Putting The Pieces Together: A Proposal For a Contributory Infringement Provision In Patent Law

Xianzhi Quan

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PUTTING THE PIECES TOGETHER: A PROPOSAL FOR A CONTRIBUTORY INFRINGEMENT PROVISION IN CHINESE PATENT LAW

XIANZHI QUAN

ABSTRACT

Among the top five countries who have filed the most patent applications under the Patent Cooperation Treaty ("PCT") in 2015, China is the only country that has no provision regarding contributory patent infringement. As a result, in patent cases related to contributory infringement, different courts have adopted different criteria to determine whether contributory patent infringement is present. This has resulted in many problems in China, causing confusion and conflicts in understanding among patent holders and the public.

With the increase of patent infringement cases in China, legislation on the standard of contributory patent infringement is imminent. This Article puts forward a proposal for such a provision, which includes a four-factor test for contributory patent infringement that would be added to Chinese patent law by surveying the doctrine of contributory infringement in the United States, Japan and Germany, along with the current legislative and judicial situation in China. Since the legislative history and current situation in China differ from the United States, Japan and Germany, the proposed provision for contributory patent infringement differs from the equivalent provision found in the laws in those countries. However, the proposed provision could maintain a good balance between the interests of patent rights holders and the public. The provision would also likely be accepted by the legislative institutions and courts of China. This proposal helps unify criteria for judging contributory patent infringement and encourages innovation in China, advancing the global harmonization of patent law.
# Puttng the Pieces Together

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I. INTRODUCTION

In China, a case related to patent infringement is generally closed after going through two levels of trial.¹ That is why when Shimano Co., the patent holder of the “rear speed selector bracket” patent, brought patent infringement litigation before a Chinese court in August 2004, it would not have anticipated that the case would go through five levels of trials before the final holding in December 2012.² What made this patent infringement case so special? The case dealt with contributory patent infringement, which does not have a definite provision in Chinese patent law. The presiding judges, involved in different courts, had such different ideas about contributory infringement that the Supreme Court heard the case ex officio after the court of second instance refused to change its prior decision according to the Supreme Court that remanded the case.³

Unlike direct patent infringement, in which the defendant must exhaust every limitation of a patented product or method, contributory patent infringement is found when the defendant aids other people in infringing the patent, but does not exhaust every limitation of the patent.⁴ Contributory patent infringement originated in case law to enable a patentee to enforce her

1. RenMin FaYuan ZuZhi Fa (法院组织法) [Law on the Organization of People’s Courts] (promulgated by the Standing Comm. Nat’l People’s Cong., Oct. 31, 2006, effective Jan 1, 2007) (China), http://www.law-lib.com/law/law_view.asp?id=1942 (last visited May 1, 2016) (art. 12 stating that the courts have to try cases on two levels, with the second instance being the final judgment).
3. Id.
patent rights against a large number of infringers who would otherwise be impractical to join in a suit.\(^5\)

China lags far behind the United States, Japan and Germany in legislating contributory patent infringement. The United States, Japan and Germany established the doctrine of contributory patent infringement in their patent laws in the years 1952,\(^6\) 1959\(^7\) and 1981, respectively.\(^8\) Although the demand for a contributory infringement doctrine has been clear each time Chinese patent law has been modified since its first enactment in 1984, there is currently no doctrine of contributory infringement in China.\(^9\) As a result, Chinese courts turn to general laws in order to judge cases on contributory patent infringement.\(^10\) Due to the absence of a specified and detailed provision, the doctrines used by Chinese courts to determine contributory infringement vary greatly from one another and have led to conflicting or inconsistent decisions.\(^11\)

To resolve the above-mentioned problems, this Article proposes criteria for a contributory patent infringement provision in China by surveying the doctrine of contributory infringement in the United States, Japan, Germany, as well as the current situation in China.

Part I of this Article compares the doctrine of contributory infringement in the United States, Japan and Germany and identifies the criticisms of implementing a contributory infringement provision under the current legislative and de facto regimes in China. Part II of the paper provides a proposal for a doctrine of contributory infringement as a potential legislative solution in China, taking into account the current approaches in the United States, Japan and Germany, along with the current situation in China. Part III of the paper discusses several potential criticisms of the proposed

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6. Id.
provision and proposes countermeasures to prevent the potential problems in advance.

II. CONTRIBUTORY INFRINGEMENT IN THE UNITED STATES, JAPAN, GERMANY AND CHINA.

As the three countries whose patent applicants filed the greatest number of PCT patent applications in the world annually until 2012, the United States, Japan and Germany have already established and developed the doctrine of contributory patent infringement for more than thirty years, while China, who filed the third-most PCT patent applications in 2013, still has no doctrine of contributory infringement in its patent law, and as a result, China faces many problems due to the lack of an express provision on contributory patent infringement.

A. Contributory Infringement in the United States, Japan and Germany

Although the United States, Japan and Germany have all codified the doctrine of contributory infringement in their patent laws, these countries have different legislative histories and different specific provisions in their respective doctrines of contributory infringement. As a result, the statutes differ. The four most important factors of the doctrines of contributory infringement of these three countries are therefore compared in this section.

1. Source of Contributory Infringement Law

This first subsection will introduce the legal sources establishing the contributory infringement doctrines in the United States, Japan and Germany.

a. The United States

Wallace v. Holmes, decided in 1871, was the first case in the United States to recognize contributory patent infringement. Although the Wallace court did not use the term “contributory infringement,” it established the

13. Id.
14. WANG, supra note 10, at 152.
15. 29 F. Cas. 74 (No. 17,100) (CC Conn.1871); WANG, supra note 10, at 152.
17. Id.
framework for the doctrine, which was eventually codified as 35 U.S.C. §271 (c). Specifically, the Wallace court imposed liability on the defendants, finding that the component that the defendants manufactured and sold could not be used for anything other than to infringe the patent. The jurisprudence of the Supreme Court of the United States also resulted in the introduction of other important factors that shaped the U.S. doctrine of contributory infringement.

b. Japan

Japan established the doctrine of contributory infringement in the Patent Act of Japan in 1959 and amended it in 2002. Before 2002, Japanese law required that for contributory infringement to apply, a product or component must be used exclusively for the manufacture of the patented product or used exclusively for working with the patented invention. In patent infringement suits, defendants were only required to show that there was an “alternative, non-infringing, commercial use.” Because most defendants easily met this standard, there were very few successful contributory infringement suits prior to 2002 in Japan. The Japanese legislature responded to this problem by amending its patent law in 2002. Currently, contributory infringement is codified in Article 101 of the Patent Act of Japan.

c. Germany

Germany codified the doctrine of contributory infringement section 10 of the German Patent Act (“PatG”) when the PatG was amended in 1981.

