

# Study on the Legal Application of Punitive Damages for Patent Infringement

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**Abstract:** Punitive damages system into the patent field, how to apply in order to maximize the compensation for infringement of the losses caused by the patentee, and at the same time to take into account in the after the inventor's enthusiasm for innovation, which is China's "Patent Law" continues to improve and develop an important significance. In order to avoid the provisions of punitive damages for patent infringement become a piece of paper, this paper aims at the legal application of punitive damages for patent infringement system to carry out research, using the literature research method to summarize the current situation of the application of punitive damages for patent infringement system in our country and the existence of the relevant problems, it is concluded that in the development process of China's intellectual property protection system, the important status of punitive damages should be further clarified, so as to enable each of them to play its own role and play their roles to the fullest extent.

**Keywords:** Patent Infringement; Punitive Damages; Statutory Damages; Burden of Proof

## 1. The Need for Punitive Damages for Patent Infringement

Due to the existence of patent rights of its unique attributes, patent cases in the single application of traditional civil law in the compensatory principle there are many deficiencies, resulting in infringement of the low cost of infringement, high cost of patent infringement of judicial status quo, which undoubtedly stimulate the infringer to carry out the impetus of unlawful acts, and greatly inhibit the continuity of the innovation of the field of patents. In this context, in order to respond to the problem of insufficient relief for patent infringement, China's Civil Code to

make overarching provisions on the application of punitive damages in the field of intellectual property.

### 1.1 Requirements of the Patent's Own Characteristics

#### 1.1.1 Low cost of patent infringement

The object of intellectual property is characterized by easy copying, fast dissemination and difficult control. While traditional rights can often exclude others from interfering with the object of rights by possessing the object of rights, the object of intellectual property, as a kind of creative intellectual achievement, can not be self-protected in this way. Patent technical program is a kind of information, it does not exclude the innovator and the public at the same time to use the technical program. Because of this, patented technical solutions are very easy to be acquired, imitated and copied, and therefore very vulnerable to infringement. The British economist Adam Smith called this phenomenon that others often affect others or social interests in the process of pursuing their own interests in the market competition the "altruistic" characteristics of the market economy. British economist Marshall also in his 1890 "Principles of Economics" in the "externality", that is, the spillover effect to analyze this economic problem, that is, individual activities to the outside world, the corresponding negative externality refers to the economic activities of an actor to make other people or society suffer, but the actor did not bear the corresponding cost. The corresponding negative externality means that the economic activity of an actor causes harm to others or society without the actor bearing the corresponding costs[1]. Therefore, the best and most reasonable solution to negative externalities in the economic market is for the perpetrator of the damage to bear part of the loss suffered by others or society.

1.1.2 The principle of fill-in-the-blank compensation is difficult to achieve its purpose

However, only to stop the infringement, compensation for damages and other private law based on the principle of equalization of responsibility for intentional infringement of patent rights or infringement of more serious behavior, this "equalization" expected to achieve the exchange of equal value in real life and can not meet the expectations of the parties, but also can not be a good way to inhibit patent infringement behavior. On the one hand, the infringer is completely deprived of the unlawful benefits obtained from the infringement, but on the other hand, the patentee is not allowed to profit from the compensation, or else it constitutes unjust enrichment, encouraging the behavior of good lawsuit. However, in cases of IPR infringement, the infringer's unlawful profit and the right holder's loss are not always equal. The infringer in neither paid to develop intellectual property rights of human, material and financial resources required, nor pay intellectual property rights license fees, the production and sale of infringing products, the cost of the product is generally significantly lower than the cost of the right holder's products, but also tend to take the strategy of winning at a low price, and its infringing products are often lower than the price of the right holder's products and profits. In addition, the right holder will also suffer from reputation, word of mouth, business opportunities, influence and a series of invisible losses that can not be assessed, fill-in-the-blanks compensation is not possible to fill in the loss of the right holder at the same time as the infringer's illegal profits[2].

In order to fully fill the loss of the right holder, effectively realize the comprehensive relief, the essence of the patent infringement is not opposed to the application of the principle of filling in the blanks, but because of its characteristics and the traditional rights of the existence of obvious differences, and therefore can not be the protection of the idea of the tangible things directly applied to the field of patent infringement.

