

Content of the Prior Art: The Rules Are Becoming Clearer

When is your invention “known” from a prior art reference thus rendering your invention unpatentable? What are the rules in China for the interpretation of a prior art reference?

This communication studies three recent court decisions on patent validity decided by Beijing Higher People’s Court, and comments on the practical tips in connection with determination of the content of a prior art reference.

The Rules

Under Chinese patent prosecution practice, the content of a prior art reference shall be determined according to the provisions of Section 2.3, Chapter 3, Part II of the Guidelines for Patent Examination (the “Guidelines”), which clearly defines explicit and implicit disclosures.¹

Specifically, the Guidelines provide the

contents of a prior art reference include not only those technical contents explicitly described in the art but also those implied technical contents that can be derived directly and unambiguously from the disclosure by a person skilled in the art. However, the Guidelines are silent with respect to how to assess the contents of explicit and implicit disclosures.

Current patent prosecution and judicial practice demand that commonly acknowledged criteria shall be clear for the application of the above-mentioned Guidelines.

Cases

Three court decisions made by the Beijing Higher People’s Court (the “High Court”) are discussed in this section, which are directed to three patent invalidation cases where the content of the prior art has been determined.

Case I

The first case relates to an invalidation proceeding against a Chinese utility model patent No. 200720311700.8. An issue raised is when the prior art Evidence 2 (CN2712512Y) describes a multi-axis drill with differently-referenced features, whether those features equivalently teach each and every claimed element.

Specifically, the issue rests on whether the Evidence 2-disclosed “the connecting holder 20” and “the upper locking frame 12” respectively teach the claim-recited elements of “upper

¹ “Prior art references are objectively existing technical materials. When a prior art reference is cited to judge the novelty and inventive step of an invention or utility model, the technical contents disclosed in the prior art reference shall be based upon. The said technical contents include not only those technical contents expressly described in the prior art reference but also those implied technical contents that can be derived directly and unambiguously from the disclosure by a person skilled in the art. However, it is not allowable to broaden or narrow the contents of the prior art reference at will. Where a prior art reference has drawings, the drawings may also be cited. However, when citing the drawings, the examiner shall note that only those technical features that can be derived directly and unambiguously from the drawings belong to the contents of disclosure. The contents inferred from the drawings, and the dimensions with their relations measured from the drawings without any written description cannot be taken as the contents of disclosure.”

housing body” and “the transition ring” equivalently in the disputed patent.

The Beijing Higher People's Court, in considering the technical solutions disclosed in Evidence 2 and the patent with further evaluation of the functionality regarding each disclosed feature and recited element, concluded that differently-referenced features in Evidence 2 (“the connecting holder 20” and “the upper locking frame 12”) perform different functions from those recited elements in the patent (“upper housing body” and “the transition ring”),² and therefore Evidence 2 does not disclose and teach the following technical features of the patent: “the

² As can be seen from the specification of the patent, the upper housing of the multi-axis drilling device is divided into two parts *i.e.* an upper housing body and a transition ring connected with each other, in which the upper housing body is connected with the transition ring by a protrusion-recess engagement mechanism and can be adapted to engagement with different transition rings. As such, the upper housing is configured to ensure the casting quality and processing precision of the upper housing, which is easy for assembly and has reduced manufacturing cost.

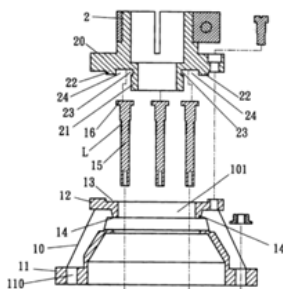


Fig. 1

Evidence 2 discloses a coupling configuration for a multi-axis drill (see page 5, lines 7-12 of the description and Fig. 2 of Evidence 2). As shown in Fig. 1 which is a reproduction of Fig. 2 of Evidence, the drill of Evidence 2 comprises a main housing 10, a connecting housing 20, and a drive mechanism, wherein the main housing 10 is provided with a lower locking frame and an upper locking frame 12, the upper locking frame 12 having an engaging recess 13 extending integrally from the inner rim thereof, for engaging with a positioning protrusion of the connecting housing when the main housing is connected with the connecting housing; wherein the main housing 10 is a lower housing of the multi-axis device and the connecting housing 20 is a member of the upper housing of the multi-axis device.

upper housing consists of an upper housing body and a transition ring, and the lower portion of the upper housing body is connected with the transition ring by means of bolts.” Accordingly, the court upheld the novelty of claims. See Administrative Decision (2013) Gao Xing Zhong Zi No. 907.

