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• CHINA •  
**PATENT  
REVIEW**

In-Depth Review  
Articles

Typical Case  
Analysis

Latest Laws and  
Regulations  
Developments

**2015**

**ANNUAL  
EDITION**

**Thanks to the following colleagues who made great efforts for this booklet:**

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## Preface

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China is one of the fastest growing countries and the second largest economy in the world. From start-ups to Global Fortune 500, inventors and investors set foot in China with visions to success, intellectual property protections are often their most valuable tools to explore China's enormous market and economy. Obtaining a patent is one of the very first steps to protect intellectual property rights in China, because patent creation plays an important role in establish one's position in the market. Patent stability and enforceability plays a crucial role in invalidation, infringement, and other enforcement proceedings. These protections often related to issues such as patentability, interpretation of claims, the doctrine of equivalents, the principle of estoppel, distribution of the burden of proof, etc. which many countries share the same principles, but it is the application of these rules and regulations often one that troubles foreign companies and law firms to exploit and enforce their rights in China.

Under a statutory law system, one cannot find applications of laws and regulations to the complex facts and legal issues found in China, without first understand the typical and guiding precedents. Therefore, each year the Supreme People's Court, the High People's Courts, the Intermediate People's Courts, and the Patent Reexamination Board select several cases as typical cases to demonstrate to the public the latest trend, and the courts and administrative departments' standards in applying the latest laws and regulations. However, these critical information and cases containing in-depth applications of patent law and legislative interpretation are not readily available in English for foreigners.

Beijing East IP always endeavored to provide better services to our foreign clients and contribute to the worldwide intellectual property society when we started this China Patent Case Review project. In 2014, we selected 29 cases from over 100 typical cases from 2012-2013. In 2015, we improved our content by adding latest developments on practical guidance of the application of the Chinese patent law and latest developments on patent rules and regulations to our patent case reviews. Our patent attorneys read and analyzed these case decisions from the courts or the PRB, summarized and provided their analysis into this book. We believe this book will help many English speaking foreign patent professionals to learn more about the latest trend and developments in

patent related proceedings in China.

A handwritten signature in black ink, appearing to read 'Gao Lulin', with a stylized flourish at the end.

Hope you enjoy it.

Sincerely,

Dr. Lulin GAO

Honorary President, ACPAA

Vice Chairman, Internet Society of China

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# **In-Depth Review Articles**



## Rules and Cases Review Regarding Claim Interpretation under the Patent Law of the People's Republic of China

Article 59 of the *Patent Law of the People's Republic of China* ("Chinese Patent Law") provides that: The protection scope of a 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 content of the claims. It is known that the interpretation of claims determines the protection scope of a patent. In this article, we reviewed the laws, regulations, and judicial interpretations and selected some typical cases aiming to provide a comprehensive and easy-understanding outline about the Chinese practice regarding the interpretation of the patent claims.

### I. The Objects of an Interpretation and the Entity to Interpret

Rule 7 of the *Interpretation by Supreme Peoples' Court* (hereinafter "SPC") *on Some Issues Concerning the Application of laws to the Trial of Patent Infringement Disputes* (promulgated in 2009, hereinafter "*the SPC Infringement Interpretation I*") provides that:

When determining whether the technical solution alleged for infringement falls into the protection scope of the patent right, the courts shall examine all the technical features recited in the claim claimed by the patentee.

In 2014, the SPC promulgated the follow-up draft of *the SPC Infringement Interpretation I* for public comments (hereinafter "*the SPC Infringement Interpretation II (draft for public comments)*"), where Rule 7 further provides that:

The people's courts shall disassemble the technical solutions of the claim(s) and the technical solutions alleged for infringement into technical features and comparing the corresponding technical features on such basis.

Technical features are the minimum technical unit that can perform technical function in relatively independent manner and produce relatively independent technical effect.

From the above, we know the technical features are the object of interpretation. According to Section 3, Chapter 2, Part II of the *Chinese Patent Examination Guidelines* (hereinafter "*the PEG*"), technical features may be either component elements that constitute the technical solution of the invention or utility model or the interrelations between the elements.

Rule 2 of *the SPC Infringement Interpretation I* provides that:

The courts shall determine the content of a claim as provided in Article 59.1 of the Patent Law based on the recitations of the claim in combination with the understanding by a person of ordinary skill in the art after reading the description and the appended drawings.

According to an article written by the drafters of the *SPC Infringement Interpretation I*, the concept of “a person of ordinary skill in the art” is introduced pursuant to Article 26.3 of the Chinese Patent Law, which requires the description shall specify the invention or utility model in a clear and complete manner so as to enable a person skilled in the relevant field of technology to carry it out.<sup>1</sup> “A person of ordinary skill in the art” has the average knowledge existing at the time when the infringement occurred in the technical field to which the invention pertains and is neither an expert nor a person who cannot understand the technology.<sup>2</sup>

However, according to the *PEG*, the entity judging inventiveness of a patent is “a person skilled in the art” who is presumed to be aware of all the common technical knowledge and have access to all the technologies existing before the filing date or the priority date in the technical field to which the invention pertains.

In view of the above, the knowledge scope of “a person of ordinary skill in the art” in the *SPC Interpretation I* is larger than that of “a person skilled in the art” prescribed in the *PEG*. The time point for their knowledge is different. The former is “at the time when the infringement occurred,” while the latter is “before the filing date or the priority date.” The duration of a patent right may be as long as twenty years for an invention patent and 10 years for a utility model patent. With the technology development, the technical solution not available before the filing date of the patent may be included into the protection scope of the patent right, as understood by “a person of ordinary skill in the art.”

A problem derived thus is how to interpret a created term. In *Shanghai Gujian v. Shanghai Mo Di Lu Ke*,<sup>3</sup> the SPC set forth its opinions regarding a created term “adjustable linkage device” in claim 1 that: In view of the practical needs to describe a new technical solution, the patent applicant shall be allowed to use created terms when drafting the application documents. On the other side, since the created term was not known for a person of ordinary skill in the art, the patent applicant is obliged to define, explain, and specify the term clearly and accurately in the description.

<sup>1</sup> KONG Xiangjun, WANG Yongchang, LI Jian, *The understanding and application of the Interpretation by SPC on Some Issues Concerning the Application of laws to the Trial of Patent Infringement Disputes*, People's Judiciary, Vol.3, 2010, Page 27-33.

<sup>2</sup> See supra.

<sup>3</sup> *Shanghai Gujian v. Shanghai Mo Di Lu Ke*, (2013) Ming Ti Zi No. 113, Civil Judgment by the SPC

## II. The Scope of the Objects of Interpretation

Rule 7 of the *SPC Infringement Interpretation I* above sets forth the All-Features-Covered Doctrine. This doctrine means that each technical features of a claim shall be taken into account when making a comparison between a claim and the technical solution alleged in an infringement. When applying the All-Features-Covered Doctrine, two opposite situations should be noticed, one is “Discretionary Inessential Features” and “Inferior Invention.”

In *Dalian Ren Da v. Dalian Xin Yi*,<sup>4</sup> the SPC set forth its opinions for the first time that the Inessential Features under Discretion shall not be applied in the patent infringement case. Such opinions have great impact on the theoretical research and the practice of the Chinese Patent Law.<sup>5</sup> One of the technical features in the case was that the patented pipe shall comprise at least two layers of glass fiber cloth. The corresponding feature of the pipe alleged for infringement had only one layer of such cloth. The SPC held that: All the technical features in the independent claim shall be deemed essential and be taken into consideration for infringement comparison. The SPC did not agree to apply the “Discretionary Inessential Features,” because only when respecting each technical features in a claim can the public have a consistent expectation on the scope of protection of a patent right, where a patent right can be affirmed and the patent system and its values be ensured.

Regarding whether an inferior invention infringes a patent, the SPC delivered its opinions in *Shenyang Zhilian v. ZHANG Jianhua*.<sup>6</sup> The involved patent was directed to a venting and cut-off device of heating system for high rising building. The product alleged for infringement did not have the technical features of “surrounded and threaded guide plate,” “rotation-stopping plate,” etc. The courts of the first and the second instance decided the product alleged for infringement was an inferior invention and the infringement established. In the retrial, the SPC indicated that: The courts shall compare all the technical features of the technical solution alleged for infringement with all the technical features of the claim when establishing the infringement. It shall not be taken into account that whether the technical solution alleged for infringement was inferior in terms of technical function or technical effect due to lack of certain technical features or not. The SPC thus decided the patent infringement could not be established.

<sup>4</sup> *Dalian Ren Da v. Dalian Xin Yi*, (2005) Ming Ti Zi No.1, Civil Judgment by the SPC

<sup>5</sup> <http://www.chinacourt.org/article/detail/2008/11/id/332072.shtml>

<sup>6</sup> *Shenyang Zhilian v. ZHANG Jianhua*, (2009) Ming Ti Zi No.83, Civil Judgment by the SPC

### III. Evidence for Claim Interpretation

#### 1. Intrinsic and Extrinsic Evidence

Rule 3 of the *SPC Infringement Interpretation I* provides that:

The courts may interpret a claim referring to the description and the appended drawings, relevant claim in the claims set, and patent prosecution history. Where the description has specifically defined an expression in the claim, such specific definition shall be adhered to.

If using the above-mentioned method still fails to clarify the meaning of the claim, interpretation maybe made in combination with publicly known documents such as reference books, textbooks, and common understanding of the meaning by a person of ordinary skill in the art.

In the invalidation case *Seiko Epson v. the Patent Review Board*<sup>7</sup> the SPC held that: In either administrative patent right affirmation procedure cases or civil infringement cases, the general principles and doctrines for claim interpretation shall be followed. For example, intrinsic evidence such as the description, the appended drawings and prosecution history shall have more weight, and the applicant's own explanation shall have more weight.

Regarding whether to admit the extrinsic evidence with a date after the patent filing date, the SPC held that: When an extrinsic evidence was used to interpret a term in the patent application documents, the principle was only to accept evidence prior to the filing date of the patent. However, a meaning of a word could be adopted through a continuous use by the public. Unless this meaning was adopted much later in time or for some other specific reasons, a meaning adopted after the filing date could be admitted to help understanding the meaning prior to the filing date.

However, under some circumstances, if the extrinsic evidence contradicts with the general understanding of a person skilled in the art, the court may probably not accept the interpretation based on such extrinsic evidence. In another invalidation case *TDK Corp. v. the Patent Review Board*,<sup>8</sup> the patentee, TDK Corp., submitted the content of Chemistry Dictionary as common knowledge (Counter Evidence No.5) to prove the silicon in the patent documents shall be deemed as metal, and supplemented around 30 pieces of evidence of other patent references, manuals, dictionaries of Chinese and foreign languages, etc. during the first instance trial. The court of the second instance held that: Silicon was commonly known as semi-conductor material. A person skilled in the art

<sup>7</sup> *Seiko Epson v. the PRB*, (2013) Zhi Xing Zi No.53-1, Administrative Ruling by the SPC

<sup>8</sup> *TDK Corp. v. PRB*, (2013) Gao Xing Zhong Zi No.1682, Administrative Judgment by Beijing Higher People's Court

would not deem silicon as metallic element. The No. 5 Counter Evidence submitted by TDK Corp. divided materials into metals and non-metals and the materials with properties between metals and non-metals were classified as metals. Under such classification, silicon was deemed as metal. However, as generally required, the description of the patent shall describe the claims in a clear and complete manner. Since the applicant did not clarify that the silicon should be deemed as metallic element in the patent application document, the court would not accept the patentee's argument.

## 2. Embodiments

Section 2.2.6, Chapter 2, Part II of the *PEG* provides that:

The preferred mode for carrying out the invention or utility model is an important part of the description, which is extremely important for sufficiently disclosing, understanding, and carrying out the invention or utility model, as well as for supporting and interpreting the claims. Therefore, the description shall describe in detail the preferred mode contemplated by the applicant for carrying out the invention or utility model. Embodiments are exemplification of the preferred modes for carrying out the invention or utility model.

First, technical features not recited in the claim shall not be taken into account based on its appearance in the embodiments to limit the protection scope of a patent. In *XU Yongwei v. Ningbo Huatuo Solar Energy*,<sup>9</sup> the SPC held that embodiments were only exemplification of the invention and such exemplary description shall not be used to limit the protection scope of a patent. For the “end cover” of the flashlight, it was not recited in the patent claims but only mentioned in the embodiments and the appended drawings of the description. Thus, “end cover” shall not be used to define the protection scope of the patent.

Second, for the technical features recited in the claims, the embodiments can help to understand the protection scope of a patent right. In *FU Zhihong and Guangzhou Xin Lv Huan v. Taishan XianQu*,<sup>10</sup> one of the technical features in claim 1 is “cemented composite fiber layer of bamboo, wood, and plant.” Regarding the relationship between “bamboo, wood, plant,” the SPC held that: Merely based on the words of claim 1, it was difficult, indeed, to decide whether the three kinds of fiber were of an “and” relationship or “or” relationship. According to the description, the composite is “a mixture made of magnesium chloride, magnesia and bamboo fiber or wood dust or plant fiber.” Thus, it is not necessary that all the three kinds of fibers have to be contained.

<sup>9</sup> *XU Yongwei v. Ningbo Huatuo Solar Energy*, (2011) Ming Ti Zi No. 64, Civil Judgment by the SPC

<sup>10</sup> *FU Zhihong and Guangzhou XinLvHuan v. Taishan Xian Qu*, (2010) Ming Shen Zi No. 871, Civil Ruling by the SPC

### 3. The Purpose of the Patent

Rule 6 of the *SPC Infringement Interpretation II (draft for public comments)* provides that:

The courts shall interpret the claims in accordance with the purpose of the patent. The courts shall determine that an allegedly infringing technical solution does not fall into the protection scope of a patent, if there is a defect that the patent intends to overcome in the allegedly infringing technical solution.

The provision above comes from *JIANG Guo You v. Anshan Greatwall Plastics*.<sup>11</sup> In this case, the patent was directed to a safe electric blanket. One of the technical features was “heat-transfer liquid.” However, the claims did not define the “heat-transfer liquid” further. In the description, it specified that: The heat-transfer liquid contained antifreeze. Antifreeze was used as heat transferring materials and it overcame the defect that water would be iced under subzero temperature so that the hose would likely be broken off. The product alleged for infringement was a water-heating electric blanket. The first instance court entrusted a technical appraisal institute to ascertain the liquid composition in the hose of the product alleged for infringement, but the technical appraisal institute could not conduct the appraisal because the antifreeze composition was unknown and the amount of liquid in the infringing samples were not enough. Meanwhile, the defendant stated that its antifreeze was water.

During the trial, the defendant filed invalidation request with the Patent Reexamination Board (“PRB”) against the patent in dispute. The PRB’s decision stated that: The heat-transfer liquid in the concerned patent contained antifreeze and thus excluded water as heat-transfer liquid. The court held that: The plaintiff did not provide evidence regarding defendant’s addition of antifreeze into the heat-transfer liquid in the product. Thus, the defendant’s statement that its product used water as heat-transfer liquid is accepted. Prior to the filing date of the concerned patent, use of water as heat-transfer liquid had been disclosed by the prior art. Therefore, the heat-transfer liquid of the product alleged for infringement was different from that of the claims. What’s more, the patentee had excluded the water as heat-transfer liquid from the protection scope of its patent right. Thus, neither equivalence nor infringement could be established.

<sup>11</sup> *JIANG Guo You v. Anshan Greatwall Plastics*, (1999) Shen Jing Chu Zi No. 617, Civil Judgment by Shenyang Intermediate People’s Court

## IV. Doctrines of Interpretation – the Equivalence Doctrine and its Limitations

Rule 17 of the *Several Provisions of the SPC on Issues Relating to Application of Law to Adjudication of Cases of Patent Disputes* (promulgated in 2001, amended 2015, hereinafter “2015 SPC Adjudication Provision”) provides that:

The protection scope of the patent right shall be determined by the essential technical features expressly recited in the claims, including that as determined by the features equivalent to the essential technical features.

The equivalent features refer to the features which use substantially the same means, perform substantially the same function and achieve substantially the same effect and which can be contemplated by a person of ordinary skill in the art at the time when the infringement occurred without inventive labor.

When the *2015 SPC Adjudication Provision* is amended, the “time” for the person of ordinary skill in the art to contemplate is defined as “the time when the infringement occurred.” That means, those technical features not deemed as equivalent at the time of grant may possibly be deemed as equivalent during determination of infringement.

Equivalent infringement is supplementary to literal infringement. Due to this article’s limited length, we will only introduce the judicial practice of the two limitations of the Equivalence Doctrine below – the Donation Doctrine and the Estoppel Doctrine.

### 1. The Donation Doctrine

Rule 5 of the *SPC Infringement Interpretation I* provides that:

For a technical solution which is only depicted in the description or the appended drawings but not recited in the claims, the incorporation of such technical solution by the right holder in a patent infringement lawsuit into the protection scope of the patent right shall not be supported by the courts.

In *CHEN Shundi v. Zhejiang Le XueEr, et al.*,<sup>12</sup> the patent was consisted of twelve steps. The focus in dispute was whether the exchange of Steps 10 and 11 constituted as equivalence. The SPC held that: The exchange of Step 10 and Step 11, as said by the defendant, reduced the production steps, saved time and improved effectiveness. Therefore, the technical effect resulted from such exchange is substantial, and the steps after exchange does not constitute as equivalence with Steps 10 and 11 in claim 1. Regarding Rule 5 above, the SPC indicated that: If a person skilled in the art can understand the technical solution disclosed in the description but not recited in the claim was an alter-

<sup>12</sup> *CHEN Shundi v. Zhejiang Le XueEr, et al.*, (2013)Ming Ti Zi No. 225, Civil Judgment by the SPC

native choice raised by the patentee, the solution shall be deemed as donated to the society. The description disclosed Steps 10 and 11 can be exchanged but such exchanged steps were not recited in the claims. Thus, the steps after exchange could not be included into the protection scope of the patent right.

## 2. The Estoppel Doctrine

Rule 6 of the *SPC Infringement Interpretation I* provides that:

In the grant or invalidation procedure of a patent right, where the patent applicant or the patentee abandons a technical solution by amendments to the claims, the description, or through observations, the incorporation of the abandoned technical solution into the protection scope of the patent right by the right holder in a patent infringement lawsuit shall not be supported by the courts.

In *Aonuo (China) Pharmaceuticals v. Hubei Wu Shi Pharmaceuticals, et al.*,<sup>13</sup> one of the technical features in claim 1 was “active calcium.” But in the published version of the patent application, it was “soluble calcium” (soluble calcium includes calcium gluconate, active calcium, etc.) The reason was that when responding to the first office action to support the description, the applicant amended the “soluble calcium” into “active calcium.” The component in the product alleged for infringement was calcium gluconate. Regarding whether calcium gluconate constituted equivalence to active calcium, the SPC held that: The technical solutions containing calcium gluconate was abandoned by the patentee’s amendments to claim 1 during the procedure of grant, thus these solutions could not be included in the protection scope of the patent.

However, not all the abandonment will trigger Estoppel Doctrine. Rule 16 of the *SPC Infringement Interpretation II (draft for public comments)* provides that:

Where the patent applicant or the patentee amended the claims or the description or stated the observations in the course of patent grant and affirmation procedure, the alleged infringer argues that the technical solutions abandoned in above circumstances does not fall within the protection scope of the patent right, and the right holder provides evidence to support that the amendment or the observation is not accepted by the examiner or has no causal relationship with the validity of patent right, the courts shall consider that the amendment or the observation does not lead to abandonment of the technical solution.

In *Zhong Yu Electronics (Shanghai) v. Shanghai Jiu Ying Electronics*,<sup>14</sup> the patent was directed to a steering engine for model. After the invalidation procedure, claims 1-2

<sup>13</sup> *Aonuo (China) Pharmaceuticals v. Hubei Wu Shi Pharmaceuticals, et al.*, (2009) Ming Ti Zi No. 20, Civil Judgment by the SPC

<sup>14</sup> *Zhong Yu Electronics (Shanghai) v. Shanghai Jiu Ying Electronics*, (2011) Ming Ti Zi No. 306, Civil Judgment by the SPC



and 4-6 were invalidated and the patent was sustained on the basis of claim 3. One of the technical features of claim 3 is: on the circuit board for driving, a strip of carbon film and a strip of silver film are printed. Correspondingly on the product alleged for infringement, a strip of carbon film and a golden-plated copper bar were printed. The SPC held that: The abandonment of the Estoppel Doctrine was usually done by the patentee's amendments or observations. When deciding whether it is an abandonment of the Estoppel Doctrine, the situations where the patentee did not proactively abandon should be noticed. If the additional technical feature in a dependent claim was not generalized previously in the independent claim,<sup>15</sup> the technical solutions without the said additional technical feature shall not be deemed as abandoned. In this case, the patentee did not amend the claims and the description during the invalidation procedure, so the patentee did not abandon the technical solutions with other conducting materials as electricity strip. Thus, it was wrong to decide the Equivalence Doctrine cannot be applied to the "silver film" based on the invalidation of claims 1-2.

## **V. New Trend – The patent cannot be protected if the claims cannot be clearly interpreted**

Rule 5 of the *SPC Infringement Interpretation II (draft for public comments)* provides that:

When the literal meaning of a claim is clear but is in fundamental conflict with corresponding part in the description, which does not belong to the circumstances as prescribed by Rule 4, the people's court shall determine the patent protection scope based on the literal meaning of the claim.

If the meaning of a claim is unclear and the patent protection scope claimed by such a claim cannot be determined by any statutory manner of interpretation, which does not belong to the circumstances as prescribed by Rule 4, the courts may dismiss the lawsuit.

This provision indicates that, when the claims are contradictory to the description, if it is because of errors of grammar, letters, punctuation, signals, drawings, etc., and a person of ordinary skill can conclude the sole understanding after reading the claims, the description and the appended drawings, the claims shall be interpreted as such sole understanding. Otherwise, the protection scope of the patent shall be determined by the claims. In *Xi'an Qin Bang v. Wuxi LongSheng, et al.*, the SPC indicated that: When a person of ordinary skill in the art could determine the meaning of the expression in the claim (the terms of the expression were not specified in the description), the claim shall

<sup>15</sup> There is no detailed definition or specification regarding circuit board for driving of the steering engine in claim 1.

be interpreted by the understanding of a person of ordinary skills. What was depicted in the description should not overturn the claims so that the claims would actually be amended and, in this manner, the infringement procedure would be served as additional opportunity for the patentee to amend the claims. The publication and boundary of a patent would be harmed and the patentee would be entitled unjustified protection that should not be given.

The second paragraph of Rule 5 further makes it clear that: the courts could dismiss the lawsuit if the claims cannot be clearly interpreted. The provision comes from *BAI Wanqing v. Shanghai Tianxiang*.<sup>16</sup> In the case, regarding the “high permeability” in claim 1, there was no specific definition, numerical range, and the calculation methods in the description. A person of ordinary skill in the art could not determine the meaning of “high permeability” merely based on the description. The evidence submitted by the patentee could not prove that a person of ordinary skill in the art has consistent understanding regarding “high permeability.” At the same time, the patentee argued that a person of ordinary skill could determine the lower limit based on the environment wherein the product was used. However, the SPC believed such argument actually had all the circumstances included into the protection scope of the patent right, which was too large and lacked basis. Thus, “high permeability” and the protection scope of the patent could not be determined. The infringement was not established.

Authors: Xiaolin WANG and Jian LI

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<sup>16</sup> *BAI Wanqing v. Shanghai Tianxiang*, (2012) Ming Shen Zi No. 1544, Civil Ruling by the SPC

## Introduction to the Functional Feature in Chinese Patent Practice

A technical feature defining functionality is generally referred to as a functional feature. Concerning a functional feature, several issues worth looking at: first, what feature can be a functional feature and the difference between a functional feature and a generic concept; second, how to interpret a functional feature in the granting, verifying and operating of patent right; third, and more specific, how to interpret the functional feature of an invention in the case of computer programs.

### 1. What is a functional feature?

In the *Patent Examination Guidelines 2010*, no specific definition is given as to a functional feature; but from the context, a functional feature comprises function feature and effect feature.<sup>2</sup> In the Judicial Interpretation by the Supreme People's Court, it is defined as 'the technical feature described by function and effect'.<sup>17</sup> In the Draft for Public Comment of the latest Judicial Interpretation by the Supreme People's Court, it is further clarified that 'technical feature described by the functions and effects in the claims is a functional feature, which is the technical feature that defines structure, components, steps conditions or their relations only by the functions and the effects in an invention'.<sup>18</sup> Generally speaking, a functional feature is the technical feature defining by functions and effects but not those defining by structures and shapes.<sup>19</sup>

In the Draft for Public Comment mentioned above, it is further stipulated that "technical terms proven in the evidence as being conventional or can be directly and explicitly determined only based on the claims as to their technical content shall be excluded". In the drafting notes, the Supreme Court explains that a functional feature shall only be a purely functional one, but shall not include the technical features appearing to be describing functions but containing an appointed meaning, such as amplifier or transformer etc.; also excluded is function modules in the field of communication, which is the one whose technical content can be determined directly and explicitly only on the base of claims.<sup>20</sup>

<sup>17</sup> *Patent Examination Guidelines*, Part 2, Chapter 2, Section 3.2.1.

<sup>18</sup> *Interpretation of the Supreme People's Court concerning Some Issues on Applied Laws for Hearing Patent Infringement Dispute Case*, No. 21 Law Interpretation (2009), Arc.4.

<sup>19</sup> *Interpretation of the Supreme People's Court concerning Some Issues on Applying Laws for Trial in Patent Infringement Dispute Case (2) (Draft for Public Comment)*, Arc.10. Other regulatory documents can also stipulate the definition and interpretation of functional feature, e.g., *Beijing High People's Court <Patent Infringement Trial Guide>*, Arc.16; *Shanghai High People's Court <Patent Infringement Dispute Guide(2011)>*, Arc.4-7; *Jiangsu Province High People's Court Patent Infringement Dispute Case Trial Guide (Nov. 2011)*; *Patent Infringement Trial Standard and Patent Counterfeit Behavior Identification Standard Guide <Draft for Comment>* drafted by State Intellectual Property Office in 2013, Part 1, Chapter 1, Section 5.3.

<sup>20</sup> In the civil judgment of Gao Min Zhong Zi No.1151 (2014), the Beijing High People's Court decides that 'the distinctive technical feature (6) of the claim 1 of the patent involved, i.e., 'is arranged to enable the whole inner space with the connecting structure of fluid seal', wherein, the 'connecting structure' is not limited by the way of shape or structure limination, but is limited by 'is arranged to enable the whole inner space with the connecting struc-

The Supreme People's Court states clearly in its judgment in a retrial case involving infringement of utility model patent right, Shenzhen Amphenol East Asia Electronic Technology LLC v. Shenzhen Shinning electronic Co., Ltd., that the technical feature with an appointed meaning is not a functional feature.<sup>21</sup> In the second trial case involving infringement of invention patent right, Nessei ASB Machine Co., Ltd. v. Liuzhou Jingye Machine LLC, the Beijing People's High Court finds that the party concerned cannot prove that the technical feature described by function is a technical feature generally known to the ordinarily skilled persons in the art, and it therefore should be deemed as a functional feature.<sup>22</sup> There is no mentioning in the precedents so far of a function module not belonging to a functional feature.

It should be noted that functional feature is different from a purely functional claim, which is not supported by the specification and is not allowed. Further, functional feature is also different from generic concept. Generic concept is generalization of specific features with common attributes. A typical example comparing a generic concept and specific concept is metal as appose to copper, iron and aluminum.

## 2. Interpretation for Functional Features

Confusion with functional feature mainly lies with inconsistency in its interpretation in the granting, verifying and suing for infringement of rights.

Regarding rules for the examination on functional feature, the *Patent Examination Guidelines* only mentioned Article 26, paragraph 4 of *Chinese Patent law*,<sup>23</sup> which relates to whether or not examination on functional feature shall be based on specification. The *Patent Examination Guidelines* explicitly stipulates that functional features included in claims should be interpreted as to cover all embodiments of the functions that can be

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ture of fluid seal', which is obviously a functional limitation.'

In the civil judgment of Gao Min Zhong Zi No. 723 (2014), the Beijing High People's Court holds that 'the appended technical feature of the claim 3 of the patent involved further limits the bag transfer element, and describes the names of components included in the bag transfer element, and the respective function of the holding device, translational rotation element and bag picking element, but not describe the features of structure, material, etc, of them. So, referring to the bag transfer element and the translational rotation element, it's still a technical feature described by function'.

21 *Drafting Instruction of <Interpretation of the Supreme People's Court concerning Some Issues on Applying Laws for Trial in Patent Infringement Dispute Case (2) (Draft for Comment)>*

22 In the civil judgment of Min Shen Zi No. 1318 (2011), the Supreme Court believes 'in addition, the skills in the art can learn from the claims, specification and the appended figures of the patent involved that the 'locating slot' is a slot structure to fix and locate the frame end of the dovetail groove which is used to connect the body. And the 'locating slot' is a well known and conventional concept, but not a functional technical feature.'

23 In the civil judgment of Gao Min Zhong Zi No.4408 (2013), the Beijing High People's Court believes 'in this case, Nessei ASB Machine Co., Ltd. claims the invention patent 'Injection Stretch Blow Molding Device', the claim 1 comprises 'an injection molding element' and 'a stretch blow molding element', and limits the functions of the elements only but not limit the specific structures of these elements, so the 'injection molding element' and 'stretch blow molding element' should be identified as functional features in accordance with the common understanding. Even though the Nessei ASB Machine Co., Ltd. advocates that the 'injection molding element' and 'stretch blow molding element' are the well-known technical features to the skills in the art and should not be identified as functional features, but which is not proved with evidence. So we don't support this claim claimed by the Nessei ASB Machine Co., Ltd.'

achieved.<sup>24</sup> If a function limited by the claims is achieved by a certain way described in the embodiments of the specification, and the skilled persons in the art can't ascertain that this function can be achieved by alternative embodiments not recorded in the specification, or there are reasons for the skilled persons in the art to believe that one or more ways included in the functional limitations cannot solve the technical problem the invention and the utility model intended to solve and achieve the same technical effects, the claims cannot adopt the way of functional limitation that covers the alternative embodiments or the functional limitations that can't solve the technical problem of the invention or utility model.