19. Adams, supra note 5, at 372 n.8 (“The first case to use the term ‘contributory infringement’ was Snyder v. Bunnell, 29 F. 47 (C.C.S.D.N.Y. 1886) (referring to Wallace as perhaps the ‘clearest illustration’ of the doctrine).”).
24. Id.
Much like the United States, the codification of the contributory infringement doctrine in Germany stemmed from several precedents relating to contributory infringement before 1981.\textsuperscript{27} The PatG section 10(1) can be summed up briefly: when means relating to an essential element of the invention are offered or supplied in Germany without the consent of the patentee, this act constitutes contributory infringement, provided that the supplier “knows or it is obvious from the circumstances that such means are suitable and intended for use of the invention” (subjective requirement).\textsuperscript{28} It roughly corresponds to the contributory infringement provision stipulated in the 35 U.S.C. § 271(c).

2. Elements of a Contributory Infringement Claim

Despite some differences in the contributory infringement claim in each jurisdiction, holding a defendant liable for contributory infringement generally requires the plaintiff to prove a number of elements: an infringing article, an act of contributory infringement, some knowledge or intent to infringe and some relationship between the contributory infringement and the direct infringement. The rest of this subsection is devoted to analyzing how these elements are put in practice by the different countries.

\textit{a. Infringing Article}

In the United States, the defendant must provide an article that is not suited to a substantial non-infringing use in order to be liable for contributory infringement. Title 35 of the U.S.C. § 271(c) refers to staple articles and products whose exclusive use is with the patented combination.\textsuperscript{29} Modern authorities treat the language of 35 U.S.C. § 271(c) as a single requirement in alternative forms: “a product especially made or adapted for use in an infringement is by definition not suited to a substantial, non-infringing use, and vice versa.”\textsuperscript{30} Thus, in general, a defendant is not liable for contributory infringement if the article being sold is a staple article—a product capable of substantial non-infringing uses.\textsuperscript{31} The staple inquiry is not whether the device is designed to permit the infringement of a patented device.\textsuperscript{32} Rather, the

\begin{itemize}
  \item \textsuperscript{27} Furuta, supra note 8, at 68.
  \item \textsuperscript{28} Heinz Goddar, Cross-Border Contributory Patent Infringement in Germany, 7 WASH. J. TECH. \\
  \item \textsuperscript{29} 35 U.S.C. § 271(c).
  \item \textsuperscript{30} R. CARL MOY, MOY’S WALKER ON PATENTS §15-4 (4th ed. 2006).
  \item \textsuperscript{31} NTP, Inc. v. Research in Motion, Ltd., 418 F.3d 1282, 1321–22 (Fed. Cir. 2005).
  \item \textsuperscript{32} C.R. Bard, Inc. v. Advanced Cardiovascular Sys., Inc., 911 F.2d 670, 674 (Fed. Cir. 1990).
\end{itemize}
inquiry of whether a component is non-staple asks whether the component has a commercially significant use that does not infringe the patent.\(^{33}\)

In Japan, the defendant must provide either a product to be used exclusively for use in the patent (hereafter “exclusive article”) or a product that is indispensable for resolving the problem addressed by the patent (hereafter “indispensable non-exclusive article”).\(^{34}\) “Those [products] widely distributed within Japan” are excluded from “products indispensable for the resolution of the problem by the invention.” “Those widely distributed [products]” mean standard products and low-end products that are available in the market. The reason for excluding widely distributed products is that including the production and assignment of these products as an act of contributory infringement is not desirable from the viewpoint of transaction stability.\(^{35}\)

In Germany, only means relating to an essential element of the invention can be suitable means for contributory infringement, according to PatG section 10.\(^{36}\) A “means” need not be part of the claimed product or a direct element of the claimed method. It is sufficient that the means functionally interacts with a claim element to realize the inventive concept, thus “relating to an essential element of the invention.”\(^{37}\) The “means” also does not need to be a physical structure. The Mannheim court held that offering mp3 decoding software indirectly infringed a device claim protecting a receiver/reader for receiving and decoding mp3 digital audio files.\(^{38}\) In terms of being an “essential element of the invention,” a feature of a patent claim normally constitutes an essential element of the invention.\(^{39}\) However, if a feature does not contribute anything to the actual solution of the invention, it would not be deemed an essential element of the invention, despite being mentioned in the patent claim.\(^{40}\) The relation of a suitable means of contributory infringement to the essential element of the invention as provided for in PatG section 10 has been interpreted by the FSC in a few decisions as a functional interaction between the means of contributory

\(^{33}\) Moy, supra note 30, at §15.23.

\(^{34}\) Patent Act of Japan, supra note 25.


\(^{37}\) Id.

\(^{38}\) Id.

\(^{39}\) See Decision of the BGH of May 4, 2004 – X ZR 48/03 – Flügelradzähler.

