

Note: When any ambiguity of interpretation is found in this provisional translation, the Japanese text shall prevail.

## **Chapter 2 Requirements of Unity of Invention**

Patent Act Article 37 reads:

Two or more inventions may be the subject of a single patent application in the same application provided that, these inventions are of a group of inventions recognized as fulfilling the requirements of unity of invention based on their technical relationship designated in the relevant Ordinance of the Ministry of Economy, Trade and Industry.

Regulations under the Patent Act Article 25octies reads:

(1) The technical relationship defined by Ordinance of the Ministry of Economy, Trade and Industry under Patent Act Article 37 means a technical relationship in which two or more inventions must be linked so as to form a single general inventive concept by having the same or corresponding special technical features among them.

(2) The special technical feature provided in the former paragraph stands for a technical feature defining a contribution made by an invention over the prior art.

(3) The technical relationship provided in the first paragraph shall be examined, irrespective of whether two or more inventions are described in separate claims or in a single claim written in an alternative form.

(Explanation)

Patent Act Article 37 and Regulations under the Act Article 25octies are defined in line with the provisions of Rule 13 of the Patent Cooperation Treaty, which defines requirements of unity of invention (hereinafter referred to as "Rule 13 of the PCT").

### **1. Requirements of Unity of Invention**

#### **1.1 Purport of Patent Act Article 37**

If two or more inventions that are technically closely interrelated can be filed for patents in a single application, the application procedures will be simplified and rationalized and it will become easier for third parties to use patent information and transact rights. In addition, it will allow the Patent Office to examine such inventions together in an efficient way. In light of these points, Article 37 provides for the scope of cases where two or more inventions that could also be separately filed for patent may be filed in a single application.

#### **1.2 Explanation of Relevant Provisions**

##### **(1) Patent Act Article 37**

Article 37 provides that two or more inventions complying with the requirement of unity of invention may be filed for a patent in a single patent application. Furthermore, it also states as the requirement that two or more inventions must have a certain technical relationship among them. The requirement in detail for the said "technical relationships" is defined by an ordinance of the Ministry of Economy, Trade and Industry (see, Regulations under the Patent Act Article 25octies).

##### **(2) Regulations under the Patent Act Article 25octies(1)**

The Article 25octies(1) defines the word "technical relationship" as a technical

relationship that two or more inventions are “linked so as to form a single general inventive concept.”

Here, the word a “single general inventive concept” corresponds to “a single general inventive concept” originally defined in Rule 13 of the PCT.

Furthermore, the Regulation provides that the technical relationship, which forms a single inventive concept, is established, when two or more inventions have the same or corresponding special technical features. It indicates that whether or not two or more inventions are linked so as to form a single general inventive concept should be examined by whether those inventions have the same or corresponding special technical features.

### (3) Regulations under the Patent Act Article 25octies(2)

Article 25octies(2) provides that the word “special technical feature” stipulated in the Article 25octies(1) means “a technical feature defining a contribution made by an invention over the prior art.” In other words, the “technical feature” must create a contribution over the prior art in order to be recognized as a special one.

In this regard, the “technical feature” is determined by an examiner based on the “claimed matter technically specifying an invention,” among all claimed matters added by the applicant as necessary matters in order to specify the invention (hereinafter referred to as “matters specifying the invention”).

The language “the contribution made by an invention over the prior art” means technical significance of an invention in comparison to the prior art.

### (4) Regulations under the Patent Act Article 25octies(3)

The Article 25octies(3) clarifies that an examination for unity of invention shall be conducted, irrespective of whether the inventions are described in separate claims or in a single claim described in an alternative form.

## **2. Basic Approach for Examining Unity of Invention**

### **2.1 Subjects of Examination for Unity of Invention**

The requirement of unity of invention shall be examined by a technical relationship among inventions described in claims.

Usually, it is examined based on relationships among claimed inventions.

If matters specifying the invention in a claim is expressed by proforma or de facto alternatives (hereinafter referred to as “alternatives”), an examination for unity of invention is also carried out in respect of relationships among the alternatives.

### **2.2 Basic Approach**

An examination for unity of invention is carried out by determining whether two or more inventions have the same or corresponding special technical features among them, in other words, whether one special technical feature of one invention is the same or corresponding special technical features of all other inventions (see, Note 1 and Note 2). Here, it is unnecessary to clearly determine whether “the same” or “corresponding” is applicable to the special technical feature.