Regarding other cases, where for example issues as to whether or not the claims have novelty and creativity, and whether or not the claims are clear are involved, no clear rules are set out in the *Guidelines* as how to interpret functional feature. It's generally believed that the same rules for interpretation as described above are to be followed in examination process.

In the examination procedures of the Patent Reexamination Committee, including its reexamination procedures after receipt of a decision of rejection as well as its patent invalidation procedures, the standard adopted for reexamination is in conformity with the one said above.

In civil litigation for patent infringement, functional feature should be interpreted when confirming the protection scope of the claims to determine the content of the functional feature. The currently effective Judicial Interpretation states that 'regarding the technical feature described by functions and effects in the claims, the People's Court should determine the content of the technical feature, taking into account the specific embodiments and their equivalents of the functions or the effects described in the specification and drawings attached'.<sup>25</sup> This is different from the interpretational rules stipulated in the *Patent Examination Guidelines 2010*, but similar to the American interpretational rule of 'embodiments plus equivalents'.

The Draft for Public Comment of the latest Judicial Interpretation by the Supreme People's Court has further clarified on the internal equivalents for interpreting the functional features, and the external equivalents which are traditional equivalents suitable for the functional features. For the internal equivalents, the judgment time is the filing date, and for the external equivalents, the judgment time is before the date of occurrence of infringement and after the date of filing.<sup>26</sup>

<sup>24</sup> Article 26, Paragraph 4 of *Chinese Patent Law* disputes 'the claims shall be supported by the description and shall define the extent of the patent protection sought for in a clear and concise manner.'

<sup>25</sup> *Patent Examination Guidelines*, Part 2, Chapter 2, Section 3.2.1.

<sup>26</sup> *Interpretation of the Supreme People's Court concerning Some Issues on Applying Laws for Hearing Patent Infringement Dispute Case*, No. 21 *Law Interpretation* (2009), Arc.4.

In the administrative proceedings against a decision from patent reexamination affirming the rejection decision or against a decision from examination on the request for invalidation, regarding functional feature, one view is that the widest reasonable scope for interpretation rules should be adopted, which covers all the embodiments; another view is that the interpretation rules provided for in the Judicial Interpretation described above should be adopted in infringement litigations.

In an administrative dispute case patent invalidation, Puluma·Platt& LuebeckCo., Ltd v. Patent Reexamination Board of State Intellectual Property Office of the P. R. C., the Beijing No.1 Intermediate People's Court clarified, in relation to functional features, that the interpretation rules stipulated in the *Patent Examination Guidelines* to be used to treat authorization and verification disputes are different from the interpretation rules stipulated in the Judicial Interpretation to be used to treat patent infringement disputes.<sup>27</sup> In the patent reexamination dispute of Baoan XU v. Patent Reexamination Board of State Intellectual Property Office, the Beijing No.1 Intermediate People's Court adopted the interpretation rules set out in the *Patent Examination Guidelines* for interpreting the functional features.<sup>28</sup> It should be noted that, in these two cases, the dispute

27 *Interpretation of the Supreme People's Court concerning Some Issues on Applying Laws for Trial in Patent Infringement Dispute Case (2) (Draft for Public Comment)*, Arc.10.

'Compare to the essential technical feature achieving the function and effect said above and described in the specification and the figures, the corresponding technical feature of the prosecuted infringing technical solution realizes the same function and achieves the same effect by fundamentally the same mean, and can be conceived by the skills in the art in the filling date without creative works, the People's Court shall identify that the corresponding technical feature is the same as functional feature.

' Compare to the essential technical feature achieving the function and effect said above and described in the specification and the figures, the corresponding technical feature of the prosecuted infringing technical solution realizes fundamentally the same function and achieves fundamentally the same effect by fundamentally the same mean, and can be conceived by the skills in the art after the filling date and before the date of the infringement occurs without creative works, the People's Court shall identify that the corresponding feature is equivalent with functional feature.'

28 In the administrative judgment of Yi Zhong Zhi Xing Chu Zi No. 2307 (2011), the Beijing No.1 Intermediate People's Court believes that 'we hold that the protection scope of the claims for the patent right shall be determined by the People's Court according to the law and not limited by the parties' propositions. The article 56, paragraph 1 of the *Patent law* 2001 disputes that 'the scope of protection of the patent right for invent or utility model shall be determined by the terms of the claims. The description and the appended drawings may be used to interpret the content of the claims.' Referring to the interpretation method for a functional feature, the *Patent Examination Guidelines* and the *Interpretation of the Supreme People's Court concerning Some Issues on Applying Laws for Hearing Patent Infringement Dispute Case* stipulate the suitable methods for right authorization, verification disputes and patent infringement disputes respectively. The Part 2, Chapter 2, Section 3.2.1 of the *Patent Examination Guidelines* 2006 stipulates that 'generally, for the product claims, try to avoid limiting the invention by function or effect features, only in the cases of a technical feature cannot be limited by structure features or the limitation is more suitable by function or effect features than structure features, and the function and effect can be verified directly and certainly by the experiments or operations in the specification or by the conventional means in the art, limiting the invention by function and effect features is allowed.' 'For the technical features limited by functions in the claims, it should be construed as covering all the embodiments which can achieve the functions.' The Arc.4 of the *Interpretation of the Supreme People's Court concerning Some Issues on Applying Laws for Hearing Patent Infringement Dispute Case* stipulates that 'for the technical features described by function and effect in the claims, the People's Court shall determine the content of the technical features in accordance with the specific embodiments and their equivalents of the function or effect in the specification and appended figures.' The provisions of the Justice Interpretation of the Supreme People's Court and *Patent Examination Guidelines* reflect the legislation original intention of balancing the benefits of the patentees and the public. One of the basic principles of the patent system is that the protection scope of one patent right protected by law is corresponding to its attribution to prior art. As a drafting manner of covering all, the literal protection scope of the functional feature is much wider and also has more limitation to the freedom of the public than the drafting manner of structure feature. In some certain cases, it will limit and narrow the space of the latter innovations. In the cases of right authorization and verification disputes, the function feature is construed as covering all the embodiments achieving the function or effect, but in the cases of infringement disputes, the functional feature is construed as the specific embodiments

over functional features is whether they are in conformity with Article 26, paragraph 4 of *Chinese Patent law*, i.e., whether they are based on the specification.

In the two administrative decisions made recently by Beijing Supreme People's Court, the interpretation rule for infringement litigations is adopted in interpreting functional features.<sup>29</sup> In both cases, interpretation of functional features happened in judging the novelty and creativity of the claims.

Interestingly, the State Intellectual Property Office proposed a compromise rule regarding interpretational rules for functional features in judging on patent infringement: for the technical feature in the claims described by function and effect, it should, in principle, be understood as covering all the embodiments achieving the said function; but in the case of functional feature not supported by the specification, the scope of technical feature should be determined by taking into account specific embodiments and their equivalents achieving the function and effect, which are described in the specification and the attached drawings.<sup>30</sup> However, according to Article 65, paragraph 2 of *Regulations of Patent law*, claims not supported by the specification should be deemed invalid. Obviously, there are conflicts between the rules said above. Considering that the State Intellectual Property Office is trying its best to strengthen administrative measures for enforcement of the law, other problems may arise if the *Guideline* formally takes effect.

### 3. Typical Problems in relation to computer program related inventions

In recent decades, due to rapid development of information technology, patent applications for software are increasing dramatically. To deal with patent applications for computer programs, one chapter is included in the *Patent Examination Guidelines* to specifically govern examination of patent application for invention on computer programs.

This chapter stipulates that claims of an invention patent application can be drafted as a claim on method or a product being a device implementing the method.

For the product claim, the chapter explicitly lists claims for the function module architecture, while allowing traditional drafting manner for the product claim to be further adopted in practice. Traditional drafting manner for product claims is more adopted

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and their equivalents of the function or effect described in the specification and the appended figures, which help to encourage the applicants to disclose more specific embodiments when they adopts the drafting manner of functional feature, so that the claims of the patent application can meet the requirement of summarizing appropriately to get the support of the specification on one hand, and on the other hand, the authorized patent can achieve the protection corresponding to the disclosed content in the specification and avoid protecting the authorized patent inappropriately and broadly which blocks the latter innovations. In conclusion, in the cases of right authorization and verification disputes, the function feature is construed as covering all the embodiments achieving the function or effect.'

<sup>29</sup> The Administrative Judgment of Yi Zhong Zhi Xing Chu Zi No. 2203, (2012)

<sup>30</sup> The Administrative Judgment of Gao Xing Zhong Zi No. 2396 (2013) and the Administrative Judgment of Gao Xing Zhong Zi No. 1293 (2014)



by Japanese applicants. But recently, this manner of drafting tends to be less used. By this drafting manner, drawings of the function blocks are usually made, with each of the function blocks being described in the specification and limited as a component of the device in the claims. During examination, the examiner will check that, as a product claim, whether its structure is clear and whether each component is supported by the specification.

Claims on function module architecture is device claim drafted on the base of computer program flow and according to the way corresponding to each step of the computer program flow or to the way corresponding to the method claim reflecting the computer program flow. On this kind of claims, this chapter clarifies that each component of the components of the device claim should be construed as function module established for each step of the steps implementing the program flow or the method, and the device claim defined by such a set of function modules should be construed as the function module architecture which achieves the solution mainly by the computer programs described in the specification, but not to be construed as entity device achieving the solution mainly by the hardware mode.<sup>31</sup>

In the practice of examination, drafting manner for claims on function module architecture is a request for format. If the method claim can be granted, the device claim needs only to be modified corresponding to the method claim. And the examiner will not examine the device claim again.

The applicants, considering possible infringement litigations, want in most cases to draft at least one set of product claims. However, it remains unclear as how to determine the protection scope of the above mentioned claims. Under the current system, interpretation of features included in this type of product claims should follow the relevant rules in the Judicial Interpretation concerning interpretation of functional features.<sup>32</sup> The recent dispute over patent right infringement and patent invalidation, *Nokia Corporation v. Shanghai Huaqin Telecom Technology Co., Ltd.*, have attracted wide attention, and the key issue involved is interpretation of claims for invention relating to computer program, including determination and interpretation of functional feature.<sup>33</sup> The product claim 7 of the granted patent involved adopted the drafting manner

31 *Patent Infringement Judge Standards and Patent Counterfeit Behavior Identification Standards Guide <Draft for Comment>* drafted by State Intellectual Property Office in 2013, Part 1, Chapter 1, Section 5.3.

32 Referring to the claims with the function module architecture, the Justice Interpretation Draft for Public comment said above intends to exclude it, but the Draft for Public Comment is not yet passed and also doesn't define how to determine the protection scope of such claims.

33 Nokia Corporation is the patentee of the invention patent No. 200480001590.4. In 2010, Nokia Corporation accused Shanghai Huaqin Telecom Technology Co., Ltd. for infringing its patent in Shanghai No.1 Intermediate People's Court. In June 21, 2013, the Shanghai No.1 Intermediate People's Court made the decision of Hu Yi Zhong Min Wu (Zhi) Chu Zi No. 57 and believed that the protection scope of the claim 7 cannot be determined, so the infringement litigation of the Nokia Corporation was rejected. And Nokia Corporation refused to accept the decision and appealed to the Shanghai High People's Court. In Feb 24, 2014, the Shanghai High People's Court made the decision of Hu Gao Min San (Zhi) Zhong Zi No. 96 which affirmed the original judgment. In Feb 2015, Nokia Corporation appealed to Supreme People's Court for retrial.



having the term of 'configured to' added before every step corresponding to the method claim, which was considered a function feature by the Shanghai High People's court. According to the interpretation rule for infringement litigations mentioned above, the court should determine the content of technical feature by taking into consideration the way of achieving the function and effect as described in the specification and the attached drawings or its equivalent. But Shanghai High People's Court finds that as the specification of the patent at issue has not recorded the specific way of achieving the corresponding function as to be 'configured to', protection scope of the claim 7 involved cannot be determined.

#### 4. Development Tendency and Suggestions

China has always been improving its patent system since its establishment. In the development process of the Chinese patent system, experiences from patent systems of other countries have been studied on a continuous basis. Currently, the examination procedure of the Patent Office and the Patent Reexamination Board is more affected by the European patent system, while the juridical practice is much influenced by American patent system.

With social-economic development in China, patent examination and juridical practice will change and develop along the way. Therefore, when applying for a patent, the current patent examination and juridical practice should be considered but not to be dictated by them. First, a suggestion is that commonly used basic principles should be followed as of importance to make the scheme clear in drafting applicant document, instead of focusing too much on the drafting skills. Next, it's suggested that application may include sets of claims drafted in different manners, even the form of claims that are difficult to be granted rights under current examination practice. For example, product claim containing both hardware part and software part but having improvement only in the latter can recently be granted relatively easily. In addition, it's suggested that claims not be given up too readily, and, especially, one should restrain from deleting claims

In Mar 31, 2011, Huaqin filled a request for invalidation to the Patent Reexamination Board for the patent. In April 20, 2014, the Patent Reexamination Board made the decision No. 18676 for the reexamination for invalidation request which pronounced that the claims 1, 3, 5, 6, 8 and 10 of the patent involved are valid. Nokia Cooperation rejected the No. 18676 invalidation decision and appealed to the Beijing No.1 Intermediate People's Court. In Dec 18, 2012, the Beijing No.1 Intermediate People's Court made the administrative judgment of Yi Zhong Xing (Zhi) Chu Zi No.3856 (2012) which affirmed the original judgment. The two parties rejected the judgment of first instance and appealed to the Beijing High People's Court. In June 18, 2013, the Beijing High People's Court made administrative judgment of Gao Xing (Zhi) Zhong Zi No. 890 (2013) which affirmed the judgment of first instance. In June 15, 2012, Huaqin filled another request for invalidation to the Patent Reexamination Board for the patent. In Nov 8, 2014, the Patent Reexamination Committee made the decision No. 20580 for reexamination for the invalidation request which pronounced that all the claims of the patent involved are valid. Hereafter, Nokia Cooperation refused the invalidation decision and appealed to the Beijing No.1 Intermediate People's Court. The Beijing No.1 Intermediate People's Court made the administrative judgment of Yi Zhong Xing (Zhi) Chu Zi No.3544 (2014) which affirmed the invalidation judgment. Nokia Corporation rejected the judgment of first instance and appealed to Beijing High People's Court. In June 18, 2013, the Beijing High People's Court gave No. 981 administrative judgment which affirmed the judgment of first instance. It's said that the Supreme People's Court had a symposium to hear the related opinions on whether the protection scope of the claims of the patent involved is determinate in July 14, 2015.

proactively, but should make effort till the end to get all the claims granted.

Regarding specifically functional features in claims, a suggestion is that to record as much embodiments as possible in the specification. On the one hand, it helps to pass the examination under Article 26, paragraph 4 of *Chinese Patent law*, i.e., concerning if specification is used as a basis. On the other hand, wider protection scope can, according to recent juridical practice, be obtained through interpreting.<sup>34</sup> The description of the specific embodiments should therefore be clear and specific without vagueness.

With respect to computer program related inventions, it's suggested that the algorithm in specification be described specifically in a manner of progressive increasing of levels. Regarding a key step, a more specific algorithm corresponding to the subroutine or module implementing the step should be described. Furthermore, it's suggested that a concise description be given to operating environment of a computer program and process achieving the object of the invention by computer program in combination with hardware devices. Also, a brief description may be given by way of a list to other possible operating conditions and other forms of combination.

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<sup>34</sup> in the Civil Judgment of Gao Min Zhong Zi No. 723, the Beijing High People's Court believes that 'Due to the bag transfer element and the translational rotation element in the claim 3 of the patent involved are functional limitation features, so the protection scope of the claim 3 should be determined in accordance with the specific embodiments and their equivalents disclosed in the specification. For the translational rotation element, the two embodiments are four-bar mechanism and translational overturn mechanism, so the four-bar mechanism and translational overturn mechanism and their equivalents are all in the protection scope of the claim 3'.

## Practice and Tendency for the Principle on Allocating the Burden of Proof in Patent Infringement Cases in China

Generally, the principle adopted for allocating the burden of proof in a patent infringement action is that ‘the necessity of proof always lies with the person who lays charges’,<sup>35</sup> and it’s the patentee who bears the burden of proof on infringement fact, compensation amount, etc.. When there is no evidence or the evidences are not strong enough to support the patentee’s allegation, the patentee shall undertake unfavorable consequences, even the risk of losing the lawsuit.<sup>35</sup> But for a process for the manufacture of a new product, the Patent Law explicitly stipulates that the accused infringer shall furnish proof to show that the process he used is different from the patented process, that is, the burden of proof is reversed.<sup>36</sup>

However, in practice, it’s hard for the patentee to collect evidences in many cases, for example, the infringing product cannot be got by purchase, the infringing product or method, the financial book are actually controlled by the infringer, which brings a lot of trouble for the patentee to enforce his right. Recent years, with the increasing of protection for intellectual property in China, the People’s Court assigns the burden of proof reasonably for the parties based on the actual situations during the trial of the infringement cases, which lessens the burden of the patentee to some extent and plays an active role in protecting the legitimate rights of the patentee.

This article will lay out the practice and tendency of the Principle on how the burden of proof is allocated in Chinese patent infringement litigation in combination with the exemplary cases from the People’s Court.

### 1. Applicability of the Basic Principle ‘the necessity of proof always lies with the person who lays charges’

The basic principle for allocating the burden of proof is ‘the necessity of proof always lies with the person who lays charges’. With the example of a product patent infringement, generally, the patentee is responsible for producing evidences to prove that the infringing product comes from the accused infringer, the infringing product is within the protection scope of the patent right and also evidences on the compensation amount. The proof standard here follows the high probability criterion, i.e., the fact can be determined by the People’s Court if the evidence produced by even only one party

<sup>35</sup> *Law of Civil Procedure*, Arc.64, Para.1 stipulates: the parties have the responsibility to provide evidence for their claims.

<sup>36</sup> *Several Provisions of the Supreme People’s Court on Evidence in Civil Procedures*, Arc.2, Para. 2 stipulates: where any party cannot produce evidence or the evidences produced cannot support the facts on which the allegations are based, the party concerned that bears the burden of proof shall undertake unfavorable consequences.

can prove the fact alleged with high probability.

In an infringement dispute case for design patent, Tianjin Research Institute of Cosmetics Science and Technology Co., Ltd, Tianjin Pulanna Natural Plant Cosmetics Group Co., Ltd (Cosmetics Research Institute Co., for short) v. Tianjin Meisheng cosmetics Co., Ltd (Meisheng Co., for short),<sup>37</sup> the patentee the Cosmetics Research Institute Co. purchased the infringing packing box under notarization, which had the name, address, production license, sanitation license and the trademark 'Zhongxiangtang' of the Meisheng Co. thereon, and had the same inner packing of the packing box as the inner packing of the product of the 'Zhongxiangtang' pearl series advertised on its own website of Meisheng Co. Accordingly, the patentee claimed that the alleged infringing product was produced and sold by Meisheng Co. In the absence of the counter-evidence proving the accused packing box was not produced and sold by the Meisheng Co., the first instance, second instance and retrial courts decided that the infringement act of producing and selling the said infringing product by the Meisheng Co. was established.

But if the patentee cannot prove that the infringing product is from the accused infringer, he shall be responsible for his inability to produce evidences and undertake the risk of losing the lawsuit. In the dispute case for the utility model patent infringement, Beijing Jerrat Springs Damper Technology Research Center (Jerrat Center, for short) v. Beijing JZTH Buffer Technology Co., Ltd (JZTH Co., for short),<sup>38</sup> the patentee, Jerrat Center, obtained the infringing product from the third party and disassembled it without under notarization. Even though the patentee claimed that the infringing product was produced and sold by the JZTH Co., it couldn't be confirmed whether the product disassembled by the patentee was the one obtained from the third party due to no necessary preservation for the infringing product. Therefore, the courts of the first instance, second instance and the retrial all believed the existing evidences couldn't prove the infringing product was produced and sold by the JZTH Co., so the infringement act could not be established.

Certainly, in patent infringement lawsuits, the patentee bears the burden of proof. However, it doesn't request for a perfect evidence chain to be produced by the patentee, as long as there is a higher possibility to enable the judge to affirm the fact asserted by the patentee based on the existing evidences and in connection with the life experience and transaction practice.

<sup>37</sup> The *Law of Patent*, Arc. 61 stipulates: where any infringement dispute relates to a patent for invention for a process for the manufacture of a new product, any entity or individual manufacturing the identical product shall furnish proof to show that the process used in the manufacture of its of his product is different from the patented process.

<sup>38</sup> The Civil Judgement of Er Zhong Min Chu Zi No. 13450 (2009) by Beijing No.2 Intermediate Court, the Civil judgement of Gao Min Zhong Zi No. 1640 (2011) by Beijing High People's Court, and the Civil Ruling Paper of Min Shen Zi No. 856 (2013) by Supreme People's Court.

## 2. Reversion of the Burden of Proof

Except the basic principle for allocating the burden of proof, the provisions for reversion of the burden of proof, i.e., the accused infringer should bear the burden of proof to prove ways he used are different from those of the patent holder, is applied for the patent infringement case relating to a process of the manufacture of a new product. But, applying the provisions for reversion of the burden of proof requires two preconditions, i.e., the involved patent is a method patent and the product manufactured according to the patented method is a new product. The provisions for reversion of the burden of proof may be applied only if the preliminary evidences produced by the patentee meet the two preconditions. A patent is on a manufacturing method or not, generally, can be determined by reviewing the technical solution protected by the claims. It should be noted that, for other types of method patents, such as application method, processing method, etc, the provision for reversion of the burden of proof cannot apply in the infringement litigation. As for whether the product produced according to the patented method is a new product, People's Court usually thinks that the product is not a new product if the technical solution of the product or the method for producing the product is well known to the public in domestic and/or overseas before the filling date.<sup>39</sup> In practice, the patentee usually entrusts a professional science technology novelty searching institution to conduct search for the novelty of a product, and the searching report can be submitted to the court as the evidence proving the product involved is a new product. It should be noted that if a patent includes a product claim and a method claim for manufacturing the product, the patentee cannot take the decision of maintaining the product claim valid made by the Patent Reexamination Board as an evidence of proving the product is a new product, and then ask for applying the reversion of the burden of proof in patent infringement litigation on the method for manufacturing the product.

In the infringement dispute case for invention patent, Dalian Great Golden Horse Infrastructure Group Co., Ltd, (the Great Golden Horse Co., for short) v. Dalian Beixing Component Hosting Transport Co., Ltd, (the Beixing Co., for short),<sup>40</sup> the patent involved refers to a product claim which is 'the prefabricated tip of the pre-stressed square pile' and a method claim which is 'the processing method for the prefabricated tip of the pre-stressed square pile'. The patentee, the Great Golden Horse Co., claimed that the Beixing Co. used the manufacturing method claimed in the patent involved without authorization and infringed its patent. In this case, the Great Golden Horse Co. entrusted the Dalian research institution of science and technology information to search for sci-

39 The Civil Judgment of Yi Zhong Min Chu Zi No. 13772 (2009) by Beijing No.1 Intermediate Court, the Civil Judgment of Gao Min Zhong Zi No. 1867 (2010) by Beijing High People's Court, and Civil Ruling Paper of Min Shen Zi No. 1146 (2013) by Supreme People's Court.

40 *Interpretation by the Supreme People's Court on Some Issues Concerning the Application of Laws to the Trial of Patent Infringement Disputes*, Arc. 17 stipulates: where a product or a technical solution for manufacturing the product is known by the public in the country or abroad before the filing date of the patent, the People's Court shall determine that the product is not a new product as prescribed in Paragraph 1, Article 61 of the Patent Law.

tech novelty of the product ‘the prefabricated tip of the pre-stressed square pile’ and the search result showed that there was no relevant documents being retrieved disclosing the same structure as the involved patent. Because the Beixing Co. didn’t produce evidences to prove the product of the patent involved was not a ‘new’ product during the trial, in the condition that the alleged infringing product is the same with that of the patent, the court held that “the Beixing Co shall submit the evidences which can prove the manufacturing method of the alleged infringing product is different from the method of the patent”. However, the Beixing Co. didn’t submit evidences to prove that its method was different from the manufacturing method of the patent in the time period for producing evidences, so it should undertake the unfavorable consequences. In the end, the court decided that the alleged infringing method for the manufacture of the product was within the protection scope of the patent involved, so the infringement was established.

### **3. New Tendency for Allocating the Burden of Proof**

According to the existing law and regulations, only the patent infringement lawsuits referring to the manufacturing method of a new product can apply the provision for reversion of the burden of proof. But in practice, the patentees face lots of difficulties when collecting evidences in many special types of infringement lawsuits, and applying the principle of ‘the necessity of proof always lies with the person who lays charges’ by rote, will result in that the rights of the patentee cannot be protected effectively, which goes against the original intention of protecting the invention and creation by the Patent Law. Therefore, in the trials of several special types of patent infringement lawsuits, the People’s Court assigned the burden of proof reasonably between the right holders and the accused infringer according to the details of the case, which can be referenced by the patentee for exercising his patent right. The cases will be discussed below.

#### **3.1 Large scale equipment type of products**

If exercising the patent right based on the product claim, generally, the patentee can collect evidences by purchasing the infringing product in the market. But for the large scale equipment, there are several problems as below when collecting the evidence: first, due to the high price of the large scale equipment, millions usually, purchasing the suspected infringing product brings severe economic pressure to the patentee; second, some of large scale equipments are customized made, so it’s hard to purchase it in the market via regular channels; third, the large scale equipment is usually controlled directly by the accused infringer, so the patentee can hardly get to it. Due to the existing problems described above, the patentees of such products can hardly collect the infringement evidences with the regular measures and then it’s hard for them to protect their own rights.

How to solve these problems? In an infringement dispute case for invention patent, the Manfred A. A. Lupke (the Lupke, for short) v. Zhongyun Tech Co. Ltd (Zhongyun Co., for short) and Tianjin Shengxiang Plastic Pipe Co. Ltd (Shengxiang Co., for short), the patentee owns an invention patent on traveling mode, and he sued the Zhongyun Co. for infringing his patent on the traveling mode which was inside the corrugated pipe equipment used by Shengxiang Co. and manufactured and sold by Zhongyun Co. However, the traveling mode couldn't be obtained without disassembling the corrugated pipe equipment, and the corrugated pipe equipment using the traveling mode is a large-scale mechanical equipment used for manufacturing a corrugated pipe, so it's hard for the patentee to get the accused infringing product in the market via regular channels. In order to prove that the traveling mode used by the accused infringer has infringed his patent, the patentee adopted many ways to provide evidences, e.g., applying to the court for evidence preservation, and engaging the technical expert for expert opinion, and the like, he also applied to the People's Court for technical appraisal on the accused infringing product. But the manufacturer Zhongyun Co., the user Shengxiang Co. refused to provide the equipment drawings and refused the request for disassembling the equipment, so the patentee couldn't learn some technical features of the accused infringing product, which led to the infringement comparison of these technical features with those the claims of the patent involved impossible. Because this case relates to the product claim, so if strictly sticking to the basic principle of burden of proof, that is, 'the necessity of proof always lies with the person who lays charges', the patentee failed to provide sufficient evidences to support his allegation. But according to the provision of the *Regulations on Civil Action Evidence issued by Supreme People's Court*, Article.75,<sup>41</sup> the first instance and the second instance courts both believed that the alleged infringing product has infringed the patent involved based on the existing evidences, so the allegation of Lupke was tenable. The Zhongyun Co. was dissatisfied with the decision of the second instance court and applied for retrial to the Supreme People's Court. Through the trial, the Supreme People's Court believed that 'the accused infringing equipment in this case is of high price and large size, and is actually controlled by the Shengxiang Co., so there're lots of actual difficulties for Lupke to collect evidences by himself. Lupke provided the evidence materials of the relevant notarized materials, the pictures of evidence preservation by the court, and the comparison analysis opinion from technical experts, etc, which almost cover all the legitimate ways of evidence collection that can be adopted by Lupke, so he has already fulfilled his responsibility. The two accused infringers, Zhongyun Co. and the Shengxiang Co. should undertake the unfavorable consequences in the case that the patentee already provided the evidences as possible as he could and the evidences could preliminarily prove that the infringement fact is established; the two accused infringers the Zhongyun Co. and the Shengxiang Co., refused to

<sup>41</sup> The Civil Judgment of Da Min Si Chu Zi No. 23 (2011) by Liaoning Province Dalian Intimidate People's Court, and this case is selected into the 50 Typical Intellectual Property Cases by China Court 2013.

provide the drawings of the accused infringing equipment and refused to cooperate on the identification without any justified reasons which made the identification couldn't be done ; and the accused infringers did not provide evidence to prove that the technical solution of the accused infringing equipment is different from the patent involved and doesn't fall into the protection scope of the patent involved. So according to *Regulations on Civil Action Evidence issued by Supreme People's Court*, Article 75, it can be inferred that Lupke's claim is tenable. The Supreme People's Court rejected the request of the Zhongyun Co. for retrial eventually.

### 3.2 Manufacturing method for existing product

In the infringement actions referring to a manufacturing method for product, it's hard for people to learn the specific content of the manufacturing method adopted by the accused infringer, because the manufacturing method is generally used within the enterprise of the accused infringer. We know that the regulation of reversion of the burden of proof can be applied in the infringement litigation on the patent involving the manufacturing method of a new product. But it's a bit harder to win the infringement action by collecting the precise evidences for most of the manufacturing methods for the existing products.

According to this situation, the *Opinions on Trial Functions into Full Play the Role of Intellectual Property to promote development and prosperity of socialist culture and promote the coordinated development of economic autonomy Issues*<sup>42</sup> drafted by the Supreme People's Court indicates that 'in the situation that the product manufactured with the method of a patent is not new product; the patentee can prove that the accused infringer manufactures the same product, but cannot prove with reasonable efforts that the accused infringer uses the method of the patent, according the specific conditions and combining with the existing facts and daily experiences, if it can be determined that it is highly possible the accused infringing product is manufactured with the method of the patent, the patentee shall no longer be requested for further evidences, but the accused infringer shall submit the evidences to prove that its manufacturing method is different from the method of the patent in accordance with the relevant regulations of judicial interpretation on civil litigation evidence.'

