

8 Interpretation of Claim in Determining Patentability ^(*)

In this research study, domestic interview surveys and foreign questionnaire surveys were conducted with foreign intellectual property offices and patent firms as well as with Japanese companies and patent agents for the purpose of identifying any possible areas of improvement in the Japanese operations, particularly regarding the interpretation of claims in determining patentability of an invention through comparison with other countries, i.e., the United States, Europe, China, and South Korea, by mainly focusing on laws and regulations and examination guidelines.

Surveys were mainly conducted on the following five themes: (i) Consideration of the Definitions of Terms Used in the Description; (ii) Claims Described by Functions or Characteristics, etc.; (iii) Usage Claims; (iv) Product-by-Process Claims; and (v) Sub-combination Claims.

The Japanese method of interpreting claims was evaluated and examined through research on the state of operation in Japan and comparative reviews on the method of interpreting claims and the underlying concept and background of major countries.

This research study was conducted with an aim to prepare basic materials that would contribute to improving the interpretation of claims in Japan and defining Japan's position in the discussion on international harmonization of the system. This shall be accomplished by using survey results to evaluate the method of interpretation of claims used in Japan.

I Introduction

1 Purpose of this Research Study

Interpretation of claims, which serves as the basis for determining patentability, should be appropriate to performing examinations that suit the purpose of the Patent Act.

The decision on whether or not claims were interpreted in an appropriate manner should, in principle, be made based on the Japanese patent system, the purpose thereof as well as the leading cases. Yet, in light of recent globalization in patent filings and lively discussions on the harmonization of international systems, it is necessary to sufficiently grasp the method of interpreting claims used by foreign countries and the underlying concept thereof, and to further examine the appropriate way to interpret claims in Japan with reference to these concepts.

As a result of the recent comparative studies made on laws and regulations and examination guidelines by the three patent offices of Japan, the United States and Europe, or the five patent offices of Japan, the United States, Europe, China and South Korea, it has been clarified that some of these countries have different practices from Japan under laws and regulations or examination guidelines with respect to the underlying concept of consideration of the definition of terms used in descriptions and the method of interpreting

claims described by functions or characteristics, etc. or usage claims. With respect to the method of interpreting claims, there exist issues to be examined for each specific technical field, i.e., claims described by functions or characteristics, etc. or usage (such as claims with limitation of use for medicinal invention), or claims for IT-related inventions (generally called sub-combination claims).

Therefore, in this research study, the approaches to the following five themes in the specific fields were also covered: (i) Consideration of the Definitions of Terms Used in the Description; (ii) Claims Described by Functions or Characteristics, etc.; (iii) Usage Claims; (iv) Product-by-Process Claims; and (v) Sub-combination Claims. Moreover, the past operations made in Japan were examined and the method of interpretation of claims made in Japan was evaluated through comparative reviews on the method of interpretation of claims and the underlying concepts and backgrounds of major countries. This research study was conducted with an aim to prepare basic materials that would contribute to improving the interpretation of claims in Japan and defining Japan's position in the discussion on international harmonization of the system. This shall be accomplished by using survey results to evaluate the method of interpretation of claims used in Japan.

(*) This is a summary of a FY2012 JPO-commissioned research report on the issues related to the industrial property systems.

II Consideration of the Definition of Terms Used in the Description

1 Operations in Japan

In Japan, statements of claims are interpreted as they are to identify the claimed invention, if they are clear themselves. Provided that if the terms used in the claims are defined or explained in the description, etc., such definition or explanation shall be taken into consideration. When the claimed invention is not specific even when considering the statements in the description, etc. and technical common knowledge at the time of filing, such claimed invention shall not be identified.

The claimed invention is not identified by the statements in the description or drawings alone without analyzing the claims.

2 Operations in the United States

In the United States, the terms used in the claims are examined with the broadest interpretation. Terms should consistently be used with their ordinary meaning throughout the description, and when the terms are used with a specific meaning, definitions are required.

