similar "said-evoking" expressions in the detailed description of the invention; said is out-of-place except in the claims, and can even be eliminated from the claims, according to authorities (Landis).
- Never use the redundancy "the said," unless comic relief is intended.
- Be consistent in using "said" or "the" (one possible allowable exception being discussed in the section on claims).

5.7.5. Drawings

The patent translator is blessed with something the instruction manual translator sometimes does not have – a full set of drawings describing the subject of the text.

In the brief description of the drawings (and sometimes when referring to drawings thereafter in the specification) it is best to refer to the drawings by the type names that are used in 37 CFR. Examiners are accustomed to seeing these names. This list of names would include the following types of views.

- Names of views: plan, elevation, section, perspective, exploded, partial, sectional (37 CFR 1.84)
- Other types of drawing names: block diagram, flowchart

The translator should strive for consistency in referring to views of drawings, and the typing enhancer is a valuable tool in achieving that goal.

When drawings are referred to in text, the most common form is the abbreviation "FIG. N," although there is nothing in the rules that calls for this. Against my better judgment (and that of a number of style manuals) about plurals of abbreviated items, I have adopted the common practice in the U.S. of using such abbreviations to refer to contiguous sequences of drawings (e.g., "FIGS. 3 through 7"). Again, nothing in the rules calls for this; it is just a common practice.

5.7.6. Reference Characters

The normal style for reference characters is a simple integer. If an element assigned a reference character is further broken up into sub-elements, lower-case letter suffixes (e.g., "12a," "12b") are often attached to the parent reference character, in contrast to the upper-case letters sometimes used to label parts of a drawing (e.g., "FIG. 2A" or "FIG. 2(A)"). Again, nothing in the rules calls for this; it is simply what is commonly done.

A reference character should not be allowed to appear at the beginning of a sentence – common sense style, but sometimes violated by translators overeager to maintain the structure of the original. If this stylistic problem lurks near (e.g., because of a Japanese sentence which starts "34 は蓋３３の上面に取り付けられる温度検出手段で. . ."), rearrange the sentence to avoid the problem; as the translator you have the freedom to do this.

When two or more of the same element appear in a sentence adjacent to one another, phrases like "widgets 45, 46 are. . ." are sometimes seen in U.S. patents, even when these two widgets are not physically close or connected to one another. Note that a mere comma and space combination separates the two reference numerals. It appears that some U.S. patent practitioners have adopted this as a conventional shortened notation. I do not feel it is necessary to follow this convention.

Ranges of three or more reference numerals should be indicated by the word "to" or "through," rather than a hyphen.

5.8. Claims

5.8.1. Purpose

To particularly point out and distinctly claim the subject matter which the applicant regards as his invention. (MPEP 608.01(i)(a); sexist language is the USPTO's)

5.8.2. Relationship to the Description of the Invention in the Preceding Part of the Specifications

As discussed above, the claims are the invention, but depend upon support from the descriptive part of the specification, in terms of both structure of the invention and meaning of terminology. It should be clear from the earlier parts of the specification to what the terms used in the claims refer.

5.8.3. General Structure

Strange as it might seem, there is no set statutory form for claims, but the present USPTO practice is to insist that each claim complete a sentence which starts with "I [or we] claim," "The invention claimed is," or an equivalent phrase. It begins with a capital letter and ends with a period. Periods may not be used elsewhere in the claims except for abbreviations (MPEP 608.01(m)). It is this last sentence, of course, that is the one-sentence rule.

To avoid worrying about the number of inventors, my choice is "What is claimed is:".

From the above MPEP language, it is clear that what is normally called a claim is a noun clause. Each claim has an integer number. In the case of a single-claim patent (very rare), the claim does not have a number.

