

Doctrine of Willful Patent Infringement: Evolution Under American Patent Law And Need of Further Research

Amol M Sapatnekar[†]

Symbiosis Law School, Pune, India

Received 08 October 2014; accepted 28 April 2015

Though there are criminal remedies specifically for trademark and copyright infringement the same is not a mandate in case of patent infringement. Article 61 of TRIPS, is the sole article containing requirements for criminal procedures that signatories to the Agreement may implement. Article 61 was debated with regard to the applicability of criminal procedures, and finally in case of patent infringement, the criminal measures were considered optional due to the complexity involved in validity and infringement cases, and as such could only be applied in case of 'willful infringement of patent'. Some countries provide criminal sanctions in case of patent infringement in general whether willful or otherwise. The American patent law prescribes the remedy of trebling damages if the infringement of patent is 'willful.' However the American courts are still struggling as to what amounts to 'willfulness'.

The present article focuses on various interpretations of 'willfulness' laid down by American courts, views of scholars analysing the 'doctrine of willful patent infringement', views of scholars criticising the criminal sanction for willful patent infringement, disparity amongst nations in the treatment of patent infringement– willful or not. Having dealt with the said literature review, this article emphasizes the need for conducting a full-fledged study with regard to analysing the concept of willful patent infringement further, while considering feasibility of criminal remedy for it. The article comments with respect to the Indian context and the possible considerations to be taken into account.

Keywords: Patent infringement, enforcement of patent, criminal remedies for patent, infringement, TRIPS Article 61, willful infringement of patent

Innovation refers to new ideas which contribute to the creation of new technologies and products, improvements in product quality or reduction of production costs. Innovation can be the result of industrial application of new scientific knowledge and information.¹ The ways in which large companies innovate is probably different from the ways that small start-ups or mid-size companies do. Factors, such as, firm size, incumbency, corporate culture and financing have been considered as influencing factors on innovation.² Irrespective of the reasons of innovation, whether circumstantial or other, industries have often used intellectual property rights (IPR) to ensure that their investments in research and development (R&D) are recouped.¹ The IPR protection is conceived as a system to incentivize intellectual creators such as artists and inventors, and comprise rights such as copyrights, trademarks, patents, industrial design rights and trade secrets.¹ Different intangible assets have different times of origin in history. The origin of trademarks can be traced back to

the middle ages and even to ancient Greece; the first patent law was framed approximately in the fifteenth century in Venice;³ and the industrial designs and utility models date back to nineteenth century.⁴

Patent is a legal title granting its holder the right to prevent third parties from commercially exploiting an invention without authorization. The use of patents has evolved, while responding to changing technologies and different industries. The patent protection being a support to the marketing of novel technologies and products has helped industries in turn to grow through innovation. Interestingly filing and maintaining a patent has become a business by itself.⁵

The Paris Convention for Protection of Industrial Property (Paris Convention) signed in 1883 was one of the first global treaties covering 'industrial property' including patents. TRIPS Agreement sets further standards of minimum protection of patent. TRIPS provides for civil as well as criminal remedies in case of violation of IP rights. However in cases of patent adoption of criminal remedies, the remedial measures are left to member states. Criminal remedies for patent infringement have been debated for a long

[†]Email: amol.sapatnekar@symlaw.ac.in

time. Few countries have adopted criminal remedies. This debate has its origin since the formulation of TRIPS providing such criminal remedy. The inclusion of criminal remedy for patent infringement was debated during the drafting of this provision, and after much deliberation it was settled finally that the member states 'may' adopt a criminal remedy in case the infringement of patent was willful.

The aim of this article is to analyze the concept of willful infringement and assess the need for conducting a full-fledged study with regards to criminal remedy for patent infringement. This article focuses on the various interpretations of 'willfulness' laid down by American courts, the views of scholars regarding both aspects i.e - criticising the criminal sanction for willful patent infringement as well as analysing the doctrine, disparity in the treatment of sanctions for patent infringement whether willful or otherwise.

The Concept of Willful Infringement of Patent and Criminal Sanctions

In late 1980s the Uruguay Rounds of trade negotiations (1986-94) started. During these rounds an Agreement – titled or called - 'Trade Related Intellectual Property Rights' (TRIPS), aimed to provide a standard protection of intellectual property (IP) was adopted within the framework of General Agreement on Tariffs and Trade (GATT). TRIPS, being Annexure 1C to Marrakesh Agreement establishing the World Trade Organization, in general sense deals with the application of basic principles under GATT but particularly those related to international intellectual property. Provisions related to the enforcement of intellectual property rights, are provided in Part III of TRIPS which provides civil, administrative and criminal remedies for infringement of IPR.