In an infringement dispute case for invention patent right, Yibin Changyi Pulp Co., Ltd (Changyi Co., for short) v. Weifang Henglian Paper Pulp Co., Ltd (Henglian Co., for short),<sup>43</sup> the patentee, Changyi Co., who holds the invention patent of 'manufacturing method for modifying wood pup', sued the Henglian Ltd for infringing its patent with the manufacturing method of the product of the viscose wood pulp. Because the viscose

<sup>42</sup> *Opinions on Trial Functions into Full Play the Role of Intellectual Property to promote development and prosperity of socialist culture and promote the coordinated development of economic autonomy Issues*<sup>9</sup> drafted by the Supreme People's Court, No.18 (2011).

<sup>43</sup> The Civil Ruling Paper of Min Shen Zi No.309 (2013) by Supreme People's Court.



wood pulp product is not a new product, so the dispute focused on how to allocate the burden of proof for parties. In the first instance, the Changyi Co., provided the evidences to prove the viscose wood pulp product manufactured by the Henglian Co. was the same as the product manufactured with the method of the patent, and applied for evidence preservation for the method producing the viscose wood pulp product which could not be done for two times due to the noncompliance of the Henglian Co. Therefore, in comprehensive consideration of the evidences provided by parties and the distance to the evidence, etc., the first instance court assigned the burden of proof about the manufacturing method of the product involved to the Hengliang Co.. But the Henglian Co. refused to provide the evidence on the manufacturing method of the product involved without reasonable reasons, so the first instance court decided that the manufacturing method of the viscose wood pulp product of the accused infringer fell into the protection scope of the patent involved, and the accused infringer infringed the patent of the Changyi Co. The Henglian Co. was dissatisfied with the decision of the first instance and appealed to the second instance court, and the second instance court rejected the appeal based on the same reason. Then the Henglian Co. applied for retrial to the Supreme People's Court, which decided that 'there is no specific provision in relevant laws and judicial interpretations on the allocation of the burden of proof in the infringement dispute for invention patent on the method for the manufacture of the existing product. Generally, the usage of manufacturing method patent is shown in the process of manufacturing which refers to the process steps and technological parameters, but the specific proceeding and the data can be learned only in the manufacturing site or by checking the production record. Usually, it's hard for the patentee to access the manufacturing site and production record to get the complete evidences on the manufacturing method. So in the situation that the evidences on the manufacturing method of the product is fully controlled by the accused infringer, if simply applying the basic principle of 'the necessity of proof always lies with the person who lays charges', which means the patentee should produce the evidence to show the manufacturing method for the same product used by the accused infringer, without analyzing the possibility of establishing patent infringement and the ability of the parties to produce evidences, it will go against with the equity principle and is not good for finding out the facts. In this case, the Changyi Co. has fulfilled his responsibility to prove the product involved was the same as the product manufactured with the method of the patent involved, and tried its best to prove the manufacturing method fell into the protection scope of the method patent involved by providing the video materials of the manufacturing site and applying for evidence preservation to the court under the condition that the manufacturing method of the patent involved is fully controlled by the Henglian Co. Even though the Henglian Co. denies ever producing and selling the product involved and claims the involved product is viscose cotton pulp different from the product manufactured with the method of

the patent, there is no powerful evidence to rebut. Meanwhile, The Henglian Co. didn't cooperate with the court for the evidence preservation on the manufacturing method it controlled, which resulted in that the court could not obtain the evidence of on the alleged infringing method of manufacture. According to the said facts and daily experiences, it can be inferred that the Henglian Co. has a high possibility of infringement, so the burden of proof for the manufacturing method of the product involved could be assigned to the Henglian Co.. In the case that the Henglian Co. doesn't provide effective evidences to prove the manufacturing method he used is different from the method of the patent, the Henglian Co. should undertake the unfavorable consequences. The Supreme People's Court rejected the request of the Henglian Co. eventually.

### 3.3 Features determined in operation state

As to the product claim, it's generally limited by structure features, but in some special cases, it can be limited by function features, effect features, method features, physical and chemical features or using state features, and the like. When comparing these non-structural technical features of the infringing product with those of the patent, these features can't be reflected by the structure of the product, so generally it's hard for the patentee to determine if the accused infringing product falls into the protection scope of the patent right before filing a lawsuit.

In an infringement dispute case for invention patent, Changshu Textile Machinery Co., Ltd (Changshu Co., for short) v. the Staubli Faverges Co., (Faverges Co., for short),<sup>44</sup> the Faverges Co. holds the invention patent entitled 'rotating dobby and the loop with such a dobby', and sued the Changshu Co. to the Jiangsu Province Suzhou Intermediate People's Court for the Changfang ED607 electronic dobby produced and sold by the Changshu Co. infringing its patent. The claim 1 of the patent involved includes a technical feature limiting the working state of the actuator, which is 'when said levers are engaged with said wedging surfaces, one of said lever is out of range of an actuator belong to said reading device'. In the trial of first instance, the patentee manually demonstrated the working state of the accused infringing product, and the Changshu Co. argued that the demonstration didn't show the above technical feature. The first instance court believed that for the technical feature limiting the working state, the judging of the working state of the actuator of the reader device of the accused infringing product should be done in combination with the technical solution of the alleged infringing product and the technical purpose of said technical solution. Upon verifying in court, the alleged infringing product had the same function with the function to be achieved by the patent involved and its structure was the same with the structure of the patent involved too. The accused infringer denied on that but did not provide reasonable interpretation. Therefore, it could be inferred that the alleged infringing product had the said technical feature in

<sup>44</sup> The Civil Ruling Paper of Su Zhi Min Zhong Zi No.0290 (2012) by Jiangsu Province Supreme People's Court.

actual operation. The first instance court held that the alleged infringing product fell into the protection scope of the claims of the patent involved and decided the infringement was established. The Changshu Co. was dissatisfied with the decision of first instance and appealed to the Jiangsu Province Supreme People's Court (second instance court), which held that even though the working state demonstrated by of the manual operation in the first instance trial might be different from the actual working state, which was mainly in the operating speed and the load, the moving trails and the relative positions of their elements were the same, the technical features to be compared were exactly indicated by the relative positions among the elements. So it was acceptable to compare the technical features of the alleged infringing product with those of the patent involved by verifying the technical features of the alleged infringing product by way of manual operation. In addition, there were one-to-one correspondences between the elements of the alleged infringing product and the patent involved, so it could be inferred that they were basically the same in mechanical structure, function, principle, etc.. In order to further ascertain the facts, the drawings, technical materials corresponding to the elements of the alleged infringing product could be analyzed to determine if the alleged infringing product had the said technical feature. In consideration that the relevant drawings of the alleged infringing product were controlled by the Changshu Co. who could collect the relevant evidence easily without increasing the litigation cost, so the court decided to assign the burden of proof on the design, assembling, and processing drawings of the alleged infringing product to the Changshu Co. During the time period of producing evidences, the Changshu Co. didn't submit the technical materials about the said relevant drawings and the operating range of the reading device, so it should undertake the unfavorable consequences. The second instance court decided that the alleged infringing product comprised all technical features of the patent, including the technical feature('when said levers are engaged with said wedging surfaces, one of said lever is out of range of an actuator belong to said reading device'),and thus infringed the patent.

#### **4. Conclusion**

It can be learned from the typical cases applying the provision on allocating the burden of proof, the People's Court assigns the burden of proof reasonably between the patentee and the accused infringer based on the actual conditions during the trial of the patent infringement cases, in addition to the typical cases applying the provision on reversion of the burden of proof. But anyway, the patentee should try his best to take the responsibility of the burden of proof so as to make it possible for the court to shift the burden of proof to the accused infringer. Under the conditions that the patentees are not able to get the alleged infringing product or access the alleged infringing method, they can at least take the following measures to enable the court to believe a high pos-

sibility of infringement, the measures including but not limited, applying for evidence preservation of the prosecuted product or method to the court, engaging the technical expert for expert opinion on the technical questions, and collecting relevant materials to make reasonable explanation, etc..

Author: Bing WU

# **Typical Case Analysis**

## Application of the Doctrine of Equivalents

Beijing Jerrat Springs Damper Technology Research Center v. Beijing JZTH Buffer Technology Co., Ltd. et al. (Civil Ruling (2013) Min Shen Zi No. 1146 by the Supreme People's Court on November 18, 2013)

**In determining whether a patent infringement is established based on the doctrine of equivalents (“DOE”), attention should be paid to which feature in a claim is compared against which feature of an accused infringing product. Only those features of a product that are not identical to their counterparts in the claim should be taken into consideration for the purpose of DOE. Determination under DOE is different from the determination on inventiveness during patent prosecution – the requirement of “three substantially, one ordinarily” should be met.**

The patentee in this case has a utility model patent entitled “fast-advancing and slow-returning damper of viscoelastic fluid type,” which was filed on December 28, 2001 and issued on December 18, 2002. Independent claim 1 of the patent reads: “a fast-advancing and slow-returning damper of viscoelastic fluid type, mainly comprised of an outer housing (1), an inner housing (2), a piston (3), a viscoelastic fluid (4) and a sealing member (5), characterized in: the viscoelastic fluid (4) being filled in an inner chamber (22) of the inner housing (2), the piston (3) and a piston pole (31) being coupled and put into the inner chamber (22) of the inner housing (2), a cover (21) being coupled to the inner housing (2) to form an integral body, one-way limiting devices (32) being circumferentially provided on the piston (3), the one-way limiting devices (32) being opened during a compression phase and closed during a returning phase, and a clearance being provided between the piston (3) and the inner chamber (22).” The patentee filed a lawsuit on September 11, 2009 alleging that one of the defendants<sup>®</sup> made and sold a product that infringed the patent right.

The accused infringing product is a damper device that appears to have a similar structure. As a primary difference from claim 1, the accused infringing product has one-way valves provided circumferentially on the piston which, however, are configured in an opposite manner – the valves are closed during the compression phase while opened during the returning phase. Both the first instance and second instance courts decided that the product did not infringe the patentee's right. The patentee then filed a request for retrial before the Supreme People's Court alleging that the manner of providing the one-way valves in the product is equivalent, though not identical, to the manner of providing the one-way limiting devices in claim 1, because both manners of configuration for

the one-way valves would be easily conceivable for a person ordinarily skilled in the art.

It is found through the retrial that the description of the patent explains: “an object of the utility model is to provide a fast-advancing and slow-returning damper of viscoelastic fluid type, which can rapidly damp, when an impact loading is applied, to absorb most of the impact energies for protection of the apparatus, and which then slowly and stably returns to relieve snapback for protection of the apparatus and for a lowered noise,” “the utility model utilizes the following technical solution to achieve the above object: ... one-way limiting devices (32) are circumferentially provided on the piston (3), the one-way limiting devices (32) being opened during a compression phase and closed during a returning phase,” “owing to the technical solution above, the utility model has the following advantages and effects: ... 2. the utility mode can withstand a large impact loading: the inner housing advances fast while returns slowly, returning is achieved automatically after the external loading is released without the need to provide a returning mechanism, the apparatus is effectively protected and noise is lowered.”

The Supreme People’s Court holds: “according to the record in the description of the patent, the object of the patent at issue is to provide a fast-advancing and slow-returning damper of viscoelastic fluid type. In order to achieve this object, the patent at issue applies such a manner of configuration on the one-way limiting devices that they are opened during the compression phase and closed during the returning phase in order to achieve the effect that the inner housing will advance fast but return slowly. In this regard, claim 1 of the patent at issue provides an express limitation on the manner of configuration of the one-way limiting devices. The accused infringing product applies however a manner of configuration on the one-way limiting devices that are closed during the compression phase and opened during the returning phase, and achieves an effect that the inner housing will advance slowly but return fast. Therefore, the manner of configuration of the one-way limiting devices in the accused infringing product is neither identical nor equivalent to the manner of configuration defined in claim 1 of the patent at issue.” Accordingly, the Supreme People’s Court rejects the request for a retrial.

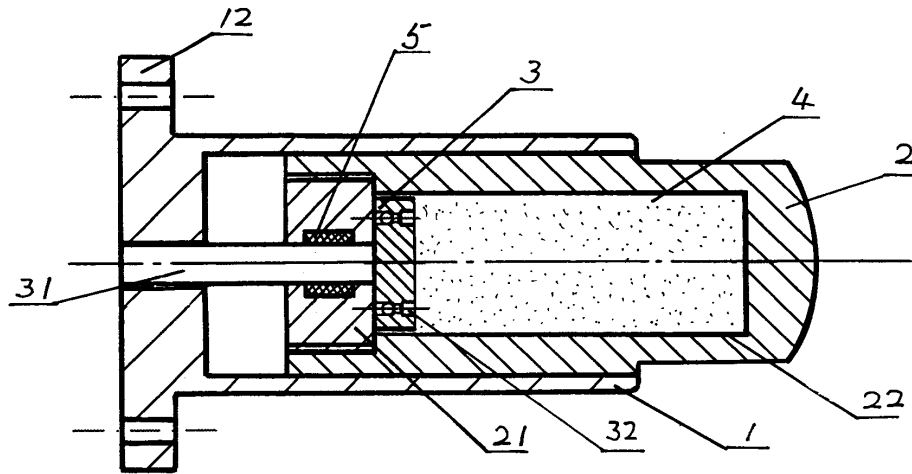


Fig. 1 of the patent at issue

### Interpretation and Analysis

If an accused infringing action (product or method) includes all the technical features stated in a claim, then it is determined to fall within the extent of the claim. Based on the aforesaid, nevertheless, the DOE can extend, to some degree, the degree of protection expressly described in a claim<sup>2</sup>. Article 17 of the *Several Provisions of the Supreme People's Court on Issues Relating to Application of Law to Adjudication of Cases of Patent Disputes* [Judicial Interpretation [2001] No. 21]<sup>45</sup> provides that, "the first paragraph 'the extent of protection of the right for invention or utility model shall be determined by the terms of the claims. Article 56 of the Chinese Patent Law provides that the appended drawings may be used to interpret the claims' of means that the extent of protection of the patent right should be determined by the necessary technical features expressly stated in the claims, including the extent as determined by the features equivalent to the necessary technical features. The equivalent features refer to the features which use substantially the same means, perform substantially the same function, and produce substantially the same effect as the stated technical features, which can be contemplated by a person ordinarily skilled in the art without inventive labor." Therefore, even if an accused infringing product or method does not include some technical features in a claim (i.e. no "literal infringement" is established), the product or method is still regarded as falling within the extent of protection of the claim provided that it includes a feature equivalent to that technical feature.

Acting as one of the attorneys represented the defendant in this case, the author would

<sup>45</sup> This case actually involves co-defendants. Another defendant is not related to the subject of this article and his actions will not be discussed.



like to point out the following two points in determination of a patent infringement under the DOE.

First, must ascertain as to which feature in a claim is compared against which feature of an accused infringing product. Only those features of the product that are not identical to its counterparts in the claim should be taken into consideration for the purpose of the DOE. It should be especially avoided to compare the accused infringing technical solution as a whole with the whole technical solution of the claim. For this case, the patentee alleged that both the patent and the accused infringing product use the means of providing one-way valves, perform the function of speed adjustment of the viscoelastic fluid, and produce the effect of absorption of the impact energies, and its interchanging are obvious to a person ordinarily skilled in the art. In fact, however, the feature of the accused infringing product that is different from the corresponding technical feature in the claim is not the “one-way valves,” but their manner of configuration. The alleged function of “speed adjustment” is introduced by the “one-way passing” property of the valves themselves, and the alleged effect of “absorption of the impact energies” is achieved by the property of material from the viscoelastic fluid. In other words, such function and effect are not brought by the exact feature to be compared, i.e. by the manner of configuration of the one-way valves. In determining whether equivalent infringement is established, comparison should be made between the technical feature of “the one-way limiting devices being opened during a compression phase and closed during a returning phase” stated in the claim and the corresponding feature of “the one-way valves being closed during a compression phase and opened during a returning phase” in the accused infringing product, same as what the Supreme People’s Court has done.

Second, determination under the DOE is different from the determination on inventiveness during patent prosecution – the requirement of the “three substantially, one ordinarily” should be met. For this case, if merely the manner of configuration of the one-way limiting devices is considered, a person ordinarily skilled in the art might be able to conceive of the manner of configuration in the accused infringing product when this person is aware of the manner of configuration in the patent at issue, without an inventive labor – if one-way valves are to be provided circumferentially on the piston, the two manners of configurations would be the only available options. After the publication of the patent at issue, if an invention patent application were filed directed to the technical solution of the accused infringing product, it could be questioned whether the application is inventive. However, as to determination on infringement, the functions performed and the effects produced are not “substantially the same” at all for the two manners of configurations of the one-way valves – the manner of configuration of the one-way limiting devices in the patent at issue performs the function of allowing a wider flow path of the viscoelastic fluid in the compression phase than in the returning

phase, and produces the effect of fast-advancing and slow-returning of the inner housing, while the manner of configuration of the one-way valves in the accused infringing product performs the function of allowing a wider flow path of the viscoelastic fluid in the returning phase than in the compression phase, and produces the effect of slow-advancing and fast-returning of the inner housing. Therefore the corresponding feature in the accused infringing product is not an “equivalent feature” under the judicial interpretation above. Likewise, in another invention patent infringement lawsuit<sup>46</sup> the Supreme People’s Court found that the accused infringing method included steps No. 6, 7, 8 and 10 which perform the same actions as steps No. 7, 6, 11 and 10 of the claimed method respectively; the Supreme People’s Court decided that steps No. 6 and 7 in the accused infringing method were equivalent to steps No. 7 and 6 in the claimed method, while steps No. 8 and 10 in the accused infringing method were not equivalent to steps No. 11 and 10 in the claimed method – the underlying reason is that interchanging steps No. 10 and 11 produces a technical effect that is substantially different, whereas interchanging steps No. 6 and 7 does not.

With the above two points in mind, one should be able to reasonably draw a conclusion for this case that no infringement under the DOE is established.

The *Opinions of the Supreme People’s Court on Issues concerning Maximizing the Role of Intellectual Property Right Trials in Boosting the Great Development and Great Prosperity of Socialist Culture and Promoting the Independent and Coordinated Development of Economy* requires that “having substantially the same means, function and effect, and being obvious to a person ordinarily skilled in the art should be the prerequisite to an infringement under the DOE; this should be avoided to apply to an infringement under the DOE in a simple and mechanical manner or to inappropriately extend its applicability.” The ruling of the Supreme People’s Court on the case discussed fully reflects these prerequisites, and the case is listed by the Supreme People’s Court as one of the 2013 Top 50 typical intellectual property cases in China courts.

Moreover, it is expressly provided in the *Guidelines for Patent Infringement Determination*<sup>47</sup> issued by the Beijing High People’s Court in 2013 that the application of the DOE is restrained, for example, by the dedication rule, rule of estoppels, etc. In practice, Jiangsu High People’s Court held in *Hunan Corun New Energy Co., Ltd. v. Alantum Advanced Technology Materials (Dalian) Co., Ltd.*<sup>48</sup> that for a numerical range with clear endpoints in a claim, application of the DOE should be strictly controlled, especially in case where a technical feature is significantly different from the range defined in the claim. It can be understood that the courts may begin assuming a prudent attitude to

<sup>46</sup> Xintian Yin, *Introduction to the Patent Law of the People’s Republic of China*, 598 Intellectual Property Publishing House Co., Ltd. 2011.

<sup>47</sup> Cf. Articles 56 and 57.

<sup>48</sup> Civil Judgment (2011) Su Zhi Min Zai Zhong No. 0001 by Jiangsu High People’s Court

situations where the DOE should be applied. If a patent infringement is to be established under the DOE, one should make careful technical analysis according to the requirement of the “three substantially, one ordinarily.”

Author: Xiaobin ZONG

## Application of the Doctrine of Equivalents and the Dedication Rule in Patent Infringement Case for Method Claims

Shundi CHEN v. Lexueer Co., Ltd. (Civil Judgment (2013) Min Ti Zi No. 225 by the Supreme People's Court on December 25, 2013)

**The extent of protection for an invention patent includes not only the extent determined by the technical features literally recited in the claims, but also the extent determined by the equivalent technical features. For a method claim including a plurality of steps, in order to determine whether the order of the steps acts to define the extent of protection for the claim, and to determine whether the doctrine of equivalents should be applied if no literal infringement is established for the steps were performed in a different order, one should determine whether such steps have to be performed in a particular order, and whether such a different order will produce a substantive difference in terms of technical function or technical effects. Besides, the dedication rule applies also to infringement of a method claim: a technical solution which is recited in the description of the patent but not reflected in the claims cannot be included in the extent of protection for the patent.**

Shundi CHEN has an invention patent entitled "Manufacturing method of a plastic-cloth hot-water bag". Claim 1 of the patent reads:

1. A manufacturing method of a plastic-cloth hot-water bag, the plastic-cloth hot-water bag being composed of a bag body, a bag mouth, and a bag plug, the bag body having an interior layer (4), an exterior layer (3), and a thermal insulating layer (5), the bag body having an adhered edge (6), the bag plug being a threaded plug seat (8) and a threaded plug lid (9), the threaded plug seat (8) having a composite layer (8') at an exterior wall, the threaded plug lid (9) having a sealed gasket (10), the threaded plug seat (8) in the bag plug (2) being made of a polypropylene material, the composite layer (8') being made of a polyvinyl chloride material, the sealed gasket (10) being made of a silicone material, the method comprising:

**Step 1:** first, providing material for the interior layer, the exterior layer and the thermal insulating layer;

**Step 2:** stacking the interior layer, the thermal insulating layer and the exterior layer in order to form a combined layer;

**Step 3:** folding the combined layer, and applying a high-frequency heat-sealing machine to perform high-frequency heat adhesion to edges of the two combined layers in accordance with a shape of the hot-water bag;

**Step 4:** cutting to separate hot-water bags that were subjected to the high-frequency heat adhesion;

**Step 5:** forming the threaded plug seat (8) from a polypropylene material by injection molding, placing the threaded plug seat (8) as an insert in a model, and forming the composite layer (8') exterior to the threaded plug seat (8) from a polyvinyl chloride material by a second injection molding;

**Step 6:** placing the threaded plug seat having the composite layer into the bag mouth to contact the interior layer, and applying the high-frequency heat-sealing machine to perform heat adhesion to the bag mouth and the composite layer of the threaded plug seat;

**Step 7:** trimming the bag body of the hot-water bag;

**Step 8:** forming the threaded plug lid (9) from a plastic material by injection molding;

**Step 9:** forming the sealed gasket (10) from a silicone material by injection molding;

**Step 10:** after assembling the sealed gasket (10) and the threaded plug lid (9) with each other, screwing them into the threaded plug seat (8);

**Step 11:** performing a pressure test by filling compressed air into the hot-water bag; and

**Step 12:** packaging.

Lexueer Co., Ltd. manufactured and sold hot-water bags with the above described structure. It was determined that in order to manufacture this kind of hot-water bag, the manufacturing method will included all the steps in claim 1 of the above patent. The alleged infringer held that Steps 6, 7, 8 and 10 in the alleged infringing method are respectively same to Steps 7, 6, 11 and 10 in claim 1 of the patent, but they are in a different order, and therefore the method does not fall within the extent of protection of the patent.

Both the first instance and second instance courts held that though Steps 6, 7 and Steps 8, 10 in the alleged infringing method involve different order than Steps 6, 7 and Steps 10, 11 in claim 1 of the patent, there is no substantial difference in the technical fea-

tures and technical effects, and the alleged infringing method includes all the essential technical features of the patent.

The alleged infringer filed a request for retrial to the Supreme People's Court and held that Steps 6, 7 in the alleged infringing method were in a reversed order as compared with the corresponding steps in claim 1 of the patent, and so did Steps 10, 11; such a change in the order of the steps brought a different technical effect. What was claimed in the patent was a manufacturing method of a product, both the steps themselves and the order of the steps in the method claim should act to define the extent of protection of the patent right. Further, the description of the patent described a reversed order of Steps 10 and 11; based on the dedication rule, this order of steps described in the description should not be included in the extent of protection of the patent. Therefore, the alleged infringing method with the changed order of steps did not fall within the extent of protection of the patent.

The Supreme People's Court held that for Steps 6, 7 in claim 1, performing the two steps were not necessarily in that order, and the reversed order of the two steps did not produce a substantive difference in terms of technical function and technical effect. Thus, the changed steps in the alleged infringing method and Steps 6, 7 in claim 1 of the patent were equivalent technical features. For Steps 10, 11 in claim 1, however, exchanging the two steps did produce such technical effects as reduced operations, saved time, and an improved efficiency. Therefore the difference produced by exchanging the two steps was substantive in terms of technical effect, and the exchanged steps were not equivalent to Steps 10, 11 in claim 1 of the patent. The description of the patent explicitly described in page 3 that Steps 10, 11 can be exchanged; however the exchanged steps were not reflected in the claims. According to the dedication rule, the exchanged steps could not be brought into the extent of protection of the patents. Therefore, the alleged infringing method was neither same nor equivalent to the method of the patent, and did not fall within the extent of protection of the patent.

### **Interpretation and Analysis**

This case involves application of the doctrine of equivalents and the dedication rule in a patent infringement case, especially in case of a change of order being made to steps in a method claim.

In order to make up for the disadvantages in determining the boundary of a patent right totally with the literal meaning of a claim, many countries apply the doctrine of equivalents to provide a proper expansion to the extent of protection of a claim determined by its literal meaning. The actual extent of protection of a claim includes not only that covered by its literal meaning, but also the extent expanded by applying the doctrine

of equivalents. In China, the doctrine of equivalents also applies in patent infringement cases.

According to Article 17, Paragraph 2 of *Several Provisions of the Supreme People's Court on Issues Relating to Application of Law to Adjudication of Cases of Patent Disputes*, "the extent of protection of a patent right should be determined by all the technical features stated in the claim, including the extent as determined by the features equivalent to the technical features. The equivalent features refer to the features which use substantially the same means, perform substantially the same function and produce substantially the same effect as the stated technical features and which can be contemplated by a person ordinarily skilled in the art without an inventive effort".

Besides, *Guidelines for Patent Infringement Determination* issued by the Beijing Higher People's Court in 2013 provides in Article 49: replacement between equivalent features should be replacement between specific and corresponding features, rather than replacement between complete technical solutions.

According to the above provisions, technical feature is the unit for determining equivalent objects. This is easy to understand for an apparatus claim. However, as to a method claim, technical features are the steps of a method claim, and can the order of the steps be regarded as a "technical feature" for the application of the doctrine of equivalents? The answer is yes. From this case, it can be seen that the Supreme People's Court makes it clear that in infringement determination for a method claim, the doctrine of equivalents applies also to the order of the steps.

In the present case, the accused infringer held that the exchange to Steps 6, 7 in claim 1 of the patent could save the space that would be occupied by the products to be processed in subsequent procedures, improve the manufacturing speed and accuracy, and enable the products to enter a test procedure directly. However, the retrial court held that performing the two steps were not necessarily in that order, whichever of trimming and heat adhesion being first performed had no influence on the whole technical solution, and exchange of the two steps did not produce a substantive difference in terms of technical function and technical effect. The exchanged steps and the steps not exchanged thus were equivalent technical features. For the exchange to Steps 10, 11 in claim 1 of the patent, the court held that as compared with the alleged infringing method in which a pressure test was performed first and the threaded plug lid was then assembled, Steps 10 and 11 in claim 1 of the patent in fact required more operations in the pressure test, resulting in increased operation time and a lower efficiency. Therefore, exchanging Steps 10 and 11 did produce the technical effects of reduced operations, saved time, and an improved efficiency, as the accused infringer submitted. Therefore the difference produced by exchanging the two steps was substantive in

terms of technical effect, and the exchanged steps were not equivalent to Steps 10, 11 in claim 1 of the patent.

As the judgment of the case indicates, under such a situation that the order of steps in a method claim is changed and no literal infringement is established as a result, the criterion on whether the doctrine of equivalents can be applied is whether these steps must be performed in a certain order and whether the changing of the order will bring a substantive difference in terms of technical function or technical effect.

The case also involves the application of the dedication rule. In a patent infringement case, if the technical solution of the alleged infringing product is disclosed in the description of the patent but does not fall within the literal extent of protection of the claim, then the patentee cannot rely on infringement under the doctrine of equivalents. The technical solution that the patentee disclosed in description but did not claim in the claims is deemed as being dedicated to public. This is so-called dedication rule.

According to Article 5 of *Several Provisions of the Supreme People's Court on Issues Relating to Application of Law to Adjudication of Cases of Patent Disputes*, "for the technical solution only described in the description or depicted in the drawings but not described in the claims, where the patentee brings the technical solution into the extent of protection of the patent right in a patent infringement case, the people's court should not support".

This judicial interpretation takes the following situation into consideration in setting the dedication rule: in order to obtain a patent right more easily, a patent applicant may sometimes uses a relatively specific feature in claims, and gives it an expanded interpretation in the description and drawings. In infringement cases, the patentee asserts that the expanded portion in the description is an equivalent feature, and thereby unduly expands the extent of protection of the patent right. The patent system should not only protect the interest of patentees, but also maintain the publicity function of claims. Therefore, the dedication rule helps in protecting the publicity of claims, and balancing the interest between patentees and public.

In this case, the description described that Steps 10, 11 could be exchanged. Does the accused infringer's action of exchanging the steps fall within the extent of protection of the patent?

According to the provision above, if, by reading the description, a person skilled in the art can understand that the technical solution disclosed but not claimed is particularized for including an alternative to a technical feature in the claims, then such a technical solution is deemed as a donation to the public. The description of the patent explicitly described that Steps 10, 11 can be exchanged, while the exchanged steps are not



reflected in the claims. Therefore the exchanged steps cannot be covered by the patent.

This case provides a guide for drafting application documents on method patents. In order to avoid getting into an unfavorable situation when enforcing the right, attention should be paid to the following aspects.

