

Determination of “Disclosure by Use” Under the Patent Law and Case Analysis (II)

— From the Perspective of Ultimate Facts

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3. Ultimate facts related to the element of publicly available state

(1) The concept of the “public”

It is the interests of the public that are sought to be balanced through disclosure by use, and it is to the public that a technical solution is presumed to be disclosed by use. Such a presumption does not require that a specific person be identified, but can be generally made in the following two circumstances: one is that the person who has actually acquired the technical solution is not a specific one, but can be considered as a representative of the general public, so a technical solution being available to said person means that it is available to the public; and the other is that even if no evidence shows that someone has acquired the technical solution, the act of use is open to unspecified people, rather than limited to specific people, from which it can be assumed that the technical solution has been disclosed

to the public by use.

Both of the above circumstances involve the concept of “specific person”, which is derived from the provision in the Guidelines for Patent Examination that “technical contents in the state of secrecy are not part of the prior art”³⁰. Where the person who knows the technical contents or design in the state of secrecy is obliged to keep them confidential and has not disclosed or disseminated such contents in violation of the obligation, the technology or design does not constitute prior art or prior design, and the corresponding person is a specific person identified from the public and does not belong to the “public” in the sense of the patent law³¹. Generally speaking, the sole criterion for identifying the specific person is that the person has a confidentiality obligation³². Therefore, specific persons are basically divided into the following two types: persons obliged to keep confidentiality by law or by contract, and persons

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³⁰ 《專利審查指南》第二部分第三章第2.1節“現有技術”。

³¹ 《以案說法——專利複審、無效典型案例指引》第二章第1.1.1.2節。

³² 馮術傑、崔國振：“試論專利法上構成‘使用公開’的銷售”，《知識產權》2012年第2期。

³³ 李禮、呂東：“銷售合同中的保密條款是否構成使用公開？一文為你詳解”，中國知識產權報，2018年11月21日。

³⁴ (2019)最高法知民終87號二審判決書。

³⁵ 也有學者認為：作為法律前提條件所要求的事實之整體為法律要件，構成法律要件的各事實為要件事實（法律事實），該當於要件事實的具體事實為主要事實。本文所稱主要事實與要件事實基本同義，但主要事實更偏向於具體案件層面，要件事實是從法律適用角度對主要事實的理論界定。

³⁶ 本文不對使用公開案件應當採用何種證明標準做具體論述，某些文章觀點認為這類案件應採“明顯優勢證據”標準，多數觀點認為應採用民事訴訟程序的一般證明標準，不宜做特殊區分。

³⁷ 郭麗娜、郭曉立、藍正樂：“使用公開案件的認定思路”，《中國知識產權報》，2022年6月22日第11版。

under implied confidentiality obligations according to social conventions or business practices.

On said basis, the facts can be found according to the above two circumstances regarding the concept of “public” respectively and by taking the specific person into consideration. For instance, in the disclosure by sale, if a product is available to everyone through normal commercial channels, the purchaser does not pertain to a specific person. As the owner of the purchased product, the purchaser can disassemble the product whenever he desires to know the structure thereof. Thus, the abstract *factum probandum* that the purchaser represents the public can be proved by, e.g., the identity and occupation of the purchaser. It should be noted that where the act of sale is determined as public in itself, such as the sale through normal public retail channels or through public bidding and tendering, even if confidential provisions are included in the sale contract, the purchaser and the buyer should not be considered as specific persons distinguished from the public³³. Another example is trial production, during which those involved usually under an explicit or implicit confidentiality obligation. Even though someone actually acquires the technical solution, it does not necessarily mean that the public also have access to the technical solution. Under such a circumstance, whether the relevant person is a “specific person” becomes the key fact that must be proved or found for the disclosure by use.

(2) The state of being available to the public

The purpose of the judgment on disclosure by use is to ultimately make clear whether a technical solution is in a state of being available to the public, which is also the basis for determining the publication date. Such a state is, in essence, an abstract legal fiction, rather than an objective fact in life. This fictional state, however, must first be expressed by the later, and then its existence can be determined with the help of a judge’s logical deduction. It is similar to the subjective element such as willfulness or negligence among the constituent elements of a criminal offense, which objectively exists in the subjective consciousness of a suspect, but can only be detected from external facts. A judge must make a judgment on the element based on relevant facts, not at his/her own discretion. For this reason, although the element of publicly available state is a concept of legal fiction, the judgment on it shall be made on the basis of facts so as to provide a fair and just, rather than arbitrary, decision. Therefore, the facts related to the element of

publicly available state are also ultimate facts.

