

Specific Criteria for Applying the Doctrine of Estoppel in Patent Infringement Proceedings

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I. Issues raised

The doctrine of estoppel is clearly defined in the judicial interpretations of the patent law of China and has become one of the important doctrines in the patent infringement judicial practice in China. However, there are no clear criteria for applying the doctrine of estoppel in judicial practice. Article 6 of the Interpretation of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Disputes over Patent Infringement (hereinafter referred to as Patent Infringement Judicial Interpretation (I)), enacted on 1 January 2010, reads: if a technical solution was renounced by the applicant or the patentee during

any patent prosecution or patent invalidation proceeding, either by amending the claim(s) or the description or by making observations, then the incorporation of the renounced technical solution into the scope of protection of the patent right¹ by the patentee in a patent infringement lawsuit shall not be supported by the courts. Textual interpretation of the rule seems to suggest that China adopts the "complete bar" standard². Article 13 of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Disputes over Patent Infringement (hereinafter referred to as the Patent Infringement Judicial Interpretation (II)), enacted on 1 April 2016, reads: if the right holder can prove that the amendments or statements

made by the applicant or patentee to narrow down the scope of the claims, description, or drawings in the patent prosecution or invalidation proceedings are clearly denied, the people's court shall hold that the amendments or statements do not renounce the related technical solution(s). This provision provides an exception to the "complete bar" standard, and excludes "clearly denied" amendments or statements from the doctrine of estoppel. By considering the literal interpretations of the above two provisions, there seems to be a gap between the legal provisions: if the amendments or observations to the claims or description, made by the applicant or patentee in the patent prosecution or invalidation proceedings, were not clearly denied by the Examiner or the Patent Reexamination Board (PRB), how should these amendments or statements be dealt with? The patent applicant or patentee compares the application or patent with the references in the patent prosecution or invalidation proceedings in order to distinguish difference that would render the application patentable or to maintain the validity of the patent (or claims). Though the efforts are made for patent allowance or to maintain validity of the claims, the Examiner or the PRB does not always respond to the observations made by the patent applicant or patentee one by one. For the statements which the Examiner or the PRB makes no comment, is the doctrine of estoppel applicable? Here are some different approaches to deal with such a situation.

In the first approach, the court shall still apply the "complete bar" standard. The "complete bar" standard emphasizes the public-notice function of a patent. In the patent prosecution or invalidation proceedings, the patent applicant or patentee is faced with the dilemma of whether to make observations on the distinguishing feature(s) of the application or patent over the reference(s). If the observations of the distinguishing feature(s) are made, it will constitute limitations to the scope of the patent; and if not, the patent applicant or patentee may be at the risk of patent rejection or patent infringement. Therefore, applying the "complete bar" standard sets higher requirements for the patent applicants or patentees. After the promulgation of the Patent Infringement Judicial Interpretation (I), the three judges of the Intellectual Property Court of the Supreme People's Court jointly published an article titled Application Issues of the Interpretation of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Disputes over Patent Infringement, in which the doctrine of

estoppel is interpreted³, that is, "in order to enhance operability, this article attaches importance to the restrictive amendments or observations objectively made by the patent applicant or patentee. The application of the provisions will not be affected by whether the amendments or observations are made by the patentee initiatively or at the request of the examiner, legally contribute to the grant of patent and are finally accepted by the examiner."

In the second approach, the "flexible bar" theory⁴ is adopted. The application of the doctrine of estoppel is defined in Articles 43 to 46 of the Opinions on Several Issues Concerning Patent Infringement Determination (For Trial Implementation) (No. Jinggaofafa 229/2001) released by the Beijing High People's Court on 29 September 2001, Articles 57 to 60 of the Guidelines of the Beijing High People's Court for Patent Infringement Determination (No. Jinggaofafa 301/2013) released by the Beijing High People's Court on 4 September 2013, and Articles 61 to 64 of the Guidelines for Patent Infringement Determination (2017) released by the Beijing High People's Court on 20 April 2017. All of the abovementioned guidelines adopt the "flexible bar" standard, i.e., "the restriction or partial renouncement of the scope of protection by the patent applicant or patentee shall be required for overcoming such substantial defects as lack of novelty or inventiveness, lack of essential technical features, lack of support of the claims by the description and insufficient disclosure of the description, which render an application unpatentable. If the applicant or the patentee fails to provide the reason for amending the patent documents, it may be presumed that the amendment is made for the purpose of overcoming the substantial defects which render the application unpatentable."⁵

