



Featured Article

The Role of Drawings in Determining Patent Priority: A Practical Guide

This article explores the critical yet often overlooked role of drawings in establishing patent priority under Chinese patent law. While the written specification is typically central to assessing whether two applications share the "same subject matter," the article highlights that figures can also serve as a valid basis—if they clearly and unambiguously disclose the claimed technical solution. Through practical case studies, it distinguishes between permissible formal modifications and impermissible substantive changes in drawings, and provides a nuanced discussion on when inference from diagrams—such as structural relationships or motion paths—is acceptable. The article offers practical guidance for applicants and drafters to strategically use and amend drawings without jeopardizing priority rights.

I. Judgment Standard for Patent Priority - "Same Subject Matter"

According to the provision of Article 29 of the Patent Law regarding the Patent

Priority, having "same subject matter" is one of the criteria for the establishment of the Patent Priority.

The Examination Guidelines further refine "same subject matter" into four elements: technical field, technical problem solved, technical solution, and expected effect,

which can be referred to as the "four-element principle". The so-called "sameness" here does not mean complete consistency in written records or narrative methods, as long as the technical solution described in the claims of the application is clarified.

The core of judging "same subject matter" is whether the technical solution of the subsequent application can be directly and unambiguously derived from the specification and claims of the prior application, and this is not limited to written records but also includes content directly determinable from the specification drawings. For example, if the drawings of the prior application clearly show the technical features of a subject, even if the written text of the prior application does not explicitly describe such technical features, the subject of the subsequent application including these technical features and the subject of the prior application can still be recognized as the same subject matter.

The key to determining whether a subsequent application can obtain priority based on the drawings of a prior application lies in whether it meets the requirement of the same subject matter, that is, the content claimed in the subsequent application can be clearly reflected in the drawings of the prior application and the entire application document. If the prior application only gives a general or vague description of certain technical features of the technical

solution, or even only implies them, but the subsequent application adds detailed descriptions of such technical features, such that a person skilled in the art considers that the technical solution cannot be directly and unambiguously derived from the prior application, the prior application cannot serve as the basis for the subsequent application to claim priority.

II. Relationship Between Drawings and Patent Priority

As a part of the patent document, drawings can serve as the basis for modification and enjoyment of the Patent Priority, and they help determine whether the technical solution in the prior application and the subsequent application fully reflects the same subject matter. Therefore, drawings can be one of the important reference contents in determining the Patent Priority.

If the drawings of the prior application have clearly shown key information such as structural components of the technical solution, the drawings of the subsequent application should be consistent with those of the prior application or reflect the technical solution of the same subject matter, so as to better support the claim of the Patent Priority. If the drawings of the prior application lack the display of certain key components, and such content is supplemented only in the subsequent application, it may affect the

determination of the Patent Priority. For example, in a patent regarding a battery, if the written text and drawings of the prior application do not show the key components of the cooling system, and such content is added only in the subsequent application, the claim for the Patent Priority of the technical solution related to the cooling system cannot be recognized.

III. Impact of Drawing Modification on Patent Priority

3.1 Impact of Formal Modification of Drawings on Patent Priority

If the drawings of the subsequent application only undergo formal modifications without changing the substantive content of the technical solution, the prior application and the subsequent application still have the same subject matter, which will not affect the enjoyment of the Patent Priority.

Case 1

Applicant A filed a prior application for an invention patent on a new conveying mechanism, the conveying mechanism including multiple components, and the drawings showing the structure and connection relationship of the multiple components. Applicant A filed a patent application for the same subject matter, and the applicant made the following modifications to the drawings: 1.

Thickening the lines of certain components in the drawings to make the component structure clearer; 2. Adjusting the annotations in the drawings to facilitate understanding and standardization; 3. Adjusting the dimension ratio of the drawings to make the display of the entire conveying mechanism more coordinated.

Regarding the modified content of the drawings, the examiner considered during the examination of the Patent Priority that: the thickening of lines, adjustment of annotations, and change of dimension ratio all belonged to formal modifications, and such modifications did not change the structure of the conveying mechanism, the connection relationship of components, or the substantive content of the technical solution.

Therefore, the purpose of formal modification of drawings is to more clearly show the technical solution and facilitate understanding and examination, which does not affect the determination of the Patent Priority, and the entire technical solution of the subsequent application still enjoys the Patent Priority of the prior application.

3.2 Impact of Substantial Modification of Drawings on Patent Priority

If the modification of drawings involves the substantive content of the technical solution, such change belongs to a substantial modification of the technical solution, which will exceed the scope of

modification, make the prior application and the subsequent application not have the same subject matter, and thus affect the determination of the Patent Priority, resulting in the subsequent application not being able to fully enjoy the Patent Priority of the prior application.