When the special meaning assigned to the term used in the claim is stated in the description clearly enough for a person skilled in the art to understand the difference between the ordinary meaning and special meaning, such special meaning shall be taken into consideration when interpreting the claim.

3 Operations in Europe

In Europe, except in specific cases where it is mentioned that a term has a special meaning by the definition clearly stated in the description, the term is interpreted as holding the ordinary meaning and scope in the relevant technical field. Where the term has this special meaning, claims shall be required to be amended to make the meaning of the term solely clear from the wording used in the claims to the greatest extent possible.

4 Operations in China

In China, both examinations and trials are conducted mainly in accordance with the Examination Guidelines. First, the claim as a whole shall be sufficiently examined, and then the

contents and mechanism shall be grasped, and finally, the ordinary meaning of the term used in the claim shall be comprehended.

When the ordinary meaning of the term in the claim is consistent with the statements in the description, such term is understood as is; and when a special definition is provided in the description, the terms shall be understood in accordance with the definition in the description. When the meaning of the claim is not clear from the claim alone, the claim shall be understood by taking into consideration the statements provided in the description and drawings. When the meaning of such claim still cannot be understood, the use of examination and dictionaries shall be considered.

5 Operations in South Korea

In South Korea, where the statements of claims are clear, the invention shall be identified as stated in the claims, and shall not be interpreted in a limited manner based on the detailed explanation of the invention or statements in the drawings. When the terms stated in the claim are explicitly defined in a clearly understandable manner, such terms shall be interpreted as having this special meaning.

Where the meaning of a term stated in the claim is not clear, it shall be considered whether or not it is possible to identify the invention by taking into consideration the description and technical common knowledge at the time of filing.

6 Comparison of the Operations of the Countries

With regard to the interpretation of the terms stated in a claim, if the statements of the claim are clear, the meaning of a term stated in the claims is understood to have its ordinary meaning and the claimed invention shall be identified as stated in the claims, in Japan, Europe, China and South Korea. Meanwhile, in the United States, a "broadest reasonable interpretation consistent with the description" shall be made.

In Japan, where the statements in the claims are not clear per se, there shall be an examination to determine whether the terms used in a claim are defined or explained in the description or drawings, and such terms used in a claim shall be interpreted by taking into consideration the definition or explanation based on the technical common knowledge as of the filing. In South Korea, where the meaning of the relevant term is

explicitly defined to hold a meaning different from its ordinary meaning, which may be recognized in the relevant technical field, in a manner clearly understandable for persons ordinarily skilled in the art, such term shall be interpreted as having this specific meaning. In Europe and China, amendments of claims are required to clarify the meaning of the terms from the wording of claims alone to the greatest extent possible.

Meanwhile, in every office of Japan, the United States, Europe, China, and South Korea, there have been cases in which the terms of the claim were interpreted broadly at the examination stage but were then interpreted narrowly based on the content of the invention at the stage of exercising rights. Users were of the opinion that while there is no major difference between the countries with respect to taking into consideration the description in interpreting the claims, there are variations due to differences in examiners or technical fields.

III Claims Described by Function or Characteristic

1 Operations in Japan

In Japan, statements in claims in which products are defined by function or characteristic are allowed as one of the claim styles.

In determining novelty, unless it should be interpreted as having a different meaning or content, such statements shall, in principle, be interpreted as representing all products that have the functions or characteristics. Yet, some patent applicants, etc. have stated that while it would be less problematic for claims to be described in combination with the structure, when claims are described broadly by function or characteristic alone, the relationship between the wording of the claim and the working example stated in the description should be clarified. Moreover, when only a small number of working examples is provided and the wording of the claim is expressed solely in a generic concept (the function), a notice of reasons for refusal may be given to restrict the claim in accordance with the working example.

In determining whether or not an infringement took place, as the technical scope of protection of a claim described by function or characteristic may be restrictively interpreted in accordance with the working example, patent applicants have recently tended to avoid describing claims solely by function or

characteristic. Instead, they have specifically stated the structures, etc. As a result, problematic cases have not been so heard in the domestic interview surveys.