In case of patents particularly, Article 28 of TRIPS provides exclusive rights of patent owners and thereby suggests what constitutes infringement.⁶ Article 61 of TRIPS states the provision of criminal procedure in case of infringement of IPR. Article 61 reads as follows;

“Members shall provide for criminal procedures and penalties to be applied at least in cases of willful trademark counterfeiting or copyright piracy on a commercial scale. Remedies available shall include imprisonment and/or monetary fines sufficient to provide a deterrent, consistently with the level of penalties applied for crimes of a

corresponding gravity. In appropriate cases, remedies available shall also include the seizure, forfeiture and destruction of the infringing goods and of any materials and implements the predominant use of which has been in the commission of the offence. Members may provide for criminal procedures and penalties to be applied in other cases of infringement of intellectual property rights, in particular where they are committed willfully and on a commercial scale”

Article 61 of TRIPS, is the sole article containing requirements for criminal procedures that signatories to the Agreement implement. Though there are criminal remedies specifically for trademark and copyright infringement the same is not a mandate in case of patent infringement. Article 61 was debated with regard to the applicability of criminal procedures, wherein certain participants at the time of drafting this provision, wanted the criminal measures to be applied for any infringement, while others wanted to limit the applicability only to willful, commercial infringement directly affecting public order. Finally in case of patent infringement, criminal measures were considered optional due to the complexity involved in validity and infringement cases, and as such could only be applied in cases of 'willful infringement'.⁷

The willful infringement of copyright trademarks includes both civil and or criminal remedies but in cases of willful infringement of other intellectual property rights which includes patents, it is left to the member state whether to impose the criminal sanction or not. Willful infringement, as stated in Article 61 of TRIPS and alternatively also called as 'efficient infringement', has been theorized by scholars as 'efficient infringement theory'.⁸ The theory, supposedly a technique, involves assessment wherein a company compares the benefits of manufacturing or selling a product patented by the third party against likelihood that a court will hold such a company liable for infringement and award damages. If the benefits are more than the damages liable to be paid including the costs of infringement suits, the infringing company will infringe the patent owned by the third party.

Willful Infringement of Patent: Interpreting Willfulness

It should be noted that though an optional remedy of criminalising 'willful infringement' is provided for in Article 61, there is no clarity as to what amounts to

willful infringement of patent and it is at this juncture that practical difficulty to implement criminal sanction for it arises. The clarity as to what amounts to willfulness has not been addressed in Article 61 of TRIPS, and the doctrine evolved so far is on account of interpretations made by courts while deciding the 'willfulness' element. The analysis of willfulness is at the instance of courts and at their discretion, and it is only the interpretive guidance of courts particularly in the USA, that has been considered so far in efforts to find the 'willfulness' element.

The 'optional' character under the provision of criminal sanction for willful infringement was possibly prescribed in the light of IPR philosophy wherein, the promotion of scientific development and innovation is aimed. However, the interpretation and analysis of willful infringement is evolving and not yet conclusive. The remedy of 'trebled damages' for willful infringement of patent under US patent law, has led to the interpretation of 'willful infringement' of patents. If this remedy of 'trebling the damages' has led to such a sizable analysis, there is a certain need, for further study on the concept of 'willful infringement' of patents, before a criminal sanction can be considered for it. Willful infringement will continue to pose difficulties unless clear principles of its working are prescribed, and they may prove to be a foundational basis for the doctrine.

It will not be out of place to emphasise that presently there is also a lack of both academic and industrial study in India regarding the appropriate doctrinal foundation for the willful infringement and relevant policy considerations. Further, there is a disparity in implementation of criminal sanctions for patent infringement. Some nations, as mentioned below, provide for criminal sanction for infringement of patents – willful or not. All these considerations, makes it of utmost necessity that the doctrine of willful infringement of patent be further analysed to add clarity.

The deliberation regarding doctrine of willful infringement of patent is found in the relevant decision given by the USA courts in their endeavour to consider the applicability of enhanced damages to the willful infringement of patents in various cases. This has significantly contributed to the evolution of the doctrine of willful infringement of patent into what it is today. However, the said contributions lack conclusive clarity in terms of an assessment of what amounts to willful infringement of patent? Thus, there

is not only a need but also a necessity to conduct further study and analysis of literatures, relevant to the 'doctrine of willful infringement', for determining the element of willfulness. The findings of such study will certainly make an impact on considering willful infringement of patent as a basis for criminal sanctions as stipulated in Article 61 of TRIPS.

