NOVELTY and INVENTIVE STEP

This chapter explains matters related to the provisions of Patent Law Section 29(1) regarding inventions lacking novelty, and (2) regarding inventions lacking inventive step.

1. Novelty

Section 29, Paragraph 1 (Note 1)
Any person who has made an invention which is industrially applicable may obtain a patent therefor, except in the case of the following inventions:

i) Inventions which were publicly known in Japan prior to the filing of the patent application;
ii) Inventions which were publicly worked in Japan prior to the filing of the patent application;
iii) Inventions which were described in a publication distributed in Japan or in a foreign country prior to the filing of the patent application.

(Note 1): Articles for which patent application can be filed post January 2000.
Any person who has made an invention which is industrially applicable may obtain a patent therefor, except in the case of the following inventions:

i) Inventions which were publicly known in Japan or in a foreign country prior to the filing of the patent application;
ii) Inventions which were publicly worked in Japan or in a foreign country prior to the filing of the patent application;
iii) Inventions which were described in a publication distributed or which have become exploitable to the public via the telecommunication network in Japan or in a foreign country prior to the filing of the patent application.

(Reference: Refer to Part I Chapter 6 on handling of the invention (Section 29, Paragraph 1, Item 3) that became exploitable to the public through telecommunication network).

1.1 Purport of the Provision of Patent Law Section 29(1)

The Patent System is to grant an exclusive right in return for the disclosure of an invention. For an invention to deserve a patent granting, therefore, the invention should be novel. The provision of Patent Law Section 29(1) categorizes inventions lacking novelty, in order to define a scope of such inventions.

1.2 Patent Law Section 29(1)(i) to (iii)

1.2.1 Prior to the Filing of a Patent Application

“Prior to the filing of a patent application,” not stating “prior to the date of filing of a patent application,” implies the definite time even in hours and minutes of the filing. Consequently, the invention filed is deemed publicly known in Japan prior to the filing of a patent application, for instance, when the application is filed after noon on the date while the invention in question is publicly known before noon on the same date in Japan. In addition, in cases when an invention is described in a publication outside of Japan in morning in Japan time, and the patent application on the invention is made in the afternoon of the same day, disclosure of said invention is considered to be prior to the patent application.

1.2.2 Publicly Known Invention

A “publicly known invention” means an invention, the content of which has been known to a non-specified person, who has taken it not to be secret. An invention, which is disclosed by a person assuming a duty confidence to a third party without being aware of the secret nature, results in a “publicly known invention,” irrespective of the inventor’s or the applicant’s intent to keep it secret.
For example, a manuscript for a journal of an academic society, in general, is kept in secret against a third party, even after the receipt of the manuscript by the society. The invention described in that manuscript is not a publicly known invention until its content is released.

1.2.3 Publicly Worked Invention

A “publicly worked invention” means an invention which has been worked under the conditions where the content is publicly known (Note 1) or can potentially be publicly known (Note 2) & (Note 3).

(Note 1): “Conditions where the content is publicly known” include a situation where a person skilled in the art may easily understand the content of the invention by observing the manufacturing area at a plant when the area is exposed to non-specified persons.
(Note 2): “Conditions under which the contents can potentially be publicly known” include a situation that the manufacturing area in a plant is exposed to non-specified persons, the content of a part of the manufacturing process cannot be known by just observing an exterior view of the equipment, and the persons cannot know the invention as a whole without knowing that part of the process, and they can observe the interior of that equipment, or can ask the employee of the plant to explain the interior (or the plant would not refuse either).
(Note 3): The working of the invention, which has caused its fact to be publicly known, falls within a “publicly known invention” as stated in Patent Law, Section 29(1)(i). Meanwhile, the item (ii), ibid., includes a situation where the working has been publicly conducted, even without the identifying of the fact that an invention has become publicly known as a result of working.

1.2.4 Invention Described in a Distributed Publication

(1) Distributed publication

A “publication” is a document, a drawing or other similar medium for the communication of information, duplicated for the purpose of disclosing the contents to the public through distribution.

“Distribution” means placing a publication as defined above on the condition on which non-specified persons can read or see it. It does not necessitate the fact of a certain person’s actual access to such a publication.

Ex. 1: Because French patent specification identical to the content of the invention concerned related to the patent application of the appellant has been received by the Data House of the Japanese Patent Office, the invention should be considered to come under the former Patent Law Section 4 (2) regardless whether public inspection of the said specification was permitted or not when the patent was applied. (Reference: 1961 (0) 1180)

Ex. 2: As a microfilm can make a condition that the public read its contents using a display screen, copy them on a common paper and receive the delivery of the copy, it is considered as a publication distributed in the foreign countries prior to the application of utility model registration of the device as claimed in the application concerned. (Reference: 1986 (Gyo TSU) 18)

(2) Time of distribution

1) When the time of publication is indicated in a publication, it is presumed as follows:
   i) In the case that only the year of a publication is indicated, the last day of that year;
   ii) In the case that a month and a year of a publication is indicated, the last day of the month of the year; and
   iii) In the case that a day, a month and a year of a publication is indicated, that date.

2) When the date of publication is not indicated in a publication
i) The distribution date of a foreign publication is estimated, when the date of its receipt in Japan is clear, reckoned with the period required to reach Japan from the country of publication.

ii) In the case that there is a derivative publication such as a book review, an extraction or a catalog, the date of distribution of the publication in question is presumed from the date of the derivative publication.

iii) In the case that there is a second edition or a second print of the publication, the date of distribution is presumed to be the date of the first edition indicated therein.

iv) In the case that other appropriate information is available, the date of distribution is presumed or estimated therefrom.

3) In the case that the filing date of a patent application is the same as the date of the publication

In the case that the filing date of a patent application is the same as the date of the publication, the time of distribution is not deemed prior to the filing of a patent application, except when the filing time of application is clearly after the time of publication.

(3) Invention described in a publication

An “invention described in a publication” means an invention found by the matters described or essentially described, though not literally, in a publication. "Matters essentially described, though not literally, in a publication” means those directly derivable from the matters described, taking into consideration the common general technical knowledge (Note 1) at the time of distribution of the publication.

(Note 1): The common general technical knowledge means technologies generally known to a person skilled in the art (including well-known or commonly used art) or matters clear from empirical rules. "Well-known art” means technologies generally known in the relevant technical area, e.g., many prior art documents, those widely known throughout the industry, or those well-known to the extent needless to present examples. “Commonly used art” means generally known as well as widely used art.

1.3. Inventions ruled by novelty requirement

The novelty requirement is applied to “claimed inventions.”

1.4 Principle of Method of Determining Novelty

The examiner shall determine the novelty based on whether or not a claimed invention falls under the inventions categorized in the provision of Section 29(1)(i) to (iii). When there are two or more claims in an application, the determination should be made for each claim.

1.5 Method of Determining Novelty

1.5.1 The Identifying of a Claimed Invention

The identifying of a claimed invention should be made based on the description s of the claim. Matters (terms) stated in a claim to define the claimed invention should be interpreted in the light of the description of the specification (excluding claims) (Hereinafter, in a description in Section 29, [1], “Specification excluding claims” is called “Specification” for the sake of convenience in order to achieve simplicity.), drawings and common general technical knowledge as of the filing. More specifically, the specifying of a claimed invention should be done as follows.