Regarding such ultimate facts, it is emphasized that, on the one hand, the technical solution is required to be in a state of being available to the public rather than actually known. For instance, in the case of online selling, even if no product is actually sold, the technical solution is in a state of being available to the public. On the other hand, there shall be no barriers that make the technical solution hard to access. For instance, the carrier of a technical solution is held by an organization or stored in a particular network server, such that the public can only acquire the technical solution by overcoming certain obstacles. In this case, evidence proving the publicly available state plays an extremely vital role, but usually is difficult to obtain. The technical solution being in a publicly available state can be proved, when, for instance, it is verified that the technical solution is still available to the public at the time of evidence collection and that such an available state has never changed, in such a way to indirectly prove the objective existence of the previous disclosure of the technical solution.

For instance, in a case where the only drawings recording the technical information of a product are kept by a third-party certification institution, the key fact to be proved is whether the public can obtain such information from the third-party certification institution if they want. This can be proved by preserving evidence of the following acts: an ordinary person contacts the certification institution by email, stating his identity, the drawings requested and his purposes, etc. If the certification institution simply permits his access to the drawings or with certain conditions that can be met, then the process of acquiring the drawings under the explicit permission can be fixed through act preservation. Next, it needs to be proved that the requirements set by the third-party institution for providing the public with the information has never been changed or was not changed during the period related to the disputed technology. In this way, the previous disclosure of the technical information prior to the filing date can be indirectly proved. To the contrary, if the institution refuses an ordinary person’s request for the drawings or sets some conditions that can be hardly met, it indicates that the drawings are not in a state of being available to the public.

The following case will explain the concept of “specific person” and the identification of the publicly available state in the context of trial production.

Case III:

The Invalidation Decision No. 39288 relates to an invention patent No. 200910025263.7 with a title of “Miniature Electric Submersible Pump with Motor Casing as Welding Piece”. The use act in suit is commissioned trial production (Exhibit 3-1), and the disputed technical solution is presented in the drawings (Exhibit 2) provided by the commissioning party. The petitioner argued that the trial production rendered the technical solution in the drawings disclosed, and the time of disclosure is the time when the trial product was delivered. The Invalidation Decision held that disclosure by use was not established for the following two reasons: one was that Exhibit 3-1 failed to prove the act of trial production as an ultimate fact; and the other was that even if the foregoing ultimate fact had been established, it was not proved that the technical information was “in a state of being available to the public”. To be specific, it was reasoned that “the written testimony from a mechanical factory and its head, Liu, cannot prove that ‘as commissioned by another company, the mechanical factory had produced motor casings according to the drawings provided on a trial basis’. Even if the witness had testified during the hearing, thus overcoming the flaw that diminished the probative value (of the testimony), it can only be proved that the production of motor casings by the mechanical factory was the trial production commissioned by the company. Even if the parties involved in the trial production acquire the relevant technology, they shall bear implied confidentiality obligation and thus, be specified from the public in the sense of patent law. In this case, in the absence of counter-evidence, the commissioned mechanical factory shall also be obliged to keep the information confidential during the trial production, and thus, the trial production did not render the technology shown in the drawings of Exhibit 2 in a state of being available to the public.”

In the second instance of an infringement lawsuit related to the above-mentioned patent, the accused infringer (namely, the petitioner in the aforesaid invalidation procedure) asserted the prior art defense based on the same commissioned trial production, and further adduced the following evidence (the second instance of the infringement case was later than the issuance of the Invalidation Decision): (a) Liu, the head of the mechanical factory, testified in court in the second instance; (b) the commissioning company submitted a submersible pump produced in February 2009; and (c) a non-party company and its employee, Wang, made a statement on “the production of steel cas-

ings and its proof, and the source of the motor casings”, declaring that Wang got a scrapped motor casing made from steel pipe from Liu’s place, measured and drew it accordingly, and then components were produced and assembled into whole machines, which had been marketed and sold since 2008. Based on the above evidence, the second-instance judgment³⁴ confirmed the commissioned production and the duration thereof, holding that the mechanical factory did not take confidentiality measures for commissioned motor casings. The motor casings manufactured had been in a state of being observable and even available to the public since November 2008.