II. Judging criteria summarized from relevant judgments made by the Supreme People's Court in 2021

The literal meaning of some normative documents of the local high courts seems to be inconsistent with the judicial interpretations of the Supreme People's Court. Therefore, it is necessary to probe into the specific judging criteria in judicial practice. On 1 June 2021, the author conducted a keyword research for the judgments published by the Supreme People's Court on <https://wenshu.court.gov.cn> based on the terms "patent" and "the doctrine of estop-

pel.” Four judgments made in 2021 were retrieved, among which the doctrine of estoppel⁶ is applied in two judgments.

Case 1: In *Nanjing Handson Co., Ltd. (Appellant) v. Op-ple Lighting Co., Ltd. (Appellee)*, a dispute over utility-model patent infringement⁷, the Supreme People’s Court held that, as for the “installation portion,” Handson appealed asserting that with respect to Reference 1 cited in the patent prosecution history, the court determined the “through hole” as an equivalent to the “installation portion” and Op-ple emphasized that the “through hole” was not the “installation portion” and therefore the application had inventiveness. The accused technical arrangement adopted the through-hole feature of Reference 1 and Op-ple was estopped to broaden the “installation portion” to incorporate the through-hole feature. As such, the accused product did not have the technical feature concerning the “installation portion.”

Case 2: In *Henan Zhongsen Electric Equipment Co., Ltd. (Appellant) v. Puyang Hongyu Pressure Vessel Co., Ltd. (Appellee)*, a dispute over invention patent infringement⁸, Zhongsen asserted that the doctrine of estoppel should not apply since the statements in relation to “two independent knives” did not affect the inventiveness of the patent in suit. The Supreme People’s Court held that where any amendments or observations made by the patent applicant or patentee to narrow down the claims or description in patent prosecution or invalidation proceedings were accepted and used as one of the grounds for determining whether the patent in suit met the requirements for patentability, the amendments or observations should be deemed as the renouncement of the technical solution by the patent applicant or patentee irrespective of whether they play a decisive role in the patent prosecution or invalidation proceedings.

“Restrictive amendments or observations” are often difficult to judge directly or controversial in judicial practice. Therefore, in judicial practice, judges should infer whether the applicant or patentee has made restrictive amendments or observations from other aspects. In the above-mentioned cases, the Supreme People’s Court not only did not set forth restrictive amendments or statements as a one-size-fits-all approach but also took account of two factors, namely “whether the patentee benefited from the observations” and “whether the amendments and observations were accepted by the Examiner,” while applying the doctrine of estoppel. The first factor may be summarized as the “direct

benefit standard” and the second factor as the “formal benefit standard”, both of which shall be categorized under the “flexible bar” standard. As for the observations, where the patentee benefits from the observations or the observations were accepted by the examiner, it shall be determined that the observations made by the patentee constitute limitations to the scope of protection of the patent, and the technical solution which is deemed as different by the applicant or patentee cannot be regarded as equivalent technical features in the patent infringement proceedings. As for the amendments, if the patentee or applicant amends relevant claims and/or certain technical features, the doctrine of equivalents shall not apply to the amended fields or features.

III. Judging criteria summarized from relevant judgments made by the Supreme People’s Court in 2020

On 1 June 2021, the author conducted a keyword research for the judgments published by the Supreme People’s Court on <https://wenshu.court.gov.cn> based on the terms “patent” and “the doctrine of estoppel.” Twenty judgments made in 2020 were retrieved, wherein the doctrine of estoppel was applied in six of them.