**(Note 1)** Whether the special technical feature is regarded as the same or corresponding should be practically determined, and examiners should keep in mind that they must not be particular about the mere difference in expression of words.

**(Note 2)** The combination of a bolt and a nut with screw threads having the same specific structure is a typical example of a case where two or more inventions are sharing corresponding special technical features.

The requirement of unity of invention is examined in detail as follows;

First, special technical features of an invention are identified on the basis of a description, claims and drawings (hereinafter referred to as “description, etc.”). Then, it is examined if these features are either the same or corresponding ones. The requirement of unity of invention is not satisfied, unless the same or corresponding special technical feature is present.

Even though the requirements of unity of invention are deemed to have been met through the above-mentioned determination process, if it becomes obvious that what was deemed to be a “special technical feature” does not contribute to the prior art of the relevant inventions, the application will fail to meet the requirements of unity of invention a posteriori unless the inventions have the same or a corresponding special technical feature other than said feature.

In this context, cases “where it becomes obvious ... does not contribute to the prior art of the relevant inventions” are the cases that fall under any of the following ① to ③:

- ① where what was deemed to be a “special technical feature” is found in the prior art (see, Note 3);
- ② where what was deemed to be a “special technical feature” is an addition to a prior art, deletion, or replacement of well-known or commonly used art, which does not produce any new effects; or
- ③ where what was deemed to be a “special technical feature” is a mere design variation of a prior art.

**(Note 3)** “Prior art” refers to inventions that fall under the paragraphs of Article 29(1), and does not include inventions that had not been published at the time of filing of the application concerned.

### **3. Typical Examples for Examining Unity of Invention**

The following shows typical examples for an examination on unity of invention. These examples more practically demonstrate a basis for how to examine unity of invention based on the basic approach described above (see, Note) .

These examples are explained under the presumption that each invention in claims has a contribution over the prior art.

**(Note)** Not only one of these examples but also two or more of them can be applicable to an actual case at the same time.

### 3.1 Basic Examples

#### 3.1.1 The Same Special Technical Feature

If two or more inventions have the same special technical feature, the requirement of unity of invention is met.

Example 1:

Claim 1: Polymeric compound A. (transparent substance having improved oxygen barrier characteristics)

Claim 2: A food packaging container composed of polymeric compound A.

(Explanation)

Since polymeric compound A itself has a contribution over the prior art, claims 1 and 2 have the same special technical feature.

Example 2:

Claim 1: A method of lighting comprising shielding a part of illumination light from the light source.

Claim 2: A lighting system with a light source and a light shielding part that partially shields against illumination light from the light source

(Explanation)

Because shielding a part of illumination light brings a contribution over the prior art, claims 1 and 2 have the same special technical feature.

#### 3.1.2 Corresponding Special Technical Feature

If the technical significance existing in two or more inventions in comparison with the prior art is common or closely related, or if the special technical feature in two or more inventions is related to each other in a mutually complementary manner, the requirement of unity of invention is met, because it is deemed that each invention has corresponding special technical feature.

Example 1:

Claim 1: Conductive ceramics made by adding titanium carbide in silicon nitride.

Claim 2: Conductive ceramics made by adding titanium nitride in silicon nitride.

(Explanation)

Special technical features of claims 1 and 2 are titanium carbide and titanium nitride respectively. They are recognized to have common technical significance, which these inventions have in comparison to the prior art in terms of giving conductivity to ceramics composed of silicon nitride. In this case, if technical significance existing in these inventions in comparison with the prior art is considered no longer to be common or closely related, a posteriori, the requirement of unity of invention comes to be unsatisfied.

Example 2:

Claim 1: A transmitter with a time axis extender for a video signal.

Claim 2: A receiver with a time axis compressor for a received video signal.

Claim 3: A device for transmitting a video signal with a transmitter with a time axis extender for a video signal and a receiver with a time axis compressor for a received video signal.

(Explanation)

The special technical features of claims 1 and 2 are equipping a time axis extender and a time axis compressor respectively. Both functions lie in extension of the time axis to transmit a video signal and compression of the time axis to receive a video signal respectively. Therefore, they are deemed to be related complementarily. Moreover, claim 3 includes both a time axis extender and a time axis compressor, which are special technical features of claims 1 and 2, and therefore claim 3 is considered to be closely related to inventions cited in claims 1 and 2.

### **3.2 Examples with a Specific Relation**

#### **3.2.1 Product and Method of Producing it, and Product and Machine, Instrument, Device, the Other Means for Producing it**

If a method of producing a product, or a machine, instrument, device, the other means for producing a product (hereinafter referred to as “production method or production device, etc.”) is suitable for producing “the product,” the requirement of unity of invention is met.