(1) Unless necessary, the order of steps should not be defined in claims, e.g. with such words as “first”, “first step”, etc., and words implying that some order would exist for the steps should also be avoided.

(2) If a change to the order of steps does bring a technical effect, such change should be not only mentioned in description, but also brought into the literal extent of protection of the claims.

Author: Jun LIU

## **Determination of New Evidence and Allocation of Burden of Proof in Litigation over Infringement of Patent Process for Making Non-new Products**

Yibin Changyi Pulp Dregs Co., Ltd. v. Weifang Henglian Pulp Paper Co., Ltd. (Civil Ruling (2013) Min Shen Zi No. 309 by the Supreme People's Court on July 17, 2013)

**New evidence should be determined according to Article 10 of *Interpretation of the Supreme People's Court on Several Issues Concerning Application of the Trial Supervision Procedure of the Civil Procedure Law of the People's Republic of China*. Regarding allocation of burden of proof in litigation over infringement of patent process for making non-new products, it may be determined according to the principle of fairness and that of honesty and good faith, taking into consideration such factors as the ability to provide evidence. If the patentee can prove that the product in question is the same as that made by the patent process, and that it has made reasonable effort to prove that the manufacturing process of the product in question falls within the scope of protection of the patent process, using this as a basis and considering the known facts and common experience, it can be presumed that it is very likely that the alleged infringer has used the same process, therefore imposing on the alleged infringer the burden of proof to show that its manufacturing process is different from the patent process.**

Yibin Changyi Pulp Dregs Co., Ltd. (hereinafter "Changyi") is the owner of the invention patent No. CN200610021387.4, titled "Wood Pulp Dregs Denaturation Manufacturing Process". The patent relates to a method of manufacturing wood pulp dregs, where manufacturing steps and process parameters involved are described. Changyi bought, from Chengdu Xinruixin Plastic Co., Ltd. (hereinafter "Xinruixin") and for evidence use, viscose wood pulp dregs product made by Weifang Henglian Pulp Paper Co., Ltd. ("Henglian" hereinafter), and then sued Henglian and Xinruixin for infringement of its patent right.

### First-Instance Trial

Changyi claimed that Henglian had sold the product in dispute, providing a series of evidences, such as "Exit Permit of Henglian for Cotton Pulp Dregs" and "Quality Inspection Report for Henglian's Pulp Dregs", and further proved by ways of product inspection that the product in question was the same as viscose wood pulp made by the patent process. Changyi had also produced a captured video of Henglian's workshop, where

related equipments and machines and the scene of raw material being fed in manufacturing wood pulp board are shown. Henglian, admitting that the video images are of its production site, argued that what are produced are viscose cotton pulp dregs (merely ~5% wood pulp board is added) rather than viscose wood pulp dregs.

Changyi had also applied for evidence preservation in the first-instance trial. When the first-instance court twice went to Henglian to try to preserve the evidence, Henglian refused each time to cooperate, causing preservation of evidence fail to be effected.

By considering the efforts by and resulted proof from the two parties, distances of their locations from the place of evidence as well as other factors, the first-instance court allocated the burden of proof relating to the manufacturing process of the involved product to Henglian. Henglian refused to provide evidence accordingly without any justifiable reasons. Thus, the first-instance court ruled that the method used by Henglian in manufacturing the disputed viscose wood pulp dregs product fell within the scope of protection of the involved patent right, therefore infringing Changyi's patent right.

#### Second-Instance Trial

Unsatisfied with the first-instance decision, Henglian appealed to the second-instance court. After a trial, the second-instance court maintained the first-instance decision.

#### Review

Disagree to the second-instance decision, Henglian turned to the Supreme People's Court for review. During the review, Henglian submitted a series of evidences, using them as new elements to show that its manufacturing process is different from that of the involved patent. The new evidences included a copy of *Technology Development Agreement* signed by Henglian with Shandong Light Industry College on February 28, 2011, a copy of *Technology Development Contract* signed on March 1, 2011, a copy of *Novelty Search Report on Technology* prepared by Weifang Science & Technology Information Institute out of the project of "Optimization of Denaturation Pulp Process" on March 9, 2012, a copy of *Notification of Acceptance* issued by the State Intellectual Property Office of China on April 5, 2012 indicating Henglian as the applicant, etc.

The Supreme People's Court found that the evidences provided by Henglian during review were actually available before the second-instance trial, which could be provided any time requested, but were not submitted in the first- and second-instance trial, therefore determining that the evidences submitted by Henglian were not "new evidences" and could not be accepted. Regarding the allocation of burden of proof in the case of patent process for making non-new products, the Court was of the opinion that this requires comprehensive consideration according to the principle of fairness and

that of honesty and good faith as set out in Article 7 of *Some Provisions of the Supreme People's Court on Evidence in Civil Procedures*. The Supreme People's Court ruled that Changyi had proved that the product in question was same as that made by the patent process, and reasonable effort had been made by Changyi to prove that the manufacturing process of the product in question falls within the scope of protection of the patent process. And since Henglian failed to provide convincing evidences on its non-infringement claim and refused to cooperate with the court in preservation of evidence, high likelihood existed that Henglian had infringed Changyi's patent right. Based on the above, it was found that the decisions by the first- and second-instance courts were correct, and the request for review was rejected.

### **Interpretation and Analysis**

#### **Key Points of the Case**

##### **(1) Determination of "New Evidence"**

The definition of "new evidence" is given in Article 10 of *Interpretation of the Supreme People's Court on Several Issues Concerning the Application of the Trial Supervision Procedure of the Civil Procedure Law of the People's Republic of China*:

"Article 10 - Where a retrial petitioner submits any of the following evidence, a people's court may determine it as the "new evidence" as mentioned in Item 1, Paragraph 1, Article 179 of the Civil Procedure Law:

- (1) Evidence existing before the end of the original trial but discovered thereafter;
- (2) Evidence discovered before the end of the original trial but unacquirable due to objective reasons or unavailable within the prescribed time; or
- (3) Evidence based on which the person who made the original conclusion of expert evaluation or transcript of on-site investigation overthrows the original conclusion upon reevaluation or reinvestigation after the end of the original trial.

Substantive evidence provided by the party concerned in the original trial which was not cross-examined or attested in the original trial but is conducive enough to reverse the original judgment or ruling shall be deemed as new evidence."

Since the evidences submitted by Henglian during review were present and found before the second-instance trial, pertaining to none of the circumstances as stipulated above, they were not accepted as "new evidences".

As can be seen, the requirements for “new evidence” are very strict during review in the Supreme People’s Court, and it seems that only evidences complying with conditions stipulated in Article 10 of *Interpretation of the Supreme People’s Court on Several Issues Concerning the Application of the Trial Supervision Procedure of the Civil Procedure Law of the People’s Republic of China* can be accepted as “new evidences”. As a party of infringement litigation or its agent, if you intend to argue against the other side with “new evidence”, you have to check first whether the evidence to be used pertains to any one of the circumstances as stipulated above. If not, it would be hard for it to be accepted as “new evidence”.

## (2) Allocation of Burden of Proof in Infringement Litigation of Patent Process for Making Non-new Products

In civil procedure, the burden of proof generally follows the principle of “who claims, who proves”, as is provided for in Article 64 of the *Civil Procedure Law*.

Comparing with a product, to prove on a process for making a product is more difficult, because the process actually used is controlled by the alleged infringer and is inaccessible for the patentee. In view of this, if the principle of “who claims, who proves” is applied strictly, it will be difficult for a process to be protected.

In order to better protect process patent, some rules have been made in related laws and regulations. For instance, it is stipulated in both *Chinese Patent Law* (Article 61, Paragraph 1) and *Some Provisions of the Supreme People’s Court on Evidence in Civil Procedures* (Article 4, Paragraph 1, Item (1)) that in the case of a process for making a new product, the alleged infringer shall take the burden of proof, making the rule of reversing burden of proof applicable here. This is mainly because that a new product is generally not well known at the time of filing an application for a process patent, and therefore it is more likely that the product is manufactured by the process for which a patent is sought.

Regarding the process for making a non-new product, there are currently no explicit stipulations as far as burden of proof is concerned. Comparing with a new product, the non-new product is present before filing date of the process patent, and thus the possibility of its being made by the process patent is not as high as a new product. If the rule of reversing burden of proof applies, the patentee might abuse this advantage to extract trade secrets from the alleged infringer.

As stipulated by Article 7 of *Some Provisions of the Supreme People’s Court on Evidence in Civil Procedures*: “Where there are no explicit statutory provisions and it is not possible to define who shall be responsible for producing evidences according to the present Provisions or other judicial interpretations, the People’s court may determine the

burden of proof according to the principle of fairness and the principle of honesty and credit and taking such elements as the ability to produce evidences into consideration.” In the case of process for making a non-new product, in find out exact facts of relevance, not only the legitimate rights and interests of the patentee should be protected, but also the trade secrets of the alleged infringer should be respected. It seems appropriate to make a trade-off between allocating the burden of proof to the patentee and to the alleged infringer, which conforms to the principle of fairness and the principle of honesty and good faith. That is, the burden of proof should be borne by both the patentee and the alleged infringer, or it should only be partially shifted to the alleged infringer. It then should be further clarified as how to properly allocate the burden of proof between the patentee and the alleged infringer, as this is critical for a court decision and for protection of legitimate rights and interests of all involved.

Actually, Article 15 of the *Supreme People’s Court Opinions on Several Issues Concerning Giving Full Play to IP Judicial Judgement Function to Drive the Vigorous Development and Prosperity of the Socialist Culture and to Promote Autonomous and Harmonious Development of Economy* (“the *Opinions*” hereinafter) gives a guideline for trial of the infringement case relating to a process for making a non-new product: “If the product made by the patent process is not a new product, the patentee can prove that the alleged infringer has manufactured the same product, and it has made reasonable effort to but failed to prove that the alleged infringer uses the patent process indeed, but based on the specific conditions of the case and in combination with known facts and daily experience, it can be determined that it is very much likely for the same product to be manufactured by the patent process, in which case, according to relevant stipulations of judicial interpretations on civil procedure evidence, the patentee is not required to provide further evidence, and the alleged infringer should then provide evidence to show any difference between its manufacturing process and the patent process. In view of the difficulty of proof for a process patent, preservation of evidence could be performed legally to lighten the burden of proof of the patentee of the process patent.”

The *Opinions* has clarified on the allocation of burden of proof in infringement litigation of a process for making a non-new product. In particular, the burden of proof of the patentee includes:

- 1) The product made by the patent process is not a new product, and the alleged infringer has manufactured the same product;
- 2) The patentee has made reasonable effort to prove that the alleged infringer uses its patent process.

The burden of proof of the alleged infringer includes: providing evidence to show any difference between its manufacturing process and the patent process.

In a real trial, comparing with a product in respect of which evidence for its being a new one is required, a non-new product would not entail such evidence. Thus, for item 1), only the evidences to prove that the alleged infringer has manufactured the same product as that made by the patent process are needed. Regarding the extent of proof, *the Opinions* provides for a criterion for determining the level of being reasonable of an effort: if, based on the specific conditions of the case and taking into account of the known facts and common experience, it can be determined that it is very likely that the product of the alleged infringer is manufactured by the patent process. Although the criterion is still quite subjective, it gives a direction to the patentee as how to make efforts to provide effective evidence. *The Opinions* also mentions the preservation of evidence, which can be taken as part of the reasonable effort.

It should be noted that for burden of proof of the alleged infringer, *the Opinions* merely gives the definition of “providing evidence to show any difference between its manufacturing process and the patent process” without any detailed explanation. It, however, can be understood clearer by referring to the principle of full coverage in Article 7 of *Interpretations of the Supreme People’s Court on Several Issues Concerning the Application of Law in the Trial of Patent Infringement Dispute Cases*. That is, its manufacturing process can be deemed as differing from the patent process if at least one of the technical features of the process patent is not present in its manufacturing process, or at least one of the technical features therein is neither same as nor equivalent to a feature in the process patent. It is therefore unnecessary to provide evidences for the whole manufacturing process.

In the case of discussion, Changyi provided evidences and proved that the product manufactured by Henglian was the same as that made by the patent process, i.e., viscose wood pulp dregs, which is not a new product. Regarding the manufacturing process of the involved product, Changyi had also made efforts to capture some related video images, and applied for evidence preservation in the first-instance trial. As can be seen, Changyi had fully complied with the duties of both items 1) and 2). Henglian, by contrast, refused to cooperate with the court on preservation of evidence, and failed to provide convincing evidence to show the difference between its manufacturing process and the patent process. Based on the above, it is fairly clear that Henglian’s manufacturing process has infringed the right in the patent process. This is exactly the situation as described in Article 15 of *the Opinions*, where it is appropriate for a part of the burden of proof to be taken by Henglian in order to find out the facts.

In an infringement litigation in which a process for making a non-new product is involved, if the patentee cannot produce such evidence that can prove infringement by the alleged infringer, it can try to complete the duties of both items 1) and 2) to the degree that it can be substantially established that combined with known facts and daily experience the alleged infringer has actually used the process patent, so as to shift the other part of the burden of proof to the alleged infringer, thus reducing the difficulty of proof; while the alleged infringer should cooperate in preservation of evidence as applied for by the patentee, and actively shares part of the manufacturing steps and process parameters of its manufacturing process to prove that at least one of the technical features of the process patent is not present in its manufacturing process, or at least one of the technical features therein is neither same as nor equivalent to a feature in the process patent, so as to prove that its manufacturing process is different from the patent process.

Author: Youfu Zhou



## Determination of Service Invention

Chungang WANG v. Trane Air Conditioning System (China) Co., Ltd. (Civil Ruling (2013) Ming Shen Zi Nos. 1190 & 1191 by the Supreme People's Court on December 18, 2013)

**According to Article 6 of the *Chinese Patent Law*, an invention-creation<sup>1</sup>, made by a person in execution of the tasks of an entity to which he belongs, or made by him mainly by using the material and technical means of the entity, is a service invention-creation. For a service invention-creation, the right to apply for a patent belongs to the entity. After the application is allowed, the entity shall be the patentee. In these cases, the Supreme Court provided a method to determine whether an invention-creation in a patent application is a service invention.**

Trane Air Conditioning System (China) Co., Ltd. ("Trane Company") employed Chungang WANG from August, 2007 to November, 2011, and found, after Chungang WANG quitted from Trane Company, that Chungang WANG filed on May 27, 2009 at least an invention patent application No. 200910052158.2 entitled "a heat pump water heater system capable of accumulating heat and air conditioning", and an invention patent application No. 200910052152.5 entitled "a heat pump air conditioning floor heating system". Trane Company thus filed two civil litigations regarding the two patent applications against Chungang WANG, alleging that the inventions included in the applications are service inventions that Chungang WANG accomplished during his employment by Trane Company.

Each of the two cases has gone through the trials for the first and second instances, and the retrial before the Supreme Court. Trane Company won, in each of the two cases, both the trials for the first and second instances to be granted as the owner of the respective patent applications. Chungang WANG requested retrials for both cases before the Supreme Court, which however are both rejected. Based on the evidence that was submitted by the two concerned parties and revealed by the corresponding judgments and rulings, the results are not surprising in the author's view. Nevertheless, the Supreme Court provided a method of determining whether an invention in a patent application is a service invention through these two rulings. Since the two cases are quite overlapped in the concerned parties, cause of action, the evidence submitted by the concerned parties, and the judge's opinions in the rulings, the discussion below is based only on the case related to the Civil Ruling (2013) Ming Shen Zi No. 1191.

The Civil Ruling (2013) Ming Shen Zi No. 1191 is related to the invention patent appli-

cation No. 200910052152.5 (“the Application”) entitled “a heat pump air conditioning floor heating system”. In the ruling, when determining whether the Application is a service invention made by Chungang WANG during his employment by Trane Company, the Supreme Court created a test to first determine the technical solution of the Application and the tasks and duties that were assigned to Chungang WANG during his employment by Trane Company, and then determine whether there is a relevance between the aforementioned technical solution and Chuangang WANG’s tasks and duties.

Specifically, when determining the relevance between Chungang WANG’s tasks and duties during his employment by Trane Company and the technical solution in the Application, the Supreme Court first made a technical field comparison for the Patent and Chungang WANG’s tasks and duties as aforementioned, and determined that they fell in the same technical field of air conditioning. Then, the Supreme Court pointed out in the ruling that the key features that differ the technical solution of the Application from prior art are to use a single controller to establish heat and energy exchange between the floor heater and the heater boiler or main engine, so as to provide functions of floor heating and cooling via the same controller and thus to form an integral system with heat pumping, air conditioning, and floor heating. Evidence revealed that the object of Chungang WANG’s tasks in the year 2008 included developing an “integral system capable of cooling, heating, and domestic hot water supplying”, in which “the main engine is connected to the water tank, fan coil, and floor heater respectively”, and that the tasks assigned to Chungang WANG about April 2009 included developing a “temperature controller for fan coil and floor heater” that “extends the application of floor heating to a controller network of fan coil”. Therefore, the Supreme Court ruled that the technical solution in the Application is a service invention accomplished by Chungang WANG during his employment by Trane Company.

### **Interpretation and Analysis**

The Supreme Court provided in these rulings a method to determine service invention. That is, in order to determine the relevance in technical solution between the patent application and the task accomplished by the concerned party during his or her employment by the other concerned party, we may compare the key feature that differs the patent application from prior art with the content of the task and duty of the concern party during said employment, so as to determine whether the technical solution related to the patent application is a service invention accomplished by the concerned party during said employment by the other concerned party.

This determining method is both reasonable and operable. According to Article 6 of the *Chinese Patent Law*, service invention-creation includes two kinds, one being an invention-creation that an inventor accomplishes by performing tasks arranged by his

or her employer, the other being an invention-creation that an inventor accomplishes by mainly using material and technical means of his or her employer. Apparently, in the ruling, the Supreme Court employed this method to determine whether the technical solution of the Application is a service invention of the former kind, that is, whether it is an invention-creation that Chungang WANG has accomplished when performing a task arranged by Trane Company. The author is of opinion that this method is also applicable to determine whether a technical solution of a patent application is a service invention of the latter kind, that is, an invention-creation that an inventor accomplishes by mainly using material and technical means of his or her employer. In this case, one may compare the key feature that differs the patent application from prior art with the content of the technical solution that the inventor has made by using material and technical means of his or her employer, so as to determine whether the technical solution of the patent application is a service invention.

Furthermore, it should be noted that “the key feature that differs the patent application from prior art” herein is different from the “distinguishing feature” that differs a patent application from prior art employed in determining the inventiveness of the patent application. According to the patent practice in China, a three-step method is often employed to determine the inventiveness of a patent application, including “determining the closest prior art”, “determining the distinguishing feature that differs the claimed technical solution of the patent application from the closest prior art and thus the actual technical problem resolved by the claimed technical solution”, and “determining whether the claimed technical solution is obvious as for those skilled in the art”. Since the object, in determining the inventiveness of a patent application, is to objectively determine whether the patent application indeed makes inventive contribution to the prior art, by determining whether the claimed technical solution is obvious over the prior art as for those skilled in the art, “thus determined closest prior art may be different from that cited by the applicant in the specification of the application, and the actual technical problem resolved by the claimed technical solution determined based on the closest prior art may be in turn different from that described in the specification”<sup>49</sup>. Such a determination may often result in that the distinguishing feature changes depending on which prior art is selected as the closest one. However, in determining whether a technical solution of a patent application is a service invention, the object is to confirm whether the creative activities conducted and/or the material and technical means used by the inventor when accomplishing the invention-creation related to the patent application indeed come from the activities under employment and/or the resources from the employer. Therefore, one should focus on the prior art and creative features described in the specification of a patent application, when determining the

<sup>49</sup> According to Article 2 of the *Patent Law of the People's Republic of China*, “invention-creation” comprises invention, utility model, and design.

key feature that differs the technical solution of the patent application from prior art in order to determine whether the patent application is related to a service invention.

Author: Harlem (Yi) LU

## Alteration of Patent Claims Asserted in Infringement Dispute

Guangdong Dongtai Metal Products Co., Ltd v. Zhongshan Shengtai Metal Products Co., Ltd (Civil Ruling (2013) Min Shen Zi No. 722 by the Supreme Peoples's Court on October 14, 2013)

**One key step in patent trials is to determine if an accused infringing party's product (or method, and so on) falls within one or more of the claims of the granted patent. The scope of the patented invention or the extent of protection is based on the claims asserted by the patent holder. The patent holder has the right to enforce, at his discretion, his patent right against infringement based on any claim of the patent, and will be permitted to alter the asserted claims within the prescribed period that may vary case by case. To adequately choose the asserted claims, the patent owner shall consider both the claim coverage of the accused infringing product or process and the validity of the claimed invention when being challenged.**

Guangdong Dongtai Metal Products Co., Ltd (hereinafter "Dongtai") owns a patent for utility model No. ZL200520053374.6 ("the '374 patent" hereinafter) titled "Hidden Hinge for Furniture Door with 3D Directional Adjustability", which comprises one independent Claim 1 and three dependent Claims 2-4. Dongtai sued Zhongshan Shengtai Metal Products Co., Ltd ("Shengtai" hereinafter) for Shengtai's products infringing Claim 1 of the '374 patent.

Shengtai requested the Patent Reexamination Board ("PRB" hereinafter) of SIPO to invalidate the '374 patent. During the second instance of the infringement lawsuit, the PRB made a Decision No. 14841 on Request for Invalidation ("Decision No. 14841" hereinafter), declaring full invalidation of Claims 1-4 of the '374 patent. By virtue of this, the second instance court rejected Dongtai's pleading in the patent infringement lawsuit.

In the invalidation proceedings with respect to the '374 patent, Beijing High Court made an Administrative Judgment (2011) *Gao Xing Zhong Zi* No. 460 ("the Judgment No. 460" hereinafter), revoking the Decision No. 14841. Afterward, in a new Decision No. 19004 on Request for Invalidation ("Decision No. 19004" hereinafter) made by the PRB, Claims 1 and 4 of the '374 patent were declared invalid while Claims 2 and 3 were maintained.

Based on the new development, Dongtai requested the Supreme People's Court for retrial of the patent infringement lawsuit, reasoning that "the legal writs based on which

the original judgment or written order was made were revoked or modified”<sup>50</sup>, and asserting that the accused infringing product of Shengtai falls within the scopes of Claims 2 and 3 of the '374 patent.

The Supreme People's Court found that the Dongtai's complaint in the first instance of the patent infringement lawsuit only asserted Claim 1, having failed to indefinitely identify Shengtai's accused infringing product infringes Claim 2 or 3 of the '374 patent. On this ground, the Supreme People's Court affirmed that the initial pleading of the plaintiff, Dongtai, is based only on Claim 1. In view of the Claim 1 being declared invalid by the new Decision No. 19004, the Supreme People's Court held that the judgment of the second instance is appropriate and rejected Dongtai's pleading based on Claim 1.

### Interpretation and Analysis

A two-tier system is adopted for trial of patent cases in China. The ruling of the second instance court regarding each pleading filed by a plaintiff against a defendant shall be treated as final decision on the case. During the procedure of first instance of civil cases, the plaintiff may add or alter his initial pleadings<sup>50</sup> within the prescribed period. Usually, during the appeal process, the second instance court only reviews the relevant facts and the application of the law in relation to the same pleading filed and tried during the first instance. In the procedure of second instance, if the plaintiff of original instance adds any independent pleading or the defendant of original instance files a counterclaim, the second instance court may conduct mediation regarding the newly added pleadings or counterclaim along the principle of free will of the parties concerned; if the parties concerned cannot reach an agreement through mediation, the court shall notify the party concerned to file a new lawsuit<sup>51</sup>.

In patent infringement lawsuits, pleadings of the plaintiff (a patent holder, for example) would base on the asserted claims of his patent. Normally, a patent may include several granted claims, and each of them indicates a complete technical solution. To initiate a lawsuit against an infringer, the patent holder may choose any one or more of the claims of the asserted patent, and will be permitted to alter the asserted claims before the end of court debate of the first instance<sup>52</sup>. It is not clearly provided for in existing laws as to whether an alternation of asserted claims is equivalent to an alternation of pleading of the plaintiff. The plaintiff is normally not permitted to alter the asserted claims after expiration of the specified time period, but who can initiate a new lawsuit by asserting other claims.

<sup>50</sup> Article 200 of the Civil Procedure Law of the People's Republic provides that if an application made by a party meets any of the following circumstances, the people's court shall retry the case: ...; (12) the legal writs based on which the original judgment or written order was made were revoked or modified; ...

<sup>51</sup> Article 51 of the Civil Procedure Law of the People's Republic.

<sup>52</sup> Rule 184 of the Opinions of the Supreme People's Court on Some Issues Concerning the Application of the Civil Procedure Law of the People's Republic of China.

In this case, Dongtai only identified in the initial complaint that the Shengtai's product infringes Claim 1 of the '374 patent and failed to explicitly assert Claims 2 and 3 during the court trial of the first instance. Consequently, it is affirmed that Dongtai only asserted Claim 1 in this case, and that the pleading of Dongtai can only be based on Claim 1. The Supreme People's Court did not accept Dongtai's allegation that Claim 2 and 3 are omitted in the initial complaint due to limited contexts available. It is totally different for a court to try "whether an accused infringing product falls within the scope of Claim 1 of an asserted patent" and to try "whether the accused infringing product falls within the scope of Claim 2 or 3 of the asserted patent". In view that Dongtai fails to assert Claim 2 or 3 during the trial of first instance, the courts of first and second instance has looked at "whether an accused infringing product falls within the scope of Claim 1 of an asserted patent", rather than "whether the accused infringing product falls within the scope of Claim 2 or 3 of the asserted patent".

On the ground that Claim 1 is declared invalid by the former Decision No. 14841, the second instance court rejected Dongtai's Claim 1-based pleading. Later, the prior Decision No. 14841 is revoked by a court judgment and is replaced by the Decision No. 19004 re-made by the PRB, both having declared Claim 1 invalid. Therefore, the revoking of the Decision No. 14841 based on which the judgment of the court of the second instance was made does not change the fact that "Claim 1 is declared invalid". Accordingly, it is appropriate for the second instance court to have rejected Dongtai's pleading based on Claim 1.

Apparently, Dongtai may file a new lawsuit by asserting Claim 2 or 3 of the '374 patent, which would not be considered as a duplicative litigation, since there is no court that has looked at the question "whether the accused infringing product falls within the scope of Claim 2 or 3 of the '374 patent". Further lawsuit would of course inevitably waste time and cost for the respective parties and the court. Supposing that Dongtai has explicitly asserted Claim 2 or 3 in the initial complaint or before the end of court debate of the first instance, it is very likely that the Supreme People's Court would accept the Dongtai's request to retry this case, considering the fact that Claims 2 and 3 of the '374 patent are finally maintained meets the condition of "the legal writs based on which the original judgment or written order was made were revoked or modified".

In practice, alternation of pleading beyond time limit may be still accepted under certain conditions. According to Rule 184 of the Opinions of the Supreme People's Court on Some Issues Concerning Application of Civil Procedure Law of the People's Republic of China, if the plaintiff adds new pleadings during the second instance, the court of second instance should first conduct mediation regarding the new elements, and then shall notify the plaintiff to file a new lawsuit if the parties concerned cannot reach unanimity through mediation. This means that addition of new pleading during the second

instance may be permitted upon approval of the court and the counterparty, which will help to reduce litigation cost and improve trial efficiency.

In the draft of *Interpretation of the Supreme People's Court on Several Issues concerning the Application of Law in the Trial of Patent Infringement Dispute Cases II (For Public Comments)* posted by the Supreme People's Court on July 31, 2014, it is stipulated that a patentee shall state clearly in its complain which claim is infringed by the accused infringer; otherwise the court shall require the patentee to clarify on the asserted claims; in case that the patentee refuses to do as required, the court may presume that the patentee chooses to assert all independent claims. In the above draft, it is also provided that where a claim asserted by a patentee in a patent infringement lawsuit is declared invalid by the PRB, the court may dismiss the lawsuit brought by the patentee based on the invalidated claim, regardless of whether the Decision on Request for Invalidation will be subject to appeal or not. The above mentioned draft is yet to be made into law, but may indicate to some extent a tendency of juridical practice regarding patent cases. When preparing for steps to enforce a patent, it is advisable that the patentee pay more attention to the stability of the asserted claims, and to avoid relying on just one claim. For example, it may be preferable to choose one independent claim that fully covers the accused infringing product or process and several dependent claims that are assessed to be quite stable.

When being accused of infringement, the defendant should be sensitive to the alternation or addition of asserted claims, and it is better not to voluntarily mention claims that have not been asserted by the plaintiff. If an alternation of asserted claims during the second instance really happens, the defendant should raise an objection in the court immediately and refuse to discuss the newly asserted claims, unless otherwise agreed.

Before filing a lawsuit of patent infringement, the patentee or his attorney shall compare respective claims with the accused infringing product or process, in order to identify the specific claims to be asserted. To correctly choose the asserted claims, the patent owner should consider both the claim coverage of the accused infringing product or process and the stability of the claimed invention. The complaint shall set forth the number of asserted claims and elaborate the facts and legal reasons that the plaintiff believes are sufficient to support his pleading based on the asserted claims against the accused infringer. If necessary, it should be ensured that the request for altering the asserted claims be filed before the end of court debate of the first instance.

Author: Shaojun BAI



## **Agreement between Right Holder and Infringer on How to Compensate for Repeated Infringement Can Serve as a Basis of Determining Infringement Damage**

Guangzhou Zhongshan Lerado Daily Article Co., Ltd v. Hubei Tongba Daily Article Co., Ltd (Civil Judgment(2013) Min Ti Zi Nos. 114-116, the Supreme People's Court, December 7, 2013)

**The People's Courts upheld that right holders and infringers could enter into an agreement on infringement damage before or after the actual infringement, which fell into the principle of autonomy of private law. If such an agreement did not violate laws and regulations, courts should support the terms in that agreement. The Chinese Patent Law and the Chinese Tort Law did not prohibit a right holder and an infringer to enter into an agreement on tort liability and amount of compensation in advance.**

Guangzhou Zhongshan Lerado Daily Article Co., LTD (hereinafter referred to as "Lerado") is the owner of the patents ZL02322197.6, ZL01355071.3 and ZL01242571.0 (hereinafter referred to as "the involved patents") relating to baby stroller.