## 1.2 Requirements of Our Objective National Conditions

1.2.1 Our development goals encourage

innovation

The twenty-first century is the era of innovation and development, with the increasing affluence of material life and the rapid development of science and technology, new technologies and new inventions continue to emerge, and now emerging technologies have become an important factor in determining a country's international competitiveness and comprehensive national power, innovation to promote the development of all countries attach great importance to innovation, our country is no exception, and in recent years, we have introduced a number of documents and laws related to the development of innovation, not only to set up a variety of favorable or In recent years, China has introduced a number of documents and laws related to innovation development, not only continuously set up various preferential or incentive mechanisms to encourage people to actively participate in invention and creation, but also actively build a patent protection system to protect patent inventions, and the Scientific and Technological Progress Law was also ushered in in 2021 after fourteen years of another overhaul, which emphasized the provision of a liberal scientific research environment for scientific and technological personnel, and the promotion of intellectual property rights and rights and interests of the distribution of the mechanism of the reform and other content[3]. Meanwhile, with the continuous development of society and science and technology, international and domestic exchanges and interactions have increased, people's enthusiasm for innovation and creation has become stronger, their understanding of the patent system has become deeper, their demand for patent protection has become stronger, and their demand for combating patent infringement has become more intense.

1.2.2 Frequent patent infringement cases require tighter protection system

The implementation of intellectual property strategy and the strengthening of intellectual property protection have always been an important part of China's national development strategy in the new era, and also an important initiative to promote the efficient allocation of innovation resources and realize innovation-driven development. However, with the rapid development of China's

economy, science and technology, and culture, one after another world-renowned achievements have been reached, and more and more intellectual achievements have been produced, and patent infringement cases continue to appear, in which the phenomenon of intentional infringement cases is also more prominent. In 2019, the number of new cases of all types of intellectual property rights nationwide was 481,793, up 44.16% year-on-year; the number of cases concluded nationwide was 475,853 cases, up 48.87% year-on-year[4]. The infringement of intellectual property rights in China has shown an increasingly serious trend while the economy is developing rapidly. Not only is the number of cases increasing, but also because China's intellectual property rights system is still imperfect and the complexity of patent infringement cases, the cases are very difficult to deal with, and the judicial chaos caused by legal loopholes is also not uncommon. On the other hand, with China's emphasis on intellectual property system and has been the construction and development, as well as the comprehensive quality of the people to improve the social demand for intellectual property protection and willingness to climb, the requirements put forward by the higher, which more prompted China's intellectual property protection system should be updated and upgraded to achieve a more comprehensive protection, which is the introduction of the punitive damages system is one of the motives for the application of punitive damages system.

On June 1, 2021, the Patent Law of the People's Republic of China, which was amended for the fourth time, came into force. Article 71 of the Patent Law stipulates that "if a person intentionally infringes a patent right and the circumstances are serious, the amount of compensation may be determined at a level of not less than one but not more than five times the amount determined in accordance with the above method". In other words, the punitive compensation system was formally introduced on the basis of a specific condition threshold. This is a clear introduction of the punitive damages system in the form of a law, and the application of this system has been emphasized many times since then in judicial interpretations or important speeches, which is another layer of insurance for the patent

protection system, and will surely play an important role in dealing with patent infringement cases.

### 1.3 Function of Punitive Damages

The patent system is designed to stimulate innovation, some judges in favor of the patentee or to maintain the validity of the patent judgment is often to maintain the incentives for innovation as the reason, this theory is the "remuneration theory"[5], the patent infringement punitive damages system is in line with this theory. In addition to the role of sanctioning infringers, the system can also realize the benefits of deterring potential infringers and incentivizing patentees.

#### 1.3.1 Deterring potential infringers

In economic activities, any rational economic actors in making decisions before, will certainly measure the decision may bring the benefits and decision-making costs, the ultimate goal of its decision-making is to maximize the benefits under the realistic conditions, when the expected cost of breach of contract or breach of contract damages higher than the expected benefits, or on its expected costs, potential infringers will not choose to infringe, to achieve the reduction and containment of patent infringements of the purpose. Leslie Green argues that a system of mutual coercion makes betrayal extremely costly, thus forcing people to change unreasonable preferences[6]. This initiative not only strengthens the significance of the law's sanctions, effectively deterring potential infringers, but also gives full play to the preventive role of civil liability, reducing the actual damage caused by infringement.