The case where a “production method or production device, etc.” is “suitable” for producing “the product” includes, for example, a case where a special technical feature of “production method or production device, etc.” necessarily causes conversion of raw material into a special technical feature of “the product” (including the product itself).

Since a contribution over the prior art made by the special technical feature of “production method or production device, etc.” gives special technical features of “the product,” the said contributions are closely related, and thereby they are deemed to have the same or corresponding special technical features.

Even if something other than “the product” is produced by “production method or production device, etc.,” the requirement is met, if the “production method or production device, etc.” is suitable for producing “the product.”

The word, “the other means” in the above “a machine, instrument, device, the other means for producing a product” is not limited to a machine, instrument and device, but encompasses a catalyst, microorganism and anything else, which acts on other materials, work pieces, etc., and turns them into a product.

Example 1:

Claim 1: A foundation pile having a bulbous enlargement at its base.

Claim 2: A method of forming a bulbous enlargement comprising the steps of: forming a cavity in the ground by using explosives; and pouring a

concrete into the cavity.

(Explanation)

Forming a cavity by using an explosive and pouring a concrete into the cavity is a special technical feature of claim 2. And it necessarily causes a bulbous enlargement which is a special technical feature of claim 1. Hence, the method described in claim 2 is suitable for producing the foundation pile recited in claim 1.

Example 2:

Claim 1: A clutch plate having a specific structure.

Claim 2: A method for producing a friction plate having the specific structure.

(Explanation)

The process described in claim 2 necessarily provides a specific structure, which is a special technical feature of claim 1. The process described in claim 2 is therefore suitable for producing the clutch plate mentioned in claim 1.

Example 3:

Claim 1: An eyeglass frame composed of a titanium alloy X.

Claim 2: An eyeglass frame composed of a titanium alloy X coated with nitrides Y.

Claim 3: A method for producing an eyeglass frame by molding titanium alloy X into the frame in one-piece.

Claim 4: A method of producing an eyeglass frame comprising the steps of: molding titanium alloy X into the frame in one-piece; and depositing the frame in nitrides Y.

(Explanation)

A special technical feature of claims 1 and 2 is an eyeglass frame composed of a titanium alloy X. The production method described in claims 3 and 4 necessarily provides an eyeglass frame composed of a titanium alloy X, which is a special technical feature of claims 1 and 2. The production method described in claims 3 and 4 is therefore suitable for producing the eyeglass frame described in claims 1 and 2.

### **3.2.2 Product and Method of Using it, and Product and Another Product Solely Utilizing Specific Properties of the Product**

If a “method of using a product” is suitable for use of “that product,” the requirement of unity of invention is met.

The case where a “method of using a product” is considered to be “suitable” for use of “that product” is, for example, a case where a special technical feature of the “method of using the product” utilizes properties and/or functions particular to a special technical feature of “the product.”

In this case, the contribution over the prior art, which is made by the special technical feature of “method of using a product,” lies in the utilization of the properties and/or

functions of the special technical feature of “the product.” Therefore, the contribution over the prior art which is made by each of the special technical features is closely related and both “product” and “the method of using it” have the same or corresponding special technical features.

Accordingly, if a special technical feature of “a product solely utilizing the specific properties of another product” solely utilizes the special technical feature of “another product,” the requirement of unity of invention is satisfied.

In this case, the contribution over the prior art, which is made by the special technical feature of “a product solely utilizing the specific properties of another product,” lies in the sole utilization of the specific properties of the special technical feature of “another product.” Therefore, the contribution over the prior art which is made by each of the special technical features is closely related and both “a product” and “another product” have the same or corresponding special technical features.

Example 1:

Claim 1: Substance A.

Claim 2: A method of killing insects with substance A.

(Explanation)

Since the method of killing insects described in claim 2 utilizes the insecticidal property of substance A described in claim 1, the method of killing insects described in claim 2 is suitable for using substance A described in claim 1.

Example 2:

Claim 1: Substance A.

Claim 2: A herbicide composed of substance A.

(Explanation)

The herbicide composed of substance A, which is the special technical feature of claim 2, solely utilizes the herbicidal property of substance A described in claim 1. (see, Note).

**(Note)** The special technical feature of claim 2 can be regarded as substance A.

If the feature is viewed in this way, it can be also concluded that claims 1 and 2 have the same special technical feature mentioned above in 3.1.1.