Each claim is formed by a preamble, a transition phrase, and a body, the type of elements making up the body depending upon the statutory class of the invention. More on that later. The general form, then, is:

Preamble [usually a form of the name of the invention]

+

Transition [usually "comprising"]

+

Body [catalog of elements and the relationship between them]

The sample below is that of an apparatus claim format:

1. A high impedance, high frequency input circuit for an instrument suitable for measuring AC signals whose frequencies are within a predetermined frequency range, comprising:

   (a) an input terminal for receiving the AC electric signals that are to be measured and an output terminal;

   (b) an input resistor having a first end coupled to said input terminal;

   (c) an operational amplifier having an amplifier input coupled to a second end of said input resistor and an amplifier output coupled to said output terminal; and

   (d) a feedback path coupled from said amplifier output to said amplifier input, said feedback path having a first resistor and a voltage divider, wherein said input resistor, first resistor and voltage divider determine the gain for said input circuit and both the resistance of said first resistor and the total resistance of said voltage divider are significantly less than the resistance of said input resistor such that when said AC electric signals are within said predetermined frequency range said gain of said input circuit is unaffected by stray capacitance associated with said first resistor and voltage divider.

Several things can be said about the style of the above claim (from U.S. Patent 5,332,963; "High input impedance buffer with low feedback resistance"). It has sub-paragraphs and these sub-paragraphs have been assigned symbols. These devices are usually not seen in a Japanese claim, which normally is just a single, long paragraph, appearing as a sea of characters with no distinguishing features to help the reader or the translator navigate. The USPTO encourages sub-paragraphing and assignment of symbols. As the translator in charge of writing the English patent specification, you should feel free to use these tools of organization, especially for extremely long and complex claims with many elements and sub-elements. One exception might be in the case in which a Japanese version of the specification has been rushed to the USPTO before submitting your English translation. More on this later.

Note that the drafter of the claim uses "said" for most elements of the invention, but uses "the" for *gain*. In *Landis*, there is mention that some practitioners make a habit of using "said" with elements of the invention and "the" with things that are not elements of the claimed invention. In this case, gain, an abstract characteristic, is not (and in fact cannot be) an element of this apparatus invention, so the drafter's use of "the" here might be a reflection of the type of usage policy to which *Landis* refers. With the exception of this type of purposeful differentiation, the translator should maintain consistency, using either "said" or "the," but not mixing the two without reason.

One more point about the above claim. A careful reading of sub-paragraph (a) shows that the input terminal can be read as "receiving" an output terminal – illogical, and this could be considered to be a problem. Note, however, that the above claim is from an already-granted patent, and so there seems to be some room for sloppiness, although such sloppiness should be avoided.

5.8.4. Preamble

The preamble is simply an introductory phrase which names or defines (generally) the invention being recited in a particular claim. In general, the simpler the better. Since the foregoing descriptive part of the specification must clearly define the subject matter of the invention and describes to someone skilled in the art how to practice the invention, there is no particular need for detail in the preamble. Thus, a claim for a complex semiconductor device might be extremely simple.

Example:

18. A semiconductor device. . .

When the claimed invention is a machine that operates on a workpiece, details of the workpiece must not be put in the body of the claim in such a manner that they appear as elements of the invention (since the workpiece is not the invention). This information is best included in the preamble.

Example:

1. A rotatable bollard for use in securing a rope or hawser, which comprises. . .

3. A device for connecting a first pair of wires to a second pair of wires, comprising. . .

In the above claim 1, the rope or hawser is not an element of the invention, and in claim 3, the pair of wires is not part of the invention.

5.8.5. Transition

The most commonly (almost universally) used transition is "comprising" or "which comprises." Both of these expressions are "open," meaning that they precede a list of elements that the invention includes, but is not necessarily limited to. This makes it more difficult for a potential infringer to develop a workaround by merely adding elements.

Regardless of how many times people have said that "characterized by having" is patent language, it lies clearly in the domain of for-information translation, and has very little place in J-to-E patent translation for filing, which must conform to U.S. patent practice. Again, this is something that is difficult to know from outside this market. The market, however, is breaking across borders, and the word will probably be getting out that some patent translators have been freed from the yoke of "characterized by," perhaps to be replaced by a more stringent yoke, applied by the need to learn and follow U.S. patent style.

