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RECONSTRUCTION OF THE REASONABLE PERSON STANDARD UNDER CHINESE PATENT LAW†

WEIHONG YAO* & ROBERT H. HU**

ABSTRACT

The standard of a Reasonable Person is the common basis for determining the duty of care of a patent infringer. Under the Chinese patent law, the standards for Reasonable Manufacturer and Reasonable Importer are among the highest standards in the world; such high Chinese standards impose an excessive duty of care for Chinese manufacturing enterprises, importers, and distributors, which hinder the development of those enterprises. We should reconstruct the Chinese patent law’s Reasonable Person standard based on the characteristics of the patent system and the status quo of China’s economic production. A Reasonable Manufacturer should be defined as an ordinary technician with medium-level technology reserves in the relevant field, who has a medium-level ability for patent document search and retrieval, who knows the technological composition of his product, and who is able to evaluate and decide on obvious infringement acts. The reconstructed Reasonable Manufacturer standard is based on the attention and ability of ordinary manufacturers at the current stage of socioeconomic development in China, which is similar to the standards adopted in the United States, Japan, and Europe.

I. INTRODUCTION .............................................................................................................. 12
II. CONCEPT AND CHARACTERISTICS OF THE REASONABLE PERSON .......... 14
   A. The Concept of the Reasonable Person ................................................................. 14
   B. Characteristics of the Reasonable Person ............................................................ 16
III. EVOLUTION OF THE REASONABLE PERSON STANDARDS THROUGHOUT THE HISTORY OF WORLD PATENT SYSTEMS ............................................. 19
   A. The Reasonable Person Standard in Early Patent Systems ......................... 19
      1. The Venetian Patent Statute ........................................................................ 19
      2. The Statute of Monopolies in Great Britain .............................................. 20
   B. The Reasonable Person Standard in Patent Infringement Litigation from the 18th Century to the 19th Century ........................................ 22
      1. The Appearance of Patent Specifications .................................................. 22
I. INTRODUCTION

Negligence is a conduct which falls below the standard of care established by law for the protection of others against unreasonable risk of harm.¹ This standard of conduct is ordinarily measured by what the reasonable man of ordinary prudence would do in the circumstances.² In determining the negligent tort liability, the accused infringer’s duty of care to the victim is the first step in the determination of the accused infringer’s fault. The second step, where the duty of care is found to exist, is to consider whether the accused infringer has breached the duty of care.³ A breach of the duty of care comprises

footnotes:

¹ This article contains sources in the Chinese language. All Chinese sources have been translated by the authors.
² Weihong Yao, Ph.D., is a Lecturer of Law at Shandong Normal University in Jinan, China. She was a visiting scholar to St. Mary’s University School of Law in San Antonio, United States during 2015-2016.
³ Robert H. Hu is Professor of Law at St. Mary’s University School of Law, where he also serves as Director of the Institute on Chinese Law and Business.
1. Restatement (Second) of the Law on Torts, §282.
3. See W. Page Keeton, Prosser and Keeton on The Law of Torts 164 (West Publishing Co., 5th ed. 1984) stating: "The traditional formula for the elements necessary to so such a cause of action may be satisfied briefly as follows: 1. A duty, or obligation, recognized by the law, requiring the person to
the fault of the accused infringer, which reflects the accused infringer’s failure to take reasonable measures to avoid the foreseeable danger under the specific circumstances. Whether the duty of care is breached or not depends on whether the actor meets the specific standard of conduct under the particular circumstances.  

The construction of the standard of duty of care plays an important role in determining the fault of the actor. The higher the standard is, the more rigid the requirements are on the actor, giving less freedom for his or her behavior; the lower the standard is, the more flexible the requirements are on the actor, giving more freedom for his or her actions.

In Anglo-American tort law, the standard of duty (or care) in negligence is long settled. According to one leading authority on American tort law, “Negligence is no source of liability, unless the law exacts a ‘duty’ in the circumstances to observe care. ‘Duty’ may therefore be defined as an obligation, recognized by law, to conform to a particular standard of conduct, for the protection of others against unreasonable risks.” In other words, what the accused defendant (or infringer) shall do or shall not do is a process in which the actor fulfills his duty of care. In negligence cases, “the duty is always the same – to conform to the legal standard of reasonable conduct in the light of the apparent risk. What the defendant must do, or must not do, is a question of the standard of conduct required of to satisfy the duty.” As Judge Pearson pointed out, negligence is actually when someone did something that a reasonable person would not do in such a situation; or someone did not do something that a reasonable person would do in such a situation.

In cases of negligent infringement, judges in the Anglo-American legal systems usually determine whether an accused has a duty of care to the victim at first. Only after it is determined that the accused owes a duty of care to the victim, can it be further determined whether the accused infringer has breached

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8. See John G. Fleming, The Law of Torts, 107 (Sydney: The Law Book Company Limited, 5th ed. 1977) stating: “It is for the court to determine the existence of a duty relationship and to lay down in general terms the standard of care by which to measure the defendant’s conduct...”
that duty of care, thereby bearing the tort liability for negligence. Judges ordinarily decide the duty of care based on a Reasonable Person standard, rather than on a standard applicable only to a specific infringer.

Thus, in patent infringement cases, what is the standard of a Reasonable Person? This question is very important because the answer to this question is not only the foundation for the law or the judge to determine the scope of the duty of care, but also the basis for deciding whether the accused infringer meets the standard of a Reasonable Person, that is, whether there is a finding of fault or not.

II. CONCEPT AND CHARACTERISTICS OF THE REASONABLE PERSON

A. The Concept of the Reasonable Person

The concept of the “Reasonable Person” or “Reasonable Man” was first introduced in the English case of Vaughan v. Menlove. The case occurred in 1837. The victim’s farmhouse was near the land of the defendant who stacked hay on his land next to the victim’s farmhouse. The victim had repeatedly pointed out to the defendant the risk of fire igniting his haystack, but the defendant did not take measures to prevent the risk from happening. The haystack spontaneously caught on fire, which spread to the victim’s farmhouse and burned it down. Therefore, the victim sued the defendant in court and claimed that the accused bore liability for the damages. The court held that, after the victim pointed out to the accused the danger of fires in the haystack and the possible damage, the accused should have taken a normal level of care and acted like a person with ordinary foresight; he should have taken reasonable measures to prevent the potential damage, but he did not take reasonable measures and the damage happened. Therefore, the court decided, the accused was at fault and was liable for damages.

Since then, the standard of ordinary caution and common foresight has been used extensively in Anglo-American infringement cases and has become a criterion for determining whether an accused is at fault. A person with ordinary caution and ordinary foresight is what is called a “Reasonable Person” under...

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Anglo-American law, also known as an “average prudent person,” or an “ordinary person using general caution and skills.” 12

A “Reasonable Person” is a legal concept in Anglo-American law that is abstracted from a certain type of defendants, that is, a fictional person created by law, rather than an individual defendant. “The courts have dealt with this very difficult problem by creating a fictitious person, who never has existed on land or sea: the ‘reasonable man of ordinary prudence.’” 13 A “Reasonable Person” is someone who has ordinary intelligence, skills, and ability to work; has average experience; and medium-level logical reasoning ability in the category to which the defendant belongs. 14 He is a role model for everyone, but he has shortcomings and weaknesses that society can tolerate. 15

In civil law countries the reasonable man is described as “the good father of the family.” 16 In other words, the civil law system uses the “Good Father” criterion to determine whether the actor is at fault. “For at civil law from the time of the Romans the standard of care which should be exercised is that of a good father of a family, paterfamilias.” 17 In France, for example, both judicial cases and tort law theories use the behavior standard of “Good Father” to determine whether the actor is at fault. “Not only is imprudence assimilated with negligence, but negligence in French law is commonly defined as a failure to behave as a “prudent man” (“un homme avisé”) or a good father of a family” (“un bon père de famille”). 18 If the actor fails to take precautionary measures that a good father is expected of under the same or similar conditions as the defendant is in, then his behavior constitutes fault. Stated differently, the standard of “Good Father” in tort cases under a civil law system is actually analogous to the “Reasonable Person” standard under Anglo-American law. 19 “Practically the two standards are not unlike, but this is because modern

13. Id. at 174.
conditions are tending to make a good father of a family pretty much the same as the average member of a community.”