Example 3:

Claim 1: Compound A. (useful as an intermediate of compound B)

Claim 2: A method of manufacturing compound B by reacting compound A with another compound.

Claim 3: A method of manufacturing compound A.

(Explanation)

The method of manufacturing cited in claim 2 utilizes the particular property of the compound A of claim 1 that it prepares compound B by reacting with another compound. Hence, the method for manufacturing of claim 2 is suitable for using compound A of claim 1. The method of claim 3 is also suitable for producing

compound A of claim 1. Therefore, all claims 1-3 meet the requirement of unity of invention.

Example 4:

Claim 1: A recombinant microorganism containing polynucleotide X.

Claim 2: Polynucleotide X.

Claim 3: A method of manufacturing polypeptide A by culturing a recombinant microorganism containing polynucleotide X.

(Explanation)

Polynucleotide X is the special technical feature common to both claims 1 and 2. The method of claim 3 utilizes the peculiar property of polynucleotide X of generating polypeptide A. Hence, the method of claim 3 is suitable for using polynucleotide X in claims 1 and 2.

Example 5:

Claim 1: A fuel burner A with a fuel inlet in the direction tangent to a mixing chamber.

Claim 2: A method for manufacturing carbon black allowing a fuel to flow in a direction tangential to the mixing chamber of the fuel burner A.

Claim 3: A method for manufacturing fuel burner A forming a fuel inlet in the direction tangent to a mixing chamber.

(Explanation)

The method of manufacturing carbon black of claim 2 utilizes a particular function of the fuel inlet located tangentially to the mixing chamber, which is the special technical feature of claim 1. Hence, the method of claim 2 is suitable for using fuel burner A of claim 1. The method of manufacturing fuel burner A of claim 3 necessarily provides a fuel inlet placed tangentially to the mixing chamber, which is the special technical feature of claim 1. The method of claim 3 is suitable for the purpose of manufacturing fuel burner A of claim 1. Therefore, claims 1-3 meet the requirement of unity of invention.

### **3.2.3 Product, and Handling Method or Another Handling Product**

If a method of handling the product or another product handling the product (hereinafter referred to as “a handling method or another handling product”) is suitable for handling “the product,” the requirement of unity of invention is satisfied.

The case where “a handling method or another handling product” is “suitable” for handling “the product” is a case, for example, where the special technical feature of “a handling method or another handling product” necessarily maintains or exercises the function by external action on the special technical feature of “the product” and does not basically give substantial changes to “the product.”

In this case the contribution over the prior art, which is made by the special technical feature of “a handling method or another handling product,” is to maintain and exercise the function of a special technical feature of “the product.” Therefore, the contribution over the prior art which is made by each of the special technical features are

closely related and both the “handling method or another handling product” and “the product” have the same or corresponding special technical features.

Even if “a handling method or another handling product” is applicable to handling something other than the product, the requirement of the unity of invention is still satisfied if they are suitable for handling the said product.

Example 1:

Claim 1: A prefabricated house having a specific structure.

Claim 2: A method of storing a prefabricated house having a special structure.

(Explanation)

The method of claim 2 necessarily results in exercise of the function of the specific structure recited in claim 1 that it improves the accommodation capability, by external action on the special structure which is the special technical feature of claim 1. Therefore, the method of claim 2 is suitable for handling the prefabricated house of claim 1.

Example 2:

Claim 1: Substance A.

Claim 2: A method of preserving substance A under specified pressure, at a specified temperature and at a specified gas component ratio.

(Substance A possesses peculiar properties, but it is very unstable and easily breaks up.)

(Explanation)

The method of claim 2 necessarily maintains the properties particular to substance A of claim 1 and is therefore suitable for handling substance A of claim 1.

### **3.2.4 Method and Machine, Instrument, Device, the Other Means Directly Used to Carry Out the Method**

If a machine, instrument, device, and the other means directly used to carry out a method (hereinafter referred to as “device directly used to carry out a method”) is suitable for direct use to carry out “the method,” the requirement of the unity of invention is met.

The case where a “device directly used to carry out a method” is “suitable” for direct use to carry out “the method” is, for example, a case where a special technical feature of a “device directly used to carry out a method” is directly used to carry out a special technical feature of “the method.”

In this case, the contribution over the prior art, which is made by the special technical feature of a “device directly used to implement a method,” is to carry out the special technical feature of “the method.” Therefore, the contribution over the prior art which is made by each of the special technical features are closely related and both the “device directly used to implement a method” and “the method” have the same or corresponding special technical features.