Case 1: In *Shanghai Haohe Industrial Co., Ltd. and Shanghai Mingwei Electronic Technology Co., Ltd. (Appellants) v. Zhongshan Towel Butler Household Appliance Technology Co., Ltd. (Appellee) and Mo Weicai (Defendant of First Instance)*, a dispute over utility-model patent infringement⁹, the trial court held that the distinguishing feature 3 constituted an equivalent feature mainly on the grounds that the patent in suit was related to an electrical appliance used for drying and sterilizing simultaneously. During the drying process, the generated water vapors would be discharged from the air outlet. Though being different in terms of the position of the air outlet, the accused technical solution and the patent in suit constitute equivalent technical features. In the Invalidity Decision No. 45149, as for whether the feature that “the cover is provided with an air outlet” is equivalent to the feature that “the middle cover is provided with a plurality of air outlets” in the asserted patent, the collegial panel responded to the patentee’s observations, stating that: “……providing a relatively narrow frame with an air outlet cannot be considered fea-

ture as an equivalent or easily conceivable feature as stated by the two petitioners. Nor did they adduce evidence proving that said difference belongs to the common knowledge in the art.” The feature that “the middle cover is provided with a plurality of air outlets” in claim 1 of the patent in suit is the primary distinguishing technical feature of the patent in suit over the prior art. Therefore, pursuant to the doctrine of estoppel, the Supreme People’s Court deemed that the feature that “the cover is provided with an air outlet” should not be determined as an equivalent to the feature that “the middle cover is provided with a plurality of air outlets” in the patent in suit, and reversed the first-instance judgment accordingly.

Case 2: In *Shenzhen Breo Technology Co., Ltd. (Appellant) v. SKG Co., Ltd. and Foshan Shunde Yiheng E-Commerce Co., Ltd. (Appellees)*, a dispute over invention patent infringement¹⁰, the Supreme People’s Court held that, after the grant of patent, the patentee claimed for the equivalence of technical features in an infringement lawsuit, the people’s court shall examine whether the amendments and statements made by the patentee are substantively connected to the patented technical solution, and whether any technical feature has been amended by way of restriction or renouncement, rather than simply determine that the addition of a technical feature to a claim leads to the applicant’s renouncement of the feature(s) equivalent to the added technical feature.

Case 3: In *Dongguan Jingbo Photoelectric Co., Ltd. (Appellant) v. Li Wanli (Appellee)*, a dispute over utility-model patent infringement¹¹, Jingbo argued that the observations made by the patentee in the patent invalidation proceedings restricted the movable working platform as the movable working platform being movable on the XY plane. As for the doctrine of estoppel, Jingbo further stated that in the observations made by the former patentee, Baohua Co., of the patent in suit in the invalidation proceedings of the case No. 5W109990, Baohua argued for the inventive step of claim 1 by the following contents: “the movement of products to be processed in the XY plane is controlled by the movable working platform provided with the loading frame, the unloading frame and the engraving and milling table.” The Supreme People’s Court held that the observations made by the former patentee did not clearly define the moving manner of the movable working platform and the Jingbo’s claim for estoppel is untenable. It should be noted that although the patentee stated in the invalidation pro-

ceedings that “the movement of products to be processed in the XY plane is controlled...”, the collegial panel of the Supreme People’s Court deemed that the technical feature shall be construed in combination with the description and drawings and in consideration of the function of the technical feature in the entire technical solution in such a way to comply with the object of the invention, and “the observations made by the former patentee did not clearly define the moving manner of the movable working platform.”

Case 4: In *Shandong Biologix Biotech Co., Ltd. (Appellant) v. Hangzhou Biobank Biotech Co., Ltd. (Appellee)*, a dispute over invention patent infringement¹², the Supreme People’s Court held that the prerequisite to the application of the doctrine of estoppel was to determine, according to law, that any amendments or observations made to the claims or description by the patent applicant or patentee narrow down the scope of protection of the patent, thereby leading to renouncement of a technical solution.