Comparing the asserted facts and evidence in the invalidation case and those for prior art defense in the infringement lawsuit, it can be found that: first, the petitioner overcame the shortcoming regarding lack of proof for the act of use with the testification of a witness in court and a product with production date. The court thereby confirmed the act of trial production upon commission. Second, the assumption that “the party for trial production has an implied confidentiality obligation” was overturned since a non-party company obtained a scrapped trial product from the commissioned factory, thereby meeting the requirement that “the technical solution is in a state of being available to the public”.

4. Ultimate facts related to the element of disclosure time

The facts to be proved in relation to the element of disclosure time is relatively simple. Since the filing date of a patent is clear, the key of the proof is the disclosure date, which can be the date of the act of use, or deduced from other dates later than the act of use.

The first circumstance is common for disclosure by use, in which, since time is one of the elements of an act, the disclosure time is relatively easy to identify and prove. For instance, in an act of sale, the invoicing date can usually directly prove the date when the sold object was disclosed. In the second circumstance, the deduction is usually made from relevant indirect facts, which, together with their related facts, are facts that need to be proved by evidence. In an example where disclosure by use is proved by virtue of public sale in a supermarket, it is difficult to find an individual to represent the public. A party concerned may assert that the date shown on the supermarket’s flyer with the product pictures is the disclosure date of the product. Thus, the date shown on the flyer becomes the indirect fact

based on which the disclosure date can be deduced and constitutes a part of the case facts to be proved.

The following Case IV will further explain the second circumstance:

Case IV:

The Invalidation Decision No. 30267 relates to a utility model patent No. 201420068387.X with the title of “Front Swing Arm of Electric Vehicle”. Against this patent, the petitioner adduced news reports concerning the launch of the electric vehicles LEVDEO D50 in *Qilu Evening News* and *Qingdao Evening News* to prove that the electric vehicles had been launched and publicly sold before the filing date. The Invalidation Decision agreed with the petitioner’s assertion on disclosure by use. As regards the disclosure time, the Invalidation Decision did not consider the date of the news reports as asserted by the petitioner as the disclosure time, but deduced the disclosure time from the insurance policy of the electric vehicle, from which a front swing arm was detached, submitted as evidence. The Invalidation Decision reasoned that for non-motorized vehicles such as electric vehicles, a vehicle identification number (VIN) functions to identify individual vehicles as it is unique for each vehicle. The two insurance policies are directed to the same vehicle with the same VIN, and the insurance periods thereof are continuous. According to the PICC policy and CPIC policy, it can be determined that the vehicle bearing the above-mentioned VIN had been sold, insured and used before 24 April 2013, which is earlier than the filing date of the disputed patent. Therefore, the disclosure time as an ultimate fact is proved. Generally speaking, the purchase of vehicle insurance does not belong to the use of vehicle in the sense of patent law, but if its association with the use can be proved by evidence or inferred by a rule of thumb, the disclosure date can be proved indirectly.

To sum up, based on the in-depth analysis of each of the ultimate facts, it can be seen that the ultimate facts and their associated indirect facts or auxiliary facts jointly constitute the case fact model on disclosure by use. The purpose of constructing such a case fact model is to classify and systematize varied and intertwined facts concerning disclosure by use. However, since the construction mainly relies on examination experiences, the model inevitably has certain limitations, and further efforts are required to verify and improve the model to render it all-embracing.

V. Taking the ultimate facts as the criteria to guide the parties in proof

The invalidation petitioner needs to adduce evidence to prove that a technology has become a prior art due to disclosure by use, and the patentee may then challenge the evidence from the aspects like the three characteristics (such as authenticity, legitimacy and relevance) of evidence, its probative value and whether the chain of evidence is complete, and/or submit counterevidence in support of its own arguments. In comparison with disclosure in publications, proving disclosure by use requires a higher level of knowledge and practical skills of the parties and/or their attorneys, especially in terms of the ability to collect evidence, assess the three characteristics of evidence, and analyze and organize evidence, as well as their understanding of laws. On account of the difficulty in evidence adduction and the complexity of proof of disclosure by use, there are not many cases in practice in which disclosure by use is found as established. In contrast, it is often the case that a large amount of haphazard evidence is just piled up without logical connection.