Even if the “device directly used to implement a method” can be directly used to carry out a method other than “the method,” the requirement of unity of invention is still satisfied, if the “device directly used to carry out a method” is suitable for directly carrying out “the method.”

The phrase “the other means” is not limited to a sort of device, but encompasses catalysts, microorganisms, raw materials, work pieces and all other items directly used to carry out the method.

Example 1:

Claim 1: A method of producing concrete products comprising the steps of (1) mixing ice granules with cement together with aggregate; and (2) pouring the mixture into a mold.

Claim 2: A device having a specific structure comprising (1) an ice crushing section and (2) a mixing unit of a crushed ice, cement and aggregate.

(Explanation)

The device of claim 2 is directly used for carrying out the method of mixing ice granules and aggregate with cement, which is the special technical feature of claim 1. Hence, the device of claim 2 is suitable for direct use to carry out the method of claim 1.

Example 2:

Claim 1: A method of measuring the depth of water through specific procedures.

Claim 2: A device having a specific structure for measuring a distance to an object.

(Explanation)

The device in claim 2 can be applied in uses other than carrying out the process in claim 1. However, it is suited for direct use in carrying out the method of claim 1 since it is directly used in carrying out a method of measuring the depth of water comprising a specific procedure that is a special technical feature of claim 1.

Example 3:

Claim 1: A method of preparing final product Z by oxidizing intermediate product A.

Claim 2: A method of preparing final product Z comprising the steps of (1) reacting compound X and compound Y to produce intermediate product A and (2) oxidizing intermediate product A.

Claim 3: Intermediate product A.

(Explanation)

The special technical feature of both claims 1 and 2 lies in the method of preparing the final product Z by oxidizing the intermediate product A. Intermediate product A of claim 3 is directly used to carry out the above method, which is the special technical feature of claims 1 and 2. Therefore, intermediate product A of claim 3 is suitable for directly carrying out the method of claims 1 and 2.

### 3.3 Markush-Type

Even for a claim described in the Markush-Type, unity of invention is examined by finding out whether its alternatives have the same or corresponding special technical features.

Especially, where a claim described in the Markush-Type is related to a compound written in an alternative form, each alternative has the same or corresponding special technical features, if the following (i) and (ii) are satisfied:

- (i) All alternatives have a common property or activity; and
- (ii) (a) a common chemical structure is present, i.e., a significant structural element is shared by all of the alternatives, or
  - (b) in cases where the common chemical structure cannot be the unifying criteria, all alternatives belong to a recognized class of chemical compounds in the art to which the invention pertains.

In paragraph (ii)(a) above, “a significant chemical structure element is shared by all of the alternatives” refers to cases where the chemical compounds share a common chemical structure which occupies a large portion of their structures, or if the compounds have in common only a small portion of their structures, cases where the commonly shared structure constitutes a structurally distinctive portion in view of existing prior art. The structural element may be a single component or a combination of individual components linked together.

When dealing with alternatives in the Markush-Type, if at least one of the Markush alternatives is found in the prior art, the question of unity of invention shall be reconsidered. In paragraph (ii)(b) above, the word “a recognized class of chemical compounds” means that there is an expectation from the knowledge in the art that members of the class will behave in the same way in the context of the claimed invention. In other words, each member could be substituted for the other, with the expectation that the similar intended result would be achieved.

### 3.4 Intermediate and Final Product

In order that an invention related to an intermediate product and another related to the final product meets the requirement of unity of invention, the following requirements (i) and (ii) must be satisfied:

- (i) An intermediate and a final product have the same or technically closely related structural element, namely;
  - (a) the new fundamental form in chemical structure of the intermediate product is common to that of the final product; or
  - (b) the chemical structures of both products are technically closely related to each other.
- (ii) The intermediate product and the final product are technically related to each other. In other words, the final product is prepared directly from an intermediate product or prepared through a small number of the other new intermediate products

including the same substantial structural element.

Even if the structure is unclear, an intermediate product and a final product may meet the requirement in some cases. For example, an intermediate with a clear structure and a final product with an unclear constitution structure or an intermediate product with an unclear constitution structure and a final product with an unclear constitution structure sometimes may meet the requirement of unity of invention.

In this case, in order to meet the requirement, there must be sufficient evidence showing that the structures of the intermediate product and the final product are technically closely related to each other; for example, the intermediate product includes the same substantial component as that of the final product or the intermediate product incorporates the substantial component in the final product.