Lerado filed a patent infringement suit against Hubei TongbaDaily Article Co., LTD (hereinafter referred to as "Tongba") in April, 2008. The two parties reached an agreement in a civil mediation held by the Hubei High Court where the pertinent part reads "Tongba promised never to infringe Lerado's patent again. If any further infringement occurs Tongba would voluntarily pay Lerado a damage of RMB 1,000,000 (or RMB 500,000 if the patent is directed to a design)."

In May, 2011, Lerado sued Tongba for its repeated infringement in May. In view of the prior mediation agreement, both the First Instance and the Second Instance courts held that this case falls under concurrence of breach of contract liability and infringement, and since Lerado expressly decided to sue for the infringement, therefore its claim to pay the damages based on the amount of liquidated damages agreed upon in the mediation agreement was dismissed.

Lerado was dissatisfied with the ruling and filed a retrial request with the Supreme People's Court(SPC). The SPC held that this case did not fall under concurrence of breach of contract liability and infringement. Tongba was liable for the infringement. The two parties' agreement, formed during the mediation, on the specific methods and amounts of compensation for Tongba's future infringement was to facilitate how Tonga could be held liable on repeated infringement. Accordingly, this case can adopt the methods and

amounts of compensation agreed during the mediation between Lerado and Tongba.

### Interpretation and Analysis

The distinctive point of this case is the prior liability agreement between Lerado and Tongba. Because of this agreement, both the First and the Second Instance courts held that this case fell under concurrence of breach of contract liability and infringement under Article 122 of the Contract Law, but the SPC denied this point outright.

**I. The SPC interpreted as follows: under Article 122 of the Chinese Contract Law, the premise of concurrent liability was the existence of an underlying transaction contractual relationship between the two parties; and based on this relation, a party breached the contractual obligations and such breach led to an infringing of the other party's interest. Therefore, breaching under this article meant breaching the obligation agreed upon in the underlying transaction contract, and infringed the other party's interest at the same time.**

In order to understand the SPC's interpretation, we need to understand the meaning of "the underlying transactional contractual relationship," which was not clarified in the SPC's judgment. This phrase does not seem to be a coined term in common practice and has no general meaning. An interpretation of "transaction contract" can be found in Baidu Baike as "an agreement entered into by two parties when buying and selling goods," which is a definition far different from the fact of this case. Accordingly, though the SPC ascertained that this case did not fall under concurrent liability and Tongba should assume the infringement liability, it would be better for the SPC to further clarify the reasons behind these grounds, especially to clarify why the premise of concurrent liability concurrence is based on an underlying transaction contractual relationship between the two parties, and what is the underlying transaction contractual relationship.

The author will try to answer why does this case not belong to concurrent liability from the following aspects.

Under Article 122 of the Contract Law, concurrence of liability for breach of contract and liability of infringement refers to the circumstances where one party's breach of contract also constitutes as an infringement at the same time, a concurrence of the two liabilities. The breach is the cause of the infringement, the infringement is the outcome of the breach, therefore, the breach and the infringement should be the same legal action.

The mediation agreement between Lerado and Tongba seems to involve two civil legal actions, one being Tongba's "do-nothing" agreement on infringement, the other is the agreement on specific methods and amounts of compensation when actual infringe-

ment occurs. The “do-nothing” agreement cannot be substantively regarded as a civil legal act, since this agreement cannot generate a new civil legal relationship between Lerado and Tongba, because Tongba is legally obliged to not infringe. In other words, the mediation agreement is an agreement on the specific methods and amounts of compensation when infringement occurs. Breaching this agreement is apparently not the same legal action as the specific infringement, therefore, the breach and the infringement cannot constitute as a cause-and-effect relation. Therefore, the civil liability assumed by Tongba was not concurrent liability.

**II. The SPC held that Tongba infringed and should compensate based on the amount of the liquidated damages agreed upon in the mediation agreement, which raises another legal issue worth discussion, i.e., is it legal and reasonable to adopt “liquidated damages” in a patent infringement lawsuit?**

Article 65 of the Chinese Patent Law provides four methods to determine the amount of compensation of a patent infringement, i.e., actual losses incurred to the patentee, gains obtained by the infringer, multiple of the royalties, or statutory damages, and provides no catch-all provision on other determination methods. Despite this, civil law, as a law of regulating relation of private right and protecting private interest, is different from the public laws that require “all actions are prohibited unless permitted under the laws,” such as criminal law and administrative law. The highlighted feature being that “all actions are permitted unless prohibited by the laws.” Laws currently in effect such as The Patent Law and the Tort Law do not prohibit that a right holder and an infringer can, in advance, enter into an agreement on methods of tort liability and compensation amount. Moreover, according to the Tort Law, concerned parties can agree to compensation scopes under the principle of autonomy of will. Therefore, it is legal to apply “liquidated damages” in a lawsuit of patent infringement.

As a matter of fact, Article 34 of Certain Provisions of the Supreme People’s Court on Issues Concerning the Application of Law in the Hearing of Patent Dispute Cases II (Draft for Public Opinions) provides “if a right holder and an infringer, in advance, enter into an agreement on compensation amount or manners of calculating compensation of patent infringement, and the holder claims damages in a lawsuit of patent infringement based on the amount of liquidated damages agreed upon, the People’s Courts should support.” If this provision is allowed in the future, application of “liquidated damages” in a patent infringement lawsuit can have legal basis.

It is also reasonable to apply “liquidated damages” in a lawsuit. In practice, compensation amounts are determined by the judge’s discretion in most of IP infringement cases, since it is difficult to determine actual losses incurred to right holders and gains obtained by the infringer. Compensation amounts are always low, which significantly

hinders the motivation of the right holders to protect their rights.

In another aspect, considering such low compensation amounts, defendants (infringers) tend to repeatedly infringe in pursue of economic interest. If right holders have an agreement on methods of compensation on repeated infringement with the defendants, such an agreement can effectively controlled the defendants' motivation to repeatedly infringe. During the court's mediation for defendant's first infringement, rights holders are advised to expressly draft the methods of compensation for defendant's repeated infringement as a necessary clause in the mediation agreement. If the defendants are unwilling to ratify such undertaking, the defendants are more likely to repeat the infringement. If the defendants agreed on such compensation clause for repeated infringement, the People's Courts shall support the compensation agreement.

Such compensation for repeated infringement agreed in advance is more or less intrinsically similar to liquidated damage in the contract law. However, such compensation does not equal to pure liquidated damage and has punitive damage nature. Therefore, it is acceptable to set the amount higher to a certain extent than actual losses incurred to right holders.

This case provides patentees a takeaway lesson that such compensation agreement agreed in advance can be used to request sufficient compensation in potential patent infringement, and to avoid excessively low compensation due to the high burden of proof or failure to provide sufficient evidence. For instance, in a patent licensing agreement, a patentee can require a licensee to ratify an undertaking on the compensation amounts in case of infringement in advance. In an ongoing patent infringement lawsuit, if the two parties enter into a settlement or mediation agreement, patentees can take this opportunity to require the infringers to ratify a undertaking on compensation amounts in case of repeated infringement in advance.

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## Determination of Patent Infringement Related to Components

Strix Ltd. v. Jiatai Ltd. et al. (Civil Judgment (2011) Yi Zhong Min Chu Zi No. 15 issued by the Beijing No. 1 Intermediate People's Court on July 30, 2012)

**The type of the infringement of making and selling a component patent that contains a patented component has been expressly determined, in the judicial interpretation published by the Supreme People's Court in December 2009, as infringing actions of "using" and "selling" a patented component. However, determination of whether making and selling a special component of a patented product constitutes patent infringement has not been expressly stipulated in any laws or regulations in China. Currently, most courts adopted a stipulation of joint infringement under the China Civil Law in determine such infringing acts when rendering judgments.**

Strix Ltd. is the patentee of an invention patent (hereinafter referred as the "present invention") No. 95194418.5 in the title of "Integrated Cordless Electric Connector and Thermally Sensitive Control Unit for a Water Boiling Vessel". In the claims of the present invention, claims 2-4 and 6-17 related to the present case are directed to "an integrated cordless electric connector and thermal sensitive control unit", claims 19-21 and 23-26 are directed to "a liquid heating vessel", containing the unit of claims 2-4 and 6-9 respectively. In this case, Strix Ltd. believed "actions of producing, making, selling, and offering to sell a temperature controller KSD368-A by Jiatai, the alleged infringer, constituted direct infringement of claims 2-4 and 6-17 of the patent concerned; meanwhile, as the temperature controller KSD368-A serves as a special component of the liquid heating vessel of claims 19-21 and 23-26 of the present patent, Jiatai's making, selling, and offering to sell the above temperature controller also infringed claims 19-21 and 23-26 of the present patent. Actions of making and selling an electric kettle DK-1515 and using the temperature controller KSD368-A by Fushibao, the alleged infringer, constituted infringement of claims 2-4, 6-17, 19-21 and 23-26 of the present patent". Strix Ltd. requested the court to order Jiatai and Fushibao to cease the infringements and be held jointly and severally liable for compensation.

Upon hearing the case, the court held that the temperature controller KSD368-A made and sold by Jiatai fell into the protection scopes of claims 2-4 and 6-9 of the patent concerned; and the electric kettle DK-1515 made by Fushibao fell into the protection scopes of claims 2-4, 6-9, 19-21, and 23-26 of the patent concerned. Both of the above actions were direct infringement of the patent right concerned. Meanwhile, since the tempera-

ture controller concerned was a special component of the electric kettle concerned, Jiatai's making and selling the temperature controller also constituted joint infringement of claims 19-21 and 23-26 of the patent concerned. The court's final judgment ordered Jiatai and Fushibao to cease making and selling the infringing products; and Jiatai shall compensate Strix Ltd. for economic loss of RMB 1 million, and Fushibao was jointly and severally liable to compensate RMB 500,000 thereof.

### **Interpretation and Analysis**

This case concerns two questions of patent infringement determination related to components. One is whether making and selling a product containing a patented component constitutes patent infringement of that component, the other is whether making and selling a special component of a patented product constitutes patent infringement of that patent.

#### **I. Concerning whether making and selling a product containing a patented component constitutes patent infringement of that patent**

According to Article 11 of the *Chinese Patent Law*, no entity or individual may, without the authorization of the patentee, make, use, offer to sell, sell, or import the patented product for production or business purposes. In this case, Fushibao did not make or sell the patented product, temperature controller (claims 2-4 and 6-9), but made and sold another product, i.e., an electric kettle containing the temperature controller. Therefore, what type of patent infringement does Fushibao's production of an electric kettle containing the patented temperature controller falls into? Regarding this question, the court adopted Article 12 of the *Interpretation by the Supreme People's Court on Some Issues Concerning Applied Laws to the Trials of Patent Infringement Disputes* (hereinafter referred as *Interpretation on Some Issues*) implemented on October 1, 2009, which stipulates: where one produces a product that infringes an invention or utility model patent as a component to make another product, the People's Court shall determine the action as "use" under Article 11 of the *Chinese Patent Law*; where one sells that product, the People's Court shall determine the action as "sell" under Article 11 of the *Chinese Patent Law*. Based on the above stipulations, the court found that Fushibao's use of the temperature controller as a component when making an electric kettle constitutes as "use" of the temperature controller concerned, and infringed claims 2-4 and 6-9 of the temperature controller in the present patent.

The stipulation of Article 12 in the above judicial interpretation aims at explicitly define whether the act of using a patented product as a component to produce another product belongs to "making" or "using" of the patented product. The explicit definition is provided for the following reason: according to Article 70 of the *Chinese Patent Law*,

use, for business operation purposes, without knowing that it was without the patentee's authorization may defend on the ground of "legitimate source", and can be excused from compensation liability. However, if it is an action of "making", the compensation liability cannot be excused. In previous judicial practices, there were disputes on determination of the case of using a patent infringement product as a component of another product as action of "making" or "using". Therefore, Article 12 of the above judicial interpretation unifies them, and explicitly defined such an action as "use".

## **II. Whether making and selling a special component of a patented product constitutes patent infringement of that product**

Actually, in this case, another important question related to the component is the determination of whether Jiatai's making and selling the temperature controller used in a liquid heating vessel infringed claims 19-21 and 23-26 directed to "liquid heating vessel" in the present patent.

Generally, a certain product infringes a certain patent right means that the product falls into the protection scope of the patent. Concerning invention and utility model patent, generally, it means the product reproduces all the essential technical features in the patent claims, i.e., following the all-element rule.

The all-element rule is the most fundamental principle in patent infringement judgment for inventions and utility models. However, in this case, claims 19-21 and 23-26 of the present patent are directed to an electric kettle, since Jiatai merely makes and sells the temperature controller concerned, it does not cover all the essential technical features of the above claims. Thus, according to the all-element rule in invention patent infringement judgment, Jiatai's temperature controller products do not fall into the protection scopes of claims 19-21 and 23-26 of the present patent. Consequently, the court found that Jiatai's making and selling the temperature controller concerned did not constitute direct infringement of the above claims 19-21 and 23-26.

However, if no penalty is imposed on any of the making and selling the special component of a patented product, it will undermine the protection of a patent right and leave infringers loopholes to individually make and sell components of a patented product, to specifically make and sell a certain key component of a patented product, or to provide a special device specifically used for implementing a patented method. Concerning these circumstances, the theory of "indirect infringement", correspondent of the "direct infringement", under Article 11 of the *Chinese Patent Law* is often adopted in practice. However, there is no explicit stipulation related to indirect infringement in current Chinese laws and regulations. Therefore, in this case, the court adopted the stipulations, as legal basis, related to contributory infringement under Article 130 of the *General Princi-*

*ples of the Civil Law of the People's Republic of China* (hereinafter referred as *the General Principles of the Civil Law*), where “if two or more persons jointly infringe upon another person's rights and cause him damage, they shall bear joint liability”, and Article 148 of *Opinions of the Supreme People's Court on Several Issues concerning the Implementation of the General Principles of the Civil Law of the People's Republic of China*, where “one who abets or assists another person in committing a tort is a joint tortfeasor and shall bear joint and several civil liability” and reasoned that, “though relevant actions of abetting or assisting another person in committing a tort do not constitute direct infringement of a patent right, but if an individual aids or abets others to implement direct infringement of a patent right, that individual and the direct infringement constitutes joint infringement, and such individual shall be jointly and severally liable with the direct tortfeasor”. The court finally held that Jiatai's making and selling the temperature controller concerned constituted joint infringement of claims 19-21 and 23-26 of the patent concerned.

Concerning similar infringing actions such as making, selling, offering to sell or importing a raw material, a special device, or a component specifically adapted for implementing relevant patented product of others, and making, selling, offering to sell or importing a specific device exclusively for implementing relevant patented process of others, the United States, Europe, Japan, and other major countries already have explicit laws to regulate. But, currently, there is no explicit laws or regulations in China yet. Thus, applicable laws and standard of judgments in China's current judicial judgment practices varies significantly. With respect to applicability of the laws, the author's found precedents from many business judgment/verdict databases that, part of the precedents adopted the same stipulation of joint infringement in the *Civil Law* as this case, i.e., Article 130 of *the General Principles of the Civil Law* and Article 148 of *Opinions of the Supreme People's Court on Several Issues concerning the Implementation of the General Principles of the Civil Law of the People's Republic of China*. Part of the precedents adopted similar stipulations related to joint infringement under Article 8 “where two or more persons jointly commit a tort, causing harm to another person, they shall be jointly and severally liable”, and/or Article 9 “one who abets or assists another person in committing a tort shall be jointly and severally liable with the tortfeasor” under the *Tort Liability Law of the People's Republic of China*. Part of the precedents are not applicable to any of the above laws, some even failed to specify under which law was the action applicable. As can be seen, in current judicial judgments related to the above “indirect infringement” cases, the applicable laws applied by each courts are neither unified nor explicit.

In addition, it should be noted that in this case, the court proposed three factors to determine joint infringement liability: first, actions of implementing direct infringement of a patent right by others; second, abetting or assisting a tortfeasor to implement mak-



ing, selling, offering to sell, or importing a raw material, a special device or a component specially adapted for implementing relevant other's patented product, or making, selling, offering to sell or importing a special device of specially adapted for implementing other's relevant patented process; third, abetting or assisting a tortfeasor so that he or she knew or should have known that direct infringement of a patent right will be implemented by others. With respect to the first factor, the court reasoned that: first, "the reason that abetting or assisting a tortfeasor shall bear joint infringement liability is because such action promotes or causes occurrence of direct infringement. If there is no direct infringement, then imposing joint infringement liability on abetting or assisting a tortfeasor lacks factual basis"; second, "since the abetting or assisting a tortfeasor does not directly infringe a patent right, i.e., the abetting and assisting a tortfeasor to make or sell a product does not fall into the protection scope of the patent concerned, if no direct infringement exists (already took place), it will render the protection scope of the patentee's right to be improperly broadened, such that implementation of relevant acts by the relevant public lacks reasonable legal expectation, thereby affect the public interest". As can be seen, the court held that the fact of direct infringement and that it had already occurred were the essential factors for bearing joint infringement liability. With respect to the second factor, the court reasoned why the requirement of a "special" device: "if a 'special' product is not required, it will result in patentee's improper control and monopoly of relevant products within a protection scope not fall into its patent protection scope, thereby rendering the protection scope of the patent concerned improperly broadened". Meanwhile, the court further stated that the standard of judgment of a "special" product should be based on whether the product had "a substantive non-fringing purpose", i.e., the product had no other "substantive non-fringing purpose" than the purpose of being applied to the product or method of the patent concerned, so as to achieve balance between the interest of the patentee and the interest of the public by reasonably defining the protection scope of a patent right. With respect to the third factor, the court explained a specific judgment method concerning "know" or "should have known", where "know" suggested abetting or assisting the tortfeasor to know that others' action was a direct infringement of a patent right, and "should have known" suggested that though there was no evidence for the tortfeasor to know that its abetting or assisting others' is an action of directly infringing a patent right, but according to the tortfeasor's knowledge and notice obligations, the tortfeasor should be aware that others' action was an act of direct infringing of a patent right. In this case, the two parties had already had several patent infringement lawsuits, the court held that the third factor was satisfied when "it has been determined in the prior proceedings that other models of temperature controller products produced by Jiatai infringed the patent right concerned" and "according to Jiatai's knowledge and notice obligations, Jiatai should have noticed that others would implement the corresponding infringement after buy-

ing the above ‘product’”. In view of the above three factors, the court held that Jiatai’s making and selling the temperature controller concerned shall be held liable for joint infringement of claims 19-21 and 23-26 directed to “a liquid heating vessel”.

In fact, the above three factors are not explicitly stipulated in China’s current laws and regulations. Since this case is heard by the Beijing No. 1 Intermediate People’s Court, it is speculated that these three factors mentioned in the judgment may have been adopted from the relevant stipulations of Article 73-80 of *Interpretation by Beijing Higher People’s Court on Some Issues Concerning Determination of Patent Infringement (Trial) 2001*. Besides, the court held that determination of joint infringement liability “shall” satisfy all three factors, i.e., all three factors shall be met simultaneously: actual direct infringement, the infringing object must be a special device, and there is a subjective intent of abetting or assisting. However, when studying relevant precedents, not all precedents required that the three factors be met simultaneously. Consider “the premise is whether there is a direct infringement”, different perspectives and determination can be found where most precedents held that the premise must be based on that a direct infringement actually took place. But few other precedents disagreed, for example, in *Schneider Electric USA, Inc.’s “Integrated Breaker” case* (Beijing No. 1 Intermediate People’s Court (2000) Yi ZhongZhi ChuZi No. 26), no direct infringement actually occurred, and the court determined that the defendant’s actions constituted indirect infringement, where the defendant induced a user buying its product to implement the patent that directly infringed, which was a subjective intent of inducing and abetting others to infringe the patent right, and objectively provided an essential element for other’s direct infringement. Regarding determining the “special device” factor, if it is not a special device, it is further required to distinguish whether there is a subjectively intent to induce or abet. Concerning the subjective and intentional factor, each precedent’s determination is relatively unified, all decisions held that there must have a subjectively intent to induce or abet. Determination of the subjective factor is different from Article 11 of the *Chinese Patent Law*, **which** stipulates that the implementation of a corresponding action without authorization of the patentee is an infringement, and the subjective intent of the alleged infringer does not need to be taken into consideration. It is believed that it is necessary to take the subjective intent into consideration when determining patent joint/indirect infringement in the above circumstances. This helps to reduce the public’s notice obligations and avoids pursuing infringement liability to all negligent actions.

For quite some time, both practitioners in practice and a good number of scholars has urged to incorporate indirect infringement into the *Chinese Patent Law* in relevant legislations; we have also seen relevant national government’s approaches and efforts to gradually solve problems in this aspect in recent years. For example, a statement of “in-

direct infringement” was mentioned explicitly in *Interpretation by Beijing Higher People’s Court on Some Issues Concerning Determination of Patent Infringement (Trial) 2001*, but it was amended as an expression for “joint infringement” that has solid legal basis in the amended *Guidelines for Patent Infringement Determination* in 2013. The Supreme People’s Court also, for the first time, described such infringement circumstances in Article 25 of *Interpretation on Some Issues Concerning Applied Laws to the Trials of Patent Infringement Disputes (II) (Draft for Public Comment)* published in 2014. Furthermore, another great concern is the new Article 62 related to this matter was added to the *Amendments to the Chinese Patent Law (Draft for Public Comment)* published in December 2015, stipulates that “any person, who knows that a relevant product is a raw material, an intermediate, a component or a device specially adapted for implementing a patent, implements acts of infringing a patent right by providing the product to others for production and business purpose without the authorization of the patentee, shall be contributory liable with the tortfeasor; and any person, who knows that a relevant product or method belongs to patented products or patented processes, induces others to implement action to infringe the patent right for production and business purpose without the authorization of the patentee, shall be contributory liable with the tortfeasor”, which means joint or contributory infringement related to a special component will possibly be formally and expressly incorporated into the *Chinese Patent Law*. Thus, we believe that the respective courts could try these cases under a more unified applicable laws and criteria in future.

On the other hand, in order not to give loopholes for infringers who, individually or specifically, make or sell a special component of a patented product, we suggest that, apart from patent protection of an entire product, each patentable component produced or sold separately should also be filed for a patent protection. This is because under most circumstances, determination of joint infringement is based on direct infringement, so applying a patent for each component individually can cover all the component suppliers on the production chain.

Author: Qiong PENG

## How to Determine a Suitable Protection Scope of Claims

*Enyuan Wang v. Beijing Trade Promotion Business Consulting Company* (Invalidation Decision No. 21569 by the Patent Reexamination Board on October 28, 2013)

**For an invention patent, no matter how clear a claim appears to be, understanding of the background may often completely disrupt our initial views on its meaning. Therefore, the content of a claim for an invention or a utility model shall be determined according to the language of the claim, in combination with the person having ordinary skill in the art, or PHOSITA's understanding of the claim after he has read the description and drawings. The interpretation of the claim shall be in line with the purpose of invention. The technical solution having the defects of the existing technology to be overcome by the claimed patent shall be deemed not to fall into the protection scope of the patent right. The present case highlights that the protection scope of claims shall be reasonably determined according to what the invention is in substance.**

The patentee has a patent ZL200810045235.7, entitled "zirconium silicate ceramic sandblasting beads", in which claim 1 seeks protection for zirconium silicate ceramic sandblasting beads, characterized in having the following chemical composition in wt% of the oxides: 50 to 80% of  $ZrO_2$  and  $HfO_2$ , and 4.5 to 6.5% of  $Al_2O_3$  or 4.5% to 6.5% of  $CaO$ , and that when the composition does not contain  $CaO$ , the amount of  $SiO_2$  accounts for 15% to 45% of the composition, and when the composition contains  $CaO$ , the amount of  $SiO_2$  accounts for 10% to 45% of the composition".

The invention was granted a patent right in 2010, and its background technology involves a prior patent CN1050589C owned by Société Européenne des Produits Réfractaires. As the existing technology, yttrium oxide ( $Y_2O_3$ ) and cerium oxide ( $CeO_2$ ) are used as a stabilizer. However, due to the high cost of these stabilizers, the ceramic beads produced with this technology are expensive and thus their application in the sandblasting field is limited. The present invention is a typical improved invention, which is based on the above background technology and uses cheap alumina ( $Al_2O_3$ ) and calcium oxide ( $CaO$ ) as the stabilizer in place of yttrium oxide ( $Y_2O_3$ ) and cerium oxide ( $CeO_2$ ), thereby significantly reducing the cost, and still achieving similar results.

On May 29, 2013, the petitioner, Beijing Trade Promotion Business Consulting Company, submitted a request for invalidating the present patent, asserting that: claim 1 is written in an open mode instead of a close mode according to Chapter 10, Part II of

the Guidelines for Patent Examination; and claim 1 itself is clear so that it is unnecessary to refer to the description to interpret the claim. Therefore the protection scope of claim 1 shall be determined as not excluding other unmentioned components. Based on the above understanding, the petitioner submitted as evidence an enforced judgment rendered in a lawsuit for patent infringement of CN1050589C, Civil Judgment (2009) Hu Gao Min San (Zhi) Zhong Zi No. 137, and stated that the commercial products that were accused of patent infringement, B120 (0.125-0.250 mm, having the chemical composition of "ZrO<sub>2</sub>+HfO<sub>2</sub> 63.94%, Y<sub>2</sub>O<sub>3</sub> 0.11%, CeO<sub>2</sub> 0.011%, SiO<sub>2</sub> 30.02%, Al<sub>2</sub>O<sub>3</sub> 5.84%, HfO<sub>2</sub> 1.45%") and B60 (0.063-0.125mm, having the chemical composition of ZrO<sub>2</sub>+HfO<sub>2</sub> 63.94%, Y<sub>2</sub>O<sub>3</sub> 0.13%, CeO<sub>2</sub> 0.015%, SiO<sub>2</sub> 29.902%, Al<sub>2</sub>O<sub>3</sub> 5.54%, HfO<sub>2</sub> 1.46%) should constitute a disclosure by use against claim 1 of the present patent since they fall into the protection scope of claim 1, thus destroying its novelty.

After examination, the Patent Reexamination Board holds that the determination of the protection scope of a claim shall not be separated from the content of the description and drawings so as to be limited to only the literal expression of the claim. If the person skilled in the art can judge from the disclosure as stated in the description that a claim should not have certain technical features, then the technical solution involving these technical features should be reasonably excluded from the claim scope as far as such exclusion is not evidently contrary to the written expression of the claim. The inventive point of the present invention is to use cheap Al<sub>2</sub>O<sub>3</sub> or CaO as a stabilizer in place of expensive Y<sub>2</sub>O<sub>3</sub> and CeO<sub>2</sub>, thereby reducing the production cost of ceramic sandblasting beads. Having reading the description, the person skilled in the art can determine that in order to achieve the purpose of the invention, the technical solution of claim 1 must have neither CeO<sub>2</sub> nor Y<sub>2</sub>O<sub>3</sub> and the technical solution containing CeO<sub>2</sub> and Y<sub>2</sub>O<sub>3</sub> can be reasonably excluded from the protection scope of claim 1. Therefore, the technical solution of claim 1, compared with the existing products B120 and B60, is different at least in that it does not contain Y<sub>2</sub>O<sub>3</sub> or CeO<sub>2</sub>. Based on the above understanding, the accused products do not fall into the protection scope of the present patent and thus cannot destroy its novelty. Therefore, the Patent Reexamination Board rejected the request for invalidation.

### Interpretation and Analysis

An important question raised in the invalidation case is how to reasonably determine the protection scope of a claim. According to the provisions of Article 59, paragraph one of the Chinese Patent Law, the protection scope 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 content of the claims. This article definitely stipulates that the protection scope of a patent right is determined by taking the content of a claim as the objective basis, while allowing the use of the description and

drawings to explain the claim scope.

First of all, the content of a claim plays a predominant role in determining the scope of protection of the claim. According to the guideline of Civil Judgment (2012) Min Ti Zi No. 3 issued by the Supreme Court, the content of a claim for an invention or a utility model shall be determined according to the language of the claim, in combination with PHOSITA's understanding of the claim when he reads the description and drawings. In the retrial related to Civil Judgment (2012) Min Ti Zi No. 3, claim 1 recites "forming the surface of plastic film with a 0.04-0.09 mm thick uneven and rough face". As can be clearly understood from the above recitation, it means that the uneven and rough face on the surface of the plastic film has a thickness of 0.04-0.09 mm. Although the Examples of the description have mentioned that the thickness of the plastic film may be 0.04, 0.09, or 0.07mm, which shows the numerical values close to or even overlapping with those as recited in the claim, however, PHOSITA would in no case recognize that the above recitation was intended to mean that the thickness of the plastic film is in the range of 0.04-0.09 mm even after reading the description. Hence the recitation "forming the surface of plastic film with a 0.04-0.09 mm thick uneven and rough face" can be undoubtedly constructed as that the uneven and rough face on the surface of the plastic film has a thickness of 0.04-0.09 mm. It can be seen that the content of a claim plays a predominant role in determining the protection scope of the claim, while the description may be referred to if necessary.

However, if a claim needs to be interpreted to some extent going beyond the claim language, the disclosure of the description will play a significantly important part in determining the scope of the claim. Invalidation Decision No. 3817 issued by the Patent Reexamination Board is present as a relevant precedent. The question raised in this case is how to interpret the feature "lens" of claim 1. Literally, the feature "lens" embraces not only the planar lens but also the curved one. Having read the description and appended drawings, however, PHOSITA can recognize that for the purpose of achieving the effects recorded in the patent description and overcoming the defects existing in the background technology, the technical feature of "the planar lens" must be used, and that the technical solution involving "the curved lens" is not in the protection scope of the patent. Therefore, it can be determined that the claim covers only "the planar lens" according to the interpretation of the claim in combination with PHOSITA's understanding of the description. Such practice for determining the protection scope of a claim from the substance of the invention not only balances the interests of patent owners and the public, but also promotes the settlement of dispute.