In the light of the theories on constituent elements and ultimate facts, the chain of evidence regarding disclosure by use is suggested to be constructed under the guidance of the reasoning process mentioned in the first part of this article, and the proof of a specific fact is preferred to focus on the ultimate facts and their related facts. It is only by taking hold of the kernel that everything else will get clear. Otherwise, in spite of superb abilities in evidence collection and organization, if one cannot grasp the essences, lack of any of the ultimate facts in the chain of evidence will render other flawless preparations in vain. What’s more, from the perspective of the burden of proof, the guidance given by the foregoing concepts and theories will better clarify the allocation of the burden of proof in invalidation proceedings, thereby preventing the failure of proof due to erroneous ideas though having the ability to do so.

VI. Taking the ultimate facts as the benchmark in the application of law

In the application of law in cases related to disclosure by use, the collegial panels usually spend a good deal of time on the admissibility of evidence due to the huge

amount and complexity thereof. Nevertheless, recent cases demonstrate that difficulties in examination are increasingly centered on issues including the probative value of evidence, the standard of proof, the burden of proof and the shift of the burden of proof.

1. The burden of proof and the standard of proof

The burden of proof plays a pivotal role in cases related to disclosure by use. On the one hand, both parties shall proactively adduce evidence to support their claims. On the other hand, if the facts of the case still remain unclear at the end of the trial, the judge will draw a conclusion based on the burden of proof.³⁵ In fact, throughout the case related to disclosure by use, the burden of proof has always been a factor in the entire course of the trial, including the preliminary burden on the petitioner, the burden on the patentee in rebutting the opposite party's claims and making its own claim, the shift of the burden of proof between the parties and the allocation of the burden of proof. Moreover, whether the standard of proof³⁶ has been met is also borne in mind in the whole process. Generally speaking, only when the evidence adduced by the petitioner preliminarily meets the standard of proof can the burden of proof be shifted to the patentee. By contrast, as long as the patentee's evidence can weaken the already formed mind of the judge to an uncertain state, the burden of proof will be shifted back to the petitioner. Therefore, the burden of proof and the standard of proof interact and influence each other to decide the result of the case.

The complexity of the above process may readily make the collegial panel confused about the burden of proof and the standard of proof. The method for analyzing the ultimate facts as discussed herein is not only conducive for the parties concerned or attorneys to clarifying the burden of proof, but also helpful for the collegial panel to use it as a benchmark to judge whether evidence for proving an ultimate fact and its associated facts adduced by the invalidation petitioner preliminarily meets the standard of proof. If the standard of proof has been met but the patentee still insists on his claim, the burden of proof should be timely shifted to the patentee; or the petitioner who fails to prove shall bear the adverse consequences due to the lack of one or more ultimate facts.

Case V:

Although the burden of proving ultimate facts such as the identicalness of technical solutions is usually borne by the petitioner, not the patentee, the patentee can submit

counterevidence to prove that the technical solutions are not identical at all. The collegial panel shall take comprehensive consideration of the evidence on file, reasonably apply the standard of proof and allocate the burden of proof, thereby correctly finding the relevant ultimate facts.

The Invalidation Decision No. 55060 relates to an invention patent No. 201410090627.0 with the title of "Anchor Device". The parties concerned in this case were the same as those in Case II, but the evidence was different. The Invalidation Decision mainly stated that the counterevidence submitted by the patentee showed that the anchor device had been repaired and the technical solution thereof had been changed, the technical solution of Exhibit 8 was not identical to that of Exhibit 9, and the petitioner's assertion for disclosure by use cannot be established.

In this case, the petitioner asserted based on Exhibits 8 and 9 that the anchor device of this patent had been disclosed by use prior to the filing date, but the patentee argued that there was no relevance between Exhibits 8 and 9, and submitted Counter-Exhibits 3 and 5 to prove that the asserted lakeside boardwalk was once modified and the photos of the product in Exhibit 8 did not match the construction project in Exhibit 9. Having analyzed all the challenges made by the petitioner one by one, the collegial panel found that none of them was tenable, holding that the maintenance of the boardwalk was of high probability and deducing from Counter-Exhibit 3 that the anchor adjuster was replaced during the maintenance. The petitioner failed to submit evidence proving that the anchor device had not been changed since its installation, but argued that the anchor device should be presumed unchanged according to common sense and the conventional view that the relevant parts are not vulnerable. If the patentee had not submitted counterevidence or had not sufficiently explained, the facts of the case would be left in uncertainty. As known from the reasoning of this case, the patentee, as the bid-winning company of the maintenance project, proactively proved the change of the anchor device with evidence that is sufficient to persuade the examiners to believe that the anchor device was probably replaced, which directly undermined the petitioner's assertion regarding the ultimate facts of the technical solution.