In the case where the individual intermediate products are used in different processes to prepare one final product include the same substantial component, the inventions related to the final product and the individual intermediates meet the requirement of unity of invention because the substantial structural elements are the same or corresponding special technical features.

In cases where the intermediate products and the final products are defined in claims so as to constitute a group of chemical compounds, the respective intermediate compounds must correspond to one of the final products defined in the claims. However, since some of the final products may not have a corresponding intermediate compound, the two groups do not necessarily correspond to each other.

Showing that the intermediate products has other effects or exhibits other activities in addition to being used to prepare the final product does not affect the examination of unity of invention.

## **4. Procedure of Examination**

### **4.1 Basic Approach**

(1) Whether the application meets the requirement of unity of invention shall be determined based on the relationship between the invention first mentioned in the claims (see, Note) and other inventions. The invention first mentioned in the claims and a group of inventions that meet the requirements of unity of invention in the relations with the first invention shall be the subject of the examination on the requirements other than the requirement of unity of invention. (Hereinafter “subject of the examination on the requirements other than the requirements of unity of invention” is merely referred to as “subject of the examination” in this chapter.)

Inventions that do not meet the requirement of unity of invention in the relations with the invention first mentioned in the claims will not be the subject of the examination. For such inventions, a notice of reasons for refusal will be given on the grounds of violation of the requirements of unity of invention.

Where the invention first mentioned in the claims does not have any special technical feature, the subject of the examination shall be decided pursuant to 4.2 below.

**(Note)** Invention in claim 1. If matters specifying the invention of claim 1 are expressed by alternatives, it is, in principle, the invention understood by choosing the first alternative. However, for an invention pertaining to a chemical substance that is described by Markush-type, etc., the invention that is understood by choosing an appropriate alternative in consideration of the description of working examples, etc. shall be deemed to be the invention first mentioned.

(2) Where the requirements of unity of invention are met between independent claims, the inventions claimed in these independent claims have a special technical feature. Therefore, inventions claimed in dependent claims citing these independent claims also ordinarily have the same special technical feature. Thus, it seems rare for dependent claims to be the cause of a lack of unity. Consequently, it is generally efficient to start examining unity of invention through comparison among independent claims.

However, some dependent claims may affect examination on unity of invention (for example, a dependent claim in which one of the matters specifying the invention is replaced), and such dependent claims require attention.

#### **4.2 Subject of the Examination in the Case where the Invention First Mentioned in the Claims Does Not Have Any Special Technical Feature**

Where the invention first mentioned in the claims does not have any special technical feature, it cannot be said that the requirement of unity of invention is met since the same or corresponding special technical features cannot be found between the first invention and other inventions. However, even in such cases, the requirement of unity of invention will not be questioned exceptionally for inventions that become the subject of the examination through the following procedure, taking into consideration that Article 37 is a provision established for the convenience of applicants, etc. If some inventions are not the subject of the examination, a notice of reasons for refusal shall be given on the grounds of violation of the requirement of unity of invention.

[Procedure for deciding the subject of the examination]

① The existence of a special technical feature is assessed in terms of an invention to which the smallest claim number is attached out of inventions in claims in the same category that include all matters specifying the invention first mentioned in the claims (see, Note).

**(Note)** The cases where an invention “includes all matters specifying the invention” includes cases of making some or all of the matters specifying the invention into a subordinate concept and cases of further limiting numerical ranges when some of the matters specifying the invention are numerical ranges, in addition to the cases of adding another matter specifying an invention to the invention.

② Where there is no special technical feature in the inventions in the claims for which the existence of a special technical character have already been assessed, the existence of a special technical feature will be assessed by selecting an invention to which the smallest claim number is attached out of inventions in the claims in the same category, which include all matters specifying the invention in the claim for which the existence of a specific technical feature was just assessed.