\(^{40}\) See Decision of the BGH of February 27, 2007 – X ZR 38/06 – Pipettensystem.
infringement and the essential element of the invention after completing the inventive solution.\textsuperscript{41}

\textit{b. Acts of Contributory Infringement}

In the United States, 35 U.S.C. § 271(c) confines acts of contributory infringement to “offers to sell or sells within the United States or imports into the United States” the above-mentioned infringing articles and excludes the manufacture and use of the infringing articles.\textsuperscript{42}

Compared to the United States, Japan expands acts relating to contributory infringement. Under the Patent Act of Japan, the acts relating to contributory infringement include not only “assigning, importing or offering for assignment,” which roughly corresponds to selling, offering to sell, and importing under the U.S. Patent Act, but also “producing” the infringing articles.\textsuperscript{43}

In Germany, according to the PatG, the acts relating to contributory infringement are limited to “offering or supplying” infringing articles. This is more similar to the statute in the United States than in Japan.\textsuperscript{44}

\textit{c. Knowledge or Intent to Infringe}

In the United States, contributory infringement, unlike direct infringement, is not a strict liability offense.\textsuperscript{45} 35 U.S.C. § 271(c) states that the alleged infringer must sell the infringing articles, “knowing the same [to be] adapted for use in an infringement of such patent.” The plain meaning of this wording is somewhat unclear,\textsuperscript{46} and the legislative history also does not identify what Congress intended “knowing” to mean.\textsuperscript{47} The Supreme Court addressed the knowledge requirement of 35 U.S.C. § 271(c) in \textit{Aro II}.\textsuperscript{48} The Court concluded”§ 271(c) does require a showing that the alleged contributory infringer knew that the combination for which his component was especially designed was both patented and infringing.”\textsuperscript{49}

\begin{footnotesize}
\begin{itemize}
\item 42. 35 U.S.C. § 271(c).
\item 44. PatG, \textit{supra} note 26.
\item 45. 35 U.S.C. § 271(c).
\item 47. DONALD S. CHISUM, \textit{CHISUM ON PATENTS}, §17.03 (2006).
\item 48. Id. at §17.02[7].
\item 49. Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476, 488 (1964) (\textit{Aro II}).
\end{itemize}
\end{footnotesize}
In Japan, the 2002 revision of the Patent Act of Japan provides different subjective requirements for different infringing articles. The current Patent Act of Japan keeps the old “exclusive article” approach in article 101 as item (1) for a patented product and item (3) for a patented process. Under such an approach on exclusive articles, contributory infringement could be established only if there is a use of an exclusive article, regardless of any knowledge or intent to infringe by the defendant. Thus, a defendant accused of contributory infringement could avoid liability by arguing that the article in question had at least one use apart from the infringing use, even if he had intent to infringe.\(^{50}\) The 2002 revision attempted to address this problem by adding contributory infringement on non-exclusive articles (excluding those widely distributed within Japan). This change is shown in article 101 as item (2) for a patented product and item (4) for a patented process. Under these provisions, to establish contributory infringement on non-widely-distributed, non-exclusive articles, the subjective criteria of “knowing that the invention is a patented invention and that the articles are to be used for working the invention” are required.\(^{51}\)

In Germany, accused infringement constitutes contributory infringement only when the accused infringer knows—or finds it obvious from the circumstances—that such means, which he provides or offers are suitable and intended for use of the invention.\(^{52}\) Regarding the language “obvious from the circumstances,” the German Supreme Court has ruled that it equates this language to be “self-evident for the unbiased observer of the circumstances, or there is no reasonable doubt that the means supplied or offered are suitable and intended for exploiting the invention.”\(^{53}\) In the same case, the German Supreme Court explained “instructions to use the means according to the invention, without explicitly mentioning the patent in question, may be sufficient to prove that the supplier knows that the means are intended for exploiting the invention.”\(^{54}\) In other words, contributory infringement under the German Patent Act explicitly requires subjective intent as an element. As a result, if the accused infringer does not have the above-mentioned subjective intent, even though the accused product is only

\(^{51}\) Fukai, \textit{supra} note 22, at 3.
\(^{52}\) PatG, \textit{supra} note 26, section 10(1).
\(^{54}\) \textit{Id.}
used with the invention, the accused infringer is not liable for contributory infringement.  

\[ d. \text{ Relationship to Direct Infringement} \]

In the United States, although 35 U.S.C. § 271(c) does not definitively state whether contributory infringement requires direct infringement, courts have held that there cannot be contributory infringement liability under § 271(c) unless direct infringement is also proven under § 271(a). The Supreme Court tested the scope of § 271(c) in the early 1960s with the two Aro cases. In Aro I, by holding the purchasers had not directly infringed the patent, the Court made clear that there could be no contributory infringement without direct infringement: a principle that was not affected by the enactment of § 271(c).

In Japan, the Patent Act of Japan does not require direct infringement as a precondition to contributory infringement. However, two theories exist to describe what constitutes contributory infringement: (1) the constitution of direct infringement as a prerequisite (“dependence theory”) and (2) without the constitution of direct infringement (“independence theory”).

In Germany, PatG section 10 defines a separate element of contributory infringement independent of direct infringement, as stipulated in PatG section 9. PatG section 10(3) provides that three types of acts, listed in PatG sections 11(1)–(3), shall not be considered within the protected terms of PatG section 10(1). In other words, contributory infringement is established, even though the abused infringing articles are subject to the following acts outside the scope of a patent’s protection: (1) acts done privately for non-commercial purposes; (2) acts done for experimental purposes relating to the subject matter of the patented invention; and (3) acts done for the extemporaneous preparation of medicinal products in a pharmacy in accordance with a medical prescription, or acts concerning the medicinal products as

55. WANG, supra note 10, at 146.
56. MUELLER, supra note 20, at 506–07.
59. AIPPI Japan Group, supra note 35, at 2.
prepared. Third parties are prohibited, without the consent of the patent proprietor, from offering or supplying means relating to an essential element of the invention to people other than those entitled to make use of the patented invention in Germany. This prohibition is not unconditional, but is subject to the provision that certain subjective definitional elements must be present.

The following table summarizes the factors of contributory infringement in the United States, Japan and Germany.