So, what is a “Reasonable Person” anyway? According to Black’s Law Dictionary, a Reasonable Person is “a hypothetical person used as a legal standard, esp. to determine whether someone acted with negligence; specifically, a person who exercises the degree of attention, knowledge, intelligence, and judgment that society requires of its members for the protection of their own and others’ interests. The Reasonable Person acts sensibly, does things without serious delay, and takes proper but not excessive precautions—also termed reasonable man; prudent person; ordinarily prudent person; reasonably prudent person; highly prudent person.” Similarly, a Reasonable Person can be defined as “a fictional person, whose foresight, attention, careful prevention of injury, awareness of injury and other similar imaginary characteristics and behaviors are often used as reference standards to determine the actual foresight and attention of specific defendants.” And the English Chinese Law Dictionary defines a Reasonable Person as a person with normal mental state, common knowledge and experience, and ordinary ability to deal with work. It is an abstract objective standard. Chinese legal scholars recognize and agree that a Reasonable Person in Anglo-American law is the legal requirement of a certain type of actors since the term does not mean a specific person but represents a legal standard of behavior of a certain type of persons.

B. Characteristics of the Reasonable Person

In order to construct the standard of a Reasonable Person in the field of patent infringement, it is necessary to find the characteristics of a Reasonable Person in the aspects of intelligence, skills, and foresight. As some justices of the Supreme Court reasoned in Yarborough v. Alvarado, “the precise legal definition of ‘reasonable person’ may, depending on legal context, appropriately account for certain personal characteristics.”

First, a Reasonable Person is an objective standard.\textsuperscript{26} It is a model person created by law after eliminating all the differences in appearances, temperament, intelligence, and education among the ordinary actors of the type of people to which the defendant belongs.\textsuperscript{27} When determining whether the defendant has a duty of care, the differences between a specific defendant and a Reasonable Person are usually not relevant. If a specific defendant has a deep work experience, a strong ability to handle problems, and a high ability to predict risks, the standard of a Reasonable Person in this case will not be elevated due to the characteristics of the defendant. On the other hand, if the defendant’s ability is lower than that of ordinary people and he fails to meet the standard of a Reasonable Person of the type of actors to which he belongs, the standard of Reasonable Person in this case will not be lowered due to the defendant. That is, regardless of the defendant’s individual status, the law or judge should require a specific defendant to take certain actions according to the standard of a Reasonable Person.

Second, a Reasonable Person is not any specific defendant in real life, but a standardized person created by judges or the law to deal with a certain kind of negligence (or infringement) dispute. He “was invented as a model of the standard to which all men are required to conform. He is the embodiment of all the qualities which we demand of the good citizen…”\textsuperscript{28} As Judge Oliver Wendell Holmes pointed out, the specific circumstances of the actors may be different, therefore each actor has its own characteristics. But the law is applicable to all people and will not vary from person to person. “The standards of the law are standards of general application. The law takes no account of the infinite varieties of temperament, intellect, and education which make the internal character of a given act so different in different men.”\textsuperscript{29} Each actor must participate in social activities in accordance with the standards of conduct set by the law. “When men live in society, a certain average of conduct, a sacrifice of individual peculiarities going beyond a certain point, is necessary to the general welfare … The law considers, in other words, what would be blameworthy in the average man, the man of ordinary intelligence and prudence, and determines liability by that.”\textsuperscript{30} If the actor fails to act in

\begin{footnotesize}
\begin{enumerate}
\item See John G. Fleming, The Law of Torts, 107–08 (Sydney: The Law Book Company Limited 5th ed. 1977) stating: “On the whole, the law has chosen external, objective standards of conduct. This means that individuals are often held guilty of legal fault for failing to live up to a standard which as a matter of fact they cannot meet.”
\item Oliver Wendell Holmes, Jr., The Common Law & Other Writings, Including the Common Law Collected Legal Papers Speeches 108 (Birmingham, AL: The Legal Classics Library, 1982).
\item Id. at 107.
\item Id. at 108.
\item Id.
\end{enumerate}
\end{footnotesize}
accordance with the standards of conduct set by the law and causes losses to others, the court should not consider the individual situation of the defendant when determining its tort liability, but should judge whether the defendant is responsible in accordance with the standards of a Reasonable Person.\textsuperscript{31}

Third, a Reasonable Person is not perfect, omniscient, or omnipotent. He or she is no different from ordinary people around him or her. He or she has shortcomings and deficiencies. He or she can be negligent or reckless and is capable of making mistakes. It is just that a Reasonable Person’s shortcomings or mistakes remain within the reasonable limits tolerable by the society, such behavior does not violate the law and will not be punished. Therefore, the standard of a Reasonable Person is a standard that can be reached by the public. In terms of foresight, caution, judgment, self-control, and selflessness, what a Reasonable Person represents does not exceed the normal level of the society.\textsuperscript{32}

Fourth, a Reasonable Person is the standard put forward by the judge during a trial and is the basis for determining whether the defendant has met the duty of care when he or she acted or not. However, the Reasonable Person standard should be a standard of behavior for the actor during social engagements, rather than just a standard to assess liability of the actor’s behavior after the fact. Thus, in determining whether the defendant’s behavior violates the duty of care it is necessary to decide the issue based on the defendant’s ability, information and social environment at the time of the infringement, instead of on the situation after the fact (such as at the time of trial).\textsuperscript{33} Meanwhile, when determining the tort liability and fault standard, the legislature should also decide the appropriate scope of the duty of care according to the standard of a Reasonable Person. The bar for the duty of care should not be set so high that it is difficult for ordinary actors to satisfy, making it difficult for general actors to be spared liability despite exercising a duty of care; nor should the bar for the duty of care be set so low that anyone can easily meet, making it difficult for victims to obtain compensation for their losses.

In the area of patent infringement, the scope of the duty of care for the actor should be based on the Reasonable Person test. The Reasonable Person criterion is rooted in certain socioeconomic background. Since the times are changing, the Reasonable Person standard has evolved over time. The Reasonable Person test for patent infringers has gone through a historical evolution.


\textsuperscript{33} Jun Wang & Xia Chen, \textit{On the Standard of Reasonable Person in British and American Tort Law} · 英美侵权法中的理性人标准初探, QUSHI (China) 120–21 (Nov. 2006).
III. EVOLUTION OF THE REASONABLE PERSON STANDARDS THROUGHOUT THE HISTORY OF WORLD PATENT SYSTEMS

The patent system was born and evolved with the emergence and development of technology. According to the World Intellectual Property Organization (WIPO), “One of the main functions of the patent system is to foster technological innovation by providing an incentive for research and development. The patent system also works to disseminate technical information and promote technology transfer.”34 After nearly 500 years of industrial development, the social conditions on which the patent system is based have undergone tremendous changes, and the Reasonable Person standards embodied in the patent laws of the world have also evolved.

A. The Reasonable Person Standard in Early Patent Systems

It is generally believed that the modern patent system began with the Venice Patent Act of 1474 and the Statute of Monopolies of Great Britain of 1623.

1. The Venetian Patent Statute35

The Venetian Patent Statute is widely regarded by historians and legal scholars as the earliest modern patent law in codified form in the world.36 With a full text of more than 400 words, the statute stipulates legislative purpose, patentability, scope of rights, tort liability, and limitation of the rights. As some

34. See WIPO’s website, Patents, technology and development, (last visited 12/30/2020), https://www.wipo.int/patents/en/.
35. According to Wikipedia, the Statute is written in old Venetian dialect, and the most widely accepted translation of the old Venetian dialect original is reproduced below, (last visited 12/30/2020), https://en.wikipedia.org/wiki/Venetian_Patent Statute. “There are in this city, and also there come temporarily by reason of its greatness and goodness, men from different places and most clever minds, capable of devising and inventing all manner of ingenious contrivances. And should it be provided, that the works and contrivances invented by them, others having seen them could not make them and take their honor, men of such kind would exert their minds, invent and make things which would be of no small utility and benefit to our State. Therefore, decision will be passed that, by authority of this Council, each person who will make in this city any new ingenious contrivance, not made heretofore in our dominion, as soon as it is reduced to perfection, so that it can be used and exercised, shall give notice of the same to the office of our Provisioners of Common. It being forbidden to any other in any territory and place of ours to make any other contrivance in the form and resemblance thereof, without the consent and license of the author up to ten years. And, however, should anybody make it, the aforesaid author and inventor will have the liberty to cite him before any office of this city, by which office the aforesaid who shall infringe be forced to pay him the sum of one hundred ducates and the contrivance immediately destroyed. Being then in liberty of our Government at his will to take and use in his need any of the said contrivances and instruments, with this condition, however, that no others than the authors shall exercise them.”
Chinese scholars explain, there are five paragraphs in the entire text of this act. 37 The first paragraph provides that the legislative purpose of this act is to encourage inventions that are useful and beneficial to the state. The conditions for granting a patent to an invention is that no one else has made that same invention. The effect of patent rights is to prohibit others from producing the invented device and from stealing the inventor’s honor. The second paragraph provides the conditions for granting patent rights, that is, the invention must be new and can be implemented. The third paragraph provides that the protection period is up to ten years. The scope of the rights is that others shall not manufacture the same or similar item without authorization of the patent holder. The fourth paragraph provides tort liability, including compensation for damages and destruction of imitation product. The fifth paragraph provides that the state has the right to use inventions without permission, and no one other than the state and the inventor may exploit the invention without license. 38

The Venetian Patent Statute neither provides what patent documents should be disclosed, nor does it say how to determine the scope of patent rights. According to the third paragraph of the act, the patentee’s devices are used to determine the scope of patent rights, and the way for the public to understand the scope of the patented technology is also through the patentee’s devices. Anyone who manufactures the same or similar products like the patented devices without permission shall be liable for patent infringement specified in the fourth paragraph of this act.