(1) When the claim description s are clear, the identifying of the claimed invention should be made just as stated in the claim. Terms or language in such a claim should be interpreted as what they normally mean.
Ex. 1: Identifying of the claimed invention, that is, the final and conclusive decision of technical matters in the claim should be first based on the description of the claim. It is interpreted that when the description is clear principally and accurately conveys the description of the invention, the gist of the invention added with matters listed in the detailed description of the invention is not used for identifying, and the description in the detailed description can be taken into consideration only when the description in the claim is insufficient to clearly indicate the technical meaning. (Reference 1992 (Gyo KE) 116)

Ex. 2: Identifying of the gist of the device is conducted to clear the technical matters described in the registered claim of the device, as a method to decide whether the device relating to the application comprises requirements for registration. As long as its technical matters are clear according to the description in the registered claim, the gist of the device should be found in accordance with the description, and the gist cannot be interpreted by limitation according to descriptions and drawings in the detailed description of the device. (Reference 1989 (Gyo KE) 42)

Ex. 3: For trial examination of novelty and inventive step of an invention relating to patent application, the gist of an invention relating to patent application should be found, as a premise to compare this invention with inventions prescribed in Section 29, (1), each subparagraph. The identifying of the gist should be made based on the descriptions of the claim in specification as long as there are no specified circumstances such as ambiguous technical significance in the descriptions of the claim or errors in the descriptions obvious at a glance in the light of the descriptions in detailed description in the specification. (Reference 1987 (Gyo TSU) 3)

(2) Even though a claim is clear, however, when terms or language used in a claim (matters defining a claimed invention) are defined or explained in the specification (excluding claims) or drawings, the definition or explanation should be considered in interpreting the terms or language. Mere examples of specific embodiments encompassed by the generic concept of terms or language used in a claim do not fall under the “definition or explanation in the detailed description of the invention or drawings.”

When description s in a claim, unclear or difficult to understand, can be clarified by interpreting terms or language of the claim in the light of the description of the specification (excluding claims), drawings and common general technical knowledge as of the filing, they should be referred to when interpreting the terms or language.

Ex. 1: The technical terminology in a specification should be commonly used scientific terms. Accordingly, it is necessary to refer to definitions and explanations in a dictionary etc. for understanding and interpretation of technical terminology in the specification. However, it is not proper to understand and interpret only by them. First, the descriptions in the specifications concerned and drawings should be referenced to understand and interpret the meanings and contents of the technical terminology to be used there. (Reference 1994 (Gyo KE) 78)

Ex. 2: In the case where the use of technical terms used in the description of the (scope of claims) are different from ordinary one, the effect is described in the (detailed explanation of the invention), the expression described in the (scope of claim) is hard to understand since the description is indefinite, and the meaning and the contents are made clear in the (detailed explanation of invention, it goes without saying that the descriptions of (detailed explanation of invention) are taken into consideration in interpreting the terminology and the descriptions. (Reference: 1966 (Gyo Ke) 62)

Ex. 3: Of course it is permitted deciding proper contents of meaning with the technical item and term of the unclear thing shown in there by taking into consideration of detailed explanation of the device, in order to interpret the description of claim rationally. (Reference 1972 (Gyo KE) 33)

(3) If a claimed invention is not clear, even by referring to the specification (excluding claims), drawings and common general technical knowledge as of the filing, the identifying of a claimed
invention should not be done.

(4) Even if there is inconsistency between an invention found in a claim and an invention described in the specification (excluding claims) and drawings, the identifying and examination of an invention should not be made based solely on the specification (excluding claims) and drawings, disregarding the description of the claim. In addition, matters (terms or language) not stated in a claim should be treated as they do not exist in the claim, even though they are described in the specification (excluding claims) or drawings. On the contrary, matters (terms or language) stated in a claim should be always considered, and should not be treated as they do not exist in the claim.

Ex. 1: When the description of the [scope of claims] is clear and its meaning can be captured accurately, it is not permitted to understand the contents of the invention concerned by adding the matters which are not described in the (scope of claims) at all and described in the (detailed explanation of invention) in finding of the claimed invention. (Reference: 1966 (Gyo Ke) 62)

Ex. 2: Recognition and interpretation of the gist of inventions should be based on the description of the scope of claims. In this case, neglecting of the matters described in the claims and adding the matters not described are not permitted as far as special circumstances are not recognized] (Reference: 1973 (Gyo Ke) 62)

1.5.2 Method of Interpreting Particular Types of descriptions of the Claim

(1) Descriptions of the claim intending to define a product by its work, function, property or characteristics (hereinafter referred to as "the functions, characteristics, etc.")

1) Where a claim includes a description intending to define a product using the functions, characteristics etc., such a description of the claim should, in principle, be construed as signifying all products with such functions, characteristics, etc. except when it should be interpreted otherwise in compliance with the principle mentioned in 2) of 1.5.1(2) above. (Note 1) For example, "a building wall material incorporating a layer which insulates heat" should be interpreted as a building wall material incorporating "a product" that is "a layer with a work or function of heat-insulation."

(Note 1) If, for example, a description of the claim reads as "heat-resistant alloy consisting of-," and if the term "heat-resistant alloy" should be interpreted as "alloy which is to be used solely for heat-resistance purpose" when considering specification (excluding claims), drawings and common general technical knowledge as of the filing, then, the examiner should handle the description according to the (2) mentioned below.

2) However, when the functions, characteristics, etc. are inherent to such product, it is interpreted that the description is not helpful to define the product but means such product itself.

Example 1: “Chemical compound X having anti-cancer effect”

In the case of Ex. 1, provided that an anti-cancer effect is an inherent property of a specified compound X, it is interpreted that the description “with anti-cancer effect” is not helpful to specify a product but means “a compound X” itself, regardless of the whether the anti-cancer effect in the compound X is known or not. If the chemical compound X has already been known to the public, therefore, the claimed invention should be determined lacking novelty. (As opposed to this, in the case of “an anti-cancer medicament comprising chemical compound X, the following handling procedure shown in (2) below should be adopted.)

Example 2: “RC-integration circuit which cuts higher frequency signals and passes lower frequency signals”
In the case of Ex. 2, as a point “cuts higher frequency signals and passes lower frequency signals” is an inherent function of an “RC integral circuit,” it is interpreted to signify a common “RC integral circuit.” It should be noted, as opposed to this, that in the case of a description of the claim reading as “RC-integration circuit which cuts higher frequency signals of more than F1 Hz and passes lower frequency signals of less than F2 Hz,” the limitation are not defined by work or function which an “RC-integration circuit” in general has inherently. Rather, the description of the claim means “a particular RC-integration circuit with a particular frequency characteristics, and not an RC-integration circuit in general.” Such limitation serves for definition of a product.

3) When the matters to define the invention are considered, a case should not be interpreted as to signify a specified product among all products with such functions, characteristics, etc. For example, in the description of the claim, “means for fixing the first wooden member to the second plastic member,” it is obvious that “means for fixing” does not signify a fixing means used solely for metals such as welding in all fixing means.

(2) Descriptions of the claim defining a product by its use (limitation by use)

Where a claim includes an explicit description defining a product by its use or purpose of use (i.e., limitation by use), such a description should be construed in the light of the specification and drawings taking into consideration the common general technical knowledge as of the filing. And, the description should be determined to mean either 1) a product that is particularly suitable for the stated use, 2) a product that is to be used solely for the purpose, or 3) both of 1) and 2). (Note that it could be a violation of Section 36(6)(ii) if the description can be determined neither 1), 2) nor 3).)

With respect to 1), where a description of the claim reading as “a hook for crane which is shaped like-” is interpreted as a hook with size and strength which are particularly suitable for crane, it means a product which is structurally different from “a hook for fishing (a fishhook) with the same shape.” Therefore, these two product inventions are different in the light of the specification, drawings and the common general technical knowledge as of the filing. Similarly, if “an aircraft for taking off from and landing on water comprising-” (i.e., a seaplane) is interpreted as different from a mere “aircraft” in that the former has structures specific to enable taking off from and landing on water, then, the former is not denied its novelty by the latter. This is the same in case of 3) where it should be interpreted as a product which is particularly suitable for the stated use and which is to be used solely for the purpose.