Table 1: Contributory Infringement in the United States, Japan and Germany

<table>
<thead>
<tr>
<th>Legislation</th>
<th>United States</th>
<th>Japan</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>35 U.S.C § 271(c)</td>
<td>Article 101 of Patent Act of Japan</td>
<td>Section 10 in Germany Patent Act</td>
</tr>
<tr>
<td>Infringing Articles</td>
<td>Exclusive articles</td>
<td>Exclusive articles and non-widely-distributed, non-exclusive articles</td>
<td>Means relating to an essential element of the invention</td>
</tr>
<tr>
<td>Acts of infringement</td>
<td>Offers to sell or sells, or imports</td>
<td>Producing, assigning, etc., importing or offering for assignment, etc.</td>
<td>Offering or supplying</td>
</tr>
<tr>
<td>Knowledge and intent to infringe</td>
<td>Knowledge that the combination for which his component was especially designed was both patented and infringing</td>
<td>Not required for exclusive articles; for non-widely-distributed, non-exclusive articles, “knowing that”</td>
<td>Knowledge of or it is obvious from the circumstances that such means are suitable and intended for the use of the invention</td>
</tr>
</tbody>
</table>

61. WANG, supra note 10, at 156.
62. BGH Jan. 30, 2007 GRUR, 313, 315(Ger.); SCHULTE, supra note 60.
63. Goddar, supra note 28, at 139.
64. Id. at 138.
the invention is a patented invention and that the articles are to be used for employing the invention”

| Direct Infringement is Required? | Yes | No | No |

B. Contributory Infringement in China

Unlike the United States, Japan and Germany, China has never included the doctrine of contributory infringement in Chinese patent law.65 However, many cases have been decided by different Chinese courts about contributory infringement, according to different interpretations of general laws.66

Chinese Civil Law plays a leading role in determining contributory infringement, especially Tort Liability Law.67 Article 130 of Chinese Civil Law (General Principles of Civil Law of the People’s Republic of China) articulates the general principle of joint infringement.68 Article 148 of the Supreme People’s Court, “Opinion on the Implementation of Civil Law Issues,” articulates the general principle of contributory infringement.69


66. WANG, supra note 10, at 150–51.


69. Opinion on the Implementation of Civil Law Issues (Sup. People’s Ct.) art. 148 (“A person that solicits or assists another person to commit an act of tort is a joint infringer and shall bear civil liability jointly and severally”).
These provisions are applied to determine whether an act constitutes contributory infringement in some cases.\textsuperscript{70}

Tort Liability Law is applied frequently\textsuperscript{71} in determining contributory infringement since its enactment on July 1, 2010.\textsuperscript{72} The law is applicable to all tort acts, including patent infringement.\textsuperscript{73} In the context of patent infringement, article 9 of Tort Liability Law\textsuperscript{74} details the Chinese counterpart to the U.S. doctrine of inducement and contributory infringement codified in 35 U.S.C. § 271 (b) and § 271 (c).\textsuperscript{75}

Although both Chinese Civil Law and Tort Liability Law state that contributory infringers are liable, neither of these doctrines provides detailed factors for contributory patent infringement. Thus, several important questions are not answered by these general laws, such as: “What articles are contributory infringing articles?”, “What acts constitute contributory infringement?”, “What is the subjective requirement for contributory infringement?” and “Is the direct infringement a precondition for contributory patent infringement?”.

\textbf{C. Criticisms of the Situation in China}

Since there is no provision on contributory patent infringement in Chinese patent law, it is unclear whether patentees should be protected against contributory infringement in China. Moreover, since there is no detailed provision about contributory infringement under Civil Law, Tort Liability Law and other enforceable laws, the factors of contributory patent infringement are unknown. This results in many serious problems.

\begin{flushleft}
\textsuperscript{70} TaiYuan ZhongXing JiQi Chang Su TaiYuan GongCheng XiTong Gongsi QinFan ZhuanLiQuan JiFen An (太原重型机器厂诉太原工程系统公司侵犯专利权纠纷案) [Taiyuan Heavy Machinery Factory v. Taiyuan Electrical System Engineering Company], (ShanXi High People’s Ct. 1993) (China) (holding defendants liable for the joint infringement of the patent, under article 130 of Chinese Civil Law, because the court found that the exciting coils the defendants produced were the material part of the claimed invention and only be used to produce the patented product. Magnetic Mirror Direct-current Electric Arc).
\textsuperscript{72} Tort Liability Law, supra note 67, at art. 2.
\textsuperscript{73} Id.
\textsuperscript{74} Id. at art. 9 (providing that “anyone who abets or aids another to commit a tort act shall bear joint and several liability with the infringer.”)
\textsuperscript{75} King, supra note 65, at 279.
\end{flushleft}
1. Inconsistent Decisions

Due to the lack of a doctrine on contributory infringement in Chinese patent law, the decisions and rationales in cases related to contributory infringement drastically differ from each other.

First, because the law that should be applied to determine contributory infringement is not definite, some courts have applied the Chinese Civil Law,76 while some courts have applied the Tort Liability Law.77 Some courts decided that the specific infringing acts constituted contributory infringement, without identifying the applied law.78 Other courts, including the Supreme People’s Court, held that there was contributory infringement, based on the direct infringement doctrine.79

Second, since there is no definite provision stipulating the factors of contributory patent infringement, the way courts determine contributory infringement has varied dramatically. For example, according to a small set of statistics by Japan External Trade Organization (JETRO) regarding the relationship between direct infringement and indirect infringement, most of the Chinese courts found that the existence of direct infringement is a precondition of indirect infringement.80 Regarding the infringing articles, some courts have deemed that exclusive articles are required or that the material part of the patent is required, while other courts did not even consider whether the accused product was an exclusive article or not.81 Regarding the intent to infringe, some courts did not think the intent to

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76. TaiYuan ZhongXing Jiqi Chang Su TaiYuan GongCheng XiTong Gongsy QinFan ZhuanLiQuan JuFen An[太原重型机器厂诉太原工程系统公司侵犯专利权纠纷案][Taiyuan Heavy Machinery Factory v. Taiyuan Electrical System Engineering Company], (ShanXi High People’s Ct. 1993) (China).