2. The Statute of Monopolies in Great Britain

The British Statute of Monopolies of 1624 was the first statutory patent law of England. 39 Section 6 of the Statute is the most important part of the statute which lays out the exceptions to the rules preventing any kind of monopoly or patent. 40 In other words, this section provides the scope of patent rights, the

37. See XIKAI WEN & ZHONGHUA CHEN, PATENT LAW 专利法. 14 (Beijing: China Science and Technology Press, 1993).
38. Id.
40. Section 6 of the Statute stated that the previous provisions (i.e., rules preventing any kind of monopoly or patent) “shall not extend to any letters patents (b) and grants of privilege for the term of fourteen years or under, hereafter to be made, of the sole working or making of any manner of new manufactures within this realm (c) to the true and first inventor (d) and inventors of such manufactures, which others at the time of making such letters patents and grants shall not use (e), so as also they be not contrary to the law nor mischievous to the state by raising prices of commodities at home, or hurt of trade, or generally inconvenient (f): the same fourteen years to be accounted from the date of the first letters patents or grant of such privilege hereafter to be made, but that the same shall be of such force as they should be if this act had never been made, and of none other (g).”, (last visited 12/30/2020), https://en.wikipedia.org/wiki/Statute_of_Monopolies.
duration of protection, the conditions for granting patent rights, etc., among which, the scope of patent right is exclusive implementation right or manufacturing right. The duration of protection is 14 years, and the condition for granting the patent right is that the product is new.41

One of the intentions for the British government to grant patent rights is to promote the development of British economy by introducing new technologies or industries. In exchange, the government will not disclose those technical secrets for a period of time.42 The Statute of Monopolies played a large role in the British economy as some scholars believe the passage of the Statute as “one of the landmarks in the transition of [England’s] economy from the feudal to the capitalist.”43 In terms of its legal significance within patent law, “The Statute of Monopolies dominated patent law for centuries; it was received into the laws of many common law jurisdictions and still forms the basis for the modern patent laws of those countries…”44

The patent system of this period has the following characteristics: first, the patent right was only granted for new products that had already been manufactured and that could be put into production; second, instead of disclosing the patented technology through patent documents, the public could only learn about technical solutions through the patentees’ product; third, the content of protection was determined by the product of the rights owner; fourth, the scope of patent rights was limited to manufacturing rights.

The era when these two patent acts were created four or five hundred years ago was a period when the world’s industrial development had just begun and technological progress was slow. The data provided by the British Patent Office shows that in the 30 years from 1561 to 1590, a total of fifty patents were granted in Great Britain.45 That is less than two patents per year on average. With such slow pace of technological progress, those skilled in the art were fully capable of knowing all the patented technologies in the relevant field. At that time, traffic conditions were poor, the transportation capacity restricted the development of the market, and no retail industry was developed for new patented products. Usually, manufacturers also worked as vendors and transporters, and patent restrictions had only one object in mind – the other

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41. ZONGSHUN TANG, A PATENT LAW COURSE 专利法教程, 8 (Beijing: Law Press, 2003).
producers in the same industry. Therefore, the infringement liability in early patent laws was no-fault liability; the duty of care by the infringer was to make other manufacturers aware of the patented product of the rights owner and no counterfeiting was allowed.

In the early patent system, there was no patent document and monopoly rights could be obtained without patent marking. This type of system was determined by two factors - a small frequency with which new products were invented and the public’s ability (i.e., manufacturers in the same industry) to predict whether an act would infringe or not. The patent laws of this period required the accused infringer to be aware of the patented product, which was compatible with the periods level of economic and social development as well as the development of patented technology.

The Reasonable Person standard used for a patent infringer during this period should be: a Reasonable Person who knew all patented products in his field and who knew whether the products he produced imitated the patented products of others.

B. The Reasonable Person Standard in Patent Infringement Litigation from the 18th Century to the 19th Century

Since the 18th Century, as the speed of scientific and technological progress gradually accelerated, patented technology became more complex, and the number of patents and patent cases increased accordingly. Due to the complexity of technology, improved means of imitation, the uncertainty of the scope of patent protection and other factors, it grew more and more difficult to determine patent infringement. Both the public and the courts needed the rights owner to clarify in writing the technical content of his or her invention as the basis for the public to practice in business and for the court to decide the issue of patent infringement. The patent document system came into being as a result.

1. The Appearance of Patent Specifications

A patent specification today is a highly technical legal document that is a required component of a patent application under patent systems of the world. In the United States, for example, a patent specification must meet certain requirements to be acceptable. However, patent specifications did not always

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46. See USPTO’s website, General information concerning patents - Specification (Description and Claims), (last visited 12/30/2020), https://bit.ly/3n0jQK5. It reads as below:

“The specification must include a written description of the invention and of the manner and process of making and using it, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the technological area to which the invention pertains, or with which it is most nearly connected, to make and use the same. The specification must set forth the precise invention for
exist. The first patent specification in the world appeared in Great Britain. In order to determine the scope of patent rights, in 1711, the English Court of Equity required inventors to submit a patent specification within six months after the invention was granted a patent and the patent specification must specify the content of the invention in writing. The requirement of the Court of Equity was quickly implemented. By 1734, English courts required all inventors to submit patent specifications for all patents, otherwise the patents would be deemed invalid. Submitting specifications became a statutory requirement. After the mid-18th century, the patent specification was gradually adopted worldwide to determine the scope of the patent rights. In the early days of patent specification, it was not published nor distributed. In 1852, Great Britain passed the patent act amendment, and the law directed the Patent Office to set up a patent specification office, which was responsible for the publication and distribution of patent specifications.

2. The Appearance of Patent Claims

A patent claim is the heart of a patent application today because the claim defines the scope of the protection afforded by the patent and by which questions of infringement will be judged by the courts if a future infringement action happens. It is said that the first document similar to patent claims showed up in 1811 when an American inventor named Robert Fulton recorded three claims at the end of the specification of his inventions. It was not until the late 19th century that the patent claims system was generally accepted in Great Britain. In 1883 Great Britain passed the Patents, Designs and Trade Marks Act. Section 5(5) of the Act stipulated that the inventor shall record, at the end of his patent specification, the contents of the invention claimed by

which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter, or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor for carrying out the invention must be set forth. In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it."


48. See USPTO’s website, General information concerning patents - Specification [Description and Claims], (last visited 12/30/2020), https://bit.ly/3n0jQK5. It reads as below: “The specification must include a written description of the invention and of the manner and process of making and using it, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the technological area to which the invention pertains, or with which it is most nearly connected, to make and use the same.

himself as an independent part of the documentation.\textsuperscript{50} This independent section subsequently developed into the claims part.

The appearance of the patent specification and claims, along with establishment of a patent document disclosure system, provides a clear base for the scope of patent rights so that the public can be informed of the content of the invention and the scope of patent rights. Table 1 below shows the patent application growth in several countries from the 19th century to recent years.

Table 1: Patent Applications in Different Countries in Different Years\textsuperscript{51}

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Number of Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Britain</td>
<td>1890</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>1900</td>
<td>12,797</td>
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<td></td>
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<td></td>
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<td>53,804</td>
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<td></td>
<td>2015</td>
<td>34,398</td>
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<tr>
<td>United States</td>
<td>1890</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>1900</td>
<td>25,285</td>
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<td>2015</td>
<td>1,919,220</td>
</tr>
</tbody>
</table>

\textsuperscript{50} Patents, Designs, and Trade Marks Act 1883, 46 Vict. 1 & 47 Vict. 1. c. 57, Pt II, § 5 (Eng.) ("A specification, whether provisional or complete, must commence with the title, and in the case of a complete specification must end with a distinct statement of the invention claimed.").