#### 1.3.2 Bridging the gap of the fill-in-the-blank principle

Punitive damages can make up for the loss of the right holder completely, which is in line with the law's pursuit of fairness and justice, and also makes up for the insufficiency of the principle of filling in the blanks. Within the scope of intangible property, only by breaking through the corrective justice under the traditional way of damages for tangible things, and incorporating the utilitarian concept of punishment and containment into the judicial practice, can we truly realize the unity of the legal effect and social effect in the patent law[7]. Therefore, the introduction and application of the punitive damages system for

patent infringement is the embodiment of the real needs of society, only the introduction of the system can realize the real fairness and justice in patent infringement cases, but also a kind of compensation for the legal loopholes and lagging, to reduce the legal loopholes, and to provide a more rigorous protection of the patent system, which not only increases the confidence of the patent owner in defending his rights, but also protects the market innovation.

### 1.3.3 Encouraging patent owners to actively defend their rights

The improvement of China's patent infringement situation after the implementation of the new law in 2021 also proved its important role in China's patent protection system. 2022 survey shows that the protection of intellectual property rights in China has been effectively improved in the past two years, the proportion of right holders who have encountered patent infringement declined, and the proportion of those who chose to defend their rights increased, while the way of defending their rights has also shown a more diversified trend, and the market environment of intellectual property rights has also At the end of 2022, the State Intellectual Property Office (SIPO) "2022 China Patent Survey Report" showed that in 2022, the proportion of patent owners in China who had encountered patent infringement was 7.7%, and since entering the "14th Five-Year Plan", the proportion has been lower than 8% for two consecutive years, and the proportion of patent owners who had encountered patent infringement was on a declining trend overall. In 2022, the proportion of patentees in China who had suffered from patent infringement and taken measures to protect their rights was 72.7%, an increase of 3.7 percentage points compared with 2018, exceeding 70% for four consecutive years. The proportion of enterprise patentees who suffered patent infringement and took more than two measures to defend their rights was 50.2%, 1.9% higher than the previous year, indicating that the ability of China's patentees to take multiple channels to resolve disputes has been further improved[8]. All these show that China's patent infringement has been effectively curbed after the introduction of punitive damages system.

## 2. Problems in the Application of the Law

Although China's patent protection system has been further improved with the establishment of the punitive damages system, there are still many problems in the patent infringement cases themselves.

### 2.1 Widespread Application of Statutory Damages Squeezes out the Application of Punitive Damages

In 2001, China introduced statutory compensation for intellectual property rights as a replacement program for the calculation of damages[9]. However, the statutory compensation, which is originally a bottom-up rule, has been gradually abused and generalized, to a certain extent squeezing the space for the application of the rule of quantum meruit, which in turn indirectly affects the application of punitive damages in recent years. In the specific judicial practice, statutory compensation in intellectual property litigation, the proportion of application even occupies an overwhelming majority. Article 65 of the current Patent Law of China stipulates that if the loss of the right holder, the benefit obtained by the infringer and the patent license fee are difficult to determine, the people's court may, according to the type of patent right, the nature and circumstances of the infringement and other factors, determine that the compensation to be given to the patent holder shall be more than 10,000 yuan and less than 1,000,000 yuan. In the newly amended Patent Law, the minimum amount of statutory compensation was revised from ten thousand to thirty thousand dollars, and the maximum amount was set at five million dollars[10]. The latest provision does not provide a specific and detailed explanation to clarify the relationship between punitive damages and statutory damages, which inevitably creates some problems. This provision was originally as a number of calculation after the supplementary provisions, is to the right to protect the bottom of the provisions, because the patent infringement case itself is very complex, in the judicial practice of the application of the time is not long, the legal system is also still perfect, the judge to deal with such cases are not skilful enough or often, or no basis, or lack of standards, not only did not form a highly efficient trial habits, can be referred to the