79. ZhuShi HuiShe DaoYe Su NingBo Shi RiCheng GongMao YouXian GongSi (株保会社岛野诉宁波世里晨工贸有限公司)[Shimano Co. v. NingBo Sunrise Industry & Trade Ltd.], (Sup. People’s Ct. 2012) (China) http://ipr.court.gov.cn/zgryw/159068.html (last visited on Oct. 17, 2014). (In this case, the accused product did not include one part claimed in the patent. However, the Supreme Court deemed the accused product also included the parts because the accused product was only used for the patent, therefore the accused product included all elements of the claim, thus the defendant constituted patent infringement).

80. JETRO SHANGHAI CENTER, supra note 11, at 90.

81. Id.
infringe is required for contributory infringement, and others deemed that intent to infringe is required to establish indirect infringement.\textsuperscript{82} There are no statistics, however, from the decisions published in the same report, as the acts of infringement have never been examined by all of the courts.\textsuperscript{83}

These decisions are so confusing and conflicting that it is not doubted that the same case addressing contributory infringement would result in different decisions in different courts. Consistency assures equal treatment of similarly situated litigants,\textsuperscript{84} while inconsistent decisions result in a public uncertainty in planning for the future.\textsuperscript{85}

2. Discouraging Innovation

Due to the indefiniteness and uncertainty of the current law, patentees are discouraged from innovating. Because there is no definite stipulation regarding contributory infringement in Chinese patent law, some courts have held that contributory infringement should be excluded from infringement liability, while others have held that patentees should be protected against contributory infringement.\textsuperscript{86} These decisions make patentees doubt whether their patents can be protected against contributory infringement. If contributory infringement is not prohibited, patentees could not get remedies from contributory infringers, and their investments could not be rewarded or protected. Thus, if patent rights are too limited or too weak, potential innovators will face suboptimal incentives to invest resources and time in innovation-producing activities.\textsuperscript{87}

3. Global Harmonization

Global harmonization is harmed due to the lack of a doctrine on contributory infringement in Chinese patent law. Besides the United States, Japan and Germany, the United Kingdom, France, Belgium, Holland, Brazil, Peru, South Korea and many other countries have also adopted a doctrine of

\textsuperscript{82} Id.

\textsuperscript{83} Id.


\textsuperscript{85} Id. at 1313.

\textsuperscript{86} TaiYuan ZhongXing Jiqi Chang Su TaiYuan GongCheng XiTong Gongsi QinFan ZhuuanLiQuan JiuFen An[太原重型机器厂诉太原工程系统公司侵犯专利权纠纷案][Taiyuan Heavy Machinery Factory v. Taiyuan Electrical System Engineering Company], (ShanXi High People’s Ct. 1993) (China).

\textsuperscript{87} JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK, 11–12 (2008) (identifying the goal of maximizing net incentives to innovate).
contributory infringement in their patent laws. However, as a country that has accepted more than two million patent applications per year since 2013, China still has not adopted a doctrine. This hinders the global harmonization of the patent system. Harmonization is essential because companies around the world are increasingly reliant on global markets; thus, the differences that exist today among national or regional patent offices may act as an impediment to inventors and hinder opportunities for greater trade among nations.88

III. A Proposal for Patent Contributory Infringement in China

To overcome the aforementioned problems, this Article proposes adding provisions relating to contributory infringement in the Chinese patent law by determining the elements for contributory infringement and taking into the current status of China and the experience of the United States, Japan and Germany into consideration. The following section explains the proposal in detail.

A. Proposal for a Chinese Statutory Solution

In order to clarify the ambiguousness of the article on contributory patent infringement in current legislation and to maintain consistency with the current statutory framework, this Article proposes placing the proposed provision on contributory infringement in Chapter 7—”Protection of Patent Right”—of the Chinese patent law. This section explains the draft of the proposal, the location of the proposal and the four main elements of the proposal.


This Article proposes adding contributory infringement clauses to the current Article 60, which articulates the definition of direct infringement, in Chapter 7 of the Chinese patent law.

To insert contributory infringement clauses into the current Patent Law with a clearer structure, this Article suggests drafting a new Article 60, combining the current definition of direct infringement in the current Article 60 with a definition of indirect infringement. Meanwhile, the remaining part of the current Article 60 would be modified slightly (hereafter “Article 60’’)

to include dispute resolutions in the current Article 60. Thus, Article 60 would not only cover direct infringement, but also contributory infringement.

Specifically, a draft of new Article 60, which specifically defines contributory patent infringement, would look something like the following:

**Article 60. Patent Infringement**

I. (definition of direct infringement)

II. Whoever offers or supplies, within China to any other person or persons who exploit the invention, other than such person or persons authorized to use the patented invention, means relating to an essential element of said invention for use of the invention within China, if such means are specialized for use of the invention.

III. Subsection (II) shall not apply when the means are not specialized for the use of the invention, except if the supplier knows or it is obvious from the circumstances that such means are suitable and intended for the use of the invention.

IV. Subsection (II) shall not apply when the means are products generally available in commerce, except if the supplier intentionally induces the person supplied to use the invention.

Article 60(I), as proposed, contains the definition of direct infringement parallel to contributory infringement clauses, thereby making it clear that Chinese patent law articulates both direct and contributory patent infringement definitions.

Meanwhile, a draft of Article 60’, for example, would look like the following:

**Article 60’ Where a dispute arises as a result of the infringement of the patent right of the patentee, it shall be settled through...**

The omitted part of Article 60’ is identical to current Article 60. Since the modified Article 60 defines not only direct infringement, but also contributory infringement, Article 60’ automatically becomes the dispute resolution article for both direct infringement and contributory infringement. Thus, Chinese patent law would prohibit not only indirect infringement of patents, but also contributory patent infringement.