As Table 1 indicates, the number of patent applications in those countries from the 18th century to the 19th century was very small. Toward the end of the 19th century, the volume of patent applications in the developed countries, Great Britain and the United States, began to increase. However, the average annual number of the patent applications worldwide was only between 10,000–30,000. That number was still very small. With emergence of systematic patent documents, it was possible for professionals skilled in the art of a specific area to read all patent documents available. Under such conditions, the requirement that a manufacturer anticipate that its product might infringe upon another party’s patent rights was not completely unreasonable. During this period, specialized trades in transportation, warehousing, and sales began to take shape and it became difficult for distributors to predict whether the products that they dealt with were patent infringing. However, because the distribution industry had not developed fully in this era, patent holders did not pay much attention to a distributor’s liability for patent infringement. As a result, patent infringement cases specifically targeting distributors were rare.

The Reasonable Person standard for patent infringement during this period was still that the average producer must know all the patents available in his field and he must know whether his product imitated that of a patent owner.

C. The Reasonable Person Standard in Patent Infringement Litigation in the 20th Century and Beyond

As can be seen from Table 1 above, in the 20th century, the number of patent applications in Great Britain and the United States continued to grow. By the end of the 20th century, the annual number of patent applications basically reached about 100,000. Japan paid much attention to technology development after the Second World War. At the outset of the 21st century, the United States and Japan have seen a dramatic rise in their patent applications whose numbers reached hundreds of thousands annually. In 2015, China saw its patent applications reach the level of over a million.

In the 20th Century, modern industries in sales, transportation, and warehousing were well established and manufacturers and distributors began to fully separate. Tremendous amounts of product brands are manufactured and sold on the market and the technology of manufacturing becomes increasingly complex and sophisticated. Consequently, it is very difficult and nearly impossible for business actors—vendors, transporters, warehouse operators, and the like—to know and foresee patent infringement actions. In other words, it is no longer reasonable to subject such actors to the same standard of duty of care as required of the manufacturer.

After the Second World War, the world economy developed rapidly, and the number of patent applications increased dramatically. Compared with the
early patent system, the economic and social conditions on which the modern patent system relies have changed substantially. Patent laws of most nations have abandoned the so-called standard of no-fault liability in patent infringement, and fault-based liability is clearly specified in the patent laws.52 The patent laws of various countries adopt the form of statutory law and clearly define the duty of care for the actors.

Patent laws of various countries basically include the following types of duty of care.

1. The Duty of Care Standard for Manufacturers

The duty of care standard for manufacturers has changed over time. According to French intellectual property law and Chinese patent law, a manufacturer has a duty of care to investigate all existing patents in the national database to foresee and avoid implementation of someone’s patented technology without permission.53 This is the strictest duty of care standard in the world. In China, both manufacturers and importers must meet the same duty of care standard.

In Japan and South Korea, manufacturers have a duty of care not to exploit a technology or product where they know that a patent exists for the technology or product.54 Meanwhile, the burden of proof for patent infringement is in favor of the rights holder—it is presumed that an accused actor (defendant) is at fault, therefore the actor has the obligation to prove that he is without fault. An actor has the obligation to conduct patent investigation within the scope of the patents already published by the state, but he or she is not required to foresee the infringed patent or avoid the exploitation. The actor can prove that although he has done his reasonable duty of care, he has not found the infringed patent, so the actor is not at fault and should not be liable for damages.

The patent or design laws of India, Great Britain, Canada, and Australia have similar provisions that a manufacturer has the duty of care not to exploit the patent which has been marked and known to the public.55 In other


situations, an actor accused of infringement is presumed to be at fault and the actor bears the responsibility of proving that he is not at fault. If the actor proves that he has fulfilled his reasonable duty of care, he can be exempted from tort liability. Thus, the duty of care, as defined by countries such as India, the United Kingdom, Canada, and Australia, is that the actor conducts a patent investigation within the scope of the patent where the rights owner has made a qualified patent mark on its product, anticipates the infringed patent, and avoids exploiting it. In other situations, the actor fulfilling the duty of care foresees the infringed patent to avoid implementation.\textsuperscript{56}

The duty of care under the U.S. patent law is that an actor shall conduct a patent investigation within the scope of the patent when the rights holder has attached a qualified patent marking on the product, anticipates potential patent infringement, and avoids implementing the technology.\textsuperscript{57} However, there is no duty of care required of the actor to foresee the infringed patent without a qualified patent marking on the product and avoid implementation.

The German law of patent, utility model and designs stipulate a higher duty of care standard. Only when a manufacturer knew or should have known the existence of the patent right, should the manufacturer bear the duty of care not to infringe upon the patent right. Relevant cases and scholars’ opinions indicate that under German law, an accused infringer has the duty of care to foresee the patent right of others within the scope of business and avoid implementation.

2. The Duty of Care Standard for Distributors

The French Intellectual Property Code stipulates that a product distributor other than the manufacturer, who had knowledge that the product being distributed was infringing, is obliged to discontinue the sales, transportation, and other circulation activities.\textsuperscript{58}

Under Chinese Patent Law, if an operator knows that a product in distribution is an infringing article, he shall have an obligation not to sell, offer to sell, or to use the product in commerce; if the operator does not know that the product in distribution is an infringing article, he shall have the duty of care to ensure that the product comes from a legitimate source and that he can provide proof for the source.\textsuperscript{59} If either of the obligations is violated, the actor shall be liable for damages.

\textsuperscript{56} \textit{Id.}
\textsuperscript{57} 35 U.S.C. 287(a) (2012).
\textsuperscript{58} Intellectual Property Code, art. L615-1 (Fr.).
\textsuperscript{59} Patent Law of the People’s Republic of China (as amended up to the Decision of December 27, 2008, of the Standing Comm. Nat’l People’s Cong. on Amending the Patent Law of the People’s Republic of China), art 70 (“If the accused infringer uses, offers to sale or sales patent infringing products without knowing the products are manufactured and sold without permission, and he can
According to the patent law or design law of India, Great Britain, the United States, Canada, and Australia the distributor of a product is liable only when he knows that his product is an infringing article.

One characteristic of the modern patent system is that the duty of care is adopted and defined by statute. From the contents of the duty of care stipulated by the patent laws of the above countries, we can see that the Reasonable Person standard in the field of modern patent infringement has changed significantly from the early stages of the patent system. Such changes are reflected in the following aspects:

First, a variety of standards for the Reasonable Person in manufacturers have come up. The first type of Reasonable Person standard is that a manufacturer should be aware of all existing patents. Under this standard, a manufacturer should search the whole patent documents database and find the patent infringed upon. This kind of Reasonable Person standard is adopted by just a few countries. For example, the requirement for a manufacturer’s infringement liability under Chinese law and French law reflects this type of Reasonable Person standard.

The second type of Reasonable Person standard is that a manufacturer generally should know all the existing patents, conduct investigation among all the patents that have been published by the state, and should foresee the patent infringed upon. However, if the defendant can prove that there are legitimate reasons for his inability to know infringed patent, he shall not be liable for provide a legitimate source for that products, he shall not be liable for damages.”); Patent Law of the People’s Republic of China (as amended up to the Decision of October 17, 2020, of the Standing Comm. Nat’l People’s Cong. on Amending the Patent Law of the People’s Republic of China), art. 77 (“Whoever uses or sells a patented product without knowing that the product was produced and sold without permission of the patentee or a product directly obtained from a patented process for the purposes of production and business operation is not required to bear the liabilities for compensation provided that it or he can prove that the product is obtained from a legal source.”) (Translation provided by ChinalawInfo Company).

63. Industrial Design Act, R.S.C. 1985, c. I-9, s. 17.
64. Patents Act 1990 (Cth) s 123 (Austl.).
66. Intellectual Property Code, arts. L613-3, L613-4, L613-5, L613-6 (Fr.).
infringement. This standard of Reasonable Person is applicable in Japan\textsuperscript{67} and South Korea\textsuperscript{68}.

The third type of Reasonable Person standard is that a manufacturer is not obliged to know all existing patents, thus he shall bear tort liability only when it is proven that he is at fault. There are just a few countries, such as Germany\textsuperscript{69}, where this kind of standard of Reasonable Person applies.

The fourth type of Reasonable Person standard comes from the United States patent law, which holds that a manufacturer has the obligation to know each patent whose marking appears on the product.\textsuperscript{70} For other patents, the patentee must prove that the defendant knew existence of a patent before assuming liability for damages from infringement. Therefore, an actor has fulfilled his duty of care when he conducts patent investigation into the range of products with patent markings.

The fifth type of Reasonable Person standard comes from the patent laws of Great Britain\textsuperscript{71}, India\textsuperscript{72}, Canada\textsuperscript{73}, Australia\textsuperscript{74} and a few other countries. This standard holds that a product manufacturer has the duty to know each patent whose marking shows on the product. For other patents, if the actor proves that reasonable justifications exist for not foreseeing the patent infringed upon, it is deemed that he has fulfilled the duty of care and therefore is exempt from tort liability. This kind of Reasonable Person standard is the mainstream practice for contemporary patent infringement liability.