Case 2

Applicant B filed a prior application for a patent on a new electronic device, the drawings showing the appearance of the electronic device and part of the internal circuit, wherein the shell of the electronic device was rectangular in shape, and the internal circuit included a basic power module and a control module. Applicant B filed a patent application for the same subject matter, and the applicant made the following modifications to the drawings: 1. Changing the shell shape of the electronic device from rectangular to circular; 2. Adding a new functional module to the internal circuit, such as a wireless communication module; 3. Modifying part of the circuit connection relationship to match the function of the newly added functional module.

Regarding the modified content of the drawings, the examiner considered during the examination of the Patent Priority that: 1. The change in shell shape belonged to a substantial modification of the product appearance; 2. The newly added wireless communication module and its connection relationship belonged to a substantial supplement to the technical solution, and

such modifications exceeded the scope of the technical solution shown in the drawings of the prior application. Therefore, the newly added wireless communication module and its related circuit connection relationship could not enjoy the Patent Priority of the prior application, but the part consistent with the drawings of the prior application (such as the basic power module and control module) still enjoyed the Patent Priority.

IV. Impact of Drawing Deduction on Patent Priority

In the determination of the Patent Priority, the technical solution can be derived from the technical features of the drawings, and it should not be categorically rejected merely because there is no corresponding written description in the specification. On the basis of determining the same subject matter, it should proceed from the cognition of a person skilled in the art, consider the relevance between the technical features in the drawings and the essence of the invention content, and the content that can be unambiguously derived according to the technical features of the drawings can be added to the claims, provided that it does not exceed the scope recorded in the original specification and claims.

The standard of "directly and unambiguously derived" based on the drawings is specifically manifested as: first, qualitative deduction of the internal

structure, relative positional relationship, etc. can be made according to the purpose of the invention and the technical effect, but does not include quantitative deduction such as dimensions and ratios; second, fully understanding and expressing the meaning of the drawings according to the purpose of the invention and the technical effect, so that the modified written content of the subsequent application has a clear corresponding relationship with the drawings of the prior application, and no excessive introduction of other irrelevant technical features is allowed.

4.1 Position and Connection Relationship

If the drawings of the prior application implicitly disclose or clearly show the relative position and connection relationship of components through view combination or partial enlarged views, even if the written description is not completely corresponding, but a person skilled in the art can directly and unambiguously infer or determine the connection relationship from the drawings, the subsequent application can supplement it by specifying the connection relationship, so that the written description of the subsequent application can completely correspond to the drawings of the prior application, which generally does not affect the Patent Priority.

Case 3

With reference to Part II, Chapter 3, 3.2.1 of the Patent Examination Guidelines, in a

certain mechanical device, the drawings of the prior application clearly show the meshing position of the gear and the transmission shaft, and the claims of the subsequent application directly cite such connection relationship, which is recognized to enjoy the Patent Priority. However, if the subsequent application adds technical features such as "detachable connection" that are not reflected in the drawings, such part of the content cannot claim the Patent Priority.

4.2 Structural Features

If the drawings of the prior application have clearly shown structural features such as shape, contour, and dimensions through views or local details, even if the written description does not fully cover them, but a person skilled in the art can directly and unambiguously determine the structural features from the drawings, the specification of the structural features in the subsequent application does not affect the determination of the Patent Priority.

Among them, the contour, dimension ratio, etc. in the drawings need to reach the degree that can be uniquely determined by a person skilled in the art. For example: grooves and holes of a specific shape; or components in a symmetrical or asymmetrical layout, etc. However, if new structural elements are introduced, the specification of structural features will exceed the disclosure scope of the drawings of the prior application, which

may affect the determination of the Patent Priority.

Case 4

As shown in Figure 1, the specification of the prior application records: a circle of cutting edges formed by the cutting edge part 28-A and the cutting edge part 28-B through the upper cutting edge joint 56A and the lower cutting edge joint 56B. From this, a person skilled in the art can unambiguously infer that the prior application also records the technical solution that a circle of cutting edges is provided on the inner side of the outer ring, a circle of grooves is correspondingly provided on the outer edge of the inner ring, and the upper and lower cutting edges provided at both ends of the opening of the outer ring are single-layer cutting edges. Therefore, the technical solution of "single blade and single groove" in the subsequent application can claim the Patent Priority of the prior application.

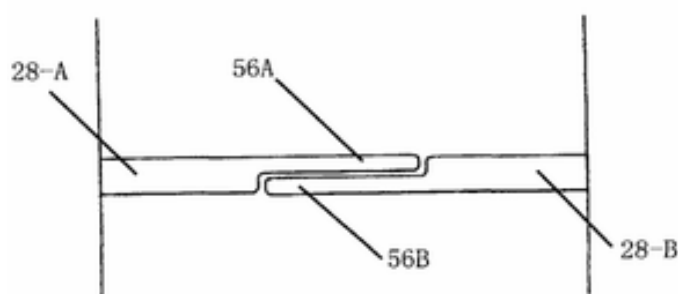


Figure 1

4.3 Mode of Motion

If the drawings of the prior application show the movement track, driving mode, state change, or dynamic principle of

components through multi-view or cross-sectional views, for example, the rotation direction of rotating components, the path of linear movement, movement track, etc., which need to be displayed through arrows, annotations, or supporting descriptions in the drawings, even if there is no clear written description, a person skilled in the art can derive the mode of motion from the drawings, and the specific description of the mode of motion in the subsequent application does not affect the Patent Priority.