2. Elements of Contributory Infringement

As explained in Part I, infringing articles, infringing acts, the intent to infringe and the relationship to direct infringement are the most important elements in determining the scope of contributory patent infringement. This
section explains the four elements of the contributory infringement proposal in detail.

a. Infringing Articles

The first element of the proposed amendment defines what constitutes infringing articles. It can be seen from Part I that infringing articles, which are defined in the patent laws of the United States, Japan and Germany, can be divided into three types:

1. Exclusive products, which contain a substantial part of the invention without other use than the use in invention, are infringing articles;
2. Non-widely-distributed, non-exclusive products, which compose a substantial part of the invention with other uses, but which are not in a general circulation field (“staple article” in the United States, “not widely distributed product” in Japan, “not products generally available in commerce” in Germany) are infringing articles;
3. Common products, which compose the substantial part or non-substantial part of the invention, are principally excluded from the scope of the infringing articles for contributory infringement, but if there is inducement behavior when the infringer provides a product of this type, the infringer still might be liable for indirect infringement.

First, exclusive products are infringing articles, as stipulated in the proposed article 60(II). Because exclusive products have no usage other than use in the invention, supplying such products to unauthorized people exploiting the invention necessarily leads to direct infringement by the unauthorized people. Therefore, just as stipulated in the patent laws of the United States, Japan and Germany, exclusive products should be included within the scope of the patentee’s right.

Second, non-exclusive, non-common products are infringing articles under the conditions provided in the proposed article 60(III). Although such products have uses other than those associated with the invention, when the supplier knows the products are used to exploit the invention, the supplier

89. 35 U.S.C. § 271(c).
91. PatG, supra note 26, sec. 10(1).
92. 35 U.S.C. § 271(c); PatG, supra note 26, sec. 10(1); see also WANG, supra note 10, at 155.
93. 35 U.S.C. § 271(c); Patent Act of Japan, supra note 25, Art. 101(ii),101(iv); PatG, supra note 26, sec. 10(1); see also WANG, supra note 10, at 155.
94. Id.
95. WANG, supra note 10, at 155.
obtains the benefit from the indirect infringement of the patent. Therefore, when determining whether providing such a product constitutes contributory infringement, the subjective requirement must to be considered.\footnote{Id. at 156.}

Furthermore, common products are infringing articles only under the condition provided in the proposed article 60(IV). Generally, such products are in wide circulation prior to the patent application, and they should not be included in the scope of protection for the patentee. However, when the supplier induces other people to exploit the invention, the supplier is liable for inducement infringement.\footnote{Id.}

\textit{b. Acts of infringement}

Both the United States and Germany define contributory infringement as “selling or offering to sell (providing or offering to provide), [or] importing” of an infringing product,\footnote{35 U.S.C. § 271(c); PatG, supra note 26, sec. 10.} while in Japan, acts of contributory infringement also cover manufacturing an infringing product,\footnote{Patent Act of Japan, supra note 25, Art. 101.} a much broader standard than in Germany.

In the proposal, acts of infringement are limited to “supplying or offering to supply” an infringing product. First, “selling or offering to sell,” “importing” and “assigning” in the patent acts of the United States, Japan and Germany are certain kinds of “supplying or offering to supply.” Second, with respect to manufacturing an infringing product, the purpose may be for private use or for another party’s use. When the infringer uses the infringing product privately, if all elements of the patent are implemented, the use constitutes direct infringement. If the manufacture and import of an exclusive product is provided to another party for utilization prior to providing the product, since nobody has implemented the patented technology by making use of the product, it is unnecessary to sue for indirect infringement. After the product is provided to another party for infringing the patent, the standard of “supplying or offering to supply” is used to determine contributory infringement.\footnote{Id. at 162.}

c. Knowledge and Intent to Infringe

In the proposal, different subjective requirements are stipulated for three types of products.

\footnote{Id. at 156.} \footnote{Id.} \footnote{35 U.S.C. § 271(c); PatG, supra note 26, sec. 10.} \footnote{Patent Act of Japan, supra note 25, Art. 101.} \footnote{Id. at 162.}
First, supplying exclusive products to an unauthorized person is deemed to constitute contributory infringement without intent to infringe. Because exclusive products are merely used to implement the patent, providing them directly leads to direct infringement of the patent. Therefore, applying strict liability, which is already applied to direct infringement, to contributory infringement in such situations is reasonable. Moreover, because it is generally difficult for a plaintiff to prove a defendant has intent to infringe the plaintiff’s patent, applying strict liability to contributory infringement for exclusive products will benefit society by alleviating patentees’ burden of proof and increasing judicial efficiency.

Second, supplying “non-widely-distributed, non-exclusive products” to unauthorized people requires intent to infringe in order to show contributory infringement. There might be two purposes for providing “non-widely-distributed, non-exclusive products”: (1) providing to another party implemented patented technology and (2) providing to another party for other uses. The former condition constitutes contributory patent infringement, while the latter does not affect the benefits of patentees. Patentees are not entitled to require the supplier to stop providing the product or pay for the compensation for damages. Thus, for “non-widely-distributed, non-exclusive products,” intent to infringe is required to establish indirect infringement.

d. Relationship to Direct Infringement

Regarding the relationship between direct infringement and contributory infringement, there are “dependence” and “independence” theories in China. “Dependence” theory insists that contributory infringement requires proof of direct infringement, while the “independence” theory contends that contributory infringement is possible without direct infringement. Meanwhile, in practice, some courts have deemed “no direct infringement, no indirect infringement” for

101. Id. at 157.
102. Id.
103. Id.
104. Id.
105. Id.
contributory infringement, while other courts have held that the defendant was liable for contributory infringement without direct infringement.\textsuperscript{107}

Dependence theory is supported by the current legislation on contributory infringement in China. As discussed in Part I, the doctrine of contributory infringement stems from the doctrine of tort liability stipulated in Civil Law and Tort Liability Law. With respect to the elements of tort liability, scholars are divided between the three-prong theory and the four-prong theory, but they all assert that infringement is one of the essential factors of tort liability and that the existence of an infringing act is a precondition of tort liability.\textsuperscript{108} Contributory infringement, as a tort act, should be determined by this rule. Thus, in the context of patent infringement, the existence of direct infringement is required to establish contributory infringement. In judicial practice, most courts accept this theory.\textsuperscript{109}

On the contrary, adopting the “independence theory” may lead to an abuse of patent rights. Proponents of “independence theory” contend that contributory infringement should not be based on the existence of direct infringement because the original purpose of establishing a contributory infringement system is to stop malicious actors from supplying parts of a patented product to an unauthorized user who exploits the patent.\textsuperscript{110} However, if contributory infringement is established without direct infringement, protection of the patents would be extended to non-patented products or methods. The expansion of patent rights is typical behavior in abusing patent rights, and, if serious, would constitute a violation of antitrust law.\textsuperscript{111}

Therefore, the proposal adopts the “dependence theory.” In other words, direct infringement would be required to constitute contributory infringement.

