

Interim Revised Examination Guidelines for Requirement for Unity of Invention

Chapter 2 Requirement for Unity of Invention

Section 37 of Patent Law

Where there are two or more inventions, they may be filed in a single patent application provided that these inventions constitute a group of inventions complying with requirement of unity of invention by having a technical relationship stipulated by an ordinance of the Ministry of Economy, Trade and Industry.

Section 25 (8) of Regulations of Patent Law

1. The technical relationship defined by an ordinance of the Ministry of Economy, Trade and Industry stated under Section 37 of Patent Law shall mean 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 the invention over prior art.
3. The technical relationship provided in the first paragraph shall be examined, irrespective of whether the two or more inventions are described in separate claims or in a single claim described in an alternative form.

(Explanation)

Section 37 of Patent Law and Section 25 (8) of Regulations of the Law are defined in line with the provisions of Rule 13 of the Patent Cooperation Treaty, which defines requirements for unity of invention (hereinafter referred to as “Rule 13 of the PCT”).

1. Unity of Invention

1.1 Purpose of the Provisions Concerning Unity of Invention

The provisions concerning unity of invention are designed to provide convenience of an applicant, a third party and the Patent Office by allowing two or more inventions, which are technically closely interrelated, can be filed in a single patent application. For the purpose, the requirement for unity of invention is defined by Section 37 of Patent Law. Thus, Section 37 of Patent Law provides conditions where two or more inventions, which could also be separately filed for patent, may be filed in a single application.

1.2 Explanation for the Provisions Concerning the Requirement for Unity of Invention

(1) Section 37 of Patent Law

Section 37 provides that two or more inventions complying with the requirement for unity of invention may be filed for patent in a single application. Furthermore, it also states as the requirement that two or more inventions should 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: Section 25 (8) of Regulation of Patent Law).

(2) Section 25 (8) 1 of Regulations of Patent Law

Section 25 (8) 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, this 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 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) Section 25 (8) 2 of Regulations of Patent Law

Section 25 (8) 2 provides that the word “special technical feature” stipulated in Section 25 (8) 1 of the Regulations shall mean “a technical feature defining a contribution made by an invention over prior art.” This means that the “technical feature” must create a contribution over prior art in order to be recognized as a special one.

In this regard, the word “technical feature” refers to “claimed matters technically identifying an invention,” among all the claimed matters added by the applicant as necessary matters in order to identify the invention (called “Invention-identifying matters”). Usually, technical features may be regarded as equal to the invention-identifying matters.

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

(4) Section 25 (8) 3 of Regulations of Patent Law

Section 25 (8) 3 of the Regulations clarifies that whether inventions satisfying the requirement for unity of invention or not shall be examined, 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 of Unity of Invention

2.1 Subjects of Examination for Unity of Invention

The requirement for unity of invention shall be examined by a technical relationship among inventions described within the “CLAIM.” Usually, this is decided based on relationships among claimed inventions.

If invention-identifying matters in a claim are 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, in other words, whether the special technical feature of each invention is the same or corresponding to the special technical features of all the other inventions.

Here, cases in which two or more inventions have the same special technical feature includes a case where special technical features of each invention are different only in expression of words, for example, where they are different in category expressed. (Note 1).

In addition, a case in which two or more inventions have a corresponding special technical feature is a case where the contributions made by an invention over prior art, which give each special technical feature to the inventions, are closely linked with each other, such as a relation of a product and the method of producing it, or that of a bolt or a nut with screw threads having the same specific structure (Note 2).

The requirement for 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 one. The requirement for unity of invention is not satisfied, unless the same or corresponding special technical feature is present. Even though the requirement is satisfied through the above procedures, the inventions may fail to

meet the requirement a posteriori, for example, when a recognized special technical feature does not make a contribution over prior art, or when the technical feature is found in prior art.

(Note 1) Although special technical features of two or more inventions appear to be the same in the texts, these special technical features may not be regarded as the same one, unless contributions over prior art made by each special technical feature is closely related with each other.