To sum up, it is quite necessary to determine the substantive scope of a claim according to PHOSITA's understanding of the claim after they have read the description and appended drawings. Always keep in mind that *"no matter how clear a claim appears to be*

*clear, lurking in the background are documents that may completely disrupt initial views on its meaning”.*

As far as the present case is concerned, it involves the question of whether or not the claimed composition optionally comprises the components  $Y_2O_3$  and  $CeO_2$ . Claim 1 is in an open mode, which does not explicitly exclude the components  $Y_2O_3$  and  $CeO_2$ . That is, the composition of the claim 1 can be interpreted as comprising  $CeO_2$  and  $Y_2O_3$  as the optional components. However, it is clearly recited in paragraph [0050] of the description that “the Chinese patent No. CN1050589C discloses molten ceramic beads and its use. The disclosed molten ceramic bead embrace a broad range of  $ZrO_2$ - $HfO_2$ - $SiO_2$  compositions with additional oxides  $Y_2O_3$  and  $CeO_2$ , showing excellent wear resistance, and can be used as a high-grade grinding and dispersing media. However, the ceramic beads have a limited application and almost no acceptance in the sandblasting industry because of its high cost resulting from the use of  $Y_2O_3$  and  $CeO_2$  as a stabilizer”, and in paragraph [0051] of the description that “the purpose of the present invention is to provide zirconium silicate ceramic sandblasting beads that is inexpensive, capable of eliminating the internal stress, and improving the surface treatment to metal or plastic workpieces”. Furthermore, in Summary of Invention and Embodiments of the description are disclosed blasting beads having  $ZrO_2$ - $HfO_2$ - $SiO_2$  composition with additional  $Al_2O_3$  and  $CaO$  for solving the above technical problems of the existing technology and achieving the desired technical effects. The inventive merit of the present invention is to select cheap  $Al_2O_3$  and  $CaO$  as a stabilizer to reduce the production cost of ceramic blasting beads. PHOSITA can understand that for the purpose of reducing production cost, the use of  $Y_2O_3$  and  $CeO_2$  as a stabilizer is not desirable upon reading the description. Therefore,  $Y_2O_3$  and  $CeO_2$  can be reasonably excluded from the composition of claim 1.

The determination of the protection scope of a claim in this case embodies the Supreme Court’s spirit of how to determine the scope of a claim according to what the invention is in substance. In terms of the claim language, it covers both the technical solutions of containing  $Y_2O_3$  and  $CeO_2$  as a stabilizer and of containing none of  $CeO_2$  and  $Y_2O_3$ . In this situation, the disclosure of the description becomes significantly important for the interpretation of the claim. Actually, claim 1 was not made so perfect, as it fails to expressly exclude such technical solution that the inventors had intended not to claim. Recent years China has seen the increasing number of applications and granted patents, which has raised worries about their quality. Such worries are being aggravated by a flood of utility model and design patents granted without going through the substantive examination. It becomes quite common that people question the validity of granted patents. Claim 1 at issue takes an open mode, and therefore the claim language does not expressly exclude  $Y_2O_3$  or  $CeO_2$ . This should have been an obvious defect. However, as the description of the patent has sufficiently described the object of the invention to solve



the clearly specified problem, PHOSITA can understand that the inventive merit lies in reducing production cost by replacing the cheap stabilizer deliberately selected for the expensive one. The composition containing expensive  $Y_2O_3$  and  $CeO_2$ , no matter what amount they are added in, shall not be considered to aim at solving the problem of the existing technology and achieving the object of the invention. Therefore, it departs from the scope of the claimed invention. During the examination of the invalidation case, the Patent Reexamination Board has interpreted the claim scope according to what the invention is in substance, excluding those compositions that depart from the purpose of the invention, further confining the scope. Such a practice advantageously balances the interests of the patent owner and the public.

Looking back to the present invalidation case, the focus of debate actually comes from the flaw in the language of claim 1. This issue would be avoided if the claim had been made in line with the inventive merit of the invention, by fully taking into account the technical problems to be actually solved, the technical means adopted, and the desired technical effects so as to reasonably define the claim scope. For example, independent claim 1 can be re-drafted as zirconium silicate ceramic sandblasting beads, characterized in that: having the following composition: 50 to 80% of  $ZrO_2$  and  $HfO_2$ , and 4.5 to 6.5% of  $Al_2O_3$  or 4.5% to 6.5% of  $CaO$ ; when the composition does not contain  $CaO$ , the amount of  $SiO_2$  is 15% to 45% of the composition, and when the composition contains  $CaO$ , the amount of  $SiO_2$  is 10% to 45% of the composition, expressed as the weight percentage based on the oxide weight, wherein the zirconium silicate ceramic blasting beads do not contain  $Y_2O_3$  or  $CeO_2$ .

To sum up, when drafting a patent, the applicant shall take fully account of the technical problems to be solved by the technical solution, the technical means adopted and the desired technical effects, so as to accurately grasp the inventive merit of the invention, and reasonably define the claim scope.

## Reference

- [1] Civil Judgment (2012) Min Ti Zi No. 3
- [2] Invalidation Decision No.3817
- [3] Explanation on the Chinese Patent Law, Xintian Yin, published by the Intellectual Property Press (2011)
- [4] Civil Judgment (2009) Hu Gao Min San (Zhi) Zhong Zi No. 137
- [5] Autogiro Co. of America v. United States, 384 F.2d. 391, 397, 155 USPQ 697

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## Interpretation and Inventive Step of Markush Claims

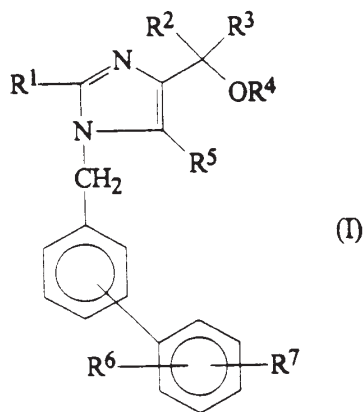
Beijing Winsunny Pharmacy Co., Ltd. v. Daiichi Sankyo Co., Ltd. (Administrative Judgment (2012) Gao Xing Zhong Zi No. 833 by the Court on Sep. 24, 2013)

**A Markush claim should be interpreted as a collection of a plurality of parallel alternative technical solutions instead of a single generic technical solution. Accordingly, during examination and invalidation proceedings, it is allowed to delete any alternatives of any variables from a Markush claim. A Markush claim involves an inventive step only when every particular compound as claimed produces unexpected effects or has unexpected use as compared with a prior art compound of similar structure.**

### Facts

Daiichi Sankyo Co., Ltd. (Daiichi Sankyo) owns Chinese Patent No. 97126347.7 ('347 Patent), where the allowed Claim 1 read as follows:

A process for preparing a pharmaceutical composition for the treatment or prophylaxis of hypertension, which comprises mixing an anti-hypertensive agent with a pharmaceutically acceptable carrier or diluent, in which the anti-hypertensive agent is at least one compound of formula (I) or a pharmaceutically acceptable salt or ester thereof,



in which:

R<sup>1</sup> represents an alkyl group having from 1 to 6 carbon atoms;

R<sup>2</sup> and R<sup>3</sup> are the same or different and each represents an alkyl group having from 1 to 6 carbon atoms;

R<sup>4</sup> represents a hydrogen atom or an alkyl group having from 1 to 6 carbon atoms;

R<sup>5</sup> represents a carboxy group, a group of COOR<sup>5a</sup> in which R<sup>5a</sup> represents ..., or a group of formula -CONR<sup>8</sup>R<sup>9</sup>, in which R<sup>8</sup> and R<sup>9</sup> are the same or different and each represents ...;

R<sup>6</sup> represents a hydrogen atom; and

R<sup>7</sup> represents a carboxy group or a tetrazol-5-yl group.

The Beijing Winsunny Pharmacy Co., Ltd. (Winsunny) requested to invalidate '347 Patent on the ground of lack of inventive step over the prior art EP0324377A2. In response to the challenge to the inventiveness, Daiichi Sankyo tried to amend Claim 1 by removing "or ester thereof", removing "or an alkyl group having from 1 to 6 carbon atoms" from the definition of R<sup>4</sup> and removing "or a group of formula -CONR<sup>8</sup>R<sup>9</sup> ..." from the definition of R<sup>5</sup>.

The Patent Reexamination Board (PRB) concluded that the removal of "or esters thereof" is acceptable, but the change of definitions of R<sup>4</sup> and R<sup>5</sup> is not acceptable. The PRB also concluded that Claim 1 (after the removal of "or esters thereof") involves an inventive step based on the findings that there are some differences between formula (I) defined in Claim 1 and formula (I) of EP0324377A2 in terms of some substituents, that the prior art provides no teaching of replacing the substituents mentioned in EP0324377A2 with those defined in Claim 1, and that the claimed compounds produce unexpected technical effects over the reference compound provided in the description of '347 Patent.

After Winsunny appealed this case to the Beijing First Intermediate Court, the Beijing First Intermediate Court dismissed the appeal and ruled that the PRB's decision is correct. Then, Winsunny filed the second appeal to the Beijing High Court (the Court hereinafter), which court reversed the PRB's decision, and dismissed the first-instance judgment.

The Court held that the PRB and the Beijing First Intermediate Court are wrong in rejecting the deletions of some elements from Markush claims. In addition, the PRB and the Beijing First Intermediate Court adopted a wrong methodology in evaluation inventiveness of Markush claims because the inventiveness of a Markush claim requires "each compounds covered [by the claim] should have unexpected effects or have unexpected use over a similar specific compound mentioned in the prior art [if such a compound exists in the prior art]". The Court concluded that Claim 1 does not involve an inventive step because some particular compounds within the scope of Claim 1 do not produce unexpected effects over Example 329 of EP0324377A2, a particular prior art compound

with structure very similar to these compounds.

In 2014, the Beijing High Court listed this case as one of “2013 Top Ten Creative IP Cases” as it clarifies how to correctly interpret Markush claims.

### Interpretation and Analysis

#### I. Amendments to Markush Claims in view of the nature of Markush claims

In one respect, the present case relates to amendments to claims during invalidation proceedings. According to the *Guidelines for Examination*, during invalidation proceedings, the patentee is allowed to make amendments to the claims but the specific manners of amendment are generally limited only to deletion of a claim, combination of claims, and deletion of a technical solution contained in a claim, wherein “deletion of a technical solution” means to remove one or more technical solutions from several parallel technical solutions defined in a claim. So, in the present case, the key issue is whether the amendments to the definitions of R<sup>4</sup> and R<sup>5</sup> should be regarded as a kind of “deletion of a technical solution”.

The different attitudes toward such amendments reflect the long-standing debate over the nature of Markush claims – whether a Markush claim only defines a single generic technical solution or is just a collection or list of many alternative technical solutions. As illustrated in the present case, when relating to a chemical compound, a Markush claim usually contains a general formula with various substituents at different sites of the molecule, wherein each substituent is variable and has many alternatives (options). By varying the substituents, a Markush claim may cover a lot of different compounds. However, it is controversial whether such a Markush claim, in its nature, defines a single general formula covering a lot of compounds or is just a kind of shorthand or abbreviation for a list of different compounds.

The Court has expressly stated their support to the latter opinion in the judgment, which is excerpted as follows:

“Both the first-instance court and the PRB hold that deletions of certain elements from Markush claims is not deletion of technical solution from multiple alternative technical solutions, and therefore does not conform to Rule 68 of the *Implementing Regulations*. This opinion in fact means regarding a Markush claim as a single generic technical solution and precludes such deletions during an invalidation proceeding. This court does **NOT** agree with such an opinion.”

The Court has also confirmed that “during both the examination procedure and invalidation proceeding, the applicant/patentee should be allowed to delete certain alternatives for certain variables from Markush claims, which deletion is a kind of deletion of

technical solution from multiple parallel technical solutions”.

By doing so, the Court officially clarifies that Markush claims should be interpreted as a collection of a plurality of parallel alternative technical solutions instead of a single generic technical solution. Accordingly, during examination and invalidation proceedings, it should be allowed to delete any options of any variables from a Markush claim.

However, the judgment has not calmed down the hot debate over Markush claims. For example, an influential Chinese academic journal published a paper by two senior examiners of the PRB directly doubting the judgment of the Court (Li Yue and Ni Xiaohong, *China Patents & Trademarks*, No. 1, 2015, P. 56-71).

Although there are different opinions about the judgment, the author agrees with the Court in this regard.

1. First, it seems the PRB in fact adopted inconsistent criteria in allowing the removal of “or esters thereof” and rejecting the deletion of some options from definitions of R<sup>4</sup> and R<sup>5</sup> in the present case.

It is well known that “a compound or ester thereof” just represents a compound with a general formula, wherein a substituent at a certain molecular site may be either -OH or -OOR (R is e.g. an alkyl group). So, the removal of “or ester thereof” only represents the removal of some alternative substituents at a certain site. Meanwhile, the removal of options for certain substituents in a Markush claim also means the removal of some alternative substituents at a certain site. So, in the present case, there is no substantial difference between the removal of “or esters thereof” and the deletion of some options from definitions of R<sup>4</sup> and R<sup>5</sup>, and it seems not appropriate to allow one kind of amendment while rejecting another.

In contrast, the Court seems to adopt more uniform standard on the amendments.

2. Li Yue and Ni Xiaohong, *supra*, argue that interpreting a Markush claim as a collection of alternative technical solutions may be not compatible with some well-recognized patent practice. For example, both USPTO and SIPO allow granting particular compounds within the scope of a prior Markush claim, which is known as “selection invention” in China. Such a practice implies that particular compounds within an allowed Markush claim are still deemed to be novel. However, if the Markush claim is interpreted to be equivalent to a list of a plurality of particular compounds in parallel, any particular compounds within the scope of the Markush claim would be rendered non-novel. This seems to be a paradox.

The above argument is not persuasive for overlooking special requirements for the disclosure of a chemical compound. For the novelty of a chemical compound, the *Guidelines*

*for Examination* has the following stipulations: “For a compound claimed in an application, if it has been mentioned in a prior art reference document, it is deduced that the compound does not possess novelty” and “the word ‘mention’ means to clearly define or explain the compound by the chemical name, the molecular formula (or structural formula), and the physical/chemical parameter (s) or the manufacturing process (including the raw materials to be used).” That is to say, although a Markush claim can be interpreted to list every and all compounds covered by a formula, it does not mean that all of these compounds have been adequately disclosed and thus such a Markush claim may not destroy the novelty of each compound. In fact, the PRB adopted similar criteria in the determination of novelty in many of their own cases, which assert that a prior art general formula cannot anticipate particular compounds within its scope unless the particular compounds were actually prepared and/or identified in the prior art.

That is to say, a Markush claim can be interpreted as listing each compound within its scope, but it does not mean that each compound has been sufficiently disclosed. So, interpretation of a Markush claim as a group of technical solutions does not preclude the practice of “selection invention”.

3. Li Yue and Ni Xiaohong, *supra*, also argue that interpreting a Markush claim as a collection of alternative technical solutions may have some potentially adverse influences and may be detrimental to the public’s interests. In particular, “allowing such deletion directly renders the future scope of protection of a patent unpredictable, or even results in an unacceptable scope” because:

- 1) “When a patentee is faced with an invalidation request, a new mid-scope is certain to be created in the claims after an option of any variable is deleted”;
- 2) “once [a Markush claim] is allowed to delete any option, the ways of deleting options to correct the same flaw in the claim can be quite varied and unpredictable, which is likely to render the scope of protection uncertain and unpredictable after amendment”, and
- 3) as “invalidation of one patent right can be repeatedly requested”, “it is not difficult to imagine that an independent claim with some options deleted several times will be an ever standing ‘hornet’s nest’ full of holes in it”.

In contrast, the judgment of the Court describes the disadvantages of interpreting a Markush claim as a generic technical solution and not allowing deletion of some alternatives from the claim. The Court states:

“It is well known that during the drafting and examination of patent applications, both the applicant and the examiner can only conduct a prior art search within a certain

scope. Due to the infinity of the prior art, no one can make an exhaustive prior art search. If a granted Markush claim is deemed as a single generic technical solution and deletion of certain alternatives for certain variables is not allowable, then the patentee would find it very difficult to withstand other's attack on the validity of the patent. It is impossible for the patentee to learn or predict whether there was a specific technical solution falling within the granted claim before the filing date, then it would be very easy to invalidate the patent right, rendering the existence of Markush claims meaningless."

It seems each opinion has its own merits and reasons. The PRB is in favor of the public while the Court is in favor of the patentee. One of the underlying principles for the modern patent system is to establish a balance between the patentee's legal right and the public's interests. In this sense, the opinion of the Court seems to be more justified.

What the PRB worries about is the following scenario: after a Markush claim is granted, someone finds a prior art compound falling within the scope and challenges the validity of the Markush claim, then the patentee amends the claim to circumvent the prior art compound, then once again someone finds a new prior art compound within the scope of the amended claim, and then the claim is amended again, and such a process is repeated again and again. It can be imagined that the possibility of repeatedly finding one compound after another within the scope of an allowed Markush claim should be very low. Instead, just finding one prior art compound within the scope of the Markush claim may be high.

So, what the Court concerns is a high probability event, while the PRB is focused on a very small probability event. From the view of probability theory, the Court's opinion is more justified while the PRB's opinion is less meaningful.

4. According to the Court, although it is allowed to delete certain elements from a Markush claim, there is an exception for such amendments, as stated in the judgment:

"In view of the fact that not all of the compounds covered by a granted Markush claim have been actually prepared, the boundary for the allowable amendments is not to make the amended claim become particular compounds not disclosed in the description; otherwise there would be no room for a selection invention toward a Markush claim."

That is to say, it is allowed to narrow down a Markush claim into particular compounds disclosed in the description, but not allowed to narrow down a Markush claim into particular compounds not disclosed in the description. In fact, the Court deems the latter kind of amendment as an exception.

However, the author has different opinions on this and it seems unnecessary to treat such an amendment as an exception. As the Court confirms, a Markush claim relating to compounds should be interpreted as a list of a lot of compounds, each of which is alternative to another. By “alternative”, it means there is no need to distinguish the compounds disclosed in the description from those not disclosed and treat them in different ways. If a Markush claim is interpreted as a list of many compounds, it should be allowed to delete any compounds and leave any compounds without any discrimination. Furthermore, as discussed above, narrowing down a Markush claim into specific compounds not disclosed in the description will not destroy the novelty of these compounds, and thus will still leave room for selection inventions. So, it seems not necessary to draw a boundary for the allowable amendments to Markush claims.

It may remain controversial whether narrowing down a Markush claim into specific compounds not disclosed in the description goes beyond the original disclosure. In the author’s opinion, if a Markush claim should be interpreted as a collection of parallel technical solutions, such an amendment does not bring any substantially new subject matter and thus does not go beyond the original disclosure.

For the above reasons, the author agrees that a Markush claim should be interpreted as a collection of a plurality of parallel alternative technical solutions instead of a single generic technical solution, and it should be allowed to delete any alternative technical solution from a Markush claim.

## II. Inventive step of Markush Claims

As the Court interprets a Markush claim as a collection of several alternative technical solutions, the inventive step of a Markush claims should also be determined by way of comparing an individual technical solution covered by the claim with the prior art instead of regarding the claim as a whole. In particular, the Court states that the inventive step of a Markush claim should be evaluated in the following manner:

“When a Markush claim relates to chemical compounds, such a claim usually covers thousands of specific compounds and thus has a very broad scope. In this case, it requires that each specific compound covered by the claim should exhibit unexpected technical effects or has unexpected use as compared with a prior art specific compound with similar structure so as to render the claim inventive. In the determination of inventive step involving comparison of different Markush claims, screening should be first made within the scopes of the different Markush claims in order to select some specific compounds having structures as similar as possible to each other, and then a comparison of technical effects should be made. As long as there is a specific compound falling within a Markush claim which does not produce any expected technical effects and has

no unexpected use as compared with a specific prior art compound with similar structure, it should be determined that such a Markush claim does not involve an inventive step.”

In other words, in the determination of inventive step involving Markush claims, the comparison should be made on a compound-to-compound basis instead of formula-to-formula basis. For example, in the present case, the Court adopted the above methodology to determine the inventive step of Claim 1 of ‘347 Patent. In particular, the Court has found that Examples 10, 17, 19, 22-24, 50 and 69 of ‘347 Patent have structures very similar to Example 329 of EP0324377A2. So, the eight compounds are identified as specific examples to be compared with Example 329 of EP0324377A2. A comparison shows that, as compared with Example 329, four of these eight compounds exhibit superior technical effects while the other four exhibit inferior technical effects. Such a result shows that there is at least one compound within the Markush claim, which does not produce any expected technical effects and has no unexpected use as compared with a specific prior art compound with similar structure, and thus Claim 1 is not inventive.

Obviously, the above methodology set forth by the Court is consistent with interpretation of a Markush claim into a collection of a plurality of parallel alternative technical solutions. Unfortunately, the Court does mention how to determine inventive step of a Markush claims when a compound-to-compound comparison is not feasible, for example, in case it is not possible to find similar compounds for comparison or there are no experimental data available for a compound-to-compound comparison.

Previously, during the examination of inventive step of Markush claims, Chinese examiners usually compared the overall similarity between two general formulae in different Markush claims and judged whether there is any motivation in the prior art to modify one general formula into the other. According to the Court, this methodology is not correct, and whenever it is possible, a comparison should be made on a compound-to-compound basis. However, it can be expected that examiners may still tend to follow the old-style methodology because it is relatively simple and easy and the new methodology sometimes is not feasible. So, the present case may not affect the practice of patent examination significantly. However, the new methodology provides a new weapon for opponents in challenging patents having Markush claims.

### **Conclusion and recommendations**

A Markush claims is in fact a hybrid of a generalized concept and a list of alternatives. Whether or not to allow the deletion of alternatives is a controversial issue. There may be no absolutely correct answer. Since all of the PRB’s decisions are to be subjected



to judicial review, the PRB will have to follow the standard established by the Beijing High Court. So, although the debate will continue, applicants/patentees can expect that amendments to Markush claims are less restricted and patent challengers can expect that finding of a prior art compound with similar structure will be helpful in invalidation proceedings.

In view of the opinion of the Beijing High Court, the importance of dependent claims seems to decrease. However, it is still recommended to draft the claims into the traditional multi-layered upside-down pyramid architecture when drafting an application. Because China's Supreme Court has not voiced an opinion on this issue, the possibility that the Supreme Court has a different opinion cannot be excluded.

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## Particularity in the Inventiveness Evaluation of Chemical Composition Inventions

Nippon Steel & Sumikin Stainless Steel v. The Patent Reexamination Board of SIPO (Administrative Judgement (2013) Gao Xing Zhong Zi No. 1754 by Beijing High People's Court on December 19, 2013)

According to the *Chinese Patent Law*, an inventive technical solution should have “prominent substantive features and represents notable progress”. In the practice of the Chinese Patent Law, normally the “3-step method” (determination of the closest prior art, determination of the distinguishing technical feature, and judgement of the presence of technical inspiration) is used to evaluate inventiveness of an invention. However, it is improper to rigidly apply the “3-step method” in the inventiveness evaluation of chemical composition inventions. The reason is, change of ingredients and corresponding contents in a composition may result in a series of physical and/or chemical changes, and the technical effect caused by such changes are hard to predict. In this situation, will be particular hard to “determine whether or not there exists such a technical motivation in the prior art as to apply the distinguishing features to the closest prior art in solving the existing technical problem” in the third step. The second instance court of this case determined that “unexpected technical effect” should be used as a criteria for inventiveness evaluation of such kind of selective inventions. This case was listed in Top 50 Typical Cases in 2013 in China and Top 10 Typical IP Cases in 2013 by the Beijing High People's Court.

The patentee, Nippon Steel & Sumikin Stainless Steel (“Nippon Steel” hereinafter), owns the patent ZL200780016464.X entitled *Stainless Steel Excellent In Corrosion Resistance, Ferritic Stainless Steel Excellent In Crevice Corrosion Resistance And Formability, And Ferritic Stainless Steel Excellent In Crevice Corrosion Resistance*. On September 7, 2011, JianXin LI filed a Request for Invalidation to the Patent Reexamination Board (PRB) against said patent. On May 18, 2012, the PRB issued the No. 18653 Decision to the Request for Invalidation (“Decision No. 18653” hereinafter), wherein all claims of said patent were invalidated. Nippon Steel were not satisfied with the decision and filed an administrative lawsuit to the Beijing First Intermediate People's Court. After hearing, the Beijing First Intermediate Court upheld the Decision No. 18653. Nippon Steel was not satisfied with the first instance decision and appealed to the Beijing High People's Court (“Beijing High Court” hereinafter) on August 30, 2013. The Beijing High Court

canceled the judgement of the first instance as well as Decision No. 18653 upon trial.

Key point of this case relies in the different opinions held by the PRB, the First Intermediate Court and the Beijing High Court on evaluation of inventiveness of claim 7 (as follows) over the closest prior art Document 4 (D4).

“7. A ferritic stainless steel excellent in crevice corrosion resistance, characterized in containing by mass%: C: 0.001-0.02%, N: 0.001-0.02%, Si: 0.01-0.5%, Mn: 0.05 -1%, P: 0.04% or less, S: 0.01% or less, Cr: 12-25%, one or two of Ti and Nb according to the range of Ti: 0.02-0.5% and Nb: 0.02-1%, and Sn: 0.005-2%, the remainder consisting of Fe and inevitable impurities.”

D4 discloses a ferritic stainless steel excellent in high temperature strength, containing by mass%: C: 0.001-0.1%, N: 0.001-0.05%, Cr: 10-25%, S: 0.01% or less, P: 0.04% or less, Mn: 0.01-2%, Si: 0.01-2%, O: 0.01% or less, Sn: 0.05-2%, further containing one or more of Ti: 0.01-1%, Nb: 0.01-1%, the remainder consisting of Fe and inevitable impurities. It is known in the art O as described in D4 belongs to inevitable impurities.

In addition, several embodiments are disclosed in the specification of the captioned invention (as follows, table 7 of the captioned invention). C1-C13 of table 7 fall in the range of the captioned invention, and their maximum corrosion depth are less than 600  $\mu\text{m}$  and thus have excellent crevice corrosion resistance. Comparative example C16 is outside the range of the captioned invention but falls in D4. C16's maximum corrosion depth is above 800  $\mu\text{m}$  and thus has poor crevice corrosion resistance.

Table 7

	No.	Maximum Corrosion Depth ( $\mu\text{m}$ )
Embodiment	C1	516
Reference	C2	534
Embodiment	C3	487
Reference	C4	402
Embodiment	C5	376
Reference	C6	397
Embodiment	C7	213
Embodiment	C8	205
Reference	C9	188
Embodiment	C10	168
Embodiment	C11	336

Embodiment	C12	138
Embodiment	C13	356
Comparative Embodiment	C14	846
	C15	875
	C16	925

In Decision No.18653, the PRB holds that the difference between Claim 7 and D4 is, contents of Mn and Ti of Claim 7 fall in the range of D4. The function of Mn and Ti in ferritic stainless steel is well-known in the art. Based on D4, those skilled in the art may consider using 0.05-1% of Mn and 0.02-0.5% of Ti in ferritic stainless steel according to factors such as realistic needs and prices etc. That is to say, the context range of Mn and Ti defined in Claim 7 is ordinary choice for those skilled in the art, and its technical effect is predictable. Therefore, Claim 7 is not inventive over D4.

The court in the first instance admitted that the difference between Claim 7 and D4 is, contents of Mn and Ti of Claim 7 fall in the range of D4. In the determination of the inventiveness, it should be considered whether there is an evidence in the captioned invention proving that the above difference between Claim 7 and D4 brings excellent crevice corrosion resistance to the stainless steel and thus it can be concluded that the technical problem to be solved by the invention is obtaining a ferritic stainless steel excellent in crevice corrosion resistance. Only C1 of the captioned invention falls in the scope of Claim 7, but contents of several elements in C1 are different from that in C14-C16. Therefore, it cannot be concluded that the ONLY reason for excellent crevice corrosion resistance is the differences in contents of Mn and Ti. Therefore, it would be obvious for those skilled in the art to make selection in the range of D4 in order to get the technical effect of “excellence in high temperature strength” and obtain the ferritic stainless steel of Claim 7. Court in the first instance thus holds that Claim 7 is not inventive over D4.

The Beijing High Court denied the determination methodology of “distinguishing technical feature – technical effect achieved – technical problem to be solved” held by the PRB and the Beijing First Intermediate Court in the inventiveness determination of Claim 7. The Beijing High Court holds the following opinions:

*When the subject matter of an invention relates to chemical mixture or composition, every ingredient and its content should be defined in the independent claim as they are all necessary technical features. In such technical solutions, changes of ingredients and their contents may result in corresponding physical or chemical reactions, which may result in changes in the technical effect of the whole technical*

*solution. Therefore, when those skilled in the art can predict technical effect resulted from changes of ingredients and their contents in a technical solution, then it is appropriate to use the “3-step method” in evaluation of inventiveness. When it is hard for those skilled in the art to predict technical effect resulted from changes of ingredients and their contents in a technical solution, the “3-step method” cannot be applied rigidly, while unexpected effect caused by the technical solution should be considered as the main criteria for inventiveness determination.*

*Claim 7 have the same ingredients with D4, and the numerical ranges of all contents of these ingredients (except for Mn and Ti) in Claim 7 have one same terminal point as D4, and the other terminal point falls in the range of D4. In addition, the content ranges of Mn and Ti of Claim 7 entirely fall in the range of D4. That is to say, the technical solution of Claim 7 is a selective invention of D4.*

The Beijing High Court holds that unexpected technical effect caused by selection is the major point to be considered in evaluation of inventiveness of selective inventions. According to the description of the captioned invention, the objective of the captioned invention is to synthesize a ferritic stainless steel with crevice corrosion resistance. According to the above table 7, the maximum corrosion depth of C1 (516  $\mu\text{m}$ ) has an increase of 44% in comparison to that of C16 (925  $\mu\text{m}$ ). Since C16 is a technical solution falling in D4 while falling outside the range of Claim 7, it can be considered that Claim 7 obtained unexpected technical effect over D4 and thus involves an inventive step.