5.8.6. "Characterized"

Much has been written about phrases such as "characterized by / in that / as" which appear often in translations of Japanese patent documents into English. As stated elsewhere, this type of phrase is rarely used in U.S. patents, and tends to make the claim sound European (Armstrong 1986). While this phrase can be used in a Jepson claim, where the "characterizing" elements represent the improvement that is the invention being claimed, the almost universal appearance of the word "characterized" in Japanese claims is not matched by a high occurrence of Jepson claims in U.S. patents, and I tend to feel that to assume that "characterized" implies a Jepson (improvement) claim is a bit cavalier. If you suspect a Jepson claim, the smart thing to do is to ask the drafter of the claim whether the invention is limited to an improvement. Another Jepson-claim-evoking phrase in translated Japanese claims is the phrase "において" immediately following a brief description of the invention. The drafter could have meant everything before the "において" to be prior art, in which case we would have a Jepson (improvement) claim, but it is not at all certain. Often the section before the "において" is a general statement of the invention that is very similar to the preamble in a U.S. claim. Again, you must really ask the drafter of the claim to be certain about this. For more information on Jepson claims, refer to *Landis*.

5.8.7. Body

The body of the claim is generally a catalog of the elements of the invention, but cannot be merely a catalog of elements. It must also include the manner in which the elements interact and cooperate with one another in order to achieve the object of the invention. Thus, it is not allowable to have an element named but not defined in terms of such a relationship to at least one other element.

An examination of Japanese *kokai* will reveal that the body of a Japanese claim sometimes does not follow this convention very closely. Fortunately for the patent translator, however, when *benrishi* draft claims for the purpose of U.S. filing, they tend to follow U.S. practice when writing the claim in Japanese. Thus, there is very often a well-organized string of noun clauses representing the elements of the invention, this string ending with something like "を有する事を特徴とする..." If the translator is presented, however, with the Japanese claims as filed in Japan, he or she might need to rearrange things, again usually well within the translator's authority in this type of translation.

Referring to the sample apparatus claim given earlier, note that there are four major elements in this claim (invention), and also note that the fourth element, a feedback path, is detailed as having two further sub-elements (a first resistor and a voltage divider). It is common to use such sub-elements to describe the detail of each element as it appears in the catalog of elements that is presented in the body of the claim.

The usual format for the catalog of elements these days is a string of paragraphs, each ending with a semicolon, the last semicolon being followed by "and" just before the last paragraph (element).

5.8.8. Sub-Paragraphing and the Japanese-Language Filing Problem

It is possible to file a patent application in the U.S. with a Japanese-language specification, to be followed by an English specification. The requirement for the English specification is that it be a "literal" translation of the Japanese version. What this means still appears to be open to interpretation. This could create great problems for both Japanese patent applicants and translators. Since there are hints that the USPTO does some checking of at least the appearance of the translation to see that new matter was not added to the specification at the time of the translation (i.e., to check that the applicant has not changed the invention after the Japanese-language specification was submitted), the addition of sub-paragraphing or other structural changes, although they can improve readability, could cause problems, since this would create an English specification that could become suspect because of its very appearance.

This procedure for this type of submission is set forth in 37 CFR 1.52. A verified English translation of the non-English language application is required to be filed with the application or within such time as may be set by the Office. The translation must be a "literal" translation verified as such by the translator, and must be accompanied by a signed request from the applicant, his or her attorney or agent, asking that the verified English translation be used as the copy for examination purposes in the Office. If the verified English translation does not conform to idiomatic English and United States practice, it should be accompanied by a preliminary amendment making the necessary changes without the introduction of new matter prohibited by 35 U.S.C. §132. It is clearly stated that this type of filing should not be routinely used for filing applications. The reasons

given for this are the dangers to the applicant and to the public if he or she fails to obtain a correct literal translation, and the significant administrative work load that would result if a large number of applications were to be made in this way.

I have only encountered one translation job following the submission of such a Japanese-language specification, and can say that it cramps the style of the translator and results in a patent specification that is extremely difficult to understand – and probably equally difficult to examine.

The translator should always make sure that the client knows enough to mention if the above type of filing has occurred.