Case 5

In a case of an automated mechanical arm, the drawings of the prior application indicate the joint movement sequence with arrows. As shown in Figure 2, it can be seen from the drawings of the prior application that: the double-headed arrow A represents the linear movement track of the arm 41, the double-headed arrow B represents the rotational movement of the arm 41, and the composite movement track of the arm 41 is shown through the double arrows A and B, thereby clearly showing the movement sequence of the arm 41 in the handling chamber 32.

Combined with the drawings of the prior application and the written text of the specification, it can be unhesitatingly determined that "the extension arm 41' drives the arm 41 to move along the guide rail 43 to the cavity 32, and the arm 41 can rotate relative to the extension arm 41'", and this is the only determined technical

solution, so the subsequent application can claim the Patent Priority for such movement sequence.

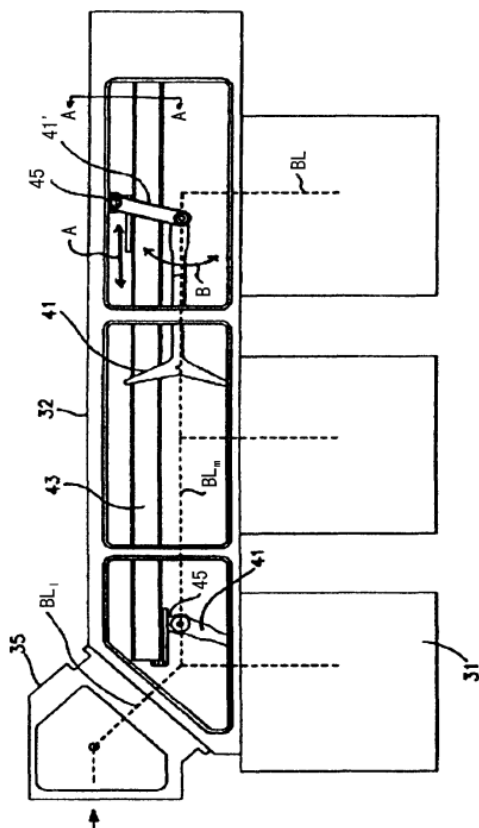


Figure 2

It should be particularly noted that the arrows and annotations in the drawings of the prior application need to be easy for a person skilled in the art to understand and comply with industry practices. Specifically: 1. Straight arrows usually represent the translation or linear movement track of conveyors, cylinder extensions, etc.; 2. Arc arrows usually represent the rotation or swinging movement track of mechanical arm joints, gear transmissions, etc.; 3. Continuous arrows or arrows with numbers usually represent multi-step sequences such as assembly or disassembly processes. For example, in a patent for an automated

mechanical arm, if the drawings of the prior application indicate the flexion and extension sequence of "shoulder joint → elbow joint → wrist joint" through arrow annotations, the technical solution of "shoulder joint, elbow joint, and wrist joint acting in sequence" in the subsequent application can claim the Patent Priority of the prior application.

V. Summary

Formal modifications of the subsequent application that do not exceed the scope of modification will not affect the Patent Priority; substantial modifications of the subsequent application will exceed the scope of modification, which may lead to partial or total loss of the Patent Priority; in order to more clearly show the technical solution of the prior application, the subsequent application derives and supplements the position connection relationship, structural features, and mode of motion according to the drawings of the prior application, which does not exceed the scope of modification and generally does not affect the Patent Priority.

The core of determining whether the Patent Priority is established based on the drawings lies in whether the technical solution of the subsequent application has been clearly shown or can be reasonably inferred through the drawings of the prior application, and does not exceed the scope of the same subject matter.

Therefore, applicants need to treat the modification and deduction of drawings with caution, take the standard of amendment exceeding the scope as the basis for judging the same subject matter

for the Patent Priority, and ensure that the modified content of the subsequent application is within a reasonable range to maintain the validity of the Patent Priority.

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Ms. Liu has expertise in drafting patent application documents, replying to various examination opinions, reexamination, consultation, patent mining, layout, pre case retrieval, patent invalidity analysis, infringement prevention analysis, subject retrieval and other retrieval businesses. She has accumulated rich patent service experience in general machinery, new energy batteries, automobiles, medical devices, relays, small appliances and other technical fields. At present, Ms. Liu has represented many well-known domestic companies in over 700 patent applications, and answered over 300 Office Actions.