With respect to 2), where a description of the claim reading as “an alloy for a finger ring which is composed of-” is not interpreted as “an alloy of which composition is particularly suitable for finger-ring use” but rather interpreted as the same as a publicly-known alloy with general use which is composed of the same ingredients, then, the claimed alloy is not denied its novelty by the publicly-known alloy with general use only if the description of the claim can be interpreted as an alloy which is to be used solely for the finger-ring purpose by a person skilled in the art taking into consideration the specification, drawings and common general technical knowledge as of the filing.

As opposed to these, where a description of the claim reading as “a chemical compound Z for insecticidal use” is not interpreted as “a chemical compound of which composition is particularly suitable for insecticidal use” but rather interpreted as “a chemical compound Z with general use,” and not interpreted as being to be used solely for the insecticidal purpose in the light of the specification and drawings taking into consideration the common general technical knowledge as of the filing, then, the claim is denied its novelty by publicly-known “chemical compound Z” with general use. (In the latter case, it can be determined which one of 1), 2) and 3) is the appropriate claim construction. So, there is no violation of Section 36(6)(ii) on that ground.)

(Note) “A use invention” is an invention based on a discovery of a new method of using a product which is found by drawing special attention to a particular property of the product. A use invention can be either a product or a process. When looking at a claim of use invention in terms of descriptive expression, there is one with limitation by use, one with limitation by medicaments, one with limitation by method of using, and so on. The handling mentioned in (2) is applicable to use
inventions other than those with limitation by use. In the light of 1.5.1(4)), however, it should be applicable to only claims including terms or language which mean use. (For example, “a medicament consisting of-,” “a catalysis consisting of-,” “ornamental material consisting of alloy-,” “a method of killing insects by using-,” etc.)

(3) **Description** of the claim defining a product by its manufacturing process (product-by-process)

**When there is a description defining a product by its manufacturing process in a claim,** such a description should be interpreted as a product finally obtained per se unless it should be construed otherwise in compliance with 1.5.1(2). *(Note 1) Novelty of the product, therefore, should be denied if an identical product can be obtained by a different process from the claimed one and if the product obtained by that different process is publicly known as of the filing. (Note 1) The reason for such interpretation is that there are cases in which manufacture can be interpreted only by a manufacturing process (for example, an invention relating to isolated protein) and not by manufacture structure. Thus, it is not appropriate to make a distinction between cases defined by a manufacture structure and those defined by a manufacturing process. Accordingly, it is interpreted in that way even when it is obvious to limit only to a product manufactured by a specified process, as “Z manufactured solely by a process A” by an intention of an applicant himself.*

Example 1: “Protein which is obtained by process P (steps P1, P2, ... and Pn)”

*In the case of Ex. 1, if the protein which is obtained by process P is identical with a publicly known particular protein Z which is manufactured by process Q, the claim in Example 1 is denied its novelty regardless of the novelty of process P.*

Example 2: “A two-layer structured panel which is made by welding together an iron sub-panel and a nickel sub-panel”

*In the case of Ex. 2, provided that a product with the same structure as a two-layer structured panel fixed by welding is obtained by a process other than welding, and that is known publicly, novelty denial is led. However, as a product with the same structure as the one fixed by welding cannot be usually obtained by other processes, the novelty is not denied unless the invention of the two-layer structured panel using the process of welding is known publicly.*

1.5.3 The **Identifying of a Cited Invention** as Provided in Patent Law Section 29(1)(i) to (iii)

(1) Publicly known invention

“A publicly known invention” is one actually known by non-specified persons through the medium of people, and in most of the cases available from speakers at lectures, presentations, etc. In such a case, the **identifying** of an invention known is made based on the facts presented at the lectures or presentations. The presented facts may be interpreted, taking into consideration the common general technical knowledge. The matters directly derivable from the facts by taking into consideration the common general technical knowledge as of the lectures, presentations, etc., can also be a basis for the identifying of an invention publicly known.

(2) Publicly worked invention

“A publicly worked invention” is one worked under conditions where the invention is or can potentially be publicly known to non-specified persons through the medium of a machine, equipment or other systems. In such a case, the identifying of an invention is made based on the facts embodied in the machine, equipment or other systems. The facts embodied in a machine, equipment or other systems may be interpreted with reference to
the *common general technical knowledge*. The matters directly derivable from the facts by taking into consideration the *common general technical knowledge* as of the working of the machines etc., can also be a basis for the identifying of an invention publicly worked.

(3) Invention described in a publication

1) The identifying of “an invention described in a publication” is made based on the facts described in a publication. Matters described in a publication may be interpreted with reference to the *common general technical knowledge*. (Note 1) The matters which a person skilled in the art can directly derive from matters described in such a publication by taking into consideration the *common general technical knowledge* as of the distribution of the publication (hereinafter referred to as “matters essentially described, though not literally, in a publication”) can be a basis for the identifying of an invention described in a publication. Namely, an “invention described in a publication” means an invention which a person skilled in the art can find on the basis of the matters either described or essentially described, though not literally, in a publication. Therefore, unless an invention can be found by a person skilled in the art on the basis of the matters either described or essentially described, though not literally, in a publication, such an invention shall not be deemed as “an invention described in a publication,” i.e., “a cited invention” under Section 29(1)(iii). *For example, when “matters described in a publication” is one of the alternatives of Markush-type formula, attention should be paid to whether or not a person skilled in the art can find the invention adopting either one of alternatives concerned as a matter to specify the invention.*

(An example determined to be the matters essentially described)

**Ex. 1:** The fact that the conductor, as a shielding means for preventing electrical interference, is connected to an earth is recognized as the *common general technical knowledge* in the related electrical field. Consequently, the fact that a person skilled in the art is expected to presume that shield plate for the switch described in the cited reference is connected to the earth should be recognized as a matter of course, even though it was not described in the cited reference. *In view of the gist of the provision in the Utility Model Law Section 3, it is reasonable to understand that (the device described in publication) prescribed in the Utility Model Law Section 3(1)(iii) signifies technological idea that a general person skilled in the art can understand on the basis of the description in a publication.*

... when reading, referring to the above-mentioned *common general technical knowledge*, the shielding plate described in the cited reference being connected to an earth as a use mode should be considered essentially described, though not literally, as it is none other than one portion of the technical meaning of the term itself in the cited reference of “shield plate.” (Reference 1981 (Gyo KE) 93)

(An example determined not to be the matters essentially described)

**Ex. 2:** In Ex. 6 of a cited reference, ATAPURUGI SUTOKUREI (an acid component) is shown as a product with the same effects as citric acid, which is insoluble in solvent. Considering that products that are insoluble in solvent are commonly used as existing acid components in the technical field concerned, it is appropriate to limit to description that phenolic resin insoluble in solvent is used. Therefore, finally it is impossible to approve the description that shows to select soluble product for common solvent with basic component from “phenolic resin” in the cited reference. (Reference 1980 (Gyo KE) 12)

2) Also, unless it is clear that an invention is described in a publication in such a manner that a person skilled in the art can make the product in case of a product invention or can use the process in case of a process invention, taking into consideration the *common general technical knowledge* as of the distribution of the publication, then, such an invention shall not be deemed as “a cited invention” under Section 29 (1) (iii). *For example, if a chemical substance is expressed merely by a name or a chemical formula in a publication, and if it is not clear that a person skilled in the art can produce the chemical substance on the basis of the description of the publication, even taking into consideration the common...*
general technical knowledge as of the distribution of the publication, then, the chemical substance does not fall under an “invention described in a publication” under Section 29(1)(iii). (Note that this does not mean that, when the publication is a patent application claiming the chemical substance as one of alternatives of Markush-type formula, the claim violates the enablement requirement under Section 36(4).)