Second, the standards of Reasonable Person for product distributors have taken shape. For manufacturers and distributors, different standards of Reasonable Person are applicable because their businesses are different: they possess different knowledge backgrounds, and they have different attention abilities. According to French\textsuperscript{75} and American\textsuperscript{76} patent laws, sellers, transporters, and other product distributors are liable for damages only when they know that the product under question is an infringing product. The patent laws of these countries recognize that a Reasonable Person as a product circulator would not know of any patents or whether the product sold or

\textsuperscript{67} Patent Act, Law No. 121 of 1959, art. 36(3-4) (Japan).
\textsuperscript{68} Patent Act, Law No. 950, Dec. 31, 1961, amended by Act No. 14112, Mar. 29, 2016, art. 128, (S. Kor.).
\textsuperscript{71} Patents Act of 1977, 25 Eliz. 2 & 26 Eliz. 2 c. 37, Pt. I, § 62, (Eng.).
\textsuperscript{72} The Patents Act, No. 39 of 1970, India Code (1993), art. 111.
\textsuperscript{73} Industrial Design Act, R.S.C. 1985, c. I-9, s. 17. (Can.).
\textsuperscript{74} Patents Act 1990 (Cth) s 123(2) (Austl.).
\textsuperscript{75} Intellectual Property Code, art. L615-1 (Fr.).
circulated is patented. Only when the distributor is informed or has learned on his own due to certain circumstances, that the product under question is an infringing product can he be held to have had knowledge of infringement. Article 77 of the Patent Law of China (2020 amendment) exempts liability from infringement for manufacturers and distributors that utilize or sell patent infringing products as long as they can demonstrate the sources of such products are legitimate. Similarly, Article 84 of the Implementation Regulations for the Patent Law (2010 amendment) exempts certain distributors from penalty of fines for unknowingly selling fake patent products as long as they can prove that the source of such products is legal. Under these two rules, any reasonable actors in product distribution, such as sellers and users, shall be aware of the legal source of their products, but they may not be knowledgeable of relevant patent(s), nor should they be required to know that the products dealt with are protected by patent(s), unless they are informed of the fact or have otherwise learned such fact due to the circumstances such as patent marking.

IV. RECONSTRUCTION OF THE REASONABLE PERSON STANDARD UNDER CHINESE PATENT LAW

A. The Basis for Reconstructing the Reasonable Person Standard

The fundamental basis for determining the content of the duty of care in patent infringers should be the ability of attention that a Reasonable Person should possess. When reconstructing the standard of fault identification in the principle of fault liability of patent infringement in China, we must first reconstruct the standard of a Reasonable Person in the patent infringer, then determine the content of duty of care on the basis of that Reasonable Person standard.

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77. Patent Law of the People’s Republic of China (as amended up to the Decision of October 17, 2020, of the Standing Comm. Nat’l People’s Cong. on Amending the Patent Law of the People’s Republic of China), art. 77 (“Whoever uses or sells a patented product without knowing that the product was produced and sold without permission of the patentee or a product directly obtained from a patented process for the purposes of production and business operation is not required to bear the liabilities for compensation provided that it or he can prove that the product is obtained from a legal source.”) (Translation provided by ChinalawInfo Company).

78. Implementing Regulations of the Patent Law of the People’s Republic of China (Promulgated by Decree No. 306 of the State Council of the People’s Republic of China on June 15, 2001, effective as of July 1, 2001), art. 84 (“Where any entity or individual sells any product bearing a fake patent mark but has no knowledge about it, if it/he can prove the legal source of the product, the patent administrative department shall order it/him to stop its sale, but shall waive any pecuniary penalty.”) (Translation provided by ChinalawInfo Company).
Some Chinese scholars propose that the Reasonable Person in the patent system refers to “an ordinary skilled technician in his trade.” An “ordinary skilled technician in his trade” is “a skilled technician in his relevant technical field,” as stipulated in the Patent Examination Guide of China or “a skilled technician in his trade.” This Reasonable Person standard is applied to the actor in the patent examination process regarding the determination of patentability conditions. In other words, this is a requirement applicable to the patent examiner. This standard also applies to the actor in determining the scope of patent rights. This is a requirement for judges and patent attorneys. However, neither a patent examiner, nor a patent judge, nor a patent attorney is an infringer, and none of them shares the infringer’s exact social environment or his ability in duty of care. Thus, there is no sufficient evidence or analysis to support the proposition of extending the Reasonable Person standard (as mentioned in the Chinese Patent Law) to the field of patent infringement or equating the Reasonable Person standard in patent examinations to a Reasonable Person standard in patent infringement.

“A skilled technician in his trade” as defined by Section 2.4, Chapter 4, Part II of 2010 Patent Examination Guide, is a hypothetical standardized “person.” This standard person possesses all general technical knowledge in the invention’s domain before the date of patent application, has the ability to know all existing technologies in the area of the invention, and is capable of learning related existing technologies and general technical knowledge.

It can be seen that “an ordinary skilled person in his trade” as specified in the Patent Examination Guide is not “ordinary” at all. This person should know all existing technologies in his trade before the patent’s filing date, so he is a perfect technician. In the real world, there is no such person who can know all the existing technologies in his field; to designate such (perfect) person as the standard of Reasonable Person for judging patent infringement deviates from the “ordinary person” standard that the Reasonable Person should be.

The following analyzes the patent system and the actor’s capabilities to determine the specific reconstruction of the Reasonable Person standard for patent infringement in China.

Patent disclosure system is the foundation for determining the standard of a Reasonable Person in the field of patent infringement. In the early stages of the patent system, the number of patents granted was small and printed patent documents were published to disclose patent technologies. Under such conditions, it was possible for the relevant public to access and read all patent

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documents. After the industrial society progressed to a certain level, the number of patents granted grew significantly as development in science and technology accelerated. In recent decades, in particular, the dawn of an information society has seen a dramatic rise in the number of patents approved. China now accepts more than a million patent applications each year. In this situation, even for those skilled in their trade, it is almost impossible to be fully aware of all the patented technologies within a limited time. With the progress of network and information technology, at the end of the 20th century, most countries of the world have established electronic databases for patent documents and have realized patent disclosures on the Internet, that is, a worldwide disclosure to anyone who can enter any country’s patent office website to search, browse, and download patent specifications. Searching the patent database has become an important means to obtain patent technology and conduct patent investigations.

Patent documents are open to all members of a society. Is this effect the same as the promulgation and implementation of national laws? Can you presume that all citizens should “know” all granted patents, including the patent infringed upon and the scope of protection in that patent? This is a question many people will talk about when discussing patent infringement liability in China.

Some scholars agree that for the disclosed patent right, an infringer could access the patent information through patent searching; if the infringer exploits the patent, it should be assumed that he knew or should have known of the existence of the violated patent, therefore his behavior is at fault.80 Stated differently, the patent disclosure system sets a foreseeable obligation for an actor, the actor’s unauthorized practice of the patent violates his obligation, and constitutes infringement. Scholars who advocate no fault liability or fault presumption liability for patent infringement hold this view.

Some other scholars believe that it is not correct to infer that a patent disclosure has the legal effect of imposing upon the public a “duty to know” due to publicity of the patent disclosure. The reason is: in the contemporary society of information explosion new technology appears very fast; the number of inventions and patents are very large; and an accused infringer cannot be required to know all the patent rights disclosed. For patents already published, there is no way for the general public to know it all. Although patent searching can be done, failing to find patent rights is normal due to defects in the search engine itself and an unusual diversity of technical contents disclosed in patent documents. Due to the complexity and special skills required of patent

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80. XIAOQING FENG, DISCUSSION ON THE PRINCIPLES OF INTELLECTUAL PROPERTY INFRINGEMENT, JIANGHUAI TRIB. 87–94 (China) (Feb. 2011).
infringement determination, even though an accused infringer knew of the
evidence that the patent right violated, he may not have received professional
to training and may have misclassified a potential infringement as non-infringement
in exploiting the accused patent.\textsuperscript{81} Therefore, it is unreasonable to
to automatically assume that the accused infringer is at fault for his
implementation actions.

To evaluate and analyze the above two viewpoints, we need to examine the
characteristics of disclosure of patent documents. Patents are designed as a
system of exchanging rights for disclosure, but what is the content and scope of patent disclosure? Is it possible for the public to “know” all the patents and all aspects of a patent when the documents are placed on the Internet?

The disclosure of patent documents can be divided into “formal disclosure”
and “substantial disclosure.” “Formal disclosure” means that the carrier of
invention information (paper, optical disk, electronic, and other forms) can be
obtained through open channels. Within a country, all patent information is
disclosed to the whole society for free, which gives technical guarantee for the
“formal disclosure” of patent information.