experience of the lesser. The most important in such cases to determine the amount of compensation based on the amount of the actual loss of the right holder, the infringer's illegal income, the patent license fee is also often faced with difficult to determine the dilemma, if these three data can not be determined, can not be applied to more than double the five times the punitive damages system, and therefore there is a statutory damages as a complementary and underpinning. Statutory damages do have many positive effects on the rights of intellectual property rights relief, not only to reduce the burden of proof to prove the fact of damage, reduce the judge in the review of the amount of compensation on the burden, but also to speed up the pace of the trial of the case, shorten the litigation cycle, reduce the cost of litigation, improve the efficiency of the litigation[11]. However, with the application of the system more and more widely, the statutory compensation gradually showed a tendency to generalization, because the number of calculation is too difficult, the judicial practice often skip the link directly applicable statutory compensation, resulting in patent infringement cases fuzzy treatment of the problem, whether the infringer intentionally infringing on the question of whether the infringer is not asked, all apply the statutory compensation[12]. This not only affects the application of punitive damages, but also condones the malicious infringement cases, the infringer as long as the beginning of the scope of infringement damages into the cost of planning, can be unscrupulous to implement the infringement, which is undoubtedly the establishment of China's patent protection system is a huge obstacle. Statutory damages and punitive damages what relationship exists; statutory damages and China's civil law system in filling the meaning of compensation or statutory damages include punitive damages; if the statutory damages include punitive damages, how to divide the two should be divided between the above issues are related to the correct application of punitive damages system of patent infringement.

## 2.2 Difficulty of Proof for Rights Holders

In practice, the vast majority of rights holders directly request the court to calculate the

compensation according to the statutory compensation, the main reason is that the rights holders have difficulty in proving their actual loss. The number of patent infringement cases are calculated based on three benchmarks, namely, the actual loss, infringement profits and patent license fee, the actual loss is the right holder due to infringement of such as lower sales, reduced profits brought about by the loss, but in practice, the sales of patented products are often subject to a variety of uncertainties, which leads to the right holder to prove that their own infringement of the losses incurred as a result of the infringement and therefore to determine the amount of compensation, you must prove the loss on the basis of further proof of the infringer and the existence of the loss. Must prove the loss on the basis of further proof of the infringer's infringement and the loss of the existence of a causal relationship. If the actual loss is difficult to determine, the second step can be the infringer's infringement profits to determine the amount of compensation. According to the civil procedure law "who claim, who prove" principle, the amount of illegal profits (such as sales of infringing products, selling price) and other evidence should be provided by the right to the court, however, whether it is infringing product sales data or infringer's specific books of information, the evidence is often concentrated in the hands of the infringer, the rights of the person It is difficult to obtain. In practice, the infringer not only will not take the initiative to inform the right holder, usually also hide the fact of infringement, when the right holder to the infringer for such evidence, the infringer often will not be complete evidence to the patentee, and even tampering, deletion of evidence materials, increase the difficulty of collecting and fixing the evidence of infringement, and therefore it is difficult for the right holders to submit to the court sufficient evidence to defend their rights[13-15]. Although Paragraph 4 of Article 71 of the Patent Law stipulates the reversal of the burden of proof for damages, which reduces the difficulty of proof for the right holder to a certain extent, the premise of this paragraph is that "the right holder has already tried his best to prove", and how to understand "try his best to prove" will be a new problem in practice. How to understand "best efforts to

prove" will be a new problem in practice. Therefore, some right holders did not know how to calculate their actual loss; some patentees knew how to calculate the actual loss but could not obtain the relevant evidence. And when the right holder because of insufficient evidence submitted by the court many times to explain the request for supplementation still can not provide direct evidence of compensation, and ultimately these evidence is not adopted by the court. The plaintiff's general negligence in proving liability for damages and the court's low rate of acceptance of the plaintiff's claim for evidence also made the court finally adopt the "statutory damages" to award compensation.