Case 5: In *Chongqing Wangjiang Motorcycle Manufacturing Co., Ltd. (Appellant) v. Henan Shumin Power Machinery Manufacturing Co., Ltd. (Appellee) and Zou Zhengsong (Defendant of First Instance)*, a dispute over utility-model patent infringement¹³, the Supreme People’s Court held that, in the Invalidity Case No. 5W115750, Shumin Power clarified that “all the ‘connections’ in the claim set refer to direct connections” in the oral hearing held on 14 December 2018. As indicated in the Invalidity Decision No. 39995, E2 (the utility-model patent No. CN201872843U) also discloses the structure of the tricycle frame provided with “four keels,” and the patentee, Shumin Power, definitely confirmed in the invalidation proceedings that “the four keels are directly connected at their front ends with the bumper beam of the same component and at their rear ends with the same transverse beam” in order to emphasize the difference between the patent in suit and the prior art, and deemed the four keels are directly connected at both ends with the front bumper beam and the transverse beam to enhance the impact resistance of the vehicle. As such, in the light of the doctrine of estoppel, Shumin Power has definitely renounced the technical solution that “the four keels are not directly connected at their front and rear ends with the same beam” in the administrative invalidation proceedings.

Case 6: In *Yongkang Hongyue Power & Machine Co., Ltd. (Appellant) v. BCS Group (Appellee) and Beijing Lilian Hongyue Machinery Co., Ltd. (Defendant of First Instance)*, a

dispute over invention patent infringement¹⁴, the Supreme People's Court held that the actually narrowed-down scope of protection of the patent by amendments or observations made by the patent applicant or patentee shall be viewed in compliance of the corresponding laws and regulations. We should not regard all amendments or observations as exceptions to the doctrine of equivalents. During the patent prosecution, the patent applicant makes amendments or statements to narrow down the claims initiatively or at the request of the examiner. If the amendments or statements are not accepted by the Examiner and therefore the patent is not granted, they should not lead to the renouncement of technical solution, and thus the doctrine of estoppel should not apply. Where the patent applicant makes any amendments or statements to change the scope of protection of the patent by adding or changing the claimed technical features, or adding or deleting one or more claims, or combining the additional technical features of the claims, if the added technical features have been clearly recited in the original description and claims and meanwhile comply with the provision of Article 33 of the China's Patent Law, then in response to the patentee's claim for the equivalence of technical features in an infringement lawsuit after the patent is granted, the people's court shall examine whether the amendments and statements made by the patentee are substantively connected to the claimed technical solution, and whether any technical feature is amended by way of restriction or renouncement, rather than simply determine that the addition of the technical feature to a claim leads to the amendment to the claim and therefore the applicant's renouncement of all the features equivalent to the added technical feature.

From the above-mentioned six cases decided by the Supreme People's Court in 2020, the Supreme People's Court applied the doctrine of estoppel in some cases and expounded the requirements for applying the doctrine of estoppel in those cases where the doctrine of estoppel were not applied. It can be summarized that the Supreme People's Court adopts the following views as to the application of the doctrine of estoppel: 1. the application of the doctrine of estoppel is premised on the determination made according to law that the amendments to the description or claims, or observations made by the patent applicant or patentee actually narrow down the scope of protection of the patent, thereby leading to the renouncement of the corresponding technical solution; 2. efforts shall be made to probe into the

true intention of the applicant or patentee to examine whether he or she clearly expresses the intention of not narrowing down or renouncing a technical feature; and 3. in view of the judging rationale in the two cases, namely *Yongkang Hongyue Power & Machine Co., Ltd. (Appellant) v. BCS Group (Appellee) and Beijing Lilian Hongye Machinery Co., Ltd. (Defendant of First Instance)* [The Supreme People's Court's Judgment No. Zuigaofazhiminzhong 530/2019] and *Henan Zhongsen Electric Equipment Co., Ltd. (Appellant) v. Puyang Hongyu Pressure Vessel Co., Ltd. (Appellee)* [The Supreme People's Court's Judgment No. Zuigaofazhiminzhong 1245/2020], views on the amendments or statements made to narrow down the claims by means of observations are obvious. If the amendments or statements are not accepted by the examiner and therefore the patent is not granted, they should not lead to the renouncement of a technical solution. If the amendments or statements are accepted and used as one of the grounds for determining whether the patent in suit meets the requirements for patentability, they shall be deemed as the technical solution renounced by the patent applicant or patentee irrespective of whether they were decisive in the patent prosecution or invalidation proceedings. The basic rationales underlying the judgments in the cases concluded in 2020 and 2021 are consistent as they all abandoned the "complete bar" standard and emphasized the subjective intent of the applicant or patentee and whether the applicant or patentee "benefited" in the sense of the patent law in patent prosecution and/or invalidation proceedings.