Case II

The second case relates to an invalidation proceeding against a Chinese invention patent No. 200410004652.9 requested by ThyssenKrupp Airport Systems (Zhongshan) Co., Ltd. (“ThyssenKrupp”). An issue here is whether the prior art with a disclosure of “outer supporting legs” teaches a claim-recited “auxiliary supporting unit” in the disputed patent that relates to an airport passenger boarding bridge.

ThyssenKrupp asserted that the outer support legs 300 and 306 of Evidence 1 (US 6,330,726) have a same configuration and function as the auxiliary supporting unit of claim 1 of the patent and therefore the prior art discloses the claimed element of “an auxiliary supporting unit.”

The High Court disagreed. The court articulated that, although both using the wording “support,” one skilled in the art would understand that the prior art-disclosed support legs serve as an alternative support to wheels but not an auxiliary support to a boarding bridge as claims required. Further, in reading the prior art Evidence 1, one skilled in the art would understand that in contrast to ThyssenKrupp’s assertion, support legs cannot be in contact with any supporting surface for safety reasons and therefore are not a support, let alone the claimed

an auxiliary support.³

³ Specifically, this case focuses on whether the prior art Evidence 1 discloses an auxiliary supporting unit for a boarding bridge being respectively mounted under two ends of a beam of a wheel mechanism of the boarding bridge and forming an auxiliary supporting point to provide auxiliary support to the beam and the boarding bridge thereon.

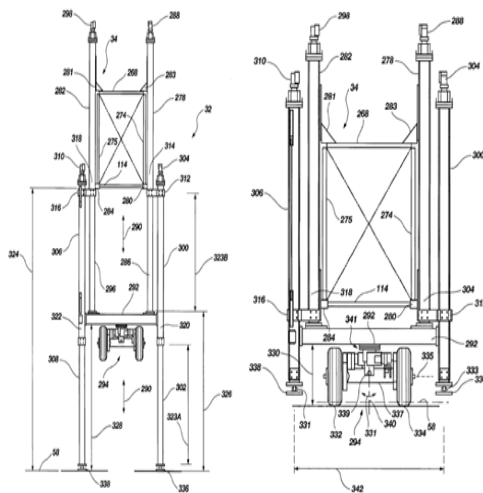


Fig. 2

Fig. 3

The Beijing Higher People's Court analyzed the different supporting arrangements in two different working conditions as shown in Figures 7 and 8 of Evidence 1 based on the literal description of the evidence and stated that "the extendable adjustment means and the support means together form the auxiliary supporting unit for a boarding bridge, while the wheel mechanism forms the primary supporting unit, the auxiliary supporting unit providing an auxiliary support point while the primary supporting unit is always seated on the ground for supporting the system, so as to improve the stability of the boarding bridge; in contrast, as disclosed by Evidence 1 (see Figs. 2 and 3, which are reproduction of Figs. 7, 8 of Evidence 1), the drive system of Evidence 1 has two working conditions, including a first working condition as shown in Fig. 7 in which the support legs 300 plus 302 and 306 plus 308 work to support the system while the wheel mechanism 294 is raised away from the ground and does not work to support the system, and a second working condition as shown in Fig. 8, in which the wheel mechanism 294 works to support the system while the support legs 302 and 308 are raised away from the ground and do not work to support the system, that is to say, in the first working condition, the support legs 300 plus 302 and 306 plus 308 serve as a supporting unit and the wheel mechanism 294 does not serve as a supporting unit, and thus there is not an auxiliary supporting unit, and in the second working condition, the wheel mechanism 294 serves as a supporting unit and the support legs do not serve as a supporting unit, and thus there is not an auxiliary supporting unit; as can be seen, in the first working condition and the second working condition of the

Accordingly, the High Court interpreted the content of Evidence 1 in view of the overall technical background and knowledge of one skilled in the art with the consideration of the similarity and difference between the disclosure of Evidence and the patent, and concluded that the technical concept of Evidence 1 is to use different supporting units alternately under different working conditions and is thus different from the technical concept of the patent which additionally requires an auxiliary supporting unit. Thus, the court rejected the assertion of ThyssenKrupp. See Administrative Decision (2013) Gao Xing Zhong Zi No. 1494.

Case III

The third case relates to an invalidation proceeding against a Chinese utility model patent

system in Evidence 1, the support legs and the wheel mechanism serve as a supporting unit alternately and there is not an auxiliary supporting unit". Accordingly, the Beijing Higher People's Court held that Evidence 1 does not disclose the above-mentioned technical features and made a decision in favor of the Patent Reexamination Board.