2 Operations in the United States

In the United States, pursuant to the provision of Article 112(f) of the Patent Laws, separate statements are made for means-plus-function claims and other ordinary functional claims in the Manual of Patent Examining Procedure (MPEP). While ordinary functional claims should comply with Article 112(f) of the Patent Laws, means-plus-function claims are interpreted restrictively based on the working examples stated in the description and the equivalents thereof both in determining the validity of a patent in the examination and the existence of any infringement in an infringement suit. As this approach would also apply to means-plus-function claims using non-structural terms instead of typical wording, "means for..." or "step for..." the boundary between ordinary functional claims and means-plus-function claims seems to be fuzzy.

As means-plus-function claims are restrictively interpreted when determining the existence of any infringement, many patent applicants seem to prepare claims with due care by combining the limitation on structure in such claims. Yet, some applicants have stated that means-plus-function claims are not completely excluded from the options and are used knowing that they would be restrictively interpreted in accordance with Article 112(f) of the Patent Laws. Moreover, some have said in the interview surveys that although it is provided for that such claims shall be examined in accordance with Article 112(f) of the Patent Laws in the examination, in practice, this restrictive interpretation is not necessarily made and the broadest reasonable interpretation is given, as with the case of other claims.

3 Operations in Europe

In the past, it was difficult for the European Patent Office (EPO) to allow functional claims. However, in recent practices, the EPO has allowed computer-implemented inventions whose claims are often described in functional expressions, and, for the most part, it has come to allow functional claims for inventions other than computer-implemented inventions. Functional

claims are interpreted to include all the products that have the relevant function, as far as a person skilled in the art could easily provide the means to perform the function without using inventive skills.

4 Operations in China

In China, the Examination Guidelines state that functional claims can only be used when it is more appropriate to describe claims by functional characteristics than by structural characteristics, and should be avoided for product claims. Yet, because the scope of a functional claim shall be interpreted as covering every working example that can achieve the relevant function, if the relevant functional claim includes (in addition to the working examples stated in the description) any working example that does not achieve the relevant function or solve the technical problem and provide the technical effect, such functional claim would not be allowed. In determining novelty, the structure implied by the functional claim and the structure of prior arts shall be compared.

However, pursuant to Article 4 of the judicial interpretation issued by the Supreme People's Court of the People's Republic of China with respect to patent infringement cases in 2009, functional claims are interpreted restrictively based on the working examples stated in the description and the equivalents thereof. Although this approach is to be applied in determining the validity of a patent, because the Examination Guidelines remain unrevised as above, it seems that determinations are still made based on both approaches in actual cases.

5 Operations in South Korea

In South Korea, functional claims are generally allowed. Unless definitions are explicitly made in the detailed explanation of the invention to assign a special meaning, such claim shall, in principle, be interpreted as representing all the products that have the relevant functions or characteristics.

6 Comparison of Operations of the Countries

In all five countries mentioned above, statements in claims in which products are defined by functions or characteristics are allowed as one of the claim styles.

In Japan, Europe, China and South Korea, where a claim contains statements to define products by function or characteristic, such claim shall, in principle, be interpreted as meaning all of the products that have the relevant function or characteristic.

On the other hand, in the United States, functional claims described in the style of means-plus-function claims shall be interpreted restrictively based on the working examples stated in the description and the equivalents thereof (Article 112 (f) of the U.S. Patent Laws).

In Japan, where the functions or characteristics stated in a claim that includes a statement defining products by function or characteristic are uncommon or not commonly used in the relevant technical field, the products of the claimed invention and those of the cited inventions shall not be compared to find exact corresponding or differing points in determining novelty. Yet, if the examiner has reasonable doubt that the two inventions are identical, he/she shall send a notice of reasons for refusal for lack of novelty, unless any difference is found in other sections.

In the United States and China, the relevant claim shall be compared with prior art by taking into consideration the structure and composition implied by the relevant functions or characteristics, etc. If no difference is found between the claim and prior art in terms of the structure or composition, etc., novelty is denied. In patent infringement suits in all of the five countries mentioned above, the scope of rights of the claim shall be interpreted in a restrictive manner by taking into consideration the statements in the description, such as the working examples.