\textbf{B. The Content and Scope of the Formalistic Disclosure}

For “formal disclosure,” relevant international treaties and patent laws of
various countries generally stipulate that the inventor shall submit a
specification to the patent office when filing a patent application, and the
disclosure of the technical content in the specification must meet certain
standards for granting patent rights; that is, the disclosure shall be done to the
extent that it can be replicated by those skilled in the same trade, which is the
requirement of “full disclosure.”

The specification shall contain a written description of the invention and of
the manner and process of making and using it, in such full, clear, concise, and
exact details as to enable any technician skilled in the same trade or whom in
the most closely connected field, to produce or exploit the same invention.
Additionally, the specification shall set forth the best mode of carrying out the
invention as contemplated by the inventor.\textsuperscript{82} The requirement for the disclosure
is “enabling,” meaning that the specification must be complete so that a typical
technician in the same trade can apply the claimed invention to productive

\textsuperscript{81} Ling Zhang, \textit{On the Principle of Liability for Compensation for Patent Infringement},

\textsuperscript{82} 35 U.S.C. 112(a) (2020) (“The specification shall contain a written description of the

\begin{thebibliography}{1}
\bibitem{Zhang} Ling Zhang, \textit{On the Principle of Liability for Compensation for Patent Infringement},

\end{thebibliography}
use.83 In other words, the disclosure must be sufficiently complete for “a person skilled in the trade” to understand the content of the invention. “The trade,” or “the art,” refers to the technical field to which the inventor or designer pertains.

According to Article 26, paragraph 3, of the Chinese Patent Law (2020 amendment), the specification should meet the requirement of full and complete disclosure, and the degree of disclosure is such that a skilled technician in the same technical field can carry out the invention after reading the specification.84

Section 34 (4) of the German Patent Act provides that: “The application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.”85

Article 36 (3) of the Japanese Patent Act provides that: “The description as provided in the preceding paragraph shall state the following: (i) the title of the invention; (ii) a brief explanation of the drawing(s); and (iii) a detailed explanation of the invention.” Article 36 (4) continues, “The statement of the detailed explanation of the invention as provided in item (iii) of the preceding paragraph shall comply with each of the following items: (i) in accordance with Ordinance of the Ministry of Economy, Trade and Industry, the statement shall be clear and sufficient to enable any person ordinarily skilled in the art of the invention pertains to work the invention.”86

Section 27(4)(b) of Canada Patent Act provides that the specification of an invention must “set out clearly the various steps in a process, or the method of constructing, making, compounding or using a machine, manufacture or composition of matter, in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it pertains, or with which it is most closely connected, to make, construct, compound or use it.”87

According to Article 5-8 of Patent Cooperation Treaty (PCT), patent applications filed under the PCT include the specification, claims, drawings, and abstract. These documents will be published by the International Bureau

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83. R. CARL MOY, 2 MOY’S WALKER ON PATENTS, §7:6 (Thomson/West, 4th ed., 2007) (“The enablement requirement—The specification must contain enough information to permit a skilled person to make and use the invention without unreasonable experimentation.”).
84. Patent Law of the People’s Republic of China (as amended up to the Decision of October 17, 2020, of the Standing Comm. Nat’l People’s Cong. on Amending the Patent Law of the People’s Republic of China), art. 26 (“The description shall clearly and completely describe the invention or utility model so as to enable a person skilled in the relevant field of technology to carry it out; where necessary, drawings are required. The abstract shall state briefly the main technical points of the invention or utility model.”) (Translation provided by ChinalawInfo Company).
86. Patent Act, Law No. 121 of 1959, art. 36(3-4) (Japan).
and the designated bureau at the international and national publication stages. Now, there are 153 PCT member countries, including most of the countries in the world that have established a patent system. Since the patent laws of PCT member states follow the PCT regulations for guidance when it comes to patent documents, the types and requirements of patent documents in these countries and regions are basically consistent with the requirements of the PCT implementation rules, thus patent documents worldwide are standardized. The standardization of patent documents is a practical requirement for realizing internationalization of patent systems. When the public is familiar with its country’s patent documents such as the basic features and functions, the public can rely on such knowledge when reading patent documents of another country, which reduces the barriers in accessing patent documents across the nations and facilitates the spread of technology around the world.

Article 5 of the PCT provides “the description shall disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art.” Additionally, Article 5 of the Regulations under the Patent Cooperation Treaty further specifies the format of the patent description. The core requirements for the “formal disclosure” of patent documents under the PCT and certain countries are shown in Table 2:

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88. The WIPO website shows that 178 countries are contracting parties to the Paris Convention for the Protection of Industrial Property (1883). A country must have established a patent system to join the Paris Convention. Thus, there are 178 countries that have established a system. See WIPO’s website, last visited 02/24/2022, https://wipolex.wipo.int/en/treaties/ShowResults?search_what=C&treaty_id=2.
Table 2: Patent Document Disclosure Requirements

<table>
<thead>
<tr>
<th>No.</th>
<th>Country</th>
<th>Statute Citation</th>
<th>Disclosure Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>U.S. Patent Act</td>
<td>35 U.S.C. 112</td>
<td>To enable any person skilled in the art to which it pertains, or with which it is most</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>nearly connected, to make and use the same</td>
</tr>
<tr>
<td>2</td>
<td>Chinese Patent Law</td>
<td>Article 26</td>
<td>A skilled technician in the technical field can implement the invention after reading the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>specification, without doing any creative work</td>
</tr>
<tr>
<td>3</td>
<td>German Patent Act</td>
<td>Section 34</td>
<td>To be carried out by a person skilled in the trade</td>
</tr>
<tr>
<td>4</td>
<td>Japanese Patent Act</td>
<td>Article 36</td>
<td>To enable a person ordinarily skilled in the art of the invention to work the invention</td>
</tr>
<tr>
<td>5</td>
<td>Canada Patent Act</td>
<td>Section 27</td>
<td>To enable any person skilled in the art or trade to which it pertains, or with which it</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>is most closely connected, to make, construct, compound or use it</td>
</tr>
<tr>
<td>6</td>
<td>PCT</td>
<td>Article 5</td>
<td>To be carried out by a person skilled in the art</td>
</tr>
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</table>

From Table 2, it can be seen that from the PCT to patent laws of various countries, the degree of disclosure for patent specification is not required to be complete disclosure, but to enable an ordinarily skilled person in the trade to carry out the invention; that is, the disclosure is not required to be such as to enable everyone to understand and realize the patent’s technical scheme.

There are some basic conditions to provide patent documents to the public by a patent documents disclosure system. First, the data of patent documents are provided to the public for free, therefore, anyone has access to all patent documents. Second, the patent disclosure system strives to ensure that data can be searched and retrieved through appropriate keywords and accurate classification numbers. But, it cannot guarantee that all qualified keywords are used in the drafting of patent applications; it cannot guarantee that the patent office has incorporated all the qualified keywords into the disclosure database; and it cannot guarantee that the patent classification numbers are completely accurate in all patent publications. Therefore, the possibility of not finding a patent in patent searching is very high. Third, patent documents are provided to the public to the extent that an ordinarily skilled person in the trade can understand them. Thus, for those who are not skilled in the trade, the patent
system cannot guarantee that those persons can understand the content of the patent technology, and of course, they cannot be required to foresee the technical solutions under patent protection. That is to say, the patent disclosure system cannot guarantee that anyone in the public can understand any patented technology that has been published, nor can it ensure that an ordinarily skilled person in the trade in the real world can understand all patented technologies, nor can it guarantee those skilled in the trade are equipped with superb search technology. At last, it cannot require an ordinarily skilled person in the trade to be able to complete patent searching without failing to find a patent.

For example, a drinking water device comes equipped with a filter. An ordinarily skilled person in the trade may search for existing patents in the field of drinking water equipment or he may expand the search to filtering equipment. However, his searching normally would not be expanded to the fields of automobiles, aircraft, navigation equipment, and medical equipment, but these devices may employ patented technical solutions for filtering equipment. In this case, an ordinarily skilled person in the field of drinking water equipment is unlikely to be aware of the missing searches and he may unknowingly proceed to design or use a patented solution for filtering technology in another industry. Today, as products become increasingly complex and patented technical solutions grow more difficult to be accurately classified, missing a search stands as a normal situation.

By contrast, patent law does not require a patent examiner to have the ability to complete the patent examination without locating existing patents. Patent law allows the public to offer comments in the process of patent examination and allows the public to file a petition for invalidating a patent already granted in order to remedy the examiner’s omission of an important existing technology document due to a missing search or other reasons. The law is designed to prevent the situation where the examiner erroneously believes that the patent application has met the conditions of novelty and non-obviousness, which are necessary for granting a patent.