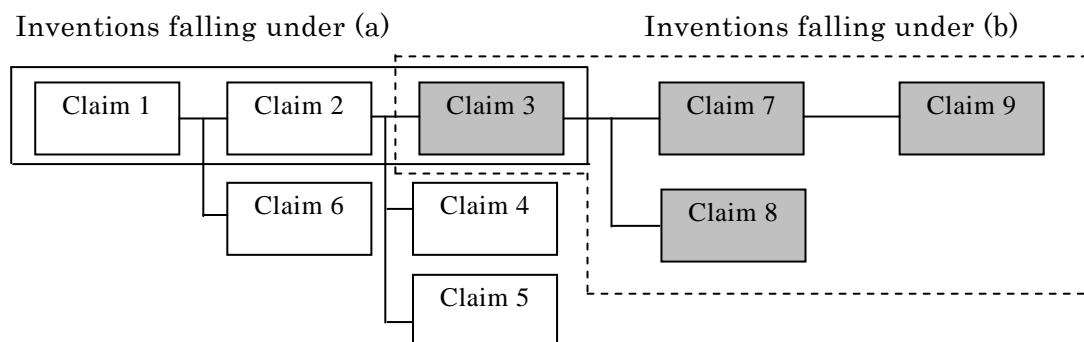
③ The procedure mentioned in ② is repeated until an invention with a special

technical feature is found. If an invention with a special technical feature is found, (a) inventions for which the existence of a special technical feature has been assessed until then and (b) inventions in the same category that include all matters specifying the invention with said special technical feature will be the subject of the examination.

④ In the procedure mentioned in ②, where the invention in a claim for which the existence of a special technical feature is to be assessed next is an invention that was made by adding a technical feature that has little technical relationship to the invention for which the existence of a special technical feature has been just assessed, and the specific problem to be solved by the invention, which is understood from said technical feature, also has little relevance, the inventions for which the existence of a special technical feature has been assessed until then will be the subject of the examination without further assessing the existence of a special technical future.

⑤ Other inventions of which examination has substantially been completed as a result of examination on inventions that were the subject of the examination in ③ or ④ (for example, inventions that differ only in terms of category expression) will also be added to the subject of the examination.

In the above procedure, where a matter specifying an invention is expressed by alternatives in a claim (including multiple dependent claims), such a claim is treated as if each invention understood by choosing each alternative is described as a separate claim in the order of said alternatives. In determining if the claim includes all matters specifying an invention, it doesn't mater whether a claim is formally an independent claim or a dependent claim.



Claims in shaded boxes are those in the same category, which include all matters specifying the invention of claim 3 with a special technical feature.

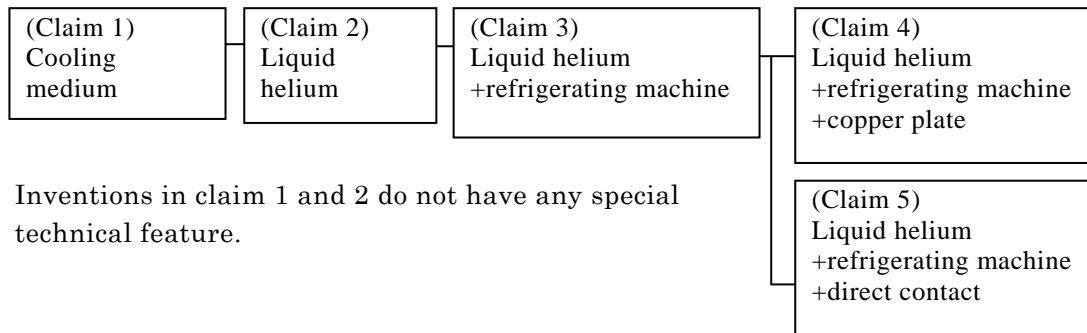
#### 4.3 Examples of Procedure of Examination in the Case Where the Invention First Mentioned in the Claims Does Not Have Any Special Technical Feature

Example 1:

- Claim 1: A process for cooling a superconductive coil by soaking it in a cooling medium.
- Claim 2: A process for cooling a superconductive coil described in claim 1, wherein said cooling medium is liquid helium.
- Claim 3: A process for cooling a superconductive coil described in claim 2, wherein the superconductive coil is further cooled using a refrigerating machine.

Claim 4: A process for cooling a superconductive coil described in claim 3, wherein the cooling stage of the refrigerating machine and the superconductive coil are thermally connected via a copper plate.

Claim 5: A process for cooling a superconductive coil described in claim 3, wherein the superconductive coil is brought into direct contact with the cooling stage of the refrigerating machine.



(Explanation)

The subject of the examination is decided following the procedure mentioned in 4.2 since the invention in claim 1 does not have any special technical feature.