### **3. Suggestions for Improving the Legal Application of Punitive Damages in China**

The establishment and development of China's intellectual property system is not long, the handling of such cases is still in the exploratory stage, whether the case itself is too complex or the existence of loopholes in the legal provisions, or the lack of judges to judge the basis of discretion is too high, are all the factors that cause punitive damages system is difficult to apply, almost a dead letter, but the country's increasing attention to the patent protection system has also injected a vigorous and strong impetus to the development of the system, foreign system design and judicial practice can also provide ideas and reference for the establishment of our system. However, the increasing attention of the state to the patent protection system has also injected vigorous vitality and strong impetus for the development of the system, foreign system design and judicial practice can also provide ideas and reference for the establishment of China's system, on the basis of a full analysis of China's national conditions, to extract the essence of the rough and fill in the gaps, and gradually standardize the handling of patent infringement cases, to capture the application of the legal compensation of the space and the difficulty of the right holder in proving the two key issues, for the patent protection system to a higher level.

#### **3.1 Further Legislative Clarification of the Hierarchy of Application of the Statutory Compensation Regime**

Statutory damages in the introduction of the

beginning is indeed only as a number of rules of calculation of the supplementary program, is unable to determine the amount of compensation when the right to relief of the bottom of the provisions. However, in judicial practice, because of the complexity of patent infringement cases, but also because China's patent system is not mature enough, the public is not enough to understand the calculation of the amount of patent infringement, resulting in the determination of the amount of compensation is often a very difficult and costly work, the legislation also does not specify the applicability of the statutory compensation of the order, so the judge may often be more inclined to choose to apply the statutory compensation, the parties to the plan to save time or anxious to stop the loss may also agree to the statutory compensation to determine the amount of compensation. In order to save trouble or to stop the loss, the parties may also agree by consensus to determine the amount of compensation by statutory compensation, which will be directly applied by the court, thus resulting in the abuse of statutory compensation[16]. In order to solve this problem, it should be expressly stipulated in the legislation that the order of application of statutory compensation should be placed after the rule of quantitative calculation, that is, only in the actual loss, infringement profits, patent license fee after the quantitative calculation is still unable to determine the specific value of the statutory compensation can be applied, and to make it clear that the statutory compensation can only be used as a quantitative calculation of the rules of the supplement. And can not be negotiated by the parties to apply statutory compensation, at the same time, the court shall require the right holder on the loss of the objective existence of the facts, etc., in the actual loss, illegal income, etc., can be basically found out, or according to the specific circumstances of the case can be determined the amount of the statutory compensation can not be directly applied[7]. If a party neglects to adduce evidence with a view to achieving the goal of applying statutory compensation because the evidence is insufficient and the amount is difficult to determine, the party shall be deemed to have waived the exercise of its right and the judge shall carry out a quantitative calculation,

rather than taking the initiative to apply statutory compensation.

The space for the application of statutory compensation can also be further compressed by increasing the procedures for the application of statutory compensation, for example, by stipulating that in order for statutory compensation to be applied, the right holder must submit a written application and have it reviewed by the court accordingly. The application of statutory compensation can only be considered if it is convinced that it is impossible to complete the proof and the estimated award is lower than the statutory limit. At the same time, the judge should pay attention to the application of the various compensation system of the heart of the logic and the adjudication of the idea of the narrative, and strive to write the facts of the case and the applicable law clearly and explicitly, by which in the application of the statutory compensation, as far as possible, to refine and specific description of the various cases of the specific circumstances and the consideration of the application of the factors based on the final result of the compensation is reasonable and credible, and therefore can be further strengthened to the standardization of the judgement and the review, to achieve the Legal and reasonable application.

### **3.2 Judicial Reduction of the Burden of Proof on the Right Holder through Strict Procedures**

The difficulty of proof of the right holder is one of the important factors of punitive damages is difficult to apply, so reduce the burden of proof of the right holder is also the key to standardize the punitive damages system, the system design ideas can refer to the British evidence disclosure system and the United States of America infringement notification system.

#### **3.2.1 Discovery system**

Infringement cases in important evidence, such as the infringer's financial books, tax books and other information, generally held by the infringer, it is difficult to obtain the rights of the infringer, the infringer also rarely cooperate with the provision of such evidence against it, and even more will be able to hide or destroy the relevant evidence, resulting in the rights of the person in a difficult situation, in a clearly disadvantageous position.