Although patent documents are formally disclosed to the public, the degree of disclosure determines that only those ordinary technicians skilled in the trade can understand and implement the patent at issue. The manufacturer of a patent infringing product belongs to the class of skilled technicians in the trade. However, most of the distributors of an infringed patent may not possess a general technical knowledge of the trade, therefore, they are unable to foresee the patent infringed upon.

Faced with a massive amount of patent documentation data, an ordinarily skilled person in the trade may not be able to comprehend all patents present and can only obtain access to patent information by searching the database of patent documents. However, due to limitations in searching methods and
technology, along with the complexity of product compositions, there is no guaranty that an ordinarily skilled person in the trade may complete a search without missing any relevant documents. Therefore, if the law imposes on the public, including manufacturers and circulators, a duty of care stating, “the public is deemed to have knowledge of the patent once it is disclosed,” such duty of care is not reasonable. In other words, it is unreasonable to adopt the standard of “an ordinarily skilled technician in the trade,” so stipulated in the Patent Law of China, as a Reasonable Person in the field of patent infringement because such standard is disconnected from the reality of commerce.

C. Requirement for the Substantive Disclosure

“Substantial disclosure” means that the medium of invention information is available and can in fact be understood and used. With formal disclosure only, it cannot be presumed that all members of the society are made aware of the content of an invention. For example, there is a patent entailing a complex electronic technology and the actor is a vendor who generally markets electrical appliances but has never systematically studied nor acquired electronics knowledge. It cannot be automatically presumed that the vendor knows all patented technologies in electronics or that he knows that the products he sells fall within the scope of patent protection. As far as manufacturers go, we cannot arbitrarily assume that a manufacturer knows that his product is infringing on a patented product unless his product is identical to the patentee’s and the manufacturer knew the existence of the patent. For instance, in the case of Milgo Electronic Corp. v. United Business Communications, Inc. 623 F.2d 645 (1980), the U.S. Court of Appeals for the Tenth Circuit holds that the defendant UBC’s copying of the patentee’s product was proof that the defendant’s act was a willful exploitation of the plaintiff’s patent. The Court also rejects the defendant’s assertion that the defendant’s infringing act was based on a “good-faith” belief that its act was not illegal. The Court rules that the defendant’s imitation, combined with knowledge of the plaintiff’s patents, was sufficient to prove that the defendant was in a subjective and deliberate mental state.

Only when an invention is available in a state of substantial disclosure is it possible to presume that the relevant subject knows the content of the invention. As for the manufacturer as the infringer, if he has already implemented the

90. Id. at 666 (stating “UBC’s copying activities evidenced that its conduct in manufacturing and selling infringing modems after 1970 was intentional and deliberate, in willful disregard of Milgo’s rights, rather than merely accidental or negligent.”)
patented technology, he naturally is a skilled technician in that trade; if the rights owner publicizes the existence of the patent infringed upon, the manufacturer is capable and obliged to have anticipated the damage.

Therefore, the patent laws of the United States, Great Britain, India, Canada, and Australia all stipulate that if a product carries a qualified patent marking, an accused actor shall be liable for damages, or the actor is deemed to be at fault and liable for damages. Because a patent marking is attached to the product, patent documents associated with the patent number in the marking can be searched in the networked databases or through other means. This has the same effect as placing patent documents in front of the actor, thus it can be presumed that the actor is knowledgeable of the patent in question. In those countries, the logic behind the law is, that in order to protect his patent rights, the patentee is obliged to place his patent in front of potential infringers so as to inform them of the existing patent. Manufacturers in the same industry are obliged to learn the scope of the patent and determine whether the product that they produce or the process that they utilize, falls within the scope of the patent rights.

If the presumption holds that an actor must know that a patent exists simply because of the patent disclosure system, then this actually imposes a duty of attention on the public — the actor must be aware of all patented technologies before acting. Otherwise, regardless of whether the technical solution implemented by the actor is independently developed by himself or legally licensed from others; regardless of whether the patented technology in question has never been used by others or has been used by others for many years without clear public knowledge of the existence of patent rights; as long as the patented technology is exploited without the rights holder’s permission, the actor will be presumed to be at fault and bear the liability for damages. In such case, we have essentially a no-fault liability system, which does not allow a good-faith exemption on behalf of the actor.

Such a Reasonable Person standard is very high. Before a product is deployed into the market, the manufacturer must conduct a complete patent search and perform a comparative analysis, without any omissions. For the patentee, by contrast, there is no need to take any additional protective measures (other than attaching a patent marking to this product), he can just sit back waiting for the benefits of the patent to happen. Such a high standard beyond the reasonable capacity of an actor is the hotbed leading to a system of “lazy patentees” and “innocent infringers.” If the patent law disregards the differences between malicious and good-faith behaviors, the law’s effect in pursuing fairness and justice will be gradually lost.

An excessively high Reasonable Person standard provided by the law not only lacks the effect of suppressing patent infringement, but also inhibits a
manufacturer’s freedom to innovate, which is not conducive to encouraging innovations. Thus, the Reasonable Person standard should be set appropriately and rationally.

First, the primary motivation for an infringer to commit a patent infringement is not because the infringer notices the existence of a patent right. Nobody exploits a technical solution for the sole purpose of infringing upon another’s patent rights. The fundamental motivation for violating other’s patent rights is to obtain market profits. In comparing the infringement’s potential benefits and risks, if the benefits are substantial while the risks for liability for damages are low, the benefits outweigh the risks; then the infringer will likely choose to commit an infringement. The essence of patent infringement is to invest capital in the patented technology to obtain illegal profits without license. If an infringement can be profitable, the infringer will likely be engaged in his action. Therefore, the most important measure to prevent infringement is not to set a very high duty of care for the actor, but to heighten the risk of infringement. Once an infringement act is committed, it will be investigated for responsibility. If the tortious act is intentionally committed, the infringer shall be made to pay large punitive damages so that he cannot profit from his violation, but instead will pay a heavy price. Such a measure will be the most effective deterrent against infringement.

Second, compared to the approach that sets a high Reasonable Person standard for actors, to encourage patent holders to actively demonstrate their rights is more conducive to protecting patents in terms of the overall social cost. Every product may involve multiple technology disciplines and it may contain many patented technology elements. If setting a high Reasonable Person standard, it is required that actors should find the same technology in a huge patent database. But it is impossible for an actor to find the patented technology by browsing all the patents in the patent database and incomplete searches happen often. It is unrealistic for the actor to foresee all relevant patents in his trade. By contrast, the law can set a Reasonable Person standard compatible with actual production conditions by requiring the patent owner to make a marking on his product. Doing so is not technically complicated and will not significantly increase the patentee’s production cost.

Third, the huge number of existing patents and the complexity of modern patent disclosure are not enough to support the actor’s “duty of care” to make a complete patent search without omissions.

At the beginning of the patent system, the number of patents were very small, sometimes only a few patents could be obtained a year. It was relatively easy for those skilled in the trade to learn all the patented products. It was not unreasonable to set a higher Reasonable Person standard for those skilled in the trade and require them to know all patents and avoid unauthorized
implementation. At that time, the requirement that the actor bear the tort liability was not based on the premise that the actor was at fault, in other words, it was a no-fault liability system. That system was fair, rational, and justified.

With the development of an industrial society and the explosive growth of technical information hundreds of years later, China alone sees more than a million patent applications each year, it becomes unrealistic for the Reasonable Person standard to require that actors learn all the technologies in the trade. In the face of a huge amount of patent information, database searching is the only way to identify an existing patent. However, patent searching is a complex job; a technician ordinarily skilled in the trade need possess a certain degree of competency to conduct searches, but he should not be required to competently conduct searches without any mistakes. Stated differently, it is unfair to impose such a duty of care on the actor that once a patent is properly disclosed anyone should be assumed to have knowledge of that patent.

Finally, the effect of disclosure in patent documents is not the same as the effect of disclosure in legal documents. There are only a limited number of laws. Taking patent law, for example: each country likely has only one patent law, and the law may contain as many as a few hundred articles. Given this condition, it is feasible for the public to get familiar with the content of the law. To the contrary, a nation’s published patent documents will be huge in size. In China alone, each year there are more than a million patent documents published. And the length of each patent document is often the length of the patent law, if not longer. Thus, it is not feasible to require the actors to know all the disclosed patent documents.

For the above reasons, it is necessary to reconstruct the Reasonable Person standard under Chinese patent law.

D. The Reasonable Manufacturer Standard under Chinese Patent Law

The reconstruction of the Reasonable Person standard for manufacturers in China should be based on both the current conditions of the Chinese patent system and the attention capacity possessed by the producers.