In response to the fact that claims including statements to define products by function or characteristic may be restrictively interpreted in determining the existence of any infringement in every country, the applicants avoid usage claims described solely by function or characteristic. Rather, they specifically state the structure, etc. in such claims. Accordingly, many applicants have said that there have not been very many problematic cases in practice.

IV Usage Claims

1 Operations in Japan

A use invention is an invention based on the use according to the product's attribute, and it

may be deemed to be an invention of "pure process." However, in Japan, such invention is regarded as an "invention of product," including the fact that it is adapted for use. "Medicinal inventions" are described by special usage claims.

"Limitation of use" refers to the act of defining products by the use thereof. It is understood that a product with limitation of use, which is specially adapted for the relevant use, is the product that provides the structures, etc. defined by the limitation of use

When the structures, etc. defined by the limitation of use are recognized to be different, the claimed invention and cited invention are considered to be different inventions.

Generally, a "use invention" is interpreted to be an invention based on the discovery of an unknown attribute of a product and finding of the product's adaptability of novel use.

When the claimed invention provides a limitation of use in the claims and is considered to be an invention based on the discovery of an unknown attribute of a product and finding of the product's adaptability for novel use derived from the attribute, it is appropriate to analyze such invention from the additional aspect of the limitation of use, since the limitation of use may define the claimed invention. Accordingly, the claimed invention could be novel as a use invention even if the product per se is already known.

2 Operations in the United States

In the United States, where there are any statements in the claims to define a product by its use, if such statement simply refers to the objective of the relevant invention or intended use rather than providing a clear definition on any limitation on the claimed invention, the statement of such use shall not be deemed to be a limitation of the invention and shall not be taken into consideration in interpreting the claim.

On the other hand, the discovery of a new use of a known product based on the unknown characteristic thereof may be patentable as a method of use, and thus a usage claim for an invention of product may be patentable.

In addition, medicinal usage claims would not be given special treatments and would be interpreted in the same manner as other uses.

3 Operations in Europe

In Europe, when there are any statements in

the claim to define a product by its use, such product is, in principle, understood to be a product that is actually adapted to such use. However, it is provided that, in the case of publicly known products, even if the use thereof is not stated in the relevant claim, if the product is in fact equipped with a mode adapted for a use previously stated in other cases, the novelty of the claimed invention shall be denied.

On the other hand, in the case of medicinal inventions, even if the product per se is publicly known, products used for the medicinal use stated in the claim could be novel.

4 Operations in China

In China, product claims including limitation of use are examined based on the impact that such limitation of use may have on the product itself. Therefore, if the limitation of use has any impact on the structure of the product itself or characteristics inherent in such product, such use shall be taken into consideration in determining novelty. On the other hand, if the limitation of use has no impact on the product itself and is a simple description of the use or usage of the product, such use shall have no role to play in determining novelty.

In the case of medicinal inventions, if the relevant use leads to any difference in the structure of the medicine with respect to prior arts, novelty may be found; but if there is no such structural difference, novelty shall be denied. Provided, a second medicinal use invention may be allowed by using claims that are generally called Swiss-type claims.

5 Operations in South Korea

In South Korea, where any statements are contained in the claims to define a product by its use, such product is understood as solely referring to one that is specially adapted for such use.

Moreover, medicinal inventions may be novel if the use differs.

6 Comparison of Operations of the Countries

In all five countries mentioned above, statements in a claim to define a product by its use are allowed as one of the claim styles.

(i) With respect to an invention with limitation of use, in every country mentioned above, if

there are any statements to define a product by its use (limitation of use), the significance that such limitation of use may have in defining the structure or composition of the product shall be considered, and such product shall be understood as a product adapted for such use.

- (ii) With respect to use inventions in Japan and South Korea, even if the product defined by use is already known per se, such product may be found novel as a use invention because of the limitation of medicinal use. However, with respect to second use inventions for food, there is a difference between Japan and South Korea in how they are handled. While second use inventions for food are denied novelty for not providing any new use in Japan, they can possibly be found to have novelty in South Korea because the use of limiting the food shall be taken into consideration as one of the constituent features.