5.8.9. Apparatus Claims

In an apparatus claim, the elements are physical objects which are interrelated, usually forming what can be classified as a machine, which operates according to some set of rules. They are not functions or capabilities; they are physical elements. Sometimes a sloppily written Japanese claim will present a problem in this respect. For example, a recent dependent claim I translated included the terminology "する事によって、XXを省略することができる事を特徴とする" as if the *possibility of eliminating XX* (an element in the invention in the independent base claim) from the invention was itself a part of the invention. The claim should have been written to describe a version of the invention in the base claim from which the element XX was indeed omitted, and without giving background as to how or why the element was omitted or was able to be omitted. This background information belongs not in the claims, but rather in the description of the preferred embodiments. The point of this is that the claims focus on structure and interrelationships between elements that make up that structure, and should not include such spurious content as how an element might be omitted from a particular invention. In the above-noted case, I corrected the problem in the English claims and wrote a note to the drafter of the claim. It was accepted, resulting in a better claim; again, a common prerogative of the translator in translating for filing.

5.8.10. Article of Manufacture Claims

An article of manufacture, unlike a machine, usually does not have moving parts. For the purpose of claims, however, it appears to be in virtually the same format, and should not need to be a concern of translator.

5.8.11. Means

To maintain the generic nature of an element, one common device is the use of a means clause.

Example:

> means for cutting said plate to a length which is responsive to said control voltage;

The general form is "means for [verb]-ing. . ."

Note that no indefinite article is used before means in this format. Subsequent citing of this element will most often be a shortened form with an article, such as "the cutting means," provided, of course, there was only one such cutting means.

5.8.12. Method or Process Claims

The translator must remember that the subject matter of a method or process claim is neither the object or substance produced by, nor a workpiece processed or acted on by the process or method. Nor is it the machine used to perform the process or method; it is the method or process itself.

Generally, the elements in a method claim are gerundial phrases.

Examples:

> grinding said rock. . .
>
> cutting said prescribed length of wire. . .
>
> multiplying said constant by said. . .
>
> detecting the ambient temperature

Unless it is necessary for the achievement of the object of the invention, the sequence of steps should not be specified. This sometimes presents a problem for the J-to-E translator, since it is not generally clear whether or not a "–て、–て、–て" series (common in Japanese method claims) should be taken to imply any particular temporal relationship between steps. When in doubt, ask the drafter of the claims. Fortunately, in this type of translation the author (*benrishi*) is usually available.

Thus, unless there is some basis for them, gratuitous additions such as "then," "after which," and the like will add limitations that could cripple the patent in terms of breadth of coverage, since specifying an unnecessary limitation of sequence could invite a workaround by using a different sequence of steps that achieves the same object.

5.8.13. Composition of Matter Claims

Since I do not encounter composition of matter claims in my work, I am not qualified to discuss them, and will defer to colleagues who are more qualified to speak about the problems in translating patent specification for this class of invention.

5.8.14. Dependent Claims

A dependent claim places added restrictions on the territory staked out by the independent claim on which it is based. It includes by reference all the restrictions of the base (independent) claim. A test of whether a claim is truly dependent is whether or not any invention which infringes the dependent claim also infringes the claim upon which it is based.

There are some conventions of practice with regard to the sequence of dependent and independent claims. These are covered in detail in *Landis on Mechanics of Patent Claim Drafting.*

Since a dependent claim must refer to a preceding claim, it usually starts out by renaming the invention, followed by a phrase giving the base claim number or numbers.

Examples:

35. A spittoon as recited in claim 34, wherein said aperture is elliptical. . .

45. The optical fiber cutting method according to claim 44, wherein said jaws. . ..

An issue that arises, as shown above, is that of whether to use the indefinite or definite article when referring to the name of the invention in a dependent claim. Some argue that since the name of the invention appeared in the base claim it should warrant a "the," but my choice is the indefinite article, since the particular invention in the dependent claim is appearing for the first time, and this choice is supported by about half the large number of dependent claims I have looked at recently.