IV. Legal standards for the application of the doctrine of estoppel as adopted by local courts

1. The court in Shanghai. In *Wenzhou Jinding Beauty and Hairdressing Equipment Co., Ltd. (Appellant) v. Koninklijke Philips N.V. (Appellee)*, a dispute over design patent infringement¹⁵, the Shanghai High People's Court held that according to the Invalidity Decision No. 32272 on the record, among the design features enumerated by the appellant, the cutter-head shape and the non-rectangular front view of the machine body were not the bases for maintaining the validity of the patent in suit in the invalidation proceeding, so the doctrine of estoppel as asserted by the appellant should not apply. The Shanghai High People's

Court adopted the “direct benefit standard” in the “flexible bar” standard in this case.

2. The court in Guangdong Province. In *Zhongshan Goldlabo Electric Appliance Co., Ltd. (Appellant) v. SEB S. A. (Appellee)*, a dispute over infringement of an invention patent (No. ZL200580018875.3)¹⁶, the Guangdong High People’s Court held that the application of the doctrine of estoppel was premised on the explicit statements or amendments to the claim or description made by the patentee, as well as the clear intention of the patentee to restrict the scope of protection of the patent in exchange for the allowance of the application and the validity of the patent right. Otherwise, the doctrine of estoppel shall not apply. The Guangdong High People’s Court adopted the “clear intention standard” in the “flexible bar” standard in this case.

3. The court in Jiangsu Province. In *VMI HOLLAND B. V. (Plaintiff) v. Safe-Run Huachen Machinery (Suzhou) Co., Ltd., Safe - Run Mechanical Engineering (Shanghai) Co., Ltd. and Shandong Shengshi Tailai Rubber Technology Co., Ltd. (Defendants)*, a dispute over invention patent infringement¹⁷, the Suzhou Intermediate People’s Court of Jiangsu Province held that only restrictive amendments or observations could trigger estoppel. Based on the ascertained facts, in the oral hearing transcript and the observations submitted for the oral hearing in the invalidation proceedings of the patent in suit, VMI made an explanation about “an actually enclosed cylindrical surface,” stating that “the supporting surface . . . has a very small gap to lower it, . . . in terms of the physical structure, it can be a substantially enclosed cylindrical surface; and in terms of the technical effect, the cuts in the two supporting surfaces are too narrow to accommodate the compressed flexible material . . . such that the supporting surface moves to its second contraction position and forms a cylindrical surface with the smallest diameter.” VMI also cited examples to explain the spacing of the supporting surface between the first position and the second position. Therefore, VMI made detailed and clear explanations about the technical feature in the observations in the invalidation proceedings. Relevant values were all mentioned in the cited embodiments. VMI cited the embodiments in the observations for the purpose of easy understanding of the claimed technical solution, and the cited embodiments should not be used to narrow down the scope of protection of the patent and would not have the effect of estoppel in the present case.

4. The court in Zhejiang Province. In *Cixi Chensen Out-*

door Products Co., Ltd. (Appellant) v. Chen Jianfeng (Appellee) and Hong Yan (Defendant of First Instance), a dispute over utility-model patent infringement¹⁸, the Zhejiang High People’s Court held that both Chen Jianfeng and Chensen Co. had confirmed in the invalidation proceedings that the comparative observations made by Chen Jianfeng were directed to the arrangement with no crescent component or rotor in the reference. Chen Jianfeng emphasized that in the patent in suit, “movement with rolling friction is smoother and less prone to wear failure”, which was in contrast with the sliding friction with no crescent component in the cited reference. The statement was not the renouncement of the sliding friction caused by the integrally formed cylindrical-like end with respect to the transmission block in the accused product. The request of Chensen Co. for application of the doctrine of estoppel was untenable and would not be supported.

In *Anhui Tuote Bio-Engineering Co., Ltd. (Appellant) v. Beijing Zhongsheng Jinyu Diagnostic Technology Co., Ltd. (Appellee)*, a dispute over invention patent infringement¹⁹, the Zhejiang High People’s Court held that the “renounced technical solution” should be a technical solution which should have been included in the scope of protection, but was excluded from the scope of protection due to the amendments or observations made by the applicant or patentee. In deciding whether the patentee’s conduct constitutes a “renouncement” in the doctrine of estoppel, attention shall be paid to whether the circumstances suggested that a particular technical solution is renounced, and the rules for determination of renouncement shall be strictly managed.