**[4] Handling of an invention expressed by a generic concept and in a specific manner in the identifying of a cited invention.**

1) A cited invention expressed in a specific manner in disclosures necessarily implies or suggests “a generic invention of which matters defining the invention are the same family or the same genus, or have the common characteristics with the cited invention,” and leads to the identifying of the invention expressed in generic concept (Note 1). **Further, even when a cited invention is expressed in a specific manner as a method for determination of novelty, the novelty of claimed invention determined expressed by a generic concept can be determined in comparison and determination, without identifying the invention expressed by a generic concept.**

2) A cited invention expressed in generic concept neither implies nor suggests an invention expressed in a specific manner, and does not lead to the identifying of the invention expressed in a specific manner (except when an invention expressed in a specific manner can be directly derivable from such a generic invention, taking into consideration the common general technical knowledge (Note 2)).

(Note 1) “Generic concept” is defined as a concept integrating matters in the same family or the same genus, or a concept integrating a plurality of matters with common characteristics.

(Note 2) The plain logic that generic concept contains specific disclosure, or a term in generic concept contains specific terms, does not substantiate the necessary derivation (disclosure) of an invention expressed in specific concept.

1.5.4 Comparison between Claimed and Cited Inventions

(1) Patent Law clearly states that matters necessary to define an invention should be stated in a claim. The identifying of the identical and different features of a claimed invention and a cited invention is conducted by comparing the matters to define the claimed invention and the matters to define an invention with respect to the cited invention.

(2) **The comparison of a claimed invention expressed in a specific manner with the cited invention is conducted, and identical features and differences between the both can be found in stead of the method of comparison mentioned in (1).**

More specific concept of claimed invention includes detailed explanation of the invention or matters described in the working mode of the claimed invention in drawings, and others. Matters which are different from the above mentioned working mode also can be intended for the comparison, if they are included in more specific concept of claimed invention. **This alternative method would be helpful for the novelty determination of claims with descriptions defining a product by the functions, characteristics, etc. or of claims with limitation by numerical range, etc.**

(3) The matters defining a claimed invention may be directly compared with the matters described in a publication, instead of the method of comparison mentioned in (1) and 1.5.2(3). In doing so, the identifying of the identical and different features of claimed and cited inventions may be conducted by interpreting the matters described in the publication taking into consideration the common general technical knowledge as of the distribution of the publication.

(4) The comparison should never be conducted between a claimed invention and a combination of
10-

two or more cited inventions.

1.5.5 The Finding of Novelty

(1) Where there is found no difference between the matters defining the claimed invention and the matters defining the cited invention as a result of the comparison, the claimed invention is not novel. Where there is a difference between the two, the claimed invention is novel.

(2) If matters defining a claimed invention are expressed by alternatives either in form or de facto (Note 1), and if any one of inventions each of which is specified by supposing that each of the alternatives is a matter to define the each of such inventions has no difference from a cited invention, then, the claimed invention as a whole shall be deemed lacking novelty. (Note 2)

(Note 1): “Alternatives in form” means a description of the claim with apparent form of alternatives. Among claims with “alternatives in form” are a claim with Markush-type formula and a multiple dependent form claim which refers to two or more other claims in alternative form.

“De facto alternatives” means a term or language in claims which is of comprehensive nature but intends to include a certain number of more specific matters. Whether or not a term or language is “de facto alternatives” should be determined taking into account the specification (excluding claims), drawings and common general technical knowledge as of the filing in addition to the descriptions of the claim. Among typical For example, there are a claim including descriptions such as “an alkyl with 1 to 10 carbons.” (This description of the claim of comprehensive nature includes a methyl, an ethyl and others.) As opposed to this, a term “thermoplastic resin” in a claim should not be construed as one that merely denotes a certain number of more specified matters by means of the term of comprehensive nature except when it should be construed as such by considering the specification (excluding claims), drawings and common general technical knowledge as of the filing. Namely, this claim language should not be deemed as de facto alternatives. Rather, it is deemed that the concept of “thermoplastic resin” includes uncertain number of more specified matters (e.g., polyethylene, polypropylene and others), and that is understood as the generic concept defined by the characteristics which the more specific matters have in common.

(Note 2): This handling does not relate with the practice for the appropriate time to stop prior art searches. On this point, refer to Part X Chapter 1 ‘Examination Procedures.’

(3) Handling of a claim including the specification of a product by the functions, characteristics, etc.:

1) The claim includes descriptions defining a product by the functions, characteristics, etc. and falls under either the following i) or ii), may make the comparison to a cited invention difficult. In such a case, the examiner may send the notice for rejection on the ground of the lack of novelty without making a strict comparison between the claimed product and the product of a cited invention, provided that no difference exists in features of the claimed invention other than the functional limitation etc., and the examiner has a reason to suspect that they would be prima facie identical.

Where the applicant argues or clarifies by putting forth a written argument or a certificate of experimental results etc., against the examiner's prima facie rejection and (s)he succeeds in changing the examiner's conviction at least to the extent that truth or falsity becomes unclear, the rejection is to be dissolved. The examiner may make a decision of rejection on the ground of the notice for rejection which is earlier notified, when applicant's refutation and vindication are abstract or general.

The examiner, however, shall not cite a reference under this handling if matters defining a cited invention falls under the following i) or ii).

i) a case where the functions, characteristics, etc. is neither standard, commonly-used, nor comprehensible to a person skilled in the art, or
ii) a case where plural of the functions, characteristics, etc. each of which is either standard, commonly-used, or comprehensible to a person skilled in the art, are combined in a claim so that the descriptions of the claim as a whole fall under i)

(Note) The functions, characteristics, etc. should be deemed standard if it is either defined by JIS, ISO-standard or IEC-standard, or it can be determined by a method for testing or measuring which is provided in those standards. The functions, characteristics, etc. should be deemed commonly-used if it is commonly used by a person skilled in the particular art as well as its definition or the method for testing or measuring can be understood.

2) Examples where the examiner has a reason to suspect the prima facie identity are shown below.
-(s)he reveals that a prior art product is identical with the product of the claimed invention as a result of converting the functions, characteristics, etc. into a different definition with the same meaning or a different method for testing or measuring the same;
-When a claimed invention and a cited invention are specified by the identical or similar functions, characteristics, etc., and even when its measuring conditions and evaluation methods are different, there is a fixed relation between both of them, and the probability included in the functions, characteristics, etc. of the claimed invention is high, provided that the functions, characteristic, etc. of the cited invention are measured or evaluated by measuring conditions or evaluation methods of the claimed invention.
-a product of the claimed invention has been revealed identical in structure with a certain product after the filing and (s)he discovers the particular product is publicly known as of the filing;
-(s)he discovers a prior art product which is identical with or similar to a mode for carrying out the claimed invention (for example, (s)he discovers a prior art product of which starting material is similar to and of which manufacturing process is identical with those of the mode for carrying out the claimed invention, or (s)he discovers a prior art product of which starting material is identical with and of which manufacturing process is similar to those of the mode for carrying out the claimed invention, etc.); and
-When the specified matters of an invention other than those expressed by the functions, characteristics, etc., are common between a cited invention and a claimed invention, and the cited invention has an identical or similar subject or effect to the subject or advantageous effect included in the specified matters of the invention expressed by the said the functions, characteristics, etc., and the probability of the functions, characteristics, etc. of the cited invention being included in the functions, characteristics, etc. of the claimed invention is high.

The examiner should follow the ordinary method when the novelty can be determined without using this exceptional handling.

(4) Handling of a claim including the specification of a product by a manufacturing process.

1) Where descriptions of the claim are those which define a product by its manufacturing process, there are cases in which it is extremely difficult to decide what the product itself is like in structure. In such a case, similar to the case of (3) cited above, the examiner may send the notice for rejection on the ground of the lack of novelty without making a strict comparison between the claimed product and the product of cited invention.

The examiner, however, shall not cite a reference under this handling if matters defining a cited invention include a description defining a product by its manufacturing process.