Doctrine of Willful Patent Infringement: Need for a Precise Definition

Scholars have commented conclusively on the need for analyzing and defining the concept of 'willful patent infringement'.

Eric C. Wrzesinski⁹ has made an effort to analyze, 'whether firms consciously decide to infringe certain patents as sound business strategy or whether such cases arise spontaneously due to incomplete and careless research of prior-art by the infringing firms'. He has affirmed in the conclusion that the commission of 'willful infringement of patents as a part of business model' and the fact that companies do infringe patents as a sound business strategy and the ineffectiveness of US patent law. He has proposed modifications in US patent law vide his 'three-pronged' proposal, viz: (1) adoption of a precise legal definition for willful patent infringement by the Federal Circuit; (2) action by Congress to create more stringent patent damages statutes which apply specifically to cases of willful infringement; and (3) adoption by the Federal Circuit of a test or standard for identifying willful infringement, which is stricter and more effective than the current read factors test. Commenting on the ineffectiveness of US patent law, the author however has not contributed in terms providing any possibilities which might add to the clarity or enable such precise definition.

Jacob S. Sherkow, Stephanie Pall, Timothy R Holbrook, Lynda J Oswald, Mark A Lemely, have debated - with reference to various decisions of courts - as to what amounts to 'willful infringement'. Inferring that the concept of willful infringement is not settled to a standard, they have expressed a need for a consistent definition. Jacob S. Sherkow¹⁰ criticised the US Supreme Court for its act of importing criminal law doctrine of 'willful blindness' and applying to Patent Infringement.¹¹ In the light of his criticism he has posed a question whether 'Patent Infringement should be treated as criminal conduct'. The 'comparison of intent in criminal law with the purposes behind intent in patent law' is emphasized.

However his analysis and criticism fails to provide concrete suggestions and he leaves the issue for courts to interpret and examine.

Stephanie Pall¹² discussed ‘willful infringement’ by correlating it with the doctrine of negligence. The author has compared willful infringement with principles of torts and negligence in particular. The author recommends “treble the damages on willful infringement of patent, and has expressed the view that the ‘exact cause of action should be taken into consideration, and award of damages should be proportionate to the level of culpability.’ Though the concept of ‘willful infringement’ has been analysed with reference to principles of torts, particularly to ‘negligence’, the author admits and concludes that ‘willful infringement needs to be separated distinctly in subjective and objective components in order to arrive at a consistent definition’. The ‘need for punitive damages’ is discussed in a scope stated above. The author emphasizes the need for consistent definition and analysis of ‘willful infringement’ in the light of international principles of torts, particularly negligence.

Timothy R Holbrook¹³ has dealt with the doctrine of ‘Induced Infringement’. The author analyses the ‘intent element’ in the light of US Supreme Court case *MGM Studios v Grokster Ltd* wherein the US Supreme Court had imported 35 U.S.C § 271(b) ‘active inducement’ from patent law into copyright law just as it imported § 271(c) ‘contributory infringement’ and *Sony Corp v Universal City Studios Inc.*

The author expresses in words quoted below, the view that an active inducement may not necessarily amount to willfulness.

‘Patent law states that willfulness is a prerequisite for assessing enhanced damages and at the same time identifying willfulness does not mandate enhanced damages and as a result, an active inducer will not be automatically made liable for enhanced damages’.

The liability for contributory and induced infringement is equated with the liability for joint and several liabilities under torts. The author states the difficulty in suing direct infringement due to a large number of such infringers, their dispersed nature, status as patentee’s customers or their inability to compensate patentee. The author states that though the US Supreme Court believes in the ‘intent element’ in ‘active inducement’ as well defined, the same is

short lived as the belief of the inducer should be considered rendering the issue unsettled.

Lynda J Oswald¹⁴ has discussed the importance of the ‘intent element’ in analyzing the induced infringement doctrine by referring to the landmark case *MGM Studios Inc. v Grokster Ltd.* A comparative analysis of Patent and Copyright Laws regarding ‘secondary infringement liability’ has been made and the author also mentions the acceptability by courts of the ‘doctrine of contributory negligence’. The author has expressed the need for standardization of ‘intent element’ in her conclusion.

The author Mark A Lemely¹⁵ expresses views about conduct amounting to inducement, criteria for active inducement, purpose of imposing secondary liability in the event that it is practically not possible to sue the infringer. The author has set out the disagreements amongst the courts as to conduct and intent elements of inducement, analysed the ‘inducement laws’ and suggested that a balanced approach be adopted, thereby seeking to negate the drawbacks in the ‘inducement law’.