From the practical analysis of judicial precedents, it is obvious that there are various standards for the application of the doctrine of estoppel in China. The standards include the “complete bar” standard, the “presumed complete bar” standard, and the “flexible bar” standard, among which the “flexible bar” standard can be further divided into the direct benefit standard and the clear intention standard. There was a gap for the application of the doctrine of estoppel in the two Judicial Interpretations, that is, no clear judicial interpretations were provided for the “amendments or statements that are not definitely denied by the Examiner or the PRB,” which leaves room for judicial practice. However, the “complete bar” standard in the Judicial Interpretations has not been implemented in judicial practice. It is true that the judgments retrieved by the author are not re-

ported in the Gazette of the Supreme People's Court and have no legal effect like precedents, and the views in these judgments cannot be raised to be the judging criteria of the Supreme People's Court.

V. Foreign judicial practice of the doctrine of estoppel

The estoppel doctrine first appeared in the U.S. judicial practice of patent infringement. The U.S. Supreme Court established the principle of infringement under the doctrine of equivalents in 1853 and proposed the "function-way-result" triple identity test to determine equivalency in *Graver Tank & Manufacturing Co. v. Linde Air Products Co.* in 1950. A U.S. federal court also applied the doctrine of estoppel, which is a rule derived from the equity law, to restrict the judgment of infringement under the doctrine of equivalents in *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*²⁰ in 1997. The U.S. Supreme Court ruled that if the scope of a claim is amended during prosecution, without knowing the reason for the amendment at that time, the court would presume that the amendment was made on the basis of the requirement to overcome the known technology. Under the doctrine of estoppel, the patentee should not assert infringement under the doctrine of equivalents for the amended part. The doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole. On 29 November 2000, the Federal Circuit decided in the judgment in *Festo VI*²¹ that an amendment related to any of these statutory requirements is an amendment made for a substantial reason related to patentability, and is not limited to an amendment that has been made to overcome the prior art. In addition to satisfying the novelty and non-obviousness requirements, statutory requirements, such as the patentable subject matter, best mode, written description, and implementation, are all covered by patentability. An amendment that narrows down the scope of a claim for any reason related to the statutory requirements for a patent will give rise to prosecution history estoppel with respect to the amended claim element, regardless of whether the amendment was required or voluntary. Prosecution history estoppel acts as a complete bar for the amended element. On 26 September 2003, the Federal Circuit reissued the judgment, holding that a narrowing amendment made to satisfy any requirement of the Patent Act may give rise to an estoppel. Further, a "voluntary" amendment may give rise to

prosecution history estoppel. Moreover, if the prosecution history record reveals no reason for narrowing down the amendment, it is presumed that the patentee had a significant reason related to patentability.

The U.S. court emphasized the subjective intent of the applicant and the patentee, whereas the Supreme People's Court of China held in the Case No. Zuigaofazhiminzhong 530/2019 that "if the amendments or statements are not accepted by the examiner and therefore the patent is not granted, they should not lead to the renouncement of technical solution," which emphasized whether the applicant or patentee benefits from the statements. The criteria followed by the two courts are quite different.

VI. Specific criteria for application of the doctrine of estoppel in China

1. Abandonment of the "complete bar" judging criterion

If the "complete bar" judging criterion is adopted, sufficient disclosure of an applicant's technical solution will give rise to unexpected punishment and patent applicants would be forced to rack their brains on every patent terms. This would increase the cost of patent application and the contents of the patent specifications are becoming simpler, which increases the difficulty in patent interpretation and hinders the dissemination and application of patented technologies. At the same time, applicants are demotivated from patent applications because applicants and their attorneys are imposed with heavier burdens. The number of requests for patent invalidation or reexamination would also increase. In the invalidation proceedings, a patentee will surely make relevant statements or even amendments in an effort to maintain the validity of the patent. Estoppel occurs as long as the patentee makes observations to the claim scope. Such a system seems to be easy to implement in the determination of patent infringement but is infeasible and abandoned in China's judicial practice.