\textsuperscript{107} TaiYuan ZhongXing Jiqi Chang Su TaiYuan GongCheng XiTong Gongsi QinFan ZhuangLiQuan JiuFen An (Taiyuan Heavy Machinery Factory v. Taiyuan Electrical System Engineering Company), (ShanXi High People’s Ct. 1993) (China).

\textsuperscript{108} RANWEI XUE (薛然巍) & FANGJU QIN (秦芳菊), TORT LIABILITY LAW: NEW GENERAL DISCUSSION (侵权责任法: 新总论) 17 (Heilongjiang Science and Technology Press (黑龙江科学技术出版社), 2013) (China).

\textsuperscript{109} JETRO SHANGHAI CENTER, supra note 11, at 90.

\textsuperscript{110} WANG, supra note 10, at 160.

\textsuperscript{111} ZhengQuan He & Shengshan Yan (何政泉 晏生山), DISCUSSION ON ELEMENTS OF INDIRECT INFRINGEMENT OF PATENT (浅析专利间接侵权行为的构成要件), FINDLAW.CN 2, http://china.findlaw.cn/chanquan/zhuanlifa/zhuanlibaohu/qinquandiaocha/17735_2.html (last visited Apr. 30, 2015).
The following table summarizes the proposal on contributory infringement for Chinese patent law.

Table 2: Proposal on Contributory Infringement for Chinese Patent Law

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Patent Law Article 60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infringing articles</td>
<td>1. Exclusive articles and 2. Non-widely-distributed, non-exclusive articles</td>
</tr>
<tr>
<td>Acts of infringement</td>
<td>Offering or supplying</td>
</tr>
<tr>
<td>Knowledge and intent to infringe</td>
<td>1. Not required for exclusive articles 2. For non-widely-distributed, non-exclusive articles, “knowing that the invention is a patented invention and that the articles are to be used for employing the invention”</td>
</tr>
<tr>
<td>Is Direct Infringement Required?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

B. Advantages of the Proposal

By adopting the proposal in this paper, the doctrine of contributory patent infringement will be introduced in Chinese patent law. The proposal states that contributory patent infringement holds an infringer liable, so that patentees, the public and courts can determine whether certain conduct constitutes contributory infringement, according to the elements stipulated in the proposal. Thus, the proposal can end the currently confusing and contradictory situation caused by the lack of a contributory infringement provision in patent law.

1. Consistent Decisions

Consistent decisions are reasonably expected by adopting the proposal in this Article. If a doctrine of contributory infringement is included in Chinese patent law, patentees, the public and courts will be able to determine whether an accused infringer’s actions have met the elements of contributory infringement according to the law—namely, the elements provided in the proposal. Therefore, consistent decisions in patent law will be issued. Consistency assures equal treatment of similarly situated litigants, and may
be subsumed “within the general rubric of acceptability [to the public].” 112 Moreover, since “[a] benefit of consistency is conservation of judicial and administrative resources,” consistency also falls under the rubric of efficiency. 113

2. Encouraging Innovation

Patentees will be more encouraged to innovate if this Article’s proposal were adopted. Because Patent Law would contain a definite stipulation on contributory infringement, patentees would be assured that their patents are protected against contributory infringement. Under the proposal, it would be possible that patentees could receive a remedy not only from a direct infringer, but also from a contributory infringer. Thus, patentees would be rewarded for their investment, which would additionally strengthen the incentive for innovation. 114

3. Global Harmonization

One of the reasons advanced for the adoption of a doctrine of contributory infringement in Chinese patent law is the global harmonization of patent law. The benefits of a harmonized patent system include more efficient international trade, reduced administrative burdens and a greater incentive for foreign inventors to seek Chinese patent protection. Proponents of harmonization believe that all will benefit from eliminating incongruities and potential trade barriers created by disparate national patent systems, while also reducing private and governmental effort and expense duplication. Similarly, by granting Chinese patent holders more protection against infringers, foreign inventors will have an incentive to file for patent protection in China. 115

4. More Likely for Legislative Institutes to Accept

Many commentators have previously suggested adding a provision for contributory patent infringement in Chinese patent law by referring to the related provisions in other countries. 116 However, these commentators have

112. Legomsy, supra note 84, at 1313.
113. Id.
116. WANG, supra note 10, at 150, 160.
not considered the current legislative and judicial situation in China, nor have they proposed a realistic provision for contributory patent infringement.\textsuperscript{117}

Contrarily, the proposal is a realistic and normatively attractive provision for contributory patent infringement because it is not only based on the summary of the elements of contributory patent infringement in the United States, Japan and Germany, but also on related comments from Chinese legislative institutions and dozens of decisions from Chinese courts in related cases.\textsuperscript{118} Therefore, the proposal can maintain a good balance between the interests of patent right holders and the public, while also being easier for the legislative institutions and courts in China to accept.

IV. CRITICISMS ON THE PROPOSAL FOR PATENT CONTRIBUTORY INFRINGEMENT IN CHINA

Because this proposal adds to the contributory infringement doctrine in Chinese patent law, which has been objected to by both the State Council and SIPO,\textsuperscript{119} there are several potential criticisms to the proposal.\textsuperscript{120} These criticisms will be addressed below.