2) Examples where the examiner has a reason to suspect the prima facie identity are shown below.
-(s)he discovers a prior art product of which starting material is similar to and of which manufacturing process is identical with those of the product of the claimed invention;
-(s)he discovers a prior art product of which starting material is identical with and of which manufacturing process is similar to those of the product of the claimed invention;
-a product of the claimed invention has been revealed identical in structure with a certain product after the filing, and (s)he discovers the particular product is publicly known as of the filing; and
-(s)he discovers a prior art product which is identical with or similar to a mode for carrying out the
claimed invention.

The examiner should follow the ordinary method when the novelty can be determined without using this exceptional handling.

1.6 Notice for Rejection on the Ground of Section 29(1)
where the examiner gets convinced that it is more probable than not that an invention is unpatentable under Section 29(1) (or has a reason to suspect that an invention would prima facie lack novelty), (s)he should send a notice for rejection. Against the notice for rejection, an applicant may argue or clarify by putting forth a written argument or a certificate of experimental results, etc. the rejection is to be dissolved if the applicant's argument succeeds in changing the examiner's conviction at least to the extent that truth or falsity becomes unclear. Where the applicant's argument does not change the examiner's conviction to that extent, the examiner may make a decision of rejection on the ground of the notice for rejection which is earlier notified.
2. Inventive Step (Non-obviousness)

Where an invention could easily have been made, prior to the filing of the patent application, by a person with ordinary skill in the art to which the invention pertains, on the basis of an invention or inventions referred to in any of the paragraphs of Subsection (1), a patent shall not be granted for such an invention notwithstanding Subsection (1).

2.1 Purport of the Provision of Patent Law Section 29(2)

The purpose of the provision of Patent Law, Section 29(2) is to exclude inventions, easily made by a person skilled in the art, because granting a patent right to such an invention does not contribute to and even hampers the progress of technology.

2.2 Patent Law Section 29(2)

(1) “An invention provided in any of the items in the preceding paragraph (1)” means any of the inventions publicly known or publicly worked in Japan, or inventions described in publications distributed in Japan or in foreign countries, prior to the filing of a patent application. (Note 1)

(Note 1): In the application after January, 2000, any of the inventions including publicly known or publicly worked in Japan or in a foreign country, inventions described in publications distributed in Japan or in a foreign country, or inventions that became publicly exploitable through electric communication network in Japan and in foreign countries, prior to the filing of a patent application.

(2) “A person having ordinary skill in the art to which the invention pertains” (referred to as “a person skilled in the art” hereinafter) means a hypothetical person:

- who has ability to use ordinary technical means for research and development (including experimentation, analysis, manufactures, etc.);
- who has ability to exercise ordinary creativity in selecting materials and modifying workshop; and
- who is able to comprehend as his/her own knowledge all technical matters in the state of the art (Note 2) in the field to which a claimed invention pertains at the time of filing of a patent application.

In addition, a person skilled in the art is supposed to be able to comprehend as his/her own knowledge all technical matters in the field of technology relevant to a problem to be solved by the invention.

It may be appropriate to consider it as “a team of a group of persons” from multiple technical fields rather than an individual.

(Note 2): The “state of the art” is composed of common general technical knowledge and other publicly known technical matters (i.e., technical knowledge and information, etc.), in addition to the above described, “inventions referred to in any of the paragraphs of Subsection (1)”.

(3) “An invention could easily have been made by a person having ordinary skill in the art to which the invention pertains, on the basis of an invention or inventions provided in any of the items in the preceding paragraph (1)” means that a person skilled in the art could have been able to easily arrive at a claimed invention by exercising ordinary creativity on the basis of the inventions provided in Section 29(1) (referred to as “cited inventions” hereinafter) prior to the filing of an application.

2.3 Invention Ruled by Inventive Step Requirement

An invention to be ruled by inventive step requirement is a “claimed invention” which has met novelty requirement.

2.4 Principle of Method of Determining Inventive Step

(1) The judgment of the inventive step depends on whether the invention could easily have been made by a person skilled in the art pertaining to the technical field based on the cited invention
claim and current state of the art technology at the time of the application.

(2) Actually, after a claimed invention and a cited invention (one or more than one) are found, one of the cited inventions most suitable for a cause or a motivation is selected, claimed invention and cited invention are compared, and points of agreement and difference, of specified matters of the claimed invention and the cited invention are clarified. Then, the construction of logic that can deny the existence of inventive step in the claimed invention is tried from the contents and technical common sense of this cited invention and other cited inventions (including well known and commonly used art). For example, examination is made whether the claimed invention is applicable to the selection of optimum material from the cited invention or change in the design or mere aggregation, or if there is anything that can be a cause or a motivation of the contents of the cited invention. When advantageous effect in comparison with an effect of a cited invention is grasped definitely from the specification and others, it is taken into consideration as a fact helpful to affirmatively estimate and recognize the existence of the inventive step. As a result, a complete cause or motivation holds a denial of inventive step for the claimed invention, and an incomplete cause or motivation nullifies a denial of inventive step.

(3) Further, the method of identifying a claimed invention and cited inventions, and comparing the two, set forth in “Method of Determining Novelty” (see 1.5.1 to 1.5.3, 1.5.4) is also applied to determining inventive step. Even where an invention shall not be deemed as a cited invention under Section 29(1)(iii) because it is not clear that the invention is described in a publication in such a manner that a person skilled in the art can make the product in case of a product invention or can use the process in case of a process invention by considering the common general technical knowledge as of the distribution of the publication (see 1.5.2 (3)), such invention still can be a cited invention under Section 29(2) if a person skilled in the art, by using knowledge within the state of the art as of the filing, can make the product in case of a product invention or can use the process in case of a process invention.

2.5 Definite examples of a cause or a motivation

A cause or a motivation can be made from various and wide points of view. The definite examples are shown below.

(1) Selection of optimum materials, workshop modification, and mere aggregation.

1) Selection of optimum materials, workshop modification, etc.

Among mere exercises of ordinary creativity expected from a person skilled in the art are a selection of an optimal material from publicly known materials which achieve a specific object, an optimization of a numerical value range, a replacement with equivalents, and a workshop modification of design in applying specific technology. When the difference of a claimed invention in comparison falls only under these categories, it is usually considered that a person skilled in the art could have easily arrived at it, unless otherwise there is another ground for inferring inventive step.

Ex. 1: Transmission and reception using infrared wave of which wavelength scope of infrared energy is about 0.8 to 1.0 μm is recognized as a well-known matter in the past. Accordingly, as far as there are no specified conditions to prohibit its application to a driving transmission device in an emergency, its application to driving transmission of the cited invention 1 is recognized as a person skilled in the art can easily arrive at the invention. (Reference 1997 (Gyo KE) 86 - An example to show that application is easy unless there are other impediment factors.)

Ex. 2: To use cloth and paper, which were not reinforced by a reinforcing material as a base, material to sandwich flowers is a well-known and common use technique in a flower pressing method. If it is so, when there is no-need to use reinforced cloth and paper, as in the case of a flexible hygroscopic plate of a cited invention, the use of cloth and paper absorbing calcium chloride, omitting the reinforced material, can be a mere design matter or the matter to be
contrived easily for not only the person skilled in the art but also the general public trying to make pressed flowers. (Reference: 1994 (Gyo KE) No. 82, 83)

(2) Mere aggregation

Where matters to define a claimed invention is not associated with each other in function or in work, or operation i.e., a claim is also merely in the scope for displaying normal creative ability of the person skilled in the art, as far as there is no basis to estimate and recognize the invention step otherwise.