(Note 2) If technical fields of claimed inventions are unrelated, contributions made by these invention over prior art are not considered closely related.

(Note 3) The case where inventions are not contributory to prior art, includes cases not only where a recognized special technical feature is already found in prior art, but also where the special technical feature is regarded as mere addition, deletion or substitution of well-known art or commonly used art to prior art, and therefore does not cause a new effect or is considered as mere design variations. The word a “prior art” here refers to inventions defined in Section 29(1) of Patent Law, and does not include inventions that have not yet disclosed by a filing date.

3. Categorization of Unity of Invention

The following examples explain how to examine unity of invention, under the presumption that each invention has a contribution over prior art.

3.1 Product-to-Product, and Method-to-Method

3.1.1 The Same Special Technical Feature

If two or more inventions are in “product-to-product” or “method-to-method” relations with one another, and if all of them have the same special technical feature, they meet the requirement of unity of invention.

(Example 1)

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

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

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

3.1.2 Corresponding Special Technical Feature

If two or more inventions are in a product-to-product or method-to-method relation with one another and have common technical significance in comparison to prior art (a problem to be solved over prior art by the invention is the same, overlapping or complementary.).

Contributions over prior art made by these inventions owing to their special technical features are closely related, and therefore these features are considered as a corresponding one.

(Example 1)

Claim 1: Conductive ceramics composed of silicon nitride and titanium carbide.

Claim 2: Conductive ceramics composed of silicon nitride and titanium nitride.

Special technical features of claims 1 and 2 are titanium carbide and titanium nitride respectively. They have common technical significance in comparison to prior art in terms of giving conductivity to ceramics composed of silicon nitride.

(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.

The technical significance of the invention recited in claim 1 and that of the invention recited in claim 2 in comparison to prior art, considering their relations to the problems to be solved by those inventions, lie in extension of the time axis to transmit a video signal and compression of the time axis to receive a video signal respectively, and therefore both of the technical significance are considered complementary. Hence, those inventions have common technical significance. Claim 3 includes both time axis extender and time axis compressor, which are special technical features bringing the technical significance common to claims 1 and 2. Claim 3 and claims 1 and 2 also meet the requirement of unity of invention.

3.2 Product and Method of Producing it, and Product and Machine, Instrument, Device, the Other for Producing it

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

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

Since a contribution over 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 provide corresponding special technical features.

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

The word, “the other” in the above “a machine, instrument, device, etc. for producing an 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: Foundation pile having a bulbous enlargement at its base.

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

Forming a cavity by using an explosive is a special technical feature of claim 2, and the process resulting in the formation of a bulbous enlargement by filling the cavity with a concrete 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.

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.

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

Claim 3: A method for producing an eyeglass frame by molding titanium alloy into the frame in

one-piece.

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

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

3.3 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 is satisfied.

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

The contribution over prior art made by the special technical feature of the “method of using the product” lies in utilization of the properties and/or functions of the special technical feature of “the product.” For that reason, the contribution over prior art made by the respective special technical features should be closely related. If so, both “the product” and “the method of using it” is deemed in a relation with corresponding special technical features to each other.

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

In this case, the contribution over prior art made by the claimed inventions, which gives the special technical feature of “an product solely utilizing the specific properties of another product” lies in the sole utilization of the specific properties of the special technical feature of “the product.” If the contribution made by the inventions over prior art, which bring each special technical features is closely related, both “product” and “the method of using it” are considered in a relation with corresponding special technical features to each other.

(Example 1)

Claim 1: Substance A.

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

Since the method of killing insects described in claim 2 utilizes the insecticidal properties 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.

The herbicide composed of substance A, which is the special technical feature of claim 2, solely utilizes the herbicidal properties of substance A described in claim 1. The herbicide composed of substance A recited in claim 2 is therefore suitable for solely utilizing the specific properties 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 like 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.