2. Judging rationale and efficiency

The difficulties in examining disclosure by use are not only caused by the assessment of probative value of voluminous and varied evidence, but also resulted from the sort-

ing out of facts and drawing a conclusion from the complicated factual assertions with unclear purpose and long chains of evidence. Comparatively speaking, the latter has long been a major challenge in enhancing the examination quality and efficiency of cases related to disclosure by use.

For example, in a disclosure by use case, Exhibits 18-21 relate to the sale of four products, Exhibit 22 involve the internal product design data stored in the petitioner's computer, Exhibits 23 and 24 are the testimony and social security records of the designers, Exhibits 25 and 26 are respectively a design patent and a journal article that constitute the prior art, and Exhibits 27 and 29 are two measurement reports of the same product. Factual assertions made by the petitioner based on the above evidence were intricate and complicated, and the purpose of each piece of evidence was not clear, which confused the collegial panel. For example, why did the patent and journal article appear in a case related to disclosure by use? Why was the sale of the four products asserted? What could the internal design data prove? Why was only one product measured and why was it measured twice? Which piece of evidence shall serve as the starting point? In short, the collegial panel had to sort out the evidence with the help of an oral hearing to clarify the trial direction and find the key issues.

The trial of such type of cases can be divided into different stages as follows: first, before the oral hearing, the facts can be preliminarily sorted out according to the case fact model introduced herein and classified according to law; second, during the oral hearing, the principle facts need to be clarified so as to set the trial direction by finding out the specific type of the act of use in view of the case details; third, after the oral hearing, issues need to be classified according to juristic elements; and fourth, the conclusion can be drawn by following the theories and judging rationale as presented herein and a decision can be drafted accordingly. As for the determination of the trial direction in the second step, the collegial panel can select the examination direction on a case-by-case basis after the comprehensive review of the factual assertion related to disclosure by use made by the invalidation petitioner. Where one or more acts of use may be established, the panel can select the most credible one as the focus of the oral hearing for in-depth examination. Otherwise, all the facts asserted shall be examined and analyzed³⁷ for the sake of balance between fairness and efficiency.

Finally, scholars and colleagues in the IP circle are wel-

come to provide their valuable opinions on the case fact model regarding disclosure by use and the relevant judging rationale constructed in this article in hope of further deepening researches in this area. ■

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³⁰ Part II, Chapter Three, Section 2.1 "Prior Art" of the Guidelines for Patent Examination.

³¹ Chapter Two, Section 1.1.1.2. Expound the Law with Cases - A Guide on Typical Cases of Patent Reexamination and Invalidation.

³² Feng Shujie and Cui Guozhen (2012). Disclosure by sale for the determination of prior art in patent law. *Intellectual Property*, 2.

³³ Li Li and Lv Dong. Whether confidentiality clause in a sales contract constitutes disclosure by use? *China Intellectual Property News*, published on 21 November 2018.

³⁴ The Second-Instance Judgment No. Zuigaofazhiminzhong 87/2019.

³⁵ Some scholars deem that the facts required as legal prerequisites in their entirety are juristic elements, each individual fact constituting the juristic element is an ultimate fact (legal fact), and the specific facts that are in line with the ultimate facts are the principal facts. In this article, the principal facts and the ultimate facts substantially have the same meaning. However, the principal facts are more related to a specific case, and the ultimate facts are the theoretical definition of the principal facts from the perspective of the application of law.

³⁶ This article does not intend to discuss what the standard of proof shall be adopted in the cases related to disclosure by use. Some people argue that the preponderance of evidence standard shall be adopted in such cases applied, but a mainstream view is that the general standard of proof in civil proceedings should be adopted.

³⁷ Guo Lina, Guo Xiaoli and Lan Zhengle. Judging rationale in cases related to disclosure by use. *China Intellectual Property News*, published in page 11 on 22 June 2022.