A. Legitimacy of Adopting Contributory Infringement Doctrine in Patent Law

Perhaps the biggest criticism of the proposal is that the contributory infringement doctrine would go beyond the TRIPs requirement. During the second revision of the Patent Law in 2000, the State Intellectual Property Office of China (hereafter “SIPO”) included a provision on contributory infringement in the draft of the Patent Law submitted to the State Council. However, the provision was deleted because the State Council did not agree that China should provide protection exceeding TRIPs agreement.\textsuperscript{121}

Adopting a contributory infringement doctrine in Chinese patent law is legitimate under TRIPs and Tort Liability Law of China. First, although TRIPs does not require member nations to protect patents against contributory infringement, because TRIPs only articulates the minimum standards of IP protection for member countries, protection against contributory infringement can be provided, because it exceeds the minimum

\textsuperscript{117} Id.
\textsuperscript{118} JETRO SHANGHAI CENTER, supra note 11, at 90.
\textsuperscript{119} Zheng, supra note 9, at 40.
\textsuperscript{120} Id.
\textsuperscript{121} Id.
standards. Second, the Tort Liability Law enacted in 2010 has already overturned the above-mentioned opinion of the State Council. In Tort Liability Law, a contributory infringement doctrine is stipulated in article 9. Because the Tort Liability Law applies to civil torts including intellectual property infringement, the Tort Liability Law affirms adopting a contributory infringement doctrine in Patent Law.

B. Necessity of Adopting Indirect Infringement Doctrine in Patent Law

Perhaps the second biggest criticism of the proposal is that there is no need to add any provision related to indirect infringement in Chinese patent law, because a patentee can obtain a remedy based on Civil Law or Tort Liability Law. During the third revision of Patent Law at the end of 2006, SIPO did not add a provision on contributory infringement to the draft of the third revision of the Patent Law, because patent holders can obtain protection from direct infringement, and obtain remedies from joint infringers based on Civil Law.

However, it is difficult for patentees to obtain remedies based on Civil Law and other related laws, because these laws do not define any elements of contributory patent infringement. Civil Law and Tort Liability Law, which assert that civil contributory infringement holds an infringer liable, only stipulates that contributory infringement holds an infringer liable. However, these laws do not define what criteria should be applied to determine contributory patent infringement. Without definite criteria for determining contributory patent infringement, different courts have different opinions on whether contributory patent infringement holds an infringer liable, which law should be applied to determine contributory patent infringement and what conduct constitutes contributory patent infringement. As a result, the uncertainty and ambiguity of current laws


123. Tort Liability Law, supra note 67, art. 9.

124. Id. at art. 2.

125. Zheng, supra note 9, at 40.

126. Id.

127. Tort Liability Law, supra note 67, at art. 9.

128. Liu XueHua Su JiNan KaiFaQu XinHuanNeng Guolu YnJuSu & JiNan XinZheng NengYuan SheBei YouXian GongSi ZhanQuan JiFenAn (刘雪华诉济南开发区鑫环能锅炉研究所、济南新正能源设备有限公司专利侵权纠纷案) [Liu XueHua v. JiNan Development District XinHuanNeng Boiler Institute, JiNan XinZhen Energy Equipment Ltd.], 2001 No. 2 Lu MIN SAN ZHONG Zt (JiNan Intern. People’s Ct. 2001) (China) (finding that the defendants did not infringe the plaintiff’s patent, because the accused product did not cover every feature of the Granted Claim).
hinder patentees obtaining remedies based on Civil Law and Tort Liability Law.

In the proposal, adding the four-prong provision on contributory infringement into Chinese patent law eliminates the above-mentioned uncertainty and ambiguities of Civil Law and Tort Liability Law. It would be very clear for patentees, the public and courts that any conduct meeting all elements of the contributory infringement in the proposal holds the infringer liable. Thus, patentees harmed by contributory infringement can obtain definite remedies from the proposal, because conduct constituting contributory infringement can be determined clearly and certainly.

C. Balance between Patentees and the Public

Another criticism to the proposal is that recognizing contributory infringement will unreasonably expand protection of patentees, and damage the public interest. Tort Liability Law plays a major role in balancing the interests of the community objectively, and the balance should be kept appropriately.130 One of the reasons why SIPO did not add a provision on indirect infringement to the draft of the third revision of the Patent Law is that SIPO ascribed indirect infringement would expand protection to unpatented products. If the provision on indirect infringement is enacted improperly, it will damage the rights of the public to use existing technologies.131

The balance of the interests between the public and patentees is preferentially considered when determining each factor of contributory patent infringement in the proposal. The following criteria are adopted by the proposal. First, if the interests legally owned by the public are reduced due to the enforcement of a patent right, the protection granted to the patentee obviously exceeds the limits of necessity. Second, and conversely, if an unauthorized third party makes use of the patented technology and goes beyond the interests originally owned, the patentee should have the right to prohibit such a use by a third party.132

As a result, the scope of contributory infringement is properly determined by the proposal. The proper legitimate rights of patentees are protected, and this allows patentees to maintain their economic interests and sue the contributory infringer directly. Meanwhile, the public interest will not be damaged by the enforcement of patent rights.

130. LIMING WANG, CIVIL LAW 811 (2005).
131. Zheng, supra note 9, at 40.
132. WANG, supra note 10, at 154.
V. CONCLUSION

Due to the lack of a provision on indirect patent infringement in Chinese patent law, different courts apply different criteria in judging contributory patent infringement cases, and this has caused a confusing and conflicting understanding among patentees and the public. Therefore, this Article proposes a provision, which includes a four-factor test for contributory patent infringement, to be added to China’s Patent Law. This proposal is a culmination of a survey of the respective doctrines of contributory infringement in the United States, Japan and Germany, as well as the current legislative and judicial precedents in China. Adoption of this proposal would likely overcome the aforementioned problems in Chinese patent law. Moreover, the proposed provision could maintain a healthy balance between the interests of patent right holders and the public, and could also ease the difficulty of acceptance by the legislative institutions and courts of China. Lastly, the proposal would also help encourage incentives for innovation, unify criteria for judging indirect patent infringement cases in China and advance the global harmonization of patent law.