2. Predictability of the scope of patent protection serving as the objective judging criterion

The doctrine of estoppel shall be understood from the perspective of systematic interpretation. The fundamental purpose of establishing a patent system is to promote technological progress and economic development. To this end, active and dynamic inventions or creations are needed so that their wonderful achievements can be quickly known by the public for the sake of wider application. Corre-

spondingly, the patent system is designed to pursue its original aim of “disclosure in exchange for protection”, that is to say, an inventor has to fully disclose in the patent documents the technical solution of an invention that is unknown to the public to such an extent that the invention can be implemented by a person having ordinary skill in the art. Then the administrative patent department discloses the invention to the public through a special channel to ensure timely acquaintance with the invention. Lastly, a state confers monopolistic and exclusive protection to those disclosed and granted patents to ensure that inventors can gain reasonable benefits matchable to their technical contributions. After the expiration of the patent term, the principle of “disclosure in exchange for protection” means the public can utilize these technologies in a free and justifiable manner, i.e. the technologies have been “donated” to the public. The essence of patent is disclosure in exchange for protection, and undisclosed inventions or creations are not protected (except for confidential patents and national defense patents). Article 26 of the China’s Patent Law reads: the description shall set forth the invention or utility model in a manner sufficiently clear and complete so as to enable a person having ordinary skill in the art to carry it out.

The publicity, objectivity and predictability of the scope of protection of a patent are the cornerstones of the patent system. The scope of protection of the patent right for invention or utility model shall be determined by the terms of the claims. The description and the appended drawings may be used to interpret the claims.²² The people’s court shall determine the contents of a claim as provided for in Article 59.1 of the China’s Patent Law according to the recitations of the claim and in consideration of the understanding of the claim by a person having ordinary skill in the art after reading the description and drawings.²³ The people’s court may interpret a claim based on the description and drawings, relevant claim(s) in the claim set, and patent prosecution history. If the description has specifically defined a term in the claim, such a specific definition shall prevail. If the meaning of a claim cannot be clarified even by the approaches above, the claim may be interpreted according to reference books, textbooks and other public literatures, and the common understanding on the part of a person having ordinary skill in the art.²⁴

3. Specific application of the doctrine of estoppel

First, the judgment as to whether the doctrine of estoppel should apply cannot be made only on the basis of the

statements made by the applicant or patentee in the patent prosecution proceedings. It is necessary to comprehensive review the patent documents, including the claims, description and drawings, relevant claims in the claim set and patent prosecution history, and objectively judge the subjective intent of the applicant or patentee to amend the claims or description or make observations in the patent prosecution or invalidation proceedings.

Second, whether the patent applicant or patentee has renounced the technical solution shall be judged objectively. The doctrine of estoppel imposes a restriction on the doctrine of equivalents. However, it cannot be determined that the patent applicant has renounced the feature(s) equivalent to an added technical feature just because a claim is added with said technical feature, or the claims are merged. Nor can it be determined that the patent applicant has renounced the feature(s) equivalent to the corresponding technical feature of the present patent just because he or she pointed out the difference between the present application/patent and the reference(s), or made explanation to the present patent. If the patent applicant or patentee directly or formally benefits from the amendments or statements that are conducive to the grant of a patent, it can be presumed that the patent applicant or patentee renounces the corresponding technical solution. If not, efforts shall be made to delve into the subjective intent of the applicant or patentee in amending the claims or description, or in making the observations.

Third, the patent applicant or patentee shall bear the risk of adverse consequences for impossibility of judging whether a technical solution is renounced. As for the amendments or observations made by the patent applicant or patentee, he or she shall produce evidence proving that the amendments or observations were not made to overcome the prior art. When it is impossible to judge whether a technical solution is renounced or not, the patent applicant or patentee shall take adverse consequences. If the patent applicant or patentee fails to give the reasons for amendments to the application documents, it can be presumed that the amendments were made to overcome the substantive defects that render the application non-patentable.²⁵ This guarantees the safe mindset of the public, helps design-arounds, encourages market competition, and meanwhile promotes the improvement of patent drafting.