### **Interpretation and Analysis**

The Beijing High Court comes to the conclusion that the “3-step method” is not applicable for the captioned invention and unexpected technical effect should be the key point considered in the evaluation of inventiveness. However, the Beijing High Court does not list its detailed reasoning process. The writer lists her analysis and opinions as follows.

In the captioned case, the PRB and the court in the first instance emphasize the distinguishing technical feature of Mn and Ti contents, and expect to evaluate the technical effect caused by this single technical feature. In the writer’s opinion, this methodology of separating a single technical feature and its technical effect from the whole technical solution goes against the “overall principle” in the evaluation of inventiveness.

According to the *Guidelines for Patent Examination*, when evaluating whether or not an invention involves an inventive step, the examiner shall consider not only the technical solution itself, but also the technical field to which the invention pertains, the technical problem solved, and the technical effects produced by the invention. The invention shall be considered as a whole<sup>53</sup>. In addition, in the course of the “3-step method”, what is to be

53 Guidelines for Patent Examination, Part II, Chapter IV, 3.1

*determined is whether or not there exists such a technical motivation in the prior art **as a whole** to apply said distinguishing features to the closest prior art in solving the existing technical problem (that is, the technical problem actually solved by the invention)*<sup>54</sup>. As stipulated in the above regulations, both the technical solution to be evaluated and the prior art should be considered as a whole. No technical feature should be evaluated separately from the technical solution, i.e., what we are evaluating is the inventiveness of a technical solution, not that of a technical feature. This is the important “overall principle” in the evaluation of inventiveness.

As for chemical composition, changes of contents of one or more ingredients seem not involving any “prominent substantive feature”. Under this situation, stipulations related to “unexpected technical effect” in the *Guidelines for Patent Examination* can be considered: *if the invention produces an unexpected technical effect as compared with the prior art, the examiner may determine that the invention involves an inventive step without the need to question whether its technical solution has prominent substantive features*<sup>55</sup>. Changes of ingredients and their contents usually have non-linear relationship with the results caused by them. Eventually, these changes may accumulate and influence each other, and thus the **overall** technical effect resulted from them is hard to predict. The comparison between C1 and C16 in the captioned invention proves that the captioned invention obtained a technical effect much better than the prior art, which is definitely an “unexpected technical effect” and brings inventiveness to the captioned invention.

Considering that non-linear relationship between technical features and effects exist not only in the field of chemistry, the captioned case also raises inspiration in the inventiveness evaluation in other technical fields. The writer cites a paragraph of a former judge in the IP tribunal of the Beijing Intellectual Property Court to summarize inspiration of the captioned case to inventiveness evaluation as follows:

*When determining whether a particular technical feature plays the same in the prior art as in the questioned technical solution and whether there exists any technical inspiration, the relationship between such a technical feature and said technical solution should be considered. It should be noted, if said technical feature has linear relationship with its technical effect, then those skilled in the art can predict influence to the technical effect caused by change of said technical feature while other technical features remain unchanged. Under this situation, it can be concluded that the influence to the technical effect caused by change of said technical feature fits prediction of those skilled in the art, i.e. the prior art provides technical inspiration that said technical feature can be applied in the questioned invention to obtain said technical effect. If change of said technical feature has unexpected*

<sup>54</sup> Guidelines for Patent Examination, Part II, Chapter IV, 3.2.1.1

<sup>55</sup> Guidelines for Patent Examination, Part II, Chapter IV, 6.3

*interaction with other technical features and result in unexpected technical effect of the questioned technical solution (i.e. a “butterfly effect”), it should not be concluded that there exists technical inspiration to apply such a technical feature in the prior art so as to obtain the corresponding technical effect.*<sup>56</sup>

At the end, actually the difference of Sn contents (0.005-2% vs. 0.05-2%) makes Claim 7 not strictly a “selective invention” of D4. Although this conclusion of the Beijing High Court is questionable, it does not influence the correct application of the judgement method under the “overall principle” and the criteria of “unexpected technical effect” in the captioned case.

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<sup>56</sup> “Butterfly Effect in the Evaluation of Inventiveness of Patent”, Shi Bisheng, *China Intellectual Property*, Colum No. 100

## Determination of Similarity Criteria in Design Infringement

MAPED v. Yangjiang Bonly Industries Ltd. et al. (Civil Ruling (2013) Min Shen Zi No.29 by the Supreme People's Court on September 22, 2013)

**The similarity criteria is always a focus of attention in determination of design infringement. Conventionally, people often discuss whether two designs are alike in determining design infringement without objective analysis standards. The scissors case at issue presents several important issues regarding similarity criteria that we will discuss in detail. Further, we will discuss some considerations, such as freedom to design, prior designs, influence of feature on the overall visual effect etc., that should be taken into account in similarity determination.**

The patentee, MAPED, has a scissors design 200430002915.3 ('915 design), as shown in figure 1. MAPED filed a lawsuit before Guangzhou intermediate court, alleging that Yangjiang Bonly Industries Ltd. et al. (hereinafter "Bonly et al.") made and sold scissors (as shown in figure 2) that infringed the '915 design. The patentee said, except that the accused infringing scissors has a color pattern on the blades and a larger pivoting pin with curved ridge, the rest components of the accused infringing scissors are identical to the '915 design.



Figure 1

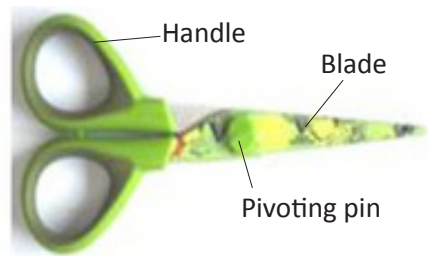


Figure 2

The first instance court and the second instance court both held that, *"the color pattern on the blade is the major distinguishing feature between the accused infringing scissors and the '915 design due to the dominant position of the blade in the scissors. The appearance of the accused infringing scissors is substantially different from the '915 design due to the feature above, causing the both are not similar to each other."* Accordingly, the



courts rejected the request for infringement.<sup>57</sup>

The patentee was unsatisfied with the decision and filed a request for retrial before the Supreme People's Court. The patentee argued that because the '915 design is a design only related to the shape of the scissors, the accused infringing scissors falls within the scope of the '915 design if the former has the same shape as the latter, without considering the pattern and the color of the accused infringing scissors.

The Supreme People's Court held that the focus issue is whether the accused infringing scissors infringed the '915 design. Comparing the accused infringing scissors with the '915 design, they both include the three major components of handle, blades, and pivoting pin positioned in the middle of the scissors. The same features between them are the identical shape of the handle and blade, concentric ring composed of outer light ring and inner dark ring of the handle, and the teardrop-shaped through-hole in the center of the handle. The main differences are as follows. The first distinguishing feature is the shape of the pivoting pin. More specifically, the pivoting pin on the two sides of the accused infringing scissors is a large cylindrical boss with wavy ridge thereon, and the pivoting pin on one side of the scissors of the '915 design is a little metal pin with linear groove thereon. The second distinguishing feature is the color pattern on the blade of the accused infringing scissors. Regarding the first distinguishing feature, the position of the pivoting pin and the obvious differences in shape and size between them are sufficient to make the appearance of the accused infringing scissors substantially differ from the '915 design. Regarding the second distinguishing feature, because the '915 design does not protect color element and the blade has no pattern, the second distinguishing feature is additional design element added to the accused infringing scissors, which should not have essential influence on the determination of design infringement. Finally, the Supreme People's Court rejected the patentee's request for retrial.

### Interpretation and Analysis

There are two typical issues relevant to similarity judgment in design infringement in present case. One is how to exactly define the protection scope of a design. The other is how to evaluate the degree of influence of each design feature on the overall visual effect of a product.

#### I. The Determination of Protect Scope

In this case, the first instance and the second instance court hold that "*the color pattern on the blade*" of the accused infringing scissors is a major feature which causes the accused infringing scissor to be not similar to the '915 design. However, the Supreme People's Court holds that the feature above is an additional design element added to the

<sup>57</sup> Refer to Civil Decision (2010) Hui Zhong Fa Min San Chu Zi No.165 by Guangzhou Intermediate Court and Civil Decision (2011) Yue Gao Fa Min San Zhong Zi No. 164 by Guangdong Province High People's Court.

accused infringing scissors, which should not have essential influence on the determination of design infringement. How then to determine the protection scope of the '915 design?

First, the protection scope of a design does not include color element unless a specific declaration is made in the brief explanation. Generally, the scope of a design which may include the three elements of shape, pattern and color is defined by the design shown in the drawings or photographs.<sup>58</sup> Color alone cannot be protected without shape or pattern in design. If someone wants to protect the color of a design, he or she must write it down in the brief explanation of the design application. Without such declaration, even though the design as shown in the drawings or photographs contains color, the color will be excluded from the protection scope of the design when enforcing the right. In this case, despite that '915 design does not contain color element, the color element in the accused infringing scissors should still not be taken into consideration in similarity comparison.

Second, in determining whether an accused infringing product has infringed a design, it should compare the accused infringing product with the design based on the protected shape, pattern and/or color elements in the design. In this case, the patentee argued that the '915 design contains only the shape of the scissors. But the Supreme Court held that *"the pattern constituted of light and/or dark variety should be considered as pattern element,..., concentric ring composed of outer light ring and inner dark ring of the handle is pattern element."* Hence, the '915 design contains two elements, shape and pattern, the pattern-related features should be taken into consideration in making comparison for establishment of infringement. According to the opinion above, the pattern on the handle and blade of the accused infringing scissors shall be compared with the pattern on the handle of the '915 design. However, the Supreme Court held that the pattern on the blade of the accused infringing scissors *"is an additional element in the accused infringing product, which should have no essential influence in the determination of design infringement."* The Supreme Court's opinion may be challenged from two points as follows. First, there is no provision in the law regarding the determination of whether a feature being *"additional added design element"*. If similarity comparison relates to element(s) of shape, pattern and/or color, each feature belonging to the corresponding element should be taken into consideration. Second, the concept of *"additional added design element"* lacks applicability in practice. All of the features belonging to the same element, such as shape, usually interweave with each other. Consequently, It is difficult to judge whether a feature belongs to *"additional added"* element, a task that would increase uncertainty in reaching a conclusion. I am of the opinion that, in the case dis-

<sup>58</sup> Article 59, paragraph 2 of the Chinese Patent Law provides that, "The extent of protection of the patent right for design shall be determined by the design of the product as shown in the drawings or photographs. The brief explanation may be used to interpret the design of the product as shown in the drawings or photographs."

cussed, the conclusion can be arrived at by considering the influence of the blade's pattern on the appearance of the accused infringing scissors without excluding the feature from consideration.

It is noted that the latest *Draft Amendment of Chinese Patent Law (For Public Comments)* has introduced a provision on partial design.<sup>59</sup> The protection of partial design is expected to confer strong protection for the innovative part of a product with, thus preventing an infringer from modifying the design as a part of the product to go around a design patent.

## II. Considerations in Judgment of Similarity

Following the determination of scope of a design, one should evaluate the degree of influence of a feature on the overall visual effect of a product by considering freedom of design, prior design and visual importance of a feature etc.

First, based on the analysis above, the identical and different features between the '915 design and the accused infringing scissors are analyzed as follow. The main identical features are that they both include handle, blade and pivoting pin, the shape of the handle and blade are identical to each other, and the concentric ring on the handle is identical to each other. The main different features are that the pivoting pin of the accused infringing scissors is larger than the '915 design, and the accused infringing scissors having pattern on its blade.

Second, to determine the freedom to design of the product. Design of a product is often dictated by its function, technical requirements, etc. The restrictions considered in designing a product is referred as Freedom to Design. In this case, regarding scissors, to obtain cutting function, a scissors often includes handle, blades and pivoting pin. The handle often designed in ring shape to allow use by fingers. The blade often designed in slender shape to save material and labor. From the viewpoint of the freedom to design for the three components of a scissors, handle has more variation in design than the blade and pivoting pin.

Third, to analyze the prior designs of the product. Commonly, the occurrence frequency of a certain design feature in prior designs can change its degree of influence on the overall visual effect of the product. If the occurrence frequency of a certain design feature in prior designs is high, the feature's degree of influence on the overall visual effect of the product is also high, and vice versa. In this case, the typical scissors in prior designs are shown in figure 3 below.

<sup>59</sup> Article 2, paragraph 4 provides that, design refer to any new design of the shape, pattern, color, or their combination, of a product or a part of it, which creates an aesthetic feeling and is fit for industrial application.



Figure 3

As shown in figure 3, the occurrence frequency of elongated blade in prior designs is higher. The elongated blade of the '915 design is similar to the blades occurred in prior designs. The teardrop-shaped handle with concentric ring pattern is never found in prior designs. The handle of the '915 design is significantly different from the handles occurred in prior designs. Regarding pivoting pin, small or big pivoting pins both occurred in prior designs with higher frequency. Hence, from the viewpoint of prior designs of scissors, the handle in this case is more likely to attract attention of the general consumer than the blade and pivoting pin.

Forth, to evaluate the distribution of the influence of the feature to the overall visual effect of the product. The following should be taken into account in determining the influence of a design feature on the overall visual effect.

(i) The amount of features included in a design. If a design include only a few features, the variation of the feature is more likely to cause the attention of the general consumer, and vice versa.

(ii) The position of a feature located in a design. The variation of a design feature which located in a position easy to observe in use is more likely to cause the attention of the general consumer, and vice versa.

(iii) The proportion of a feature in a design. The variation of a feature which accounted for a large proportion in the design is more likely to cause the attention of the general consumer, and vice versa.

(iv) The importance of a feature in use. The variation of a feature which located in key using portion is more likely to cause the attention of the general consumer, and vice versa.

Finally, considerations, such as freedom to design, prior designs and the degree of influence of a feature on the overall visual effect of a product, should be taken into account in judging similarity in design.

I will then reanalyze on the case based on what has been discussed above. Regarding a pair of scissors, its shape is more likely to attract attention of the general consumer than its pattern. The handle and blade account for a larger proportion in the design than the pivoting pin, leading the variation of them being more likely to attract the attention of the general consumer. Due to use by directly holding the handle, the variation of handle is more likely to have the attention of the general consumer. Accordingly, the handle has more significant influence on the overall visual effect of product than the blade and pivoting pin. The identical features, including the shape of handle and blade, and the pattern of concentric ring on the handle, is sufficient to cause the '915 design and the accused infringing scissors to have similar design. Regarding the different features, the pivoting pin has not significant influence on the overall visual effect due to high occurrence frequency of pivoting pin in prior designs and the its small proportion in the whole design. Although the pattern on blade is obvious due to its being usually independent from the shape of the product, the pattern is easy to copy among different products and the pattern on the blade and the shape of the blade in this case do not cause visual association and give rise to unique visual effect. The difference in pattern has not significant influence on the overall visual effect of the product. Hence, the '915 design and the accused infringing scissors are similar design.

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# **Latest Laws and Regulations Developments**

### Several Provisions of the Supreme People's Court on Issues Concerning the Application of Law in the Trial of Cases on Patent Disputes

(Adopted on 19 June 2001 at the 1180<sup>th</sup> Meeting of the Adjudication Committee of the Supreme People's Court; Amended for the first time according to the *Decision of the Supreme People's Court on Amending Several Provisions of the Supreme People's Court on Issues Concerning the Application of Law in the Trial of Cases on Patent Disputes* adopted on 25 February 2013 at the 1570<sup>th</sup> Meeting of the Adjudication Committee of the Supreme People's Court; Amended for the second time according to the *Decision of the Supreme People's Court on Amending Several Provisions of the Supreme People's Court on Issues Concerning the Application of Law in the Trial of Cases on Patent Disputes* adopted on 19 January 2015 at the 1641<sup>th</sup> Meeting of the Adjudication Committee of the Supreme People's Court; Will take effective from 1 February 2015)

The following provisions are stipulated for proper trial of cases on patent disputes according to General Rule of Civil Law of the People's Republic of China (hereafter "the Civil Law"), Patent Law of the People's Republic of China (hereafter "the Patent Law"), Civil Procedural Law of the People's Republic of China and Administrative Procedural Law of the People's Republic of China etc.

**Article 1** The people's court accepts following cases of patent disputes:

1. disputes over the ownership of the right to apply for patent;
2. disputes over the ownership of the patent

### 最高人民法院关于审理专利纠纷案件适用法律问题的若干规定

(2001年6月19日最高人民法院审判委员会第1180次会议通过, 根据2013年2月25日最高人民法院审判委员会第1570次会议通过的《最高人民法院关于修改〈最高人民法院关于审理专利纠纷案件适用法律问题的若干规定〉的决定》第一次修正, 根据2015年1月19日最高人民法院审判委员会第1641次会议通过的《最高人民法院关于修改〈最高人民法院关于审理专利纠纷案件适用法律问题的若干规定〉的决定》第二次修正, 该修正自2015年2月1日起施行)

为了正确审理专利纠纷案件, 根据《中华人民共和国民事诉讼法通则》(以下简称民法通则)、《中华人民共和国专利法》(以下简称专利法)、《中华人民共和国民事诉讼法》和《中华人民共和国行政诉讼法》等法律的规定, 作如下规定:

**第一条** 人民法院受理下列专利纠纷案件:

1. 专利申请权纠纷案件;
2. 专利权权属纠纷案件;
3. 专利权、专利申请权转让合同纠纷案件;

right;

3. disputes over contracts for assignment of the patent right or the right to apply for patent;

4. disputes arising from patent infringement;

5. disputes arising from counterfeiting other persons' patents;

6. disputes over the exploitation fee after the publication of the applications for patent for invention and before the grant of the patent right;

7. disputes over the reward and remuneration for the inventors or creators of service inventions;

8. cases of pre-litigation requests for stopping infringement or for property preservation;

9. disputes over the qualification of inventors or creators;

10. cases of dissatisfaction with the reexamination decisions by the Patent Reexamination Board to uphold rejection of applications;

11. cases of dissatisfaction with the reexamination decisions by the Patent Reexamination Board on requests for invalidation of the patent right;

12. cases of dissatisfaction with the reexamination decisions by the Patent Administrative Department under the State Council on execution of compulsory licenses;

13. cases of dissatisfaction with the adjudication by the Patent Administrative Department under the State Council on the royalties for execution of compulsory licenses;

14. cases of dissatisfaction with the administrative reexamination decisions by the Patent Administrative Department under the State Council;

15. cases of dissatisfaction with the administrative decisions by the administrative

4. 侵犯专利权纠纷案件;

5. 假冒他人专利纠纷案件;

6. 发明专利申请公布后、专利权授予前使用费纠纷案件;

7. 职务发明创造发明人、设计人奖励、报酬纠纷案件;

8. 诉前申请停止侵权、财产保全案件;

9. 发明人、设计人资格纠纷案件;

10. 不服专利复审委员会维持驳回申请复审决定案件;

11. 不服专利复审委员会专利权无效宣告请求决定案件;

12. 不服国务院专利行政部门实施强制许可决定案件;

13. 不服国务院专利行政部门实施强制许可使用费裁决案件;

14. 不服国务院专利行政部门行政复议决定案件;

15. 不服管理专利工作的部门行政决定案件;

16. 其他专利纠纷案件。



authorities for patent affairs; and  
16. any other cases of patent disputes.

**Article 2** Patent dispute cases of the first instance shall be under the jurisdiction of the intermediate people's courts of the seats of the People's Government of the Provinces, Autonomous Regions and Municipalities under the Central Government and the intermediate people's courts designated by the Supreme People's Court.

Depending on the practical situation, the Supreme People's Court may designate the basic people's court to administer patent dispute cases of the first instance.

**Article 3** Where any interested party, dissatisfied with the reexamination decision made by the Patent Reexamination Board after 1 July 2001 on the requests for revocation of a patent for utility model or design, institutes a lawsuit in the people's court, the people's court does not accept the lawsuit.

**Article 4** Where any interested party, dissatisfied with the reexamination decision made by the Patent Reexamination Board after 1 July 2001 to uphold the rejection of the application for patent for utility model or design or with the decision on the request for invalidation of the patent right for utility model or design, institutes a lawsuit in the people's court, the people's court shall accept the lawsuit.

**Article 5** Lawsuits instituted against acts of infringement of the patent right shall be under the jurisdiction of the people's court of the place where the defendant has its or his domicile or of the place where the infringing acts take place.

Places where acts of infringement take

**第二条** 专利纠纷第一审案件，由各省、自治区、直辖市人民政府所在地的中级人民法院和最高人民法院指定的中级人民法院管辖。

最高人民法院根据实际情况，可以指定基层人民法院管辖第一审专利纠纷案件。

**第三条** 当事人对专利复审委员会于2001年7月1日以后作出的关于实用新型、外观设计专利权撤销请求复审决定不服向人民法院起诉的，人民法院不予受理。

**第四条** 当事人对专利复审委员会于2001年7月1日以后作出的关于维持驳回实用新型、外观设计专利申请的复审决定，或者关于实用新型、外观设计专利权无效宣告请求的决定不服向人民法院起诉的，人民法院应当受理。

**第五条** 因侵犯专利权行为提起的诉讼，由侵权行为地或者被告住所地人民法院管辖。

侵权行为地包括：被诉侵犯发明、实用新型专利权的产品的制造、使用、许诺销售、销售、进口等行为的实施地；专利方法使用行为的实施地，依照该专利

place include: places where acts take place of manufacturing, using, offering for sale, selling or importing products accused of infringing a patent for invention or utility model; places where the acts of using a patented process takes place and where acts take place of using, offering for sale, selling or importing products obtained directly by the patented process; places where acts of manufacturing, offering for sale, selling or importing products of patented designs; places where acts of passing off patents of others take place; and places where consequences of the preceding infringing acts arise.

**Article 6** Where a plaintiff only takes action against the manufacturer of an infringing product, but not against the seller as well and the places where the infringing products are manufactured and sold are not the same place, the people's court of the place of the manufacture has the jurisdiction; where the action is taken with both the manufacturer and seller accused as the co-defendants, the people's court of the place where the infringing products are sold has the jurisdiction.

Where the seller is a subsidiary of the manufacturer and the plaintiff takes action against the act of the infringing product manufacturer to manufacture and sell the product, the people's court of the place where the products are sold has the jurisdiction.

**Article 7** Where a plaintiff institutes a lawsuit with respect to the patent application filed before 1 January 1993 and on the basis of the patent for invention of process granted to the application, the lawsuit is under the jurisdiction as determined in the

方法直接获得的产品的使用、许诺销售、销售、进口等行为的实施地；外观设计专利产品的制造、许诺销售、销售、进口等行为的实施地；假冒他人专利的行为实施地。上述侵权行为的侵权结果发生地。

**第六条** 原告仅对侵权产品制造者提起诉讼，未起诉销售者，侵权产品制造地与销售地不一致的，制造地人民法院有管辖权；以制造者与销售者为共同被告起诉的，销售地人民法院有管辖权。

销售者是制造者分支机构，原告在销售地起诉侵权产品制造者制造、销售行为的，销售地人民法院有管辖权。

**第七条** 原告根据 1993 年 1 月 1 日以前提出的专利申请和根据该申请授予的方法发明专利权提起的侵权诉讼，参照本规定第五条、第六条的规定确定管辖。

人民法院在上述案件实体审理中依法适用方法发明专利权不延及产品的规定。

light of the provisions of Articles 5 and 6 of these Provisions.

The people's court, in substantial hearing of the preceding cases, applies the provision that a patent for invention of process is not extended to the product.

**Article 8** The plaintiff may submit the search report made by the Patent Administrative Department under the State Council for patent infringement lawsuit based on a utility model patent filed before 1 October 2009. The plaintiff may submit a patentability assessment report issued by the Patent Administrative Department of the State Council for a patent infringement lawsuit based on utility model patent and design patent filed on or after October 1, 2009. As needed by adjudication of the lawsuit, the people's court may order the plaintiff to submit a search report or a patentability assessment report. Where a plaintiff fails to comply with the court order without a good cause, the people's court may suspend the legal proceedings or order the plaintiff to bear corresponding negative consequences.

**Article 9** Where the defendant files a request for invalidation of the patent right when making its or his defence in the case received by the people's court of dispute as arising from the infringement of the patent right for utility model or design, the people's court shall suspend the legal proceedings. However, under any one of the following circumstances, the legal proceedings may not be suspended:

(1) Where a search report or a patentability analysis report submitted by the plaintiff fails to reveal facts that will invalidate the patent right for utility model and design;

**第八条** 对申请日在 2009 年 10 月 1 日前（不含该日）的实用新型专利提起侵犯专利权诉讼，原告可以出具由国务院专利行政部门作出的检索报告；对申请日在 2009 年 10 月 1 日以后的实用新型或者外观设计专利提起侵犯专利权诉讼，原告可以出具由国务院专利行政部门作出的专利权评价报告。根据案件审理需要，人民法院可以要求原告提交检索报告或者专利权评价报告。原告无正当理由不提交的，人民法院可以裁定中止诉讼或者判令原告承担可能的不利后果。

侵犯实用新型、外观设计专利权纠纷案件的被告请求中止诉讼的，应当在答辩期内对原告的专利权提出宣告无效的请求。

**第九条** 人民法院受理的侵犯实用新型、外观设计专利权纠纷案件，被告在答辩期间内请求宣告该项专利权无效的，人民法院应当中止诉讼，但具备下列情形之一的，可以不中止诉讼：

（一）原告出具的检索报告或者专利权评价报告未发现导致实用新型或者外观设计专利权无效的事由的；

（二）被告提供的证据足以证明其使用的技术已经公知的；

（三）被告请求宣告该项专利权无效所提供的证据或者依据的理由明显不充分的；

(2) where the defendant's evidence is sufficient to prove that its or his used technology has been known to the public;

(3) where the proof or basis the defendant has furnished for requesting the invalidation of the patent right in question is obviously insufficient; or

(4) any other circumstances where the people's court finds that the legal proceedings should not be suspended.

**Article 10** Where the defendant files a request for invalidation of the patent right in question after the expiration of the time for making defence in a case received by the people's court of dispute arising from the infringement of the patent right for utility model or design, the people's court shall not suspend the legal proceedings, except that it is found necessary to do so upon consideration.

**Article 11** Where the defendant files a request for invalidation of the patent right in question in a case received by the people's court of dispute arising from infringement of patent right for design or one from infringement of patent right for utility model or design in which the Patent Reexamination Board uphold, upon examination, the patent right, the people's court may not suspend the legal proceedings.

**Article 12** Where the people's court decides to suspend the legal proceedings, the patentee or the interested party requests for ordering the defendant to desist from the relevant act or for taking other measures to halt the spread of damages caused by the infringement and provides guaranty, and the people's court, upon consideration, finds it in compliance with the provisions

(四) 人民法院认为不应当中止诉讼的其他情形。

**第十条** 人民法院受理的侵犯实用新型、外观设计专利权纠纷案件，被告在答辩期间届满后请求宣告该项专利权无效的，人民法院不应当中止诉讼，但经审查认为有必要中止诉讼的除外。

**第十一条** 人民法院受理的侵犯发明专利权纠纷案件或者经专利复审委员会审查维持专利权的侵犯实用新型、外观设计专利权纠纷案件，被告在答辩期间内请求宣告该项专利权无效的，人民法院可以不中止诉讼。

**第十二条** 人民法院决定中止诉讼，专利权人或者利害关系人请求责令被告停止有关行为或者采取其他制止侵权损害继续扩大的措施，并提供了担保，人民法院经审查符合有关法律规定的，可以在裁定中止诉讼的同时一并作出有关裁定。

of the relevant laws, the people's court may simultaneously make the relevant ruling when deciding to suspend the legal proceedings.

**Article 13** Where the people's court preserves property of the patent right, it shall send the Patent Administrative Department under the State Council a notification for assistance in execution of the property preservation, indicating the matters for which assistance is sought and the duration of the patent right preservation, with the people's court ruling paper attached.

Preservation for a patent right shall not last more than six months, counting from the date the Patent Administrative Department under the State Council receives the notification of assistance for execution. If it is still necessary to continue to take the measure to preserve the patent right, the people's court shall send to the Patent Administrative Department under the State Council the notification of assistance for executing the continued preservation before the expiration of the time limit fixed for the preservation. Where such notification is not delivered before the expiration of the time limit fixed for the preservation, the property preservation of the patent right is deemed to have been automatically released.

The people's court may take the property preservation measure for the pledged patent right, the pledge's priority of compensation is not affected by the preservation measure; the exclusive licensing contract concluded between the patentee and the licensee does not affect the people's court's adopting the property preservation of the patent right.

The people's court shall not re-preserve the patent right that has been preserved.

**第十三条** 人民法院对专利权进行财产保全，应当向国务院专利行政部门发出协助执行通知书，载明要求协助执行的事项，以及对专利权保全的期限，并附人民法院作出的裁定书。

对专利权保全的期限一次不得超过六个月，自国务院专利行政部门收到协助执行通知书之日起计算。如果仍然需要对该专利权继续采取保全措施的，人民法院应当在保全期限届满前向国务院专利行政部门另行送达继续保全的协助执行通知书。保全期限届满前未送达的，视为自动解除对该专利权的财产保全。

人民法院对出质的专利权可以采取财产保全措施，质权人的优先受偿权不受保全措施的影响；专利权人与被许可人已经签订的独占实施许可合同，不影响人民法院对该专利权进行财产保全。

人民法院对已经进行保全的专利权，不得重复进行保全。

**Article 14** Where in respect of any invention-creation completed before 1 July 2001 by making use of the material and/or technical condition of the entity to which the inventor or creator belongs, the entity and the inventor or creator has concluded a contract, agreeing on the ownership of the right to apply for patent and of the patent right, the agreement shall be observed.

**Article 15** Where any case received by the people's court of dispute arising from patent right infringement relates to conflict of rights, the legitimate rights and interests of the interested party that enjoys the prior right according to law shall be protected.

**Article 16** The prior legitimate rights referred to in Article 23 of the Patent Law include the trademark right, copyright, right of enterprise name, portrait right and the right to use the package or decoration peculiar to any known goods, etc.