Ex. 1: The remarkable action and effect asserted by plaintiffs can be considered to be only a mere collection of effects that are predicted on publicly known individual technology as a matter of course, accordingly, it is impossible to consider it to be remarkable action and effect specific to the invention as claimed in the application concerned. (Reference: 1969 (Gyo KE) 7)

(2) Matters to motivate

1) Close relation of technical fields

An attempt to apply a technical means in a related technical field in order to solve a problem can be ordinarily expected from a person skilled in the art. For example, when there are technical means that can be replaced with or added to the technical field concerned, there can be a well-founded cause or motivation that a person skilled in the art would have been led to a claimed invention.

Ex. 1: A closing release device of a cited invention is relating to a Pachinko game machine, and the diversion of this machine to a slot machine which is the same type of game machine and has a closing device to stop the slot machine by counting the prescribed number can be easily hit up on, though there is a difference in counting objects, Pachinko balls or medals. The easiness of diversion of technology should be judged from the view point that the technology belonging to other similar technical fields based on the technical view point can be thought of, when the person skilled in the art pertaining to one technical field conducts technical development. From this point of view, it is recognized that the diversion of technology in Pachinko game machine to the technology in slot machine is devised easily. (Reference: 1996 (Gyo KE) 103)

Ex. 2: A camera and automatic strobe light are always used together and are closely related, so that applying the incidence control element in a photo-measure circuit in the camera to the photo-measure circuit of an automatic strobe light would have been easily made by a person skilled in the art, unless it utilizes outstanding constituent features. (Reference: 1980 (Gyo KE) 177)

Ex. 3: The cited invention 1 is the one relating to a printing ink collecting device in a corrugated board paper printer, and the cited invention 2 is the one relating to a device to supply high viscous fluid such as printing ink and others, and both are in the same technical field. As the discharging and absorbing by rotating a pump CW and CCW are only a basic technology, it would not be the ground of argument to deny the fact that the application of both cited inventions was extremely easy for the person skilled in the art, unless the concrete technical subjects (purposes) for both are identical. (Reference: 1996 (Gyo KE) 21)

2) Close similarity of a problem to be solved

If a close similarity in a problem to be solved exists between a claimed invention and a cited invention, there can be a well-founded cause or motivation that a person skilled in the art would be led to the claimed invention by applying or combining cited inventions.

Ex. 1: The two inventions of cited references 1 and 2 intend the very similar problem to be solved in that a carrying sheet weakly attached with labels stops at a prescribed position. A person skilled in the art could have easily conceived the idea of applying the label feeding control means described in
the reference 2 to the invention of the reference 1 for solving the technical problem. (Reference: 1990 (Gyo KE) 182)

Ex. 2: It is common that the thickness of a saw blade varies according to the length of the saw blade, and the technical subject itself to exchange the saw blade of different thickness for teeth replaceable saw can be easily predicted by the person skilled in the art who observed the cited invention 1. On the holding means in the cited inventions 4 to 7, it is obvious that they can be held by holding force due to elasticity even if the thickness of knives is different. Also, it is recognized that the structure itself is manufactured under the technical idea to hold blades of different thickness, the technical idea in the cited inventions 4 to 7 is common to the technical subject of the device in the point where blades with different thickness are replaced for use. Accordingly, it should be recognized that the diversion of the construction of saw blade in the cited invention 1 to the construction in the cited invention 4 to 7 can be very easily devised by the person skilled in the art. (Reference: 1995 (Gyo KE) 5)

When a cited invention does not intend a similar problem to be solved to that of a claimed invention, further examination based on the state of the art should be conducted as to whether the subject is obvious or if it can be devised easily, based on the technical level.

Ex. 1: The subject “saving of cost and space” in the invention is only a general subject for not only a mixer but also all types of devices, that is, only an obvious subject when considering construction of a device. The adoption of an axial reduction gear and a reduction gear with a motor, listed in the cited invention 1 is the matter that can be devised easily by the person skilled in the art, and it cannot be recognized that there are any particular difficulties in consideration of this subject and aforementioned features of the axial reduction gear and the reduction gear with a motor to save the occupied area by the mixer in the cited invention 1 in accordance with the aforementioned obvious subject. (Reference: 1992 (Gyo KE) 142)

Ex. 2: As it is specified in the cited invention 4 that the “light weight” is one of the important requirements in a shaft for a golf club, and the necessity and advantage for reducing the weight of the shaft for golf club in relation with the carry of a golf ball is indicated, the subject in this device to attain the weight reduction of the shaft for a golf club can be recognized as a matter to be naturally predicted by a person skilled in the art. (Reference: 1992 (Gyo KE) 152)

Even when a cited invention intends a problem to be solved which is different from that of a claimed invention, the inventive step of the claimed invention can be effectively denied regardless of the difference in problems, if a cause or a motivation can be properly made that a person skilled in the art could have easily arrived at the same matters defining the claimed invention in a different way of thinking from the problem-solution of the claimed invention. This is also applies to a case where any problem to be solved by a claimed invention, such as an invention based on the discovery of the result of trial and error.

Ex. 1: The present application provides carbon disc brakes with grooves on their faces for venting water vapor buildup in the brakes. Cited reference 1 describes carbon disc brakes. Cited reference 2 describes metal disc brakes with grooves for venting dust formed on the faces. In this case, it is clear from the general function of the brakes that dust buildup on the faces prevents the braking even in the carbon disc brakes described in cited reference 1. To provide carbon disc brakes with grooves to solve that problem, as such was suggested by reference 2, is a technical improvement which a person skilled in the art could have easily arrived at. The combination suggests the same constituent features as of the present invention, so that the present invention has no inventive step. However, if the applicant provides sufficient arguments or evidence of a situation which hinders the combining of the technologies of cited references 1 and 2 (e.g., it is common general technical knowledge that carbon brakes have no dust buildup problem unlike metal disc, and thus there would be no reason to combine the two to provide carbon disc brakes with grooves for the purpose of removing dust.), inventive step cannot be denied from the disclosure of the cited references.
3) Close similarity of function, work or operation.

The close similarity in function, work or operation between specified matters of the claimed invention and specified matters of the cited invention, or the close similarity in function, work or operation between specified matters of the cited invention, can be a well-founded cause or motivation that a person skilled in the art would have been led to the claimed invention by applying and combining the cited inventions.

Ex. 1: The subject in cited invention 1 and the subject in cited invention 2 are common at the point where the washing of a cylinder in a printing machine is performed by pressing the cloth to it, and are not different at the point where both the cam mechanism in cited invention 1 and the expansion member in cited invention 2 are installed in order to contact the cloth to the cylinder and separate it. Therefore, it can be recognized that the background for the diversion of the expansion member of the cited invention 2 as a pressing means, in place of the cam mechanism of the cited invention 1 exists. (Reference: 1996 (Gyo KE) 262)

4) Suggestions shown in the content of cited inventions

If descriptions in a reference cited for identifying a cited invention or descriptions in other references show a suggestion relevant to a claimed invention, such a suggestion can be a influential ground for a cause or a motivation that a person skilled in the art would be led to the claimed invention.

Ex. 1: The cited reference describes the condition of metal ion the electric potential of which is higher than that of iron, specifying seven types of metallic ions, as a cation suitable for the object similar to the present invention of obtaining an aqueous cationic electrodeposition bath, in which chemical pretreatment is unnecessary. Although it does not specifies lead ion, which is the specific constituent features of the present invention, it is a publicly known fact that the potential of lead is higher than the potential of iron, so that it is considered to suggest using lead ion. Therefore, as there are no conditions such as the unsuitability of using lead to achieve the object of the present invention, etc., adding lead ion to the electrodepositing bath can be easily conceived by a person skilled in the art. (Reference: 1986 (Gyo KE) 240)

Ex. 2: Considering that the 3-chlorocompound of the invention of the present application only differs in the substitution position in the chemical formula from the 2-chlorocompound and 4-chlorocompound in the cited reference, and that there is no notation in the cited reference that the chemical compound must restrict the substitution position to specific positions in order to be used as a color brightener, the 3-chlorocompound can be considered as being suggested in the cited reference. Thus, the brightener can be easily conceived by a person skilled in the art. (Reference: 1976 (Gyo KE) 19)

(3) Advantageous effects in comparison with an effect of a cited invention

If an advantageous effect of a claimed invention can be identified from descriptions in the specification and drawings, it is taken into consideration as a fact to support to affirmatively infer its inventive step.”An advantageous effect in comparison with an effect of a cited invention “means an effect which is advantageous in comparison with an effect of a cited invention, among the effects derived from the matters defining a claimed invention (i.e., among the characteristic effects).