Note that since all the elements of the base claim are carried over by reference into the dependent claim, a "said" or "the" is used before them if they appear in the dependent claim, just as if they had been recited earlier in the same claim.

5.9. Where To Go for More Information

5.9.1. U.S. Patents Themselves

It is highly unlikely that a J-to-E translator, even a translator who has done considerable for-information patent translation, will miraculously wake up one morning and be endowed with the ability to write in good U.S. patent style. It takes diligence and a willingness to sacrifice at least some immediate profits while you are studying. One of the best ways to learn what is acceptable style is to read U.S. patents issued to U.S. entities (i.e., drafted originally in English). U.S. patents are easy to obtain from a number of sources. Beware, however, of patents that have been translated from Japanese or other languages, as they are likely to retain the stylistic flavor of their original authors.

5.9.2. The JPO Reference Room

The JPO's reference room (in their main building in Toranomon in Tokyo) has an extensive collection of U.S. patents. Copies from bound volumes can be obtained, and terminals are available, from which patents can be searched (using very elementary searching capability) and printed out. The printout charges are rather pricey, but are offset by being able to sit at terminals and do searches for free. More sophisticated searching is available from JAPIO, but the rates for use of their patent database are too high to make them very attractive to translators.

5.9.3. Patent Deposit Libraries

Although being based in Japan prevents me from using this source, the USPTO's web site (see below) gives information on many libraries in the U.S. which have U.S. patents available for viewing and copying.

5.9.4. Valuable Patent WWW Sites

- USPTO

Bibliography data and abstracts for U.S. patents back to 1976 are Boolean searchable and available for free downloading from:

U.S. Patent and Trademark Office
http://www.uspto.gov/

This valuable service can be combined with a service or location that can provide full texts of U.S. patents.

- MicroPatent
  http://www.micropat.com/

This company provides a searchable database of the full texts of U.S. patents for the current week and last week. This represents the full texts of approximately 4000 patents at any one time. Patents can be downloaded for free. This part of the service is usable after registering and receiving a password; registering costs nothing; MicroPatent appears to be hoping that you will use their other for-pay services.

5.9.5. Japanese Patents

Japanese patents are available in bound books and at terminals at the Japanese Patent Office in Toranomon. Printouts from the terminal cost 50 yen each, sold by JAPIO. The JPO has a web site at "http://www.jpo-miti.go.jp/". As might be expected, there are no patents to be had from this site, but it does provide general information and advertising for JAPIO patent searching database services.

5.9.6. Laws and Regulations

The single most valuable document the J-to-E patent translator can obtain from the USPTO is the Manual of Patent Examining Procedure. Before I had access to the World Wide Web, I purchased a paper version of this manual. It is a stack of paper about 15 cm thick. After getting access to the WWW, I realized that this purchase was unnecessary. The USPTO web site given above will lead you (with just a few clicks on links) to an FTP site for the entire manual, or any part you wish to download. I suggest that patent translators download Section 600 first, as this contains most of the information the translator needs with respect to the structure and content of a U.S. patent specification.

5.9.7. Books

Landis on Mechanics of Patent Claim Drafting (mine is the Third Edition, 1990) is a must for the J-to-E patent translator doing the work I have been discussing. It has been the authority on claims drafting for decades. The new edition (1996) is a 560-page looseleaf-bound version with a price tag of $225. I suspect that, like its predecessors, it is worth every bit of its price.

Look for *Landis* it at any of the addresses given below.

Practising Law Institute
810 Seventh Avenue
New York, NY 10019-5818
Tel: (800) 260-4PLI (4754) or (212) 824-5710
e-mail: info@pli.edu
URL: http://www.pli.edu/

5.10. Concluding Comments

The above has been a very scanty survey of a topic which could occupy an entire book. Most of the content follows a presentation I made at IJET-7 (Seventh International Japanese/English Translation Conference, held at Yokohama in 1996) organized by the Japan Association of Translators, and I thank that organization for permission to reuse that material. I encourage people with comments (including corrections to the above information) to contact me (contact information listed at the end of the chapter).

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