The method of manufacturing recited in claim 2 utilizes the particular properties to prepare compound B by reacting compound A of claim 1 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 for unity of invention.

(Example 4)

Claim 1: A recombinant microorganism containing DNA X.

Claim 2: DNA X.

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

DNA X is the special technical feature common to both of claims 1 and 2.

The method of claim 3 utilizes peculiar properties, in other words, the function of generating polypeptide A through DNA X. Hence, the method of claim 3 is suitable for using DNA X in claims 1 and 2.

(Example 5)

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

Claim 2: A method for manufacturing carbon black including a step of 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 including a step of forming a fuel inlet in the direction tangent to a mixing chamber.

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

3.4 Product and Method of Handling it, and Product and Another Product Handling it

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 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.”

The contribution made by the invention over prior art, which give 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.” Hence, if the contribution made by a invention over prior art, which bring special technical features, are closely related, it can be said that both of “a handling method or another handling product” and “the product” are in a relation having corresponding special technical features to each other.

Even if “a handling method or another handling product” is applicable to handling something other than the product, the requirement 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.

The method of claim 2 necessarily results in exercise of the function of the specific structure recited in claim 1, in other word, in exercise of improvement of the accommodation capability. For the reason, the method of claim 2 is deemed to be 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 ration of gas ingredients.

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

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.

3.5 Method and Machine, Instrument, Device, the Other Directly Used to the Method

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

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

A contribution made by an invention over prior art, which bring the special technical feature of “device and the other directly used to implementation of a method,” is to carry out the special technical feature of “the method.” If a contribution made by the invention over prior art, which bring the respective special technical features, are closely related, both “device and the other directly used to implementation of a method” and “the method” are deemed in a relation having corresponding special technical features to each other.

Even if “device and the other directly used to implementation of a method” can be directly used to carry out a method other than “the method,” the requirement is still satisfied, if “device and the other directly used to carry out a method” is suitable for direct use to carry out “the method.”

The word “the other” 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: mixing ice granules with cement together with aggregate; and pouring the mixture into a mold.

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

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 carrying out the method of claim 1.

(Example 2)

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

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

The device of claim 2 can be used for a purpose other than carrying out the method of claim 1. Nevertheless, the device is directly used to carry out the method of measuring depth of water through specified procedures, which is the special technical feature of claim 1. The device of claim 2 is therefore deemed to be suitable for directly carrying out the method of claim 1.

(Example 3)

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

Claim 2: A method of preparing final product Z comprising: reacting compound X and compound Y to produce intermediate A; and oxidizing intermediate A.

Claim 3: Intermediate A.

The special technical feature of both claims 1 and 2 lies in the method of preparing final product Z by oxidizing intermediate A.

Intermediate 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 A of claim 3 is suitable for directly carrying out the method of claims 1 and 2.

3.6 Markush Form

Even to a claim described in the Markush form, 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 form is related to a compound written in alternative form, each alternative is deemed to be in a relation having the same or corresponding special technical, 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, the word “a significant chemical structure elements 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 in case the compounds have in common only a small portion of their structures, 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, if at least one of Markush alternatives is found in 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 one for the other, with the expectation that the similar intended result would be achieved.

3.7 Intermediate and Final Product

In order that an invention related to an intermediate and another related to the final product meet the requirement for unity of invention, the following requirements (a) and (b) must be satisfied:

- (a) An intermediate and a final product have the same or technically closely related structural element, namely;
 - (i) the new fundamental form in chemical structure of the intermediate is

common to that of the final product; or

(ii) the chemical structures of both products are technically closely related to each other.

(b) The intermediate and the final product are technically related to each other. In other words, the final product is prepared directly from an intermediate or prepared through a small number of the other new intermediates including the same substantial structural element.

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

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

In case where the individual intermediates 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 can be included in one patent application because the substantial structural elements are the same or corresponding special technical features.

In cases where the intermediates 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 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 has the other effects or exhibits other activities in addition to being used to prepare the final product does not affect the judgement of unity of invention.