“Liquid helium,” added to the invention in claim 2 that includes all matters specifying the invention in claim 1, is a subordinate concept of “cooling medium,” which is the technical feature of the invention in claim 1. Thus, the technical features of these claims are closely related to each other. Therefore, the existence of a special technical feature is assessed with respect to the invention in claim 2. In this example, as the invention in claim 2 also does not have any special technical feature, the procedure proceeds to claim 3, which includes all matters specifying the invention in claim 2. The specific problem to be solved, which is understood from “refrigerating machine” added to the invention in claim 3, relates to the cooling of a superconductive coil, and it is closely related to the problem to be solved by the invention in claim 2. Therefore, the existence of a specific technical feature is assessed with respect to the invention in claim 3.

- (i) Where the invention in claim 3 has a special technical feature, inventions in claims 1 to 3 for which the existence of a special technical feature has been assessed until then and inventions in claims 4 and 5, which include all matters specifying the invention in claim 3, are the subject of the examination without questioning the requirement of unity of invention.
- (ii) On the other hand, where the invention in claim 3 does not have any special technical feature, the procedure proceeds to claim 4, which is the claim to which the smallest claim number is attached out of claims that include all matters specifying said invention. The specific problem to be solved, which is understood from “copper plate” added to claim 4, is an increase in the efficiency of cooling a superconductive coil, and it is closely related to the problem to be solved by the invention in claim 3. Therefore, after determining the existence of a special technical feature in the invention in claim 4, inventions in claims 1 to 4 for which the existence of a special technical feature has been assessed until then are the subject of the examination. The invention in claim 5 is not the subject of the examination since it is not a claim to which the smallest claim number is attached out of claims that include all matters

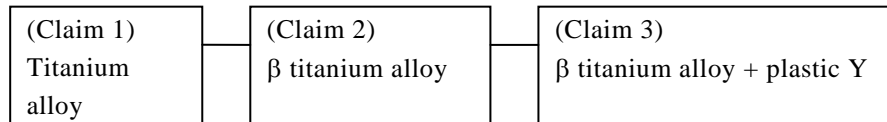
specifying the invention in claim 3, which does not have any special technical feature. A reason for refusal on the grounds of violation of the requirement of unity of invention is notified along with the result of examination on the inventions in claims 1 to 4.

#### Example 2:

Claim 1: Glasses frames characterized by weight-saving using titanium alloy.

Claim 2: Glasses frames characterized by weight-saving using  $\beta$  titanium alloy.

Claim 3: Glasses with glasses frames described in claim 2 and lenses of which impact resistance is improved using plastic material Y.



Inventions in claims 1 and 2 do not have any special technical feature.

The subject of the examination is decided following the procedure mentioned in 4.2 since the invention in claim 1 does not have any special technical feature.

“Glasses frames using  $\beta$  titanium alloy,” added in the invention in claim 2, which includes all matters specifying the invention in claim 1, is a subordinate concept of “glasses frame using titanium alloy,” which is the technical feature of the invention in claim 1. Thus, the technical features of these inventions are closely related to each other. Therefore, the existence of a special technical feature is assessed with respect to the invention in claim 2. In this example, the procedure proceeds to claim 3, which includes all matters specifying the invention in claim 2, since the invention in claim 2 also does not have any special technical feature. “Lenses using plastic material Y,” added to the invention in claim 3, constitute a technical feature that has little relevance to the invention in claim 2; and the problem to be solved by the invention as understood from said technical feature also has little relevance to the problem to be solved by the invention in claim 2. Therefore, the invention in claim 3 is not the subject of the examination, and a reason for refusal on the grounds of violation of the requirement of unity of invention is notified along with the result of examination on inventions in claims 1 and 2, for which the existence of a special technical feature has been assessed.

#### 4.4 Remarks

(1) In light of what is indicated in 4.1 and 4.2 above, if there is a claimed invention that does not become the subject of the examination, the invention shall be clearly indicated in a notice of reasons for refusal along with reasons thereof.

(2) Failure to meet the requirement of unity of invention (Patent Act Article 37) constitutes a reason for refusal (Patent Act Article 49), but does not constitute a reason for invalidation (Patent Act Article 123). Article 37 is a provision established for convenience of a third party and the Patent Office. Unlike other reasons for refusal, lack of unity of invention does not mean a substantive defect of patented inventions but a formal defect that the single application should have been split into two or more applications. Moreover, even if a patent is maintained, it does not directly inflict serious damages on third parties' interests.

Considering such circumstances, the requirement of unity of invention shall not be

applied in an unnecessarily strict manner to other inventions of which examination has been substantially completed as a result of examination on inventions that become the subject of the examination in light of basic concept which is indicated in 4.1, and inventions for which it is not easy to determine whether the requirement of unity of invention is met in relations with the invention first mentioned in the claims.