However analyzing the inducement perspective is a restrictive consideration of the intent element under willfulness. The analysis of inducement under willfulness does not address the purpose objectively. Willful patent infringement is *per se* an independent concept and whether it is induced or not is just one dimension that could be relevant, but not conclusive enough to interpret as to what amounts to willfulness in an infringement of patent. Willful infringement requires actual notice of the patent and knowledge of the patent must be actual as opposed to “implied or constructive knowledge.”¹⁶

American courts have contributed significantly to the evolution of the doctrine into what it is so far and they have provided – though not a conclusive, but an interpretive guidance; to start with.

In *General Electric Co v Sciaky Bros.¹⁷, Inc.*, the defendant, General Electric, when it failed in developing a system superior to the patentee’s invention, copied the patentee’s system outright, despite having information that it was patented. In these circumstances an opinion of counsel concluding that the patents were invalid was insufficient to defeat the court’s conclusion that General Electric willfully infringed the patents. At the heart of willful infringement was the concept of a defendant who engaged in infringing conduct despite knowing that in doing so it was infringing a valid patent.

*Milgo Electronic Corp v United Business Communications, Inc.*¹⁸, the Tenth Circuit concluded that UBC's copying of the patent holder's product evidenced that its infringement was willful and "belied its contention that it proceeded to manufacture and sell modems with the good faith belief that there was no infringement." The copying combined with knowledge of the patent holder's rights, provided the necessary state of mind for willful infringement.

In *Underwater Devices Inc v Morrison-Knudsen Co.*, 217 USPQ 1039, the District Court held that the appellant, Morrison-Knudsen Co. ("M-K"), had infringed claim 1 of appellees' U.S. Patent No. 3,204,417 (the "'417 patent")¹ and claims 1-4 of appellees' U.S. Patent Re. 29,364 (the "reissue patent"). The District Court then awarded \$200,000 as damages to the 'appellees' and trebled that amount.¹⁹ Appeal²⁰ against the said decision was affirmed in part and reverse in part. The Federal Circuit Court affirmed the appeal in the matters of validity of patents infringed and the willful infringement of such patents. The assessment of 'prejudgment interest' on 'enhanced punitive amount of damages' – for willful infringement – was reversed by this Court.

The Court disagreed with appellant's contention that district court's finding on willful infringement was clearly erroneous; and observed that appellant had failed to show that District Court had erred so. The Federal Circuit Court emphasised on the 'potential infringer's affirmative duty to exercise due care to determine whether or not he is infringing.'²¹ The Court also went ahead in explaining the 'affirmative duty' as including *inter alia*, the 'duty to seek and obtain competent legal advice from counsel before the initiation of any possible infringing activity'.²² It was observed that appellant had obtained its counsel's advice only after it commenced infringing activities. The Court based on the findings, maintained that such advice was not the type of 'competent legal advice' which could be relied on, and moreover the attorney from whom the advice was sought was in-house counsel and not a competent patent attorney. The advice sought, was held inadequate, containing "only bald, conclusory and unsupported remarks regarding validity and infringement". Based on these prominent and other relevant findings the Court held that Appellant willfully disregarded the subject patents and failed in exercising the 'affirmative duty' and thus district court's finding on willful infringement was affirmed.¹⁹

In *Bott v Four Star Corp.* the Federal Circuit Court made a further effort in providing clarity to 'duty of due care' by providing the guidelines in terms of a questionnaire that would possibly enable finding of willfulness.²³ In the appeal from a judgment of the United States District Court for the Eastern District of Michigan, the appellant Four Star Corporation wanted to reduce the amount of damages those were awarded for patent infringing actions. During the lengthy trial, the Trial Court granted but stayed the permanent injunction, pending an appeal before Courts of Appeal, Federal Circuit. However, Four Star Corporation continued the sale of its infringing products even after the decision by District Court as to liability of infringement. The final judgment ordered Four Star to pay *Bott* the damages doubled for willful infringement caused by it. The doubling of damages was considered appropriate in the event of all infringing sales those took place even after the decision of trial court as to liability, and which was affirmed by Federal Circuit Court of Appeal (*Bott v Four Star Corp.*, 732 F.2d 168 (Fed.Cir.1984)).²⁴

Though this appeal was made with an intention to reduce the amount of damages, the Federal Circuit Court did contribute to the issue of willful infringement by providing list of questions, as guideline to find willfulness element. However this questionnaire do not encompass all factors those may be relevant in finding the willfulness, and is non-comprehensive when it comes to 'totality of circumstances' as observed in *Read Corp v Portec Inc.*