1) Advantageous effects in comparison with an effect of a cited invention to be considered

When the claimed invention has advantageous effects in comparison with an effect of a cited invention, a cause or a motivation why the person skilled in the art easily arrived at the claimed invention is tried. When the sufficient cause or motivation that the person skilled in the art can
devise the claimed invention easily is obtained even if the claimed invention has advantageous
effects in comparison with an effect of a cited invention, the inventive step is denied. When the
cause or the motivation that the person skilled in the art can devise the claimed invention cannot
be easily obtained, because the advantageous effects in comparison with an effect of a cited
invention are remarkable, exceeding the scope of estimation from the technical level, the inventive
step is not denied.

Particularly, in the case of an invention in a technical field in which an effect of a product is difficult
to understand from its structure, such as a selection invention as explained later, the advantageous
effects in comparison with an effect of a cited invention are important facts to positively infer its
inventive step.

It is noted that regardless of advantageous effects in comparison with an effect of a cited invention
of a claimed invention, inventive step may be properly denied by the uncontestable cause or motivation
based on a well-founded cause or motivation that a person skilled in the art could have
easily arrived at a claimed invention.

Particularly, in the case of an invention in a technical field in which an effect of a product is difficult
to understand from its structure, such as a selection invention as explained later, the advantageous
effects in comparison with an effect of a cited invention are important facts to positively infer its
inventive step.

Ex. 1: It is possible to prove that a person skilled in the art pertaining to the cited invention can
easily manufacture the Motilin derivative in the invention. However, if the Motilin in this
invention has extremely excellent effects and remarkably exceeds the scope estimated from the
technical level at that time, it is appropriate to construe that the patent can be granted as it has
the inventive step, even though Motilin in the invention has the effect of the same quality as that in
the cited invention. (Reference: 1996 (Gyo KE) 136)

Ex 2: The effect of the present invention is derived by combining each of the constituent features,
and is remarkable, so that the constituent features cannot have been easily conceived, although
each of the constituent features are described in each of the cited references. (Reference: 1969 (Gyo
KE) 107)

2) Considerations of effects asserted in written argument, etc.

When the advantageous effects in comparison with an effect of a cited invention are described in a
specification, and when they are not described but a person skilled in the pertinent art can infer
them from the description in the specification or drawings, the asserted and proved effects (for
example, experiment results) are taken into consideration in an argument, etc. However, the
effects asserted and proved in the argument, which are not described in the specification and
cannot be inferred from the description in the specification or drawings by a person skilled in the
art should not be taken into consideration. (Reference: 1997 (Gyo KE) 198)

3) Method of Determining Inventive Step of Selection Invention

i) Where an invention with a generic concept is expressed in a cited document, an invention with
more specific concept selected from the generic concept is called “selection invention,” if it is novel
over the generic invention and pertains to a technical field in which an effect of a product is difficult
to understand from its structure. Where an invention is expressed as alternatives either in form or
de facto in a cited document, an invention selected from a group of inventions each of which is
identified by supposing that each of the alternatives is a matter to define each of such inventions is
also called “election invention,” if it is novel over the alternatives and pertains to a technical field in
which an effect of a product is difficult to understand from its structure. From the definition of
selection invention, an invention can be a selection invention if it cannot be identified by a person
skilled in the art on the basis of the matters either described or essentially described, though not
literally, in a publication, i.e., if it is not an invention described in a publication (Refer to 1.5.3 (3)).

ii) A selection invention, however, has inventive step, when it generates an advantageous effect, not
described in cited documents, qualitatively different or qualitatively the same but quantitatively
prominent in comparison with that of a cited invention, neither of the effects being foreseen by a
Ex. 1: It was publicly known that a chemical compound expressed with generic formula has the property of insecticide. While a specific compound is included in the generic formula, but was not specifically known publicly with respect to the property of insecticide, the invention of the present application selected the specific compound as an effective component in the insecticide, based on the discovery that the toxicity to humans of the specific compound is remarkably less than the other compounds in the generic formula. Also, there is no other evidence which makes this expectation possible.

Ex. 2: As the invention has better function and effect than the cited invention in chroma, but the degree of its distinction changes continuously compared to the function and effect provided by the cited invention and cannot be defined as remarkable function and effect exceeding the prediction by the person skilled in the art, the selection invention is denied. (Reference: 1992 (Gyo KE) 214)

4) Method of Determining Inventive Step of Invention with Numerical Limitation

i) When a claimed invention is defined by specific numerical values, i.e., an invention with numerical limitation, the determination of inventive step comes under the following criteria.

ii) Optimizing by experiment a numerical range is normally considered as an exercise of ordinary creativity expected from a person skilled in the art, and hence its inventive step may be denied in general.

iii) However, a claimed invention has inventive step, when within a limited numerical range it has an advantageous effect, not described in cited documents, and qualitatively different or qualitatively the same but quantitatively prominent in comparison with that of a cited invention, neither of the effects also being foreseen by a person skilled in the art from the state of the art. The prominent effect should be confirmed in any part of a limited numerical range.

Ex.: The present invention is not found to have prominent effect under reaction conditions within a range of at least from 350 to about 500 °C within the range of reaction temperature of 350 to 1,200°C, which the present invention claims as its requirement. (Reference: 1979 (Gyo KE) 114)

In addition, the significance of critical range of limitation implicates the following notes.

Where a claimed invention is on the extension of a cited invention, i.e., the two inventions differ only in the presence and lack of the numerical limitations, respectively, and have the very similar problem to be solved, a remarkable difference in advantageous effect is required between inside and outside the limited numerical range.

Ex.: The point that “it includes over 90% of the matter with grading within the scope of 100 mesh or 14 mesh” in the claimed invention closely resembles numerically those with favorable grading range of 50 to 12 mesh in the cited invention and has no particular difference in action and effect. Therefore, when restricting the grading range to the one shown in the claimed invention, based on the cited invention, a person skilled in the art could easily make the invention without any particular originality. It should be concluded that the invention as claimed in the application concerned can be devised easily by a person skilled in the art based on the cited invention and known technology. (Reference: 1988 (Gyo KE) 107)

However, where two inventions have different problems to be solved and qualitatively different effects, the significance of critical range of numerical limitation is, by no means, required even if the two have the same matters defining the invention except for the numerical limitations. (Reference: 1984 (Gyo KE) 180)

2.6 Handling of a claim with descriptions defining a product by its functions, characteristics, etc.

(1) Where a claim includes description s defining a product by its functions, characteristics, etc. and
it falls under either the following a) or b), it causes difficulties in the comparison with the cited invention. In such cases, the examiner may send the notice for rejection on the ground of the lack of inventive step without making a strict comparison between the claimed product and the product of a cited invention and may wait for the applicant's argument against the notice in a similar way to above 2.6, if (s)he has a reason to suspect that the claimed invention would be similar to the cited invention and would prima facie lack inventive step over the cited invention.

The examiner, however, shall not cite a reference under this handling if matters defining a cited invention include a description falling under the following i) or ii):

i) a case where the functions, characteristics, etc. is neither standard, commonly-used, nor comprehensible to a person skilled in the art, or

ii) a case where plural of the functions, characteristics, etc. each of which is either standard, commonly-used, or comprehensible to a person skilled in the art, are combined in a claim so that the descriptions of the claim as a whole fall under i).