Although our country has by the infringer initiative to provide by the infringer in possession of books, information related to infringement, but the premise is that the rights of the person has tried to prove but can't prove to apply, and apply with or without the right to decide on the court, and judicial practice, when the rights of people lack of infringement of the effective evidence of profit, the court mostly choose to directly resort to statutory compensation, skipping the infringer ordered to prove the link. Therefore, we can delete "the right to have tried to prove" the premise of the right and the infringer at the same time to provide relevant evidence and information and in the scope to be publicized, the infringer want to be exempted from punishment need to be automatically and actively provide relevant information, research and development records, sales data and other evidence and materials. At the same time, strictly regulate the behavior of judges, the evidence disclosure link is set as a mandatory procedure and require judges to record in detail[17]. At the same time, supplemented by the obstruction of evidence system, when the court requires the infringer to provide books and other relevant information and evidence, the infringer does not cooperate to provide, then the court can directly presume that the right holder's claim is established, and in accordance with the evidence provided by the right holder to determine the amount of compensation. This system can not only reduce the difficulty of proof of the right holder, but also can motivate the infringer to actively provide information in order to realize the accurate calculation of the amount of compensation.

#### **3.2.2 Infringement notification system**

The right holder should be found in the infringer's infringement of the infringement through the lawyer or legal institutions in a timely manner to stop the infringement of written notification, this practice can not only effectively avoid the loss of further expansion, for the determination of whether the infringer is a malicious infringement as well as to determine malicious infringement of the time nodes and to determine the amount of compensation is also of great significance. Judicial practice litigation is often time-consuming and costly, so the delayed economic activities will also cause considerable losses, the infringement notice as

a prelude to litigation, if the infringer is not aware of their own behavioral infringement, stopping the infringement after receiving the notice and make compensation, can avoid the expansion of the losses of both sides, but also effectively screen out some do not know that their own behavioral infringement of the infringement of the bona fide infringement of the case, as the the application of punitive damages to streamline the scope, but also save judicial resources. If the infringer receives the notice and still does not stop the infringement, can be evidence that the infringer belongs to the "intentional" infringement, can be used as a punitive damages applicable conditions, in addition to more favorable evidence, but also as the infringer's "intentional" beginning of the Node, is conducive to accurate calculation of infringement profits, the determination of the amount of compensation also has an important role.

As mentioned earlier, although both the United Kingdom and the United States of America on punitive damages for patent infringement system to maintain a cautious attitude, our country also strictly control the threshold of the application of the system, but the introduction of the system is still the core purpose of the system to protect the patent system, deterring malicious patent infringement, even if it is necessary to guard against the abuse of the right of patent hooligans and other fraudulent damages, can not be put the cart before the horse and therefore the abandonment of this system, conniving at the occurrence of malicious infringement. The occurrence of infringement[18,19]. As long as the legislation to do a reasonable division of rights and obligations and set up relief measures, in the judicial strictly respect the law, comply with the procedures, in the determination of bad faith and calculate the amount of flexibility, prudent application, you can make full use of the system, to achieve the maintenance of the interests of the right holder, improve the patent system, and encourage the development of innovation purposes.

#### 4. Concluding Remarks

Innovation is to promote scientific and technological development, social progress is an important driving force, has always been China's development strategy of the top

priority, the patent system as an important system to protect innovation, played an important incentive system, while only from the opposite side of the resolute containment of patent infringement aspects of a concerted effort, in order to give the majority of innovators a better creative environment, the establishment of a benign competition and the development of the market. The introduction of the punitive damages system for patent infringement is a huge breakthrough for the handling of patent infringement to broaden the path, and its introduction not only fits the overall development direction of China's patent protection system, but also responds to the needs of the current situation of patent infringement disputes. At the same time, the introduction of the system and the existing statutory compensation system of continuous friction also triggered new thinking, prompting further in-depth exploration and improvement of the patent protection system, by clarifying the application of the order of precedence, reduce the precision of the calculation rules, the use of evidence to hinder the system, the tightening of the application of statutory damages space and clear boundaries between punitive damages and statutory damages of the further standardization of the way. In the process of raising problems and solving problems, the punitive damages for patent infringement in the application of the law has been further clarified and improved, and constructed a tighter patent protection network, and continue to contribute to the development of China's patent system.

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