In Europe, only medicinal inventions intended to define products by medicinal use are found novel as a second medicinal use invention even if the product per se is already known.

In contrast to these practices, in China, even if the relevant invention is a medicinal invention, if no change is found in the structure and/or composition of the product by the limitation of use, the novelty of such invention is denied. However, inventions on second medicinal use can possibly be protected by using a claim generally called the Swiss-type claim ("use of a substance for the manufacture of a medicament for treatment of a disease").

Meanwhile, in the United States, when there are any statements in a claim to define a product by its use, if such statement simply refers to the objective of the relevant invention or intended use instead of providing a clear definition on any limitation of the claimed invention, such statement of limitation shall not be deemed to be a limitation of invention and shall not be taken into consideration in interpreting the claim. Yet, a discovery of a new use of a known product based on an unknown characteristic thereof may be patentable as a method of use, and thus a usage claim for an invention of a product may be found patentable. In addition, in the United States, as medicinal use is not given special treatment and is interpreted in the same manner as other uses, claims should be stated by including the process, such as the treatment method.

The interview surveys conducted with

respect to use inventions in Japan, the United States, and Europe showed that, although the form of claims for a patent may differ, the applicants felt no special disparity in the examination practices or exercise of rights.

V Product-by-Process Claims

1 Operations in Japan

In the Japanese examination practices, product-by-process claims are, in principle, understood to mean definitions that represent products per se gained as final products, unless they should be interpreted as having different meanings or contents. A theory generally known as the product identity theory is adopted.

However, in the judgment of the Grand Panel of the Intellectual Property High Court rendered in the case concerning pravastatin sodium on January 27, 2012, it was held that, in identifying the technical scope of a product-by-process claim and the summary of the invention in a request for a trial for patent invalidation, an authentic product-by-process claim shall be interpreted based on the product identity theory, while an unauthentic product-by-process claim shall be interpreted based on the manufacturing process limitation theory.

2 Operations in the United States

In the United States, product-by-process claims are not interpreted as being limited to the stated manipulative steps but as being limited solely by the structure implicitly defined by such steps, which means that the product identity theory is adopted. Therefore, the determination of the patentability of a product-by-process claim is based on the product per se. Moreover, because the patentability of a product is not dependent on the manufacturing process, if the product in the product-by-process claim is the same as or obvious from a product of a prior art, the claim is unpatentable even though the prior product was manufactured by a different process.

This approach has long been supported in the leading cases in the Court of Appeals for the Federal Circuit in the United States.

3 Operations in Europe

In Europe, a product-by process claim is recognized as a definition of the product itself, which means that the product identity theory is

also adopted. Specifically, a product is patented only where the product itself satisfies the requirements of patentability, especially novelty and inventive steps; and a product would not be novel by the mere fact that it has been manufactured by a new process.

4 Operations in China

In China, a product-by process claim is also recognized as a definition of the product itself; the product identity theory is adopted. In other words, if the process claimed in a product-by-process claim does not provide any special structure or composition to the product, and the final product is identical despite the difference in the process, novelty is denied.

Even where the claim of a product is defined by the characteristics of the process, the subject matter of the claim remains to be the product. Thus, the actual definitive effect that the characteristics of the process have shall be determined based on the impact that such characteristics may have on the claimed product per se; and the examiner shall take into consideration whether or not the characteristics of the manufacturing process produce both or either the specific structure and/or composition of such product.

In addition, where the relevant product is indistinguishable from publicly known products, the burden of proof regarding novelty, etc. lies with the applicant.

5 Operations in South Korea

In South Korea, in principle, the manufacturing process is not taken into consideration when interpreting a product-by-process claim, but rather the patentability of the product itself is examined. This means that claims are interpreted based on the product identity theory. Unless there are special circumstances, claims for an invention of a product are required to be stated in a way that directly specifies the structure of the product that is the subject matter of the invention. Thus, even where the manufacturing process of the relevant product is stated in the claims for the invention of the product, unless there are special circumstances that such product can only be specified by its manufacturing process, it is unnecessary to take into consideration the manufacturing process itself in determining the novelty or inventive steps of the filed invention.