**Article 17** The first paragraph "the extent of protection of the 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" of Article 56 of the Patent Law means that the extent of protection of patent right should be determined by the extent defined by all technical features recited in the claims, including the extent as determined by features equivalent to the above recited technical features.

The equivalent features refer to the features which use substantially the same means, perform substantially the same function and produce substantially the same effect as the recited technical features and which can be contemplated by an ordinarily person skilled in the art at the time when the

**第十四条** 2001年7月1日以前利用本单位的物质技术条件所完成的发明创造，单位与发明人或者设计人订有合同，对申请专利的权利和专利权的归属作出约定的，从其约定。

**第十五条** 人民法院受理的侵犯专利权纠纷案件，涉及权利冲突的，应当保护在先依法享有权利的当事人的合法权益。

**第十六条** 专利法第二十三条所称的在先取得的合法权利包括：商标权、著作权、企业名称权、肖像权、知名商品特有包装或者装潢使用权等。

**第十七条** 专利法第五十九条第一款所称的“发明或者实用新型专利权的保护范围以其权利要求的内容为准，说明书及附图可以用于解释权利要求的内容”，是指专利权的保护范围应当以权利要求记载的全部技术特征所确定的范围为准，也包括与该技术特征相等同的特征所确定的范围。

等同特征，是指与所记载的技术特征以基本相同的手段，实现基本相同的功能，达到基本相同的效果，并且本领域普通技术人员在被诉侵权行为发生时无需经过创造性劳动就能够联想到的特征。



infringing activity occurs without inventive labor.

**Article 18** Where any act of patent infringement takes place before 1 July 2001, the civil liability under the Patent Law before this amendment shall apply; where such act takes place after 1 July 2001, the provisions of the amended Patent Law shall apply to impose the civil liability.

**Article 19** Where anyone counterfeits other's patent, the people's court may impose, on it or him, the civil liability according to the provision of Article 63 of the Patent Law. Where the administrative authority for patent work does not impose any administrative penalty, the people's court may impose civil penalty pursuant to the provision of Article 134, paragraph three, of the General Principles of the Civil Law, and the amount of the applicable fine in civil terms may be determined in the light of the provision of Article 63 of the Patent Law.

**Article 20** "Actual lost suffered by the patentee due to infringement" recited in Article 65 of the Patent Law can be calculated by multiplying the total number of lost sale volume of the patented product due to the infringement, by the reasonable profit of each patented product. Where the total number of lost sale volume of the patented product is difficult to be determined, the product of total number of sale volume of the infringing product multiplied by reasonable profit of each patented product can be deemed as the actual lost suffered by the patentee due to the infringement.

"Profit obtained by the infringer by infringement" recited in Article 65 of the Patent Law can be calculated by multiplying

**第十八条** 侵犯专利权行为发生在 2001 年 7 月 1 日以前的, 适用修改前专利法的规定确定民事责任; 发生在 2001 年 7 月 1 日以后的, 适用修改后专利法的规定确定民事责任。

**第十九条** 假冒他人专利的, 人民法院可以依照专利法第六十三条的规定确定其民事责任。管理专利工作的部门未给予行政处罚的, 人民法院可以依照民法通则第一百三十四条第三款的规定给予民事制裁, 适用民事罚款数额可以参照专利法第六十三条的规定确定。

**第二十条** 专利法第六十五条规定的权利人因被侵权所受到的实际损失可以根据专利权人的专利产品因侵权所造成销售量减少的总数乘以每件专利产品的合理利润所得之积计算。权利人销售量减少的总数难以确定的, 侵权产品在市场上销售的总数乘以每件专利产品的合理利润所得之积可以视为权利人因被侵权所受到的实际损失。

专利法第六十五条规定的侵权人因侵权所获得的利益可以根据该侵权产品在市场上销售的总数乘以每件侵权产品的合理利润所得之积计算。侵权人因侵权所获得的利益一般按照侵权人的营业利润计算, 对于完全以侵权为业的侵权人, 可以按照销售利润计算。

the total number of the infringing products sold in the market, by the reasonable profit of each infringing product. The benefit of the infringer from the infringement is generally counted according to the business profit of the infringer. As for the infringer who solely engages in infringement as its or his entire business, the income may be calculated according to its or his sales profit.

**Article 21** Where the losses of the patentee or the benefit of the infringer is difficult to be determined, the people's court may, where the patent licensing fee may be referred to, determine the reasonable amount of compensation by referring to multiples of the patent licensing fees, considering factors including the kind of patent right involved, the nature and facts of the infringement acts, the nature, scope, and duration of the patent licensing etc. Where no patent licensing fees can be referred to, or the patent licensing fees are obviously unreasonable, the people's court may determine the reasonable amount of compensation according to Paragraph 2, Article 65 of the Patent Law, considering factors including types of patent right, and the nature and facts of infringing activities, etc.

**Article 22** Where the patentee claims for reasonable cost spent for prohibiting infringing activities, the people's court may calculate the monetary amount in addition to the compensation determined under Article 65 of the Patent Law.

**Article 23** The limitation for action against patent right infringement is two years, computed from the date when the patentee or the interested party knows or has reasonable grounds to know about the infringing act. Where the right holder does

**第二十一条** 权利人的损失或者侵权人获得的利益难以确定，有专利许可使用费可以参照的，人民法院可以根据专利权的类型、侵权行为的性质和情节、专利许可的性质、范围、时间等因素，参照该专利许可使用费的倍数合理确定赔偿数额；没有专利许可使用费可以参照或者专利许可使用费明显不合理的，人民法院可以根据专利权的类型、侵权行为的性质和情节等因素，依照专利法第六十五条第二款的规定确定赔偿数额。

**第二十二条** 权利人主张其为制止侵权行为所支付合理开支的，人民法院可以在专利法第六十五条确定的赔偿数额之外另行计算。

**第二十三条** 侵犯专利权的诉讼时效为二年，自专利权人或者利害关系人知道或者应当知道侵权行为之日起计算。权利人超过二年起诉的，如果侵权行为在起诉时仍在继续，在该项专利权有效期内，人民法院应当判决被告停止侵权行为



not take action until two years later and if the infringing act continues when the action is taken, the people's court shall, within the term of validity of the patent right in question, rule that the defendant desist from the infringing act, and the amount of compensation for the infringement shall be computed from two years before the date when the right holder institutes legal proceedings in the people's court.

**Article 24** "Offer for sale" recited in Article 11 and Article 69 of the Patent Law refers to showing the intention of sale of products by means of advertising, displaying in shop window, or displaying in trade fair, etc.

**Article 25** Where the people's court receives a case of dispute arising from patent infringement in which the administrative authority for patent affairs has made an infringement or non-infringement determination, the people's court may, on the request of the interested party to the lawsuit, carry on a comprehensive examination.

**Article 26** Where there is any discrepancy between the former relevant judicial interpretations and these Provisions, these Provisions shall prevail.

为，侵权损害赔偿数额应当自权利人向人民法院起诉之日起向前推算二年计算。

**第二十四条** 专利法第十一条、第六十九条所称的许诺销售，是指以做广告、在商店橱窗中陈列或者在展销会上展出等方式作出销售商品的意思表示。

**第二十五条** 人民法院受理的侵犯专利权纠纷案件，已经过管理专利工作的部门作出侵权或者不侵权认定的，人民法院仍应当就当事人的诉讼请求进行全面审查。

**第二十六条** 以前的有关司法解释与本规定不一致的，以本规定为准。

## Provisions of the Supreme People's Court on Jurisdiction of Intellectual Property Courts in Beijing, Shanghai and Guangzhou over Cases

(Adopted at the 1628<sup>th</sup> meeting of the Judicial Committee of the Supreme People's Court on October 27, 2014)

Interpretation No. 12 [2014]

*The Provisions of the Supreme People's Court on Jurisdiction of Intellectual Property Courts in Beijing, Shanghai and Guangzhou over Cases*, which were adopted at the 1628<sup>th</sup> meeting of the Judicial Committee of the Supreme People's Court on October 27, 2014, are hereby promulgated, and shall come into force on November 3, 2014.

The Supreme People's Court

October 31, 2014

In order to further define jurisdiction of the intellectual property courts of Beijing, Shanghai and Guangzhou over cases, the present Provisions are formulated in accordance with the *Civil Procedure Law of the People's Republic of China*, the *Administrative Procedure Law of the People's Republic of China* as well as the *Decision of the Standing Committee of the National People's Congress on Establishment of Intellectual Property Courts in Beijing, Shanghai and Guangzhou*.

## 最高人民法院关于北京、上海、广州知识产权法院案件管辖的规定

(2014年10月27日最高人民法院审判委员会第1628次会议通过)

法释〔2014〕12号

《最高人民法院关于北京、上海、广州知识产权法院案件管辖的规定》已于2014年10月27日由最高人民法院审判委员会第1628次会议通过，现予公布，自2014年11月3日起施行。

最高人民法院

2014年10月31日

为进一步明确北京、上海、广州知识产权法院的案件管辖，根据《中华人民共和国民事诉讼法》《中华人民共和国行政诉讼法》《全国人民代表大会常务委员会关于在北京、上海、广州设立知识产权法院的决定》等规定，制定本规定。

**Article 1** Intellectual property courts have jurisdiction over first instances of the following cases within the municipal districts where they are located:

1. civil and administrative cases about patents, new varieties of plants, layout designs of integrated circuits, know-how and computer software;
2. administrative cases concerning lawsuit against administrative actions involving copyrights, trademarks, unfair competition and the like made by State Council department or local people's governments at or above county level; and
3. civil cases involving recognition of well-known trademarks.

**Article 2** Guangzhou Intellectual Property Court shall practice cross-regional jurisdiction over cases in Guangdong Province specified in Items 1 and 3 of Article 1 hereof.

**Article 3** Intermediate people's courts in Beijing Municipality and Shanghai Municipality and the Intermediate People's Court of Guangzhou City will not accept civil and administrative intellectual property cases.

Other intermediate people's courts in Guangdong Province will not accept cases specified in Items 1 and 3 of Article 1 hereof.

Basic people's courts in Beijing Municipality, Shanghai Municipality and Guangdong Province will not accept cases specified in Items 1 and 3 of Article 1 hereof.

**Article 4** Where the subject matter of a case not only involves contents specified in

**第一条** 知识产权法院管辖所在市辖区内的下列第一审案件:

- (一) 专利、植物新品种、集成电路布图设计、技术秘密、计算机软件民事和行政案件;
- (二) 对国务院部门或者县级以上地方人民政府所作的涉及著作权、商标、不正当竞争等行政行为提起诉讼的行政案件;
- (三) 涉及驰名商标认定的民事案件。

**第二条** 广州知识产权法院对广东省内本规定第一条第(一)项和第(三)项规定的案件实行跨区域管辖。

**第三条** 北京市、上海市各中级人民法院和广州市中级人民法院不再受理知识产权民事和行政案件。

广东省其他中级人民法院不再受理本规定第一条第(一)项和第(三)项规定的案件。

北京市、上海市、广东省各基层人民法院不再受理本规定第一条第(一)项和第(三)项规定的案件。

**第四条** 案件标的既包含本规定第一条第(一)项和第(三)项规定的内容,又

Items 1 and 3 of Article 1 hereof, but also involves other contents, jurisdiction over said case shall be determined according to Articles 1 and 2 hereof.

**Article 5** Beijing Intellectual Property Court has jurisdiction over first instances of the following administrative cases:

1. those in which a party is dissatisfied over ruling or decision made by a State Council department on authorization or affirmation of intellectual property rights such as patent, trademark, new variety of plant or integrated circuit layout design;

2. those in which a party is dissatisfied over a decision made by a State Council department on compulsory license relating to patent, new variety of plant and integrated circuit layout design, or an adjudication made by such a department on royalties or remunerations relating to such a compulsory license; and

3. those in which a party is dissatisfied over other administrative actions made by a State Council department involving authorization or affirmation of intellectual property rights.

**Article 6** Cases of appeal which a party instituted against first instance civil and administrative judgement or adjudication about copyright, trademark, technology contract, unfair competition, and other intellectual property rights made by basic people's courts in the city where the intellectual property court is located shall be heard by the corresponding intellectual property court.

**Article 7** Cases of appeal which a party instituted against first instance judgment and adjudication made by an intellectual

包含其他内容的, 按本规定第一条和第二条的规定确定管辖。

**第五条** 下列第一审行政案件由北京知识产权法院管辖:

(一) 不服国务院部门作出的有关专利、商标、植物新品种、集成电路布图设计等知识产权的授权确权裁定或者决定的;

(二) 不服国务院部门作出的有关专利、植物新品种、集成电路布图设计的强制许可决定以及强制许可使用费或者报酬的裁决的;

(三) 不服国务院部门作出的涉及知识产权授权确权的其他行政行为的。

**第六条** 当事人对知识产权法院所在市的基层人民法院作出的第一审著作权、商标、技术合同、不正当竞争等知识产权民事和行政判决、裁定提起的上诉案件, 由知识产权法院审理。

**第七条** 当事人对知识产权法院作出的第一审判决、裁定提起的上诉案件和依法申请上一级法院复议的案件, 由知识

property court, and cases applied by a party in accordance with the law for reconsideration to the court at the next higher level, shall be heard by the intellectual property tribunal of the higher people's court at the place where the intellectual property court is located.

**Article 8** Case specified in Item 1 or 3 of Article 1 hereof, which were accepted by basic people's courts in the province (or municipality) where an intellectual property court is located before the establishment of said intellectual property court but has not been concluded, shall still be heard by said basic people's courts.

Cases specified in Item 1 or 3 of Article 1 hereof, which were accepted by any intermediate people's court in Guangdong Province other than the Intermediate People's Court of Guangzhou City before the establishment of the Guangzhou Intellectual Property Court but has not been concluded, shall still be heard by said intermediate people's court.

产权法院所在地的高级人民法院知识产权审判庭审理。

**第八条** 知识产权法院所在省（直辖市）的基层人民法院在知识产权法院成立前已经受理但尚未审结的本规定第一条第（一）项和第（三）项规定的案件，由该基层人民法院继续审理。

除广州市中级人民法院以外，广东省其他中级人民法院在广州知识产权法院成立前已经受理但尚未审结的本规定第一条第（一）项和第（三）项规定的案件，由该中级人民法院继续审理。

## Guidelines on GUI-related Design Patent Application<sup>60</sup>

These guidelines are drafted based on training materials provided by the State Intellectual Property Office and our experience in practicing patent laws in China. It is neither a legal opinion nor the official examination guidelines and standards of the State Intellectual Property Office.

### I. The Scope of Protectable Subject Matter of GUI-related Design Patent

The Graphic User Interface (GUI) is defined in the *Examination Guidelines* as a user interface displayed in a graphic on a display component of a product, which is normally applied in the fields of computer, mobile phone, electrical equipment, instrument, meter, industrial plant, electrical musical instrument.

However, not all kinds of GUIs are patentable; only the GUI displayed by the display component of a product, which is related to both human-machine interaction and implementation of product function, is patentable. The “human-machine interaction” refers to the process of transferring information (for example, instruction, feedback, and status) between a human being and a machine by interactions (for example, click, touch, sliding touch, and display); the “implementation of product function” refers to enabling the product to achieve a favorable function, including the function provided by the product itself and the function obtained by an application, but excluding redirecting to a website or webpage.

Particularly, the GUI itself is not a subject matter protected by design patent, only the combination of a product with GUI, i.e., a product including GUI is eligible as a protectable subject matter of GUI.

The “product” is defined as a unit that is sufficient for both human-machine interaction and implement of product function, which includes an end product like mobile phone, washing machine, and it can also be a component that is fully detachable from the end product, e.g., a dash board. However, these products do not include a product that is part of a human-machine interaction and implement of product function. For example, a screen panel displaying GUI.

<sup>60</sup> On March 17, 2014, the State Intellectual Property Office (SIPO) issued Order No. 68 Promulgating “SIPO’s Decision on Amendments to Guidelines for Patent Examination.” Under this order, graphic user interfaces (GUI) will become eligible for design patent protection as of May 1, 2014.

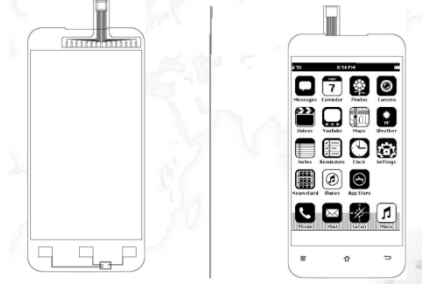


Washing Machine

Allowable



Dash Board



Screen Panel displaying GUI

Not Allowable

**The following products are listed as examples of the subject matter that is protectable by design patent.**

#### 1) Product with dedicated user interface

Examples include digital device, learning and entertaining device, fitness equipment and medical device, electronic tool and industrial equipment, household appliance, of-ice equipment, instrument panel, and elevator panel.



Telephone with GUI



Treadmill with GUI

Controller for Electronic  
Tool with GUI

Microwave Oven with GUI



Printer with GUI



Watch with GUI

2) Product with general operating system interface



Mobile Phone with Operating System Interface

3) Product with application user interface



Tablet Computer with Communication Interface



Mobile Phone with Recorder Interface

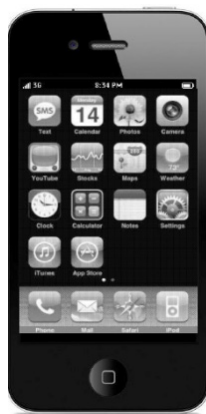
4) Product with web application



Computer with Web Application Interface



## 5) Product with icon



Mobile Phone with Icon Interface

Please be noted that an icon itself is not patentable, and shall be filed as a design patent application for a product with the icon. The product views shall include a view of the entire product with icon interface.

**The following products are listed as examples of the subject matter that is not protectable by design patent.**

## 1) Product with graphic-text layout of website and webpage



Computer with graphic-text layout of webpage

2) Product with electronic screen wallpaper or screen saver



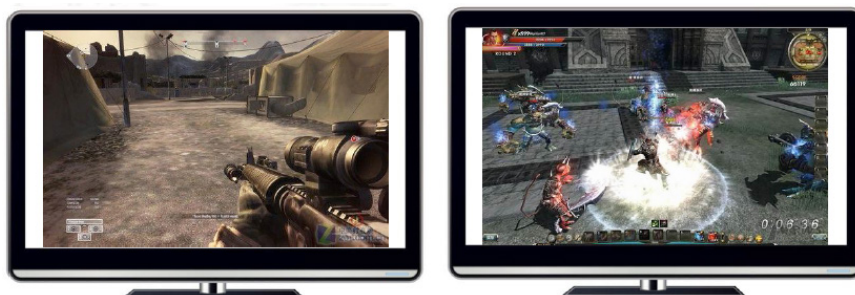
Computer with electronic screen wallpaper

3) Product with booting or shutdown animation



Mobile Phone with Booting Animation

4) Product with game user interface



Computer with Game Interface

## II. Formality of Application

### 1. Name of Product

The name of product shall be in the formality of “product + an attribute defining user interface” to clearly reflect the related GUI and the physical carrier of the GUI, for example, a photocopier with GUI, and a mobile phone with interactive interface.

The names of product as listed below are normally not allowed: the name indicating only the content of the GUI, for example, an operating system interface; only the name of the physical carrier, for example, a photocopy; the name defined by general terms, for example, an electronic device with interface.

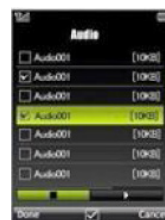
### 2. Views of Product

#### 2.1 Basic Requirements

For patent application of a product design including GUI, the applicant shall submit the views of the entire product clearly showing the product besides the GUI. The views of product may be either photographed, rendered images, or drawings, but it is not allowed to submit any combination of the photographed or rendered image and the drawing. If the GUI is relatively small compared to the entire product, the applicant shall submit a partial enlarged view to clearly show the design features of the GUI. Furthermore, the views of product shall comply with the general regulation under Section 4.2, Chapter 3 of Part I of the *Examination Guidelines*.



Allowable



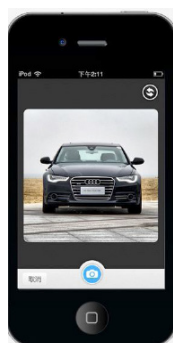
Interface  
(No Carrier)



Mobile  
(Dotted Outline)

Not Allowable

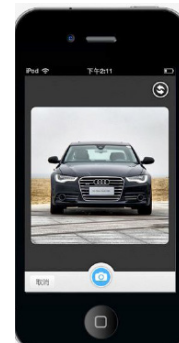
As for GUI which includes “content image,” the submitted views of product shall exclude the “content image.” For example, the views of product shall not include “shooting content image,” “observing content image,” “replaying content image,” and “push content image.” However, a view with “content image” may be submitted as a reference view indicating the status in use of the product.



Shooting content image  
Not Allowable



Observing content image  
Not Allowable



Reference view  
Allowable

## 2.2 Requirements for Specific GUIs

### 2.2.1 Design in which GUI and product are separate

For some products without display components for displaying the GUI, for example, a projector, the applicant shall submit both the views of the product and the views of the GUI. If a product, like a set-top box that requires an additional physical carrier, for example, a TV screen, to display the GUI, the applicant shall submit both the views of the product and the views of the additional physical carrier showing the GUI.



Right Side View



Front View



Back View



Plan View



Isometric View  
Projector



GUI Front View

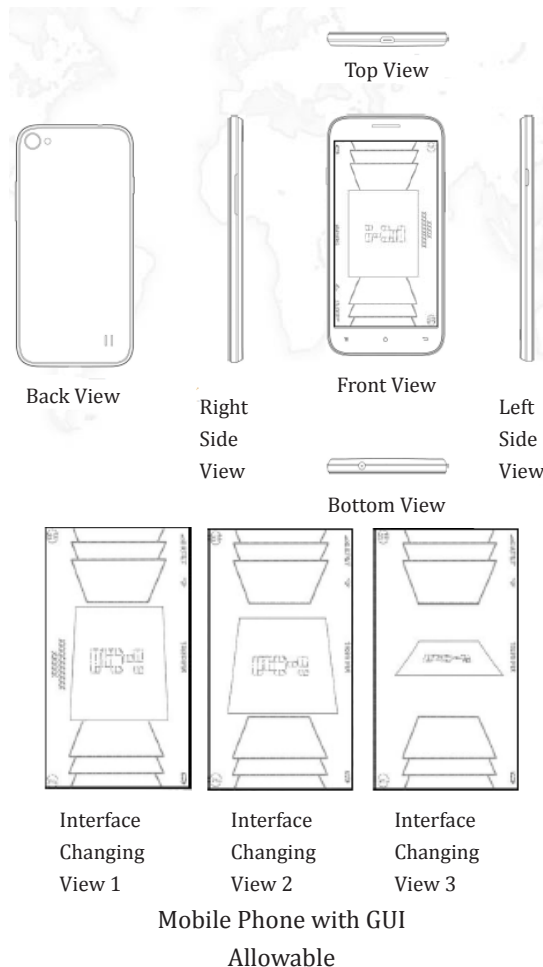
Allowable

### 2.2.2 Dynamic GUI

If the GUI is a dynamic pattern, the applicant shall submit at least one view showing the one status of the entire product, and other views showing only the key frames of the dynamic GUI for the rest of the status. The tendency of the animation of the dynamic pattern shall be exclusively determined by the submitted views.

For example, the views of product may include a view of product including the start key frame of GUI, and a view of GUI showing a key frame which may exclusively determine the tendency of the animation of the dynamic pattern.

To show the tendency of a dynamic pattern, the views may be numbered to show the order of changing; the views may be enlarged with a corresponding ratio to that of GUI shown in the view of product to clearly show the changing of the dynamic pattern.



### 2.2.3 Application embedded in webpage in use

For an application embedded in webpage when used, the views of product shall only include the GUI within the application and exclude other content in the webpage.

## 3. Brief Explanation

As for the patent application for a product design with GUI, it should be indicated in the brief explanation, when necessary, the purpose of use, the position in the product, the human-machine interaction manner, and the changing status of the GUI. For example:



Front View

Changing View 1

Changing View 2

The product is a mobile phone with GUI, and the brief Explanation may be as follows:

- “ 1. Name of Product: a mobile phone with operating system interface
2. Purpose of Use of Product: running application and communication
3. Essential Features of Design: the content of the GUI shown in the screen
4. Purpose of Use of GUI: the interface shown in the front view and the changing view 1 is a dynamic GUI when an icon is clicked in the main interface to show the interface of a media player; the changing view 2 shows the interface of the media player.
5. The front view is designated to best show the essential features of design.”

Lack of clear explanation in the brief explanation may cause difficulties in determining whether the claimed product is a protectable subject matter or failed to clearly express the views showing the product, and that the application may be rejected. Below are

some examples.

1) The type of GUI is not clearly explained



Computer with GUI

It is difficult to determine from the name and the view of product whether the design is a graphic-text layout of website and webpage or an application interface, thus the applicant shall make an explanation in the brief explanation, for example, “the interface of the product is an interface of a client software named *mobile assistant*.”

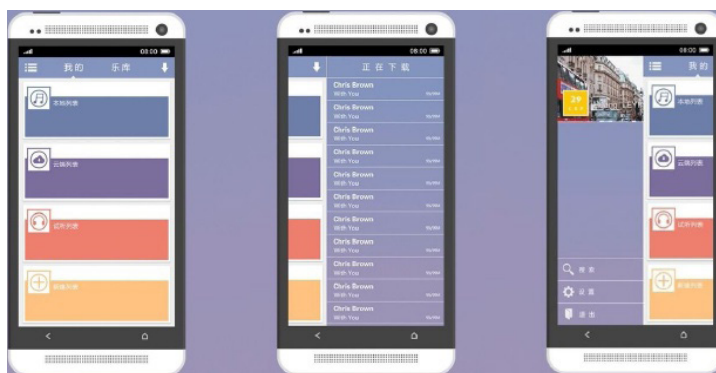
2) The area of GUI is not clearly indicated



Mobile Phone with GUI

It is difficult to determine from the view whether the part in the circle is a set of physical buttons or a part of the GUI, thus the applicant shall indicate in the brief explanation.

### 3) The tendency of changing of dynamic GUI is not clearly explained



Front View

Changing View 1

Changing View 2

It is difficult to determine from the views the tendency of changing of the dynamic GUI, thus the applicant shall indicate in the brief explanation. For example, it shall be included in the brief explanation that “the interface shown in the front view is changed to that shown in the changing view 1 if the screen is sliding touched towards left and to that shown in the changing view 2 if the screen is sliding touched towards right.”

## 4. Unity

### 4.1 Set Products

For an application for set products, the applicant shall submit complete views of each design in the products set.

### 4.2 Similar Designs

For a single application containing a plurality of similar designs, the applicant shall submit complete views of each design. The similarity of the plurality of design shall be comprehensively determined through overall observation, and shall not be determined solely base on the product or the GUI. It shall be noted that a plurality of designs are similar if only they are similar in both the product design and the GUI design.



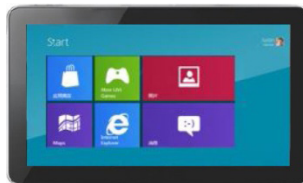


Design 1

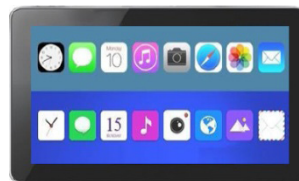


Design 2

Not Similar



Front View



Changing View

Not Similar

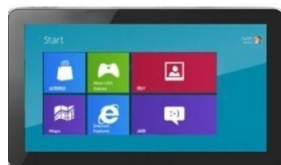


Design 1

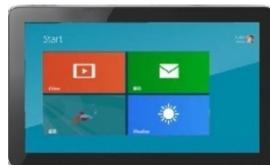


Design 2

Similar



Design 1



Design 2

Similar

## 5. Amendment of Application

According to patent practice in China, the amendment of a design patent application is restrictedly limited. As for the views of product with GUI, the deletion of displayed graphic which is not a protectable subject matter is not regarded as introducing a new matter. For example, a game console with screen saver is not a protectable subject matter, thus it is allowed for the applicant to delete the views of GUI and claim the design solely as a game console. However, the deletion of GUI which is a protectable subject matter is regarded as introducing a new matter and thus is not acceptable.

## APPENDIX

### Summary of Updated Amendments to the Guidelines for Patent Examination

#### 1) Amendment to Chapter 3, Section 4.2 of Part I

Added one new paragraph after the third paragraph under Chapter 3, Section 4.2 of Part I:

“As far as the design of the product containing a graphic user interface (GUI) is concerned, the view of the design of the whole product shall be submitted. Where GUI is a dynamic image, an Applicant shall submit at least the aforesaid view of the design of the whole product in one state and may submit only the view(s) of the key frame(s) in the other states, provided that the views submitted shall be able to unambiguously determine the changing trend of the animation in the dynamic image.”

#### 2) Amendment to Chapter 3, Section 4.3 of Part I

Added one new item after Item(6) in the third paragraph under Chapter 3, Section 4.3 of Part I:

“(7) as regard to a design patent application for a product containing GUI, it shall indicate the use of the GUI, the area where the GUI is in the product, the manner of hu-

man-computer interaction, the state of change, and so on if necessary.”

**3) Amendment to Chapter 3, Section 7.2 of Part I**

Deleted the last sentence of the third paragraph under Chapter 3, Section 7.2 of Part I, “the pattern of a product shall be permanent and visible, and not flickering or visible only under specific conditions.”

**4) Amendment to Chapter 3, Section 7.4 of Part I**

Amended Item (11) in the first paragraph under Chapter 3, Section 7.4 of Part I to

“(11) game interface and the pattern shown on a display device of a product that does nothing with human-computer interaction or fulfillment of functions of the product, such as wallpaper on an electronic screen, an image shown when powered on or off, a text and graphic layout of a webpage of a website.”

**5) Amendment to Chapter 5, Section 6.1 of Part IV**

Added one new item after Item (4) in the second paragraph under Chapter 5, Section 6.1 of Part IV:

“(5) as regards a product design containing GUI, the GUI thereof has more notable influence on the overall visual effect where designs in the remaining parts of the patent concerned are usual designs.”

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