Furthermore, the Beijing Higher People's Court traversed the assertion of ThyssenKrupp on the basis of the literal description of Evidence 1 and stated that "as can be seen from the description of Evidence 1, when the second end 34 is raised up by the support legs 278 and 282, the wheel mechanism 294 supports the system while the support legs 300 and 306 are not in contact with any supporting surface and thus certainly could not serve as an auxiliary supporting unit; secondly, in the running condition of the bridge system of Evidence 1, since the lower portions 336 and 338 of the outer support legs 300 and 306 serves as a support base, the outer support legs 300 and 306 could not be in contact with the ground and certainly could not serve as an auxiliary supporting unit; thirdly, the outer support legs are used to support the system in the working condition as shown in Fig. 1 of Evidence 1 in place of the wheel mechanism as shown in Fig. 8 because the transversal spacing of the wheels is too small to provide transversal stability, and thus the outer support legs 300 and 306 with a constantly greater transversal spacing are used instead to support the system."

No. 200420090400.8. An issue here is whether the drawings in the prior art implicitly disclose a length of 4-10mm recited in claims of the disputed patent.

Evidence 3 (CN2180412Y), Evidence 4 (CN86207269U) and Evidence 5 (CN87203234U) all relate to a wrench. Both the Patent Reexamination Board and the first instance court believed that the schematic drawings in the references would direct one skilled in the art to arrive at the length between two adjacent threads on the worm of the wrench, and accordingly disclose the recited length.⁴

Nevertheless, the High Court held that the contents inferred from the drawings and the dimensions with their relations measured from the drawing without any written description could not be taken as the contents of the prior art

⁴ Both the Patent Reexamination Board and the first instance court considered that “it can be derived directly and unambiguously that the distance between two adjacent threads on the worm of the wrench is approximately 5-6 mm from the scale, the relative position of the adjusting worm 3 and the braking member 4 as shown in the drawings of Evidences 3-5 and the description which recites that the width of the braking member 4 shall be equal to 1.5 pitches of the worm and the braking member is positioned in the central line of the adjusting worm” (see Fig. 4 below). The first instance court thus concluded that Evidences 3-5 disclosed that the distance between two adjacent threads on the worm of the wrench is approximately 5-6 mm, which falls in the range of 4-10 mm as required by claim 1 of the patent and Evidences 3-5 each disclosed the technical feature “the worm is a worm with large screw pitch of 4-10mm” of claim 1 of the patent.

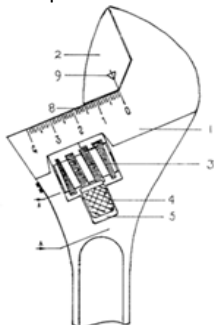


Fig. 4

disclosure. Accordingly, the court concluded that the length feature belongs to the contents inferred from the drawings and should not be taken as the disclosure of Evidences 3-5. See Administrative Decision (2013) Gao Xing Zhong Zi No. 1744.

Practice Tips

As seen from the above three cases, the criteria used by the Beijing Higher People's Court for assessing the contents of a prior art reference is substantially in compliance with the Supreme Court's opinions stated in connection with an invalidation proceeding [(2012) Administrative No. 3], which requires the same functionality between the prior art-disclosed feature and the claimed element for qualifying as an explicit or implicit disclosure.

In view of the practice, to argue against the prior art teachings, we recommend:

(i) determining the technical features and the technical solution disclosed by a prior art reference while taking claims into consideration.

In particular, a prior art reference shall be interpreted under the technical environment thereof and based on what are recorded in the specification and drawings. Specially, the prior art reference shall not be interpreted away from what it records and recites, as mentioned above in connection with the second case.

(ii) understanding both the configuration and the function of the technical features in the patent.

As stated by the Supreme Court [(2014) Administrative No. 43], “when determining

whether a technical feature of the prior art is equivalent with a technical feature of a patent/application, the functions they have in their own technical solution shall be taken into account.” In the aforementioned Cases I and II, the Beijing Higher Court examined the technical solutions of the patents and evidences as a whole respectively and compared the technical problem to be solved and the technical effects that were achieved in the evidences with the patents respectively so as to determine whether the evidences disclosed relevant technical features.

(iii) determining the contents disclosed by the drawings of a prior art reference carefully.

In particular, the contents inferred from the drawings and the dimensions with their relations measured from the drawing without any written description could not be taken as the contents of disclosure from the view of the High Court.

Nevertheless, those technical features that can be derived directly and unambiguously from the drawings of a prior art reference can be determined to be the contents of the prior art. *See*, the Supreme Court in the case [(2012) Administrative No. 25]. In patent prosecution practice, when determining the disclosure of drawings, not only the graphic representation should be considered, but also common knowledge in the art can be taken into account for helping explain what is disclosed by the drawings. Furthermore, the text of a reference document should be taken into account for helping determine the disclosure of the drawings thereof. In particular, it is critical to determine the function of the features as shown the drawings, in order that the disclosure of the drawings can be precisely and correctly determined.

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