In this case, only the invention defined as a product by the statements in such claim shall be compared with inventions publicly known prior to the filing.

6 Comparison of Operations of the Countries

In all five countries mentioned above, a product-by-process claim is allowed as one of the claim styles. Moreover, in the examination, a product-by-process claim is interpreted as meaning the definition representing the final product per se (product identity theory).

Among the five countries, while claims in patent infringement suits are interpreted based on the manufacturing process limitation theory in the United States and China, such interpretation is in principle made on the basis of the product identity theory in Europe. No precedents were found in the Supreme Court of Korea. Meanwhile, in Japan, the product identity theory was adopted in the judgment rendered by the Grand Panel of the Intellectual Property High Court in the case concerning pravastatin sodium.

In the interview surveys, many respondents held that there is hardly any operational difference in the abovementioned five countries as the examination in such countries are carried out based on the product identity theory.

VI Sub-combination Claims

1 Operations in Japan

In Japan, sub-combination claims are widely used. The Examination Guidelines for ordinary claims are applied to sub-combination claims in the examination, and when a claim contains any function or characteristic as a result of any statement concerning a sub-combination included in another sub-combination claim, the examination guidelines for functional claims are applied and the statements concerning the sub-combination shall be taken into consideration. However, if the other sub-combination claim itself is no different from prior art, novelty is denied.

2 Operations in the United States

In the United States, while sub-combination claims are mentioned in the examining guidelines in relation to determining the unity of inventions, no special treatments for such claims are mentioned in the examining guidelines with

respect to the description requirements and determination of novelty or inventive step; and thus such claims shall be interpreted in the same manner as ordinary claims.

3 Operations in Europe

While the EPO explicitly allows applicants to describe inventions by a sub-combination claim in its Guidelines for Examinations, Part F, 4,14 and 4,15, it is required that such sub-combination claim is stated in a manner clearly understandable that the claim covers a sub-combination and not a combination.

4 Operations in China

In China, sub-combination claims are allowed as one of the claim styles. In the examination, examination guidelines for ordinary claims are applied to such sub-combination claims, and where there are any statements concerning a sub-combination in another sub-combination claim, examination shall be carried out by taking into consideration the characteristic of the first-mentioned sub-combination. Yet, the subject matter to be protected is such other sub-combination.

5 Operations in South Korea

In South Korea, sub-combination claims are also allowed as one of the claim styles. In the interpretation of claims in the examination, ordinary examination guidelines are applied.

If the relevant claim is defined by functions or characteristics as a result of any statements concerning another sub-combination, the examination guidelines for functional claims shall be applied and the statement of the other sub-combination shall be taken into consideration. However, if the sub-combination stated in the claim is in itself no different from prior art, novelty shall be denied.

6 Comparison of Operations of the Countries

In all of the five countries mentioned above, sub-combination claims are allowed as one of the claim styles.

Meanwhile, because no country has special provisions in the examination guidelines for the interpretation of sub-combination claims, such interpretation seems to be made by applying the

general concepts stated in the examination guidelines in all countries.

Based on the results of the interview surveys and methods used by the countries to interpret the preamble parts of the claims, the following perspective clarified for the interpretation of sub-combination claims in the JPO's publication, "Application of Examination Guidelines on an Invention of a Product Defined by the Statements Concerning the Main Device in which the Product Should Be Installed (Cartridge Invention)" seems to be generally shared by all of the countries: "As a cartridge invention is an invention of 'cartridge,' the statements concerning the main device in which the cartridge should be installed shall be interpreted as matters to define the relevant invention as an invention of cartridge in terms of the shape, structure, effect, function, method, use, etc."

Yet, there is a difference between the countries with respect to the interpretation of claims expressed by functions or characteristics or usage claims, and thus, sub-combination claims could also be interpreted differently.

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