4. Examination for Unity of Invention

(1) Unity of inventions is examined by relations to the invention recited in the first claim. Only the invention of the first claim and the other claims satisfying the requirement are subjected to a regular examination.

(2) In case where the requirement for unity of invention is satisfied among independent claims, it can be supposed that lack of the unity is rarely found due to the claims depending on such independent claims. Hence, unity of invention is usually examined solely by comparing independent claims.

Claims cited in different categories, for example, may affect the determination of unity of invention. For the reason, extra care is needed for such claims.

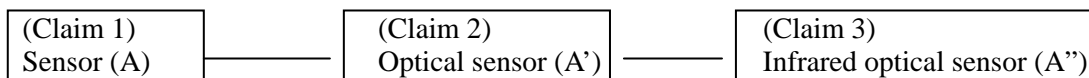
(3) In case where claims in the same category including all invention-identifying matters of other claims (regardless of the type of claim, in other words, regardless of a independent or dependent form) form a dependent linkage in series connection (Note 1), it is reasonable that a search for prior art and examination for all those claims are done all together. Accordingly, when doing such search and examination is considered reasonable, an examiner should examine an application, irrespective of whether the requirement for unity of invention is satisfied or not.

Note 1: Example of a dependent linkage-in-series connection

Claim 1: Automatic doors provided with a sensor (A).

Claim 2: Automatic doors of Claim 1 wherein the sensor is an optical sensor (A').

Claim 3: Automatic door of Claim 2 wherein the sensor is an infrared optical sensor (A'').



In this example, since all the invention-identifying matters in the previous claim are cited in claims 1-3, these claims form a dependent linkage-in-series connection.

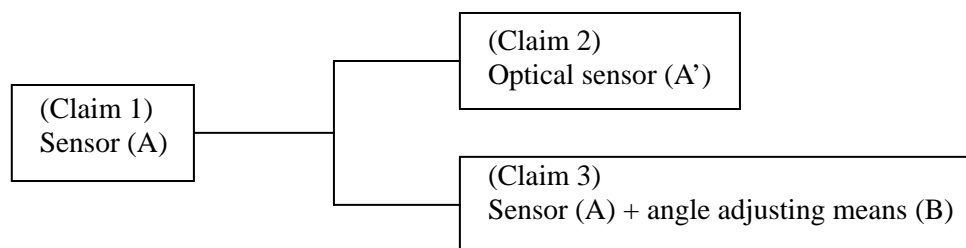
(4) In case where branch-out occurs in a linkage, even if what was initially believed to be the special technical feature of the invention in the particular claim turns out not to contribute to prior art, doing prior art search and examination for one of the series of the claims in the series connection is still often reasonable. If such prior art search and examination are considered reasonable, an examination should be conducted to an extent that a single dependent linkage in series connection is concerned, irrespective of whether the requirement for unity of invention is satisfied or not. (Note 2)

Note 2: Case where a contribution made by the invention over prior art in the branch-out of the claims is denied.

Claim 1: Automatic door provided with a sensor (A).

Claim 2: Automatic door of claim 1 wherein the sensor is an optical sensor (A').

Claim 3: Automatic door of claim 1 wherein a means for adjusting the fixing angle (B) is provided with the sensor (A).



If the contribution over prior art made by the sensor (A), initially believed to be the special technical feature of claim 1 is denied in the above case, it is often reasonable to conduct prior art search and examination for claims 1 and 2.

(5) Failure to satisfy the requirement for unity of invention (Section 37 of Patent Law) constitutes a reason for refusal (Section 49 of Patent Law), but does not constitute a reason for invalidation (Section 123 of Patent Law). Section 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 material flaw of patented inventions. It simply means 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 a third party's interests. Accordingly, even if lack of unity of invention is found, an examination should continue if it is reasonable to do so, for example, if the result of a search is useful for the examination.

(6) When notifying reasons for rejection concerning lack of unity of invention, the reasons should be explained rationally and in detail by an examiner.