As discussed before, whereas it is impossible for a manufacturer to be familiar with all patented technologies in his industry, it is nevertheless possible for him to know all his competitors’ products. As a general rule, a manufacturer during the research and development stage usually investigates competing products on the market, reverse- engineers them, effects some improvements, or compares product layouts between his own and the competition. If a patentee, or a licensed manufacturer, attaches a qualified patent marking to the product, other manufacturers in the same industry are able to obtain the marked patent information through appropriate efforts.
A manufacturer obviously is also familiar with the technical composition of his product(s). A manufacturer has general technical knowledge of his trade and usually possesses a certain degree of patent search capability. However, due to a tremendous quantity of existing patents, limitations in patent documents and their own search abilities, manufacturers cannot be expected to own a complete search capability. A manufacturer meeting the Reasonable Person test should not necessarily have the ability to be familiar with a patent infringed upon, unless the patent is clearly marked on the product or the circumstances make it apparent to the manufacturer that the patent right exists. It is not justifiable to assume that an actor knew or should have known the patent was infringed upon merely because the actor’s product is licensed by the plaintiff.

During an evaluation of patent infringement, since the manufacturer already knows his product’s technical composition, if he is also able to search patent information, he should be able to decide whether his product enters the scope of protection of the patent right and whether his product is infringing.

Therefore, a reasonable manufacturer should be an ordinarily skilled technician with a medium-level of technical reserves in the industry, but he is not required to be familiar with all patent documents that are disclosed. He should have an intermediate level of ability to search patent documents, but he is not expected to complete patent searching without any omissions. He can retrieve patents that can be located by a skilled technician of a moderate search capability. But for patents that are difficult to search and cannot be easily found by a skilled technician of a moderate search ability, he is not required to be able to retrieve them. He is aware of patent information about products on the market with a patent marking and additional info that should be obviously known to him. He knows the technical composition of his product and is capable of deciding an obvious infringement situation. For the patent information that has been published or made known by a third party, the reasonable manufacturer is in the state of knowing the patent right, which should enable him to correctly assess a clear act of patent infringement.

There are other situations where a reasonable manufacturer should obviously be aware of the existence of a patent. For example, the alleged infringer and the patentee have previously cooperated in a technical field involving the infringed patent or the alleged infringer has, during the research process, consulted with or exchanged technical data regarding the infringed patent. For still other situations where it should be obvious for the manufacturer to know the existence of the patent, the patent owner shall have the burden of proof.
E. The Reasonable Manufacturer Standard under Chinese Patent Law

Distributors consist of traders, sales agents, adopters, and importers. These entities make profits either by selling a patented product or by exploiting the product as a tool to produce other articles or implement another process. In the actual production or operation, distributors need not learn all the technical components of their products. Usually, they do not possess the technical knowledge of the patent involved. Even if some distributors have a certain technical background, the Reasonable Person standard for distributors should not be moved up to the level of a standard applicable to the manufacturers.

Entities engaged in production and sales activities in China shall comply with the Product Quality Law. Under Clause 1 of Article 2 of the Product Quality Law (2018 revision), products for sale refer to goods that are processed or manufactured for the purposes of sales. Article 27 of the Law provides that a product or its packaging shall indicate in Chinese language the product’s name, its manufacturer and address, and the name and quantity of its main ingredients. According to Article 33 of the Law, a seller shall conduct an inspection of a product purchased for resale purposes, check the quality certificate and insignia of the product, and retain the product’s source document so as to disclose or furnish that information when necessary.

Because of the Product Quality Law, an article manufactured for a retailer or distributor should have the above-mentioned indicators, of which, the name and address of the manufacturer are mandatory. To an ordinary distributor in business, the manufacturer of a product in an infringement proceeding is easily known. In the case of a manufacturer-authorized sale, the manufacturer’s identity becomes abundantly clear to the distributor.

However, the Product Quality Law does not have requirement for composite products—when an article is a composite or assembled product each

92. Product Quality Law of the People’s Republic of China (Adopted at the 30th Meeting of the Standing Comm. of the Seventh Nat’l People’s Cong. on Feb. 22, 1993, promulgated by Order No. 71 of the President of the People’s Republic of China on Feb. 22, 1993, effective as of Sep. 1, 1993), art. 2 (“The law applies to all production and marketing activities within the territory of the People’s Republic of China.”) (Translation provided by ChinalawInfo Company)

93. Id. at 27. (“The marks on the products or the package of products shall be true to the fact and satisfy the following requirements: (1) including a certificate of quality inspection; (2) including the name of product and the name and addresses of producer in the Chinese language; (3) If, according to the characteristics and requirements for use, the specification, grades or the names and contents of the major ingredients are required to be specified, they shall be specified clearly in Chinese; if it is required to inform consumers in advance, it shall be marked on the outer package or relevant materials shall be provided to consumers in advance; ...”) (Translation provided by ChinalawInfo Company)

94. Id. at 33. (“Sellers shall implement the system of examination and acceptance of goods procured, verifying the product quality certificates and other marks.”) (Translation provided by ChinalawInfo Company).
component or raw material of the product need not have its separate source identifier when the alleged infringing product is a raw material or component of such composite or assembled article. Then, if a component part or raw material supplied by another manufacturer causes patent infringement, it is impossible for the distributor to know the manufacturer of the component part or raw material.

Based on the above facts, the Reasonable Person in a distributor is an ordinary seller: he may not understand patent technology, nor may he have the ability to search for patent documents. However, he must have the ability to ensure the product dealt with comes from a legal source and he should know the purchase channel and the source of the product. If the article’s composite parts are not marked, he will not know the source of the composites. Because he is not an ordinarily skilled technician in the trade, he may not know the specific technical solution in his product or the protective scope of the patent involved, so he has no ability to assess a patent infringement to avoid circulation of the infringing product. The patentee must give a qualified notice of infringement to the product distributor. If the patentee informs the distributor that the product in circulation is infringing, along with a detailed analysis of such infringement attached, that is sufficient to make any ordinary seller aware that his product is an infringing product and a reasonable distributor should draw the same conclusion.

Upon receiving a notice from the patentee, if the distributor is still unable to determine whether his product is an infringing product, he should consult a patent attorney for a legal opinion or request his supplier to provide an opinion of whether the product is infringing so as to exempt himself from the responsibility of willful infringement.

V. CONCLUSION: RECONSTRUCTING THE REASONABLE PERSON STANDARD AND ITS PRACTICAL SIGNIFICANCE IN CHINESE PATENT INFRINGEMENT LITIGATION

The reconstructed Reasonable Person standard provides the basis for determining an infringer’s reasonable duty of care under Chinese patent law. Here is why:

First, the Reasonable Person standard is based on the attention ability of ordinary actors in a certain socioeconomic development stage. In the past forty years since the reform and opening up, China has made substantial progress in her people’s social and economic life. The country has become the world’s second largest economy, reaching a basic middle-income level. However, it should be noted that China is still a developing country, a middle-income country in terms of economic development, there is still a gap between China and the developed countries. The general belief holds that a country ‘s level of
IP protection should be compatible with its economic development level. The more developed countries need to require a higher level of IP protection, whereas the less developed nations may require a lower level of protection for intellectual property rights. The presently higher standard of Reasonable Person under Chinese patent law is such that it results in a protection level that exceeds that afforded in the United States, Japan, and Europe, which is incompatible with China’s economic development stage. The reconstructed Reasonable Person standard for manufacturers and distributors is basically the same as that in the United States. This standard meets the higher expectation of intellectual property protection but does not exceed China’s stage of economic development.

Second, the reconstructed Reasonable Person standard adds a duty to the rights holder of a patent—the patent holder must mark up on the patented product or otherwise inform a potential infringer of the existence of the patent. This changes the patent holder’s “marking right” under Chinese patent law into a “marking obligation.” In China, patent rights are naturally private rights, but companies and businesses mark their products with patent information as a badge of honor for publicity. For a long time, Chinese enterprises have consciously formed a habit of patent marking and the addition of a marking requirement by the law will be unlikely to increase business costs or burdens for companies. However, for the convenience of patent protection, a marking mandate reduces the plaintiff’s burden of proof in pursuing a patent infringer and this can more effectively crack down on both intentional and negligent patent infringement.

Third, the reconstructed Reasonable Person standard requires the patentee to inform the public, by a means of patent marking or otherwise, of the existence of a patent, which to a certain extent may prevent a non-practicing entity ("NPE"), i.e., “patent trolls,” from attacking Chinese manufacturers by way of patent litigation in China.

Finally, the reconstructed Reasonable Person standard is a standard based on ordinary Chinese enterprises’ ability to predict patent infringement. While this standard more accurately reflects the general socioeconomic conditions of China it allows Chinese enterprises to practice a reasonable avoidance of infringement, offers options to prevent foreign patent holders from unfairly threatening Chinese companies, and gives a certain guarantee for Chinese courts to become “courts of choice for intellectual property litigation.”