(2) Examples of the case where rational prima facie identity should be held are shown below.

-(s)he reveals that a prior art product denies inventive step of the claimed invention as a result of converting the functions, characteristics, etc. into a different definition with the same meaning or a different method for testing or measuring the same;

-When a claimed invention and a cited invention are specified by identical or similar functions, characteristics, etc., and even when its measuring conditions or evaluation methods are different, there is a fixed relation between both of them, and the probability to be similar to the functions, characteristics, etc. of the claimed invention is high, and it is applicable to denial of the inventive step, provided that the functions, characteristics and the others of the cited invention are measured or evaluated by measuring conditions or evaluation methods of the claimed invention.

-a product of the claimed invention has been revealed identical in structure with a certain product after the filing and (s)he discovers the particular product denies inventive step of the claimed invention;

-(s)he discovers a prior art product which is identical with or similar to a mode for carrying out the claimed invention (for example, (s)he discovers a prior art product of which starting material is identical with and of which manufacturing process is similar to those of the mode for carrying out the claimed invention, or (s)he discovers a prior art product of which starting material is identical with and of which manufacturing process is similar to those of the mode for carrying out the claimed invention, etc.); and

-When the specified matters of an invention other than the specified matters of the invention expressed by the functions, characters, etc. of the claimed invention are common with the cited invention, or the inventive step is lacked and the cited invention has identical or similar problems or effects with problem subject or advantageous effect included in the specified matters of the invention expressed by the said functions, characters, etc.

The examiner should follow the ordinary method when the novelty can be determined without using this exceptional handling.

2.7 Handling of a claim including the specification of a product by a manufacturing process.

(1) In a claim including the specification of a product by a manufacturing process, there is a case, which is extremely difficult to decide what the manufactures themselves are like in structure. In such a case, the same as the case in Paragraph 2.6 above, when an examiner recognizes a reason to suspect that they are prima facie that both are similar products and the inventive step of the invention is denied without conducting a strict comparison of identical features and differences between the manufactures concerned and the product in a cited invention, the reason for the rejection that the inventive step is lacked, is notified.

The examiner, however, shall not cite a reference under this handling if matters defining a cited
invention include a **description** defining a product by its manufacturing process.

(2) **Examples of the case where rational prima facie identity should be held are shown below.**

- (s)he discovers a prior art product of which starting material is similar to and of which manufacturing process is identical with those of the product of the claimed invention;
- (s)he discovers a prior art product of which starting material is identical with and of which manufacturing process is similar to those of the product of the claimed invention;
- a product of the claimed invention has been revealed identical in structure with a certain product after the filing, and (s)he discovers the particular product could have been invented easily from a prior art as of the filing; and
- (s)he discovers that a prior art denies inventive step of what is described in specification or drawings as a mode for carrying out the claimed invention or of what is similar to the mode.

The examiner should follow the ordinary method when the inventive step can be determined without using this exceptional handling.

2.8 Notes to Determination of Inventive Step

(1) **If there is a description that impedes to easily devise the claimed invention in the publication, the qualification as a cited invention is lacked.** However, when it is possible to reason from other viewpoints such as close relation of technical field and close similarity of function, work or operation, even if there is description which impedes the cause or the motivation prima facie, such as different problem and others, the qualification as a cited invention is maintained.

**Ex. 1:** While the present invention uses carbon dioxide which accompanies decomposition of magnesium carbonate, the disclosure of the cited document denies its use. It cannot, therefore, be provided as a material for comparative finding. (Reference: 1987 (Gyo KE) 155)

**Ex. 2:** The example 1 in the cited invention is a mounting device of a transformer the purpose of which is to attain thinning by devising the setting method of a terminal pin. When the structure of the cited invention 2 is applied to the terminal pin in the cited invention 1, it changes the terminal pin of which thinning was planned by devising the setting method establishing even a by-pass port to the direction against the purpose of this device. Therefore, it cannot be recognized that the person skilled in the art can easily devise it even if the fact that both can be mounted on the plane commonly is taken into consideration. (Reference: 1996 (Gyo KE) 91 - An example which recognized the inventive step considering impediment factors).

**Ex. 3:** When applying the technical ideas to the cited invention 1 to execute two types of works selectively by a single robot, by providing two holding means equipped with separate working functions shown in the cited inventions 2 and 3 to a single robot, it can not be recognized that the existence of the said automatic packing device will be an impediment factor. (Reference: 1998 (Gyo KE) 131 - An example which denied the existence of an impediment factor)

**Ex. 4:** There are not any mistakes in the judgment made in the trial decision, “It is a common use means to include inactive solvent properly to adjust the viscosity in accordance with coating means or coating conditions generally in this types of coating composition, and there isn't any special technical hindrance in using inactive solvent in the invention described in the cited invention, so the co-use of inactive solvent in the cited invention can be devised easily by the person skilled in the art.” (Reference: 1997 (Gyo KE) 131 - An example which denied the existence of an impediment factor)

(2) Well-known or commonly used art, if referred to in an office communication, should be accompanied with an exemplary document as far as possible except when it is so well-known that any evidential document seems unnecessary, whether it is referred to as a basis for identifying a cited invention or as a basis for determining the level of knowledge (i.e., state of the art) or the ability (i.e., the ability to use ordinary technical means for research and development or the
ordinary creative ability) of a person skilled in the art.

(3) Where an applicant admits in a specification that a technology presented as prior art is publicly known prior to filing of the application, the technology may be properly cited as the state of the art at the time of filing, in determining inventive step of a claimed invention.

(4) If matters defining a claimed invention are expressed by alternatives either in form or de facto, the examiner compares a cited invention with a group of inventions each of which is specified by supposing that each of the alternatives is a matter to define each of such inventions, and attempts to make a cause or a motivation to deny inventive step of such inventions. If the cause or the motivation can be properly made as this result, the claimed invention as a whole shall be deemed lacking inventive step.

Unless such a claim is handled this way, an invention lacking inventive step could be granted a de facto patent. This handling does not relate with the practice for the appropriate time to stop prior art searches. See “Examination Procedure.”

(5) The finding of inventive step of a claimed invention of a product, in principle, also presumes the inventive step of inventions of a process of producing the product or of a use of the product.

(6) A commercial success or other similar facts can be taken into consideration in order to support to affirmatively infer inventive step, only with the finding that, through an applicant's legitimate assertion or substantiation, the fact is established by the features of a claimed invention, not by any other factors such as sales promotion technique and advertisement.

Ex. 1: The use of residual gases in an oil refinery consisting of the compositions in the invention is a completely different idea from the cited invention and cannot be devised easily by the person skilled in the art. It is obvious that the economical effects; extremely cheap supply of raw material and efficient utilization of wastes, can be attained by using residual gases, which are exhaust gases in the oil refinery and its effects can be evaluated to be excellent in the invention. Therefore, it cannot be recognized that the person skilled in the art based on the cited invention easily devised the invention. (Reference: 1989 (Gyo KE) 180)

Ex. 2: Commercial success of working inventions pending does not influence the predictability of action and effect as asserted by the plaintiff. (Reference: 1996 (Gyo KE) 193)

2.9 Notice for Rejection Based on Section 29(2)

Where the examiner gets convinced that it is more probable than not that an invention is unpatentable under Section 29(2) (or has a reason to suspect that an invention would prima facie lack inventive step), (s)he should send a notice for rejection. Against the notice for rejection, an applicant may argue or clarify by putting forth a written argument or a certificate of experimental results, etc. The rejection is to be dissolved if the applicant's argument succeeds in changing the examiner's conviction at least to the extent that truth or falsity becomes unclear. Where the applicant's argument does not change the examiner's conviction to that extent, the examiner may make a decision of rejection on the ground of the notice for rejection which is earlier notified.