VII. Conclusion

Based on the positive analysis of judicial precedents and reinterpretation of the contents of Article 6 of the Patent Infringement Judicial Interpretation (I), the author opines that there is no need to rectify Article 6. According to the three steps for applying the doctrine of estoppel as discussed above, we shall emphasize the examination as to whether the patentee “renounced the technical solution or not”, which may result in three situations. First, through comprehensive interpretation of the patent document, it is deemed that the applicant or patentee “renounced” a technical solution; second, through comprehensive interpretation of the patent document, it is deemed that the applicant or patentee did not “renounce” a technical solution; and third, it is impossible to judge whether or not the applicant or patentee renounced the technical solution (in this case, it shall be presumed that the technical solution was renounced). Accordingly, Article 6 of the Patent Infringement Judicial Interpretation (I) complies with the original purpose of the doctrine of estoppel, and there is no gap at the legislative level. Article 6 of the Patent Infringement Judicial Interpretation (I) and Article 13 of the Patent Infringement Judicial Interpretation (II) can be understood from the perspective of systematic interpretation. The former is a principle, and the latter is a special case under the former principle. Both are embodiments of the principle of disclosure in exchange for protection and the principle of predictability, thereby forming a one-principle-one-exception judging criterion. ■

The author: Senior Judge of the Shanghai Intellectual Property Court

¹ “The scope of protection of the patent right”, “the scope of protection of the patent” or “the scope of protection” herein refers to the claim scope unless otherwise specified.

² The term “complete bar,” which stems from the judicial practice of patent litigation in the U.S., means the doctrine of estoppel applies when during prosecution, due to the amendment to a claim, the patentee can only assert infringement of the amended claim literally and not through the doctrine of equivalents.

³ Kong Xiangjun, Wang Yongchang and Li Jian (2010). Application Issues of the Interpretation of the Supreme People’s Court on Several Issues Concerning the Application of Law in the Trial of Disputes over Patent Infringement. *Electronic Intellectual Property*, 2.

⁴ The term “flexible bar”, which is opposite to the term “complete bar” and stems from the judicial practice in the U.S., means that even though a feature is defined in the patent document, it is still possible to define the scope of the feature, and the court may find infringement under the doctrine of equivalents.

⁵ Articles 61 to 64 of the Guidelines for Patent Infringement Determination (2017) released by the Beijing High People’s Court on 20 April 2017.

⁶ The judgments of the four cases are numbered as No. Zuigaofazhiminzhong 841/2020, No. Zuigaofazhiminzhong 1245/2020, No. Zuigaofazhiminzhong 1735/2020 and No. Zuigaofazhiminzhong 496/2020, where the doctrine of estoppel is not applied in the last two cases.

⁷ The Judgment No. Zuigaofazhiminzhong 841/2020.

⁸ The Judgment No. Zuigaofazhiminzhong 1245/2020.

⁹ The Judgment No. Zuigaofazhiminzhong 1571/2020.

¹⁰ The Judgment No. Zuigaofazhiminzhong 1577/2020.

¹¹ The Judgment No. Zuigaofazhiminzhong 961/2019.

¹² The Judgment No. Zuigaofazhiminzhong 912/2020.

¹³ The Judgment No. Zuigaofazhiminzhong 384/2020.

¹⁴ The Judgment No. Zuigaofazhiminzhong 530/2019.

¹⁵ The Judgment No. Huminzhong 263/2018.

¹⁶ The Judgment No. Yuegaofaminsanzhongzi 384/2014.

¹⁷ The Judgment No. Su05minchu 591/2016.

¹⁸ The Judgment No. Zheminzhong 1025/2018.

¹⁹ The Judgment No. Zhezhizhongzi 205/2015.

²⁰ *Warner-Jenkinson Co. Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 117 S.Ct.1040, 137 L. Ed.2d 146 (1997). The decision was unanimous.

²¹ *Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722 (2002).

²² Article 59.1 of the China’s Patent Law.

²³ Article 2 of the Interpretation of the Supreme People’s Court on Several Issues Concerning the Application of Law in the Trial of Disputes over Patent Infringement.

²⁴ Ibid. See Article 3.

²⁵ Article 58.2 of the Guidelines for Patent Infringement Determination released by the Beijing High People’s Court in 2013.