Read Corp. v Portec Inc. the Federal Circuit did consolidate further extensive list of questionnaire for determining the element of willfulness. In a appeal brought by Portec, Inc., from the final judgment, entered upon a jury verdict, of the United States District Court for the District of Delaware, holding Portec liable for infringement of U.S. Patent No. 4,197,194 (the '194 patent) and U.S. Design Patent No. 263,836 (the '836 patent), and awarding *The Read Corporation and F.T. Read & Sons, Inc.* (collectively Read) treble damages and attorney fees. The Federal Circuit Court affirmed judgment of district court with respect to liability for infringement of the '194 patent was, and reversed the judgment with respect to liability for infringement of the '836 patent and the enhancement of damages.²⁵

Further, Federal Circuit Court while commenting on enhancement of damages has made a remark that

“a finding of willful infringement does not mandate that damages be enhanced “. and cited *Modine Mfg Co v Allen Group, Inc*, 917 F.2d 538, 543, 16 USPQ2d 1622, 1625 (Fed.Cir.1990), cert. denied, --- U.S. ----, 111 S.Ct. 2017, 114 L.Ed.2d 103 (1991). Court stated that it is the ‘egregious conduct’ of defendant based on all facts and circumstances; ‘Bott Factors’ are ‘not inclusive’. Additionally Court provided factors²⁶ in determining the extent of enhancing the damages, which in turn are relevant as well, for determining the willfulness.

In *Jurgens v CBK, Ltd*,²⁷ courts have considered ‘some degree of culpability’ as a requisite to impose increased amount of damages. In relation to ‘copying’ the Supreme Court in *Warner-Jenkinson Co v Hilton Davis Chemical Co*.²⁸ noted yet another challenge as “one wonders how ever to distinguish between intentional copyist making minor changes to lower the risk of legal action and the incremental innovator designing around the claims, yet seeking to capture as much as is permissible of the patented advance”. However, while deciding *Comark Communications Inc v Harris Corp*, the Court explained the willfulness to be determined in the ‘totality of circumstances’²⁹ and thus no single guideline seems to be dispositive. *Embrex Inc v Serv Eng’g Corp*, court noted that willfulness must be proven by clear and convincing evidence.³⁰

Knorr-Bremse Sys Fuer Nutzfahrzeuge GMBH v Dana Corp, 383 F.3d 1337, 1344 (Fed. Cir. 2004), paved a further way by commenting that duty to take care in the form of seeking a ‘pre-litigation advice is just a one factor to ponder over, in the ‘totality of circumstances’. A sound basis alongwith a exculpatory evidence, leading a person to believe that the subject patent was invalid, unenforceable, hence not be infringed. Judge Dyk while concurring-in- part gave a dissenting opinion on ‘affirmative duty of care’. Judge Dyk argued “that a finding of willfulness, with its punitive consequences, should be reserved for truly culpable behavior”. He further maintained that, with the remedy of compensating the patent owner for his patent infringement regardless of infringer’s intent, the ‘duty to take due care’ is of no significance and benefit to patent system.³¹

The decision in *Re Seagate Technology, LLC*³² added a new dimension to willful patent infringement. The Federal Circuit came up with a test as popularly called as ‘two-pronged test’. The first prong was a condition to determine whether infringer acted inspite

of the knowledge that his act might cause an infringement, and the second condition that such knowledge of likelihood was obvious to him. The Federal Circuit left many issues unresolved for further development. In this case there was shift observed in the enquiry of willfulness i.e. from a negligence enquiry to a determination of recklessness, However it was left for the time to decide as to how exactly this may develop further.

In *Powell v Home Depot*³³, the Court considered the objective prong of *Seagate*'s two-pronged test. Specifically, the Court was asked whether satisfaction of the objective prong was a fact question for the fact-finder, usually a jury or a legal question for the court. The Federal Circuit's answer, in *Powell*, was "it depends."

Under the *Seagate* standard, the pertinent inquiry for the objective prong is whether an accused infringer reasonably relied upon a defence to patent infringement. Thus, the Court held, where resolution of that inquiry turned solely on a fact question (such as non-infringement) this should be decided by the jury. On the other hand, where the resolution of that inquiry turned on a legal question – such as claim construction or inequitable conduct – the judge would decide the issue as a matter of law. The Court even contemplated the situation where the objective recklessness inquiry may require analysis by both the judge and the jury.

In *Bard Peripheral Vascular v W.L. Gore & Assocs*³⁴, further modified the decision in *Powell*. In *Bard*, the Federal Circuit held “that the objective determination of recklessness, even though predicated on underlying mixed questions of law and fact, is best decided by the judge as a question of law subject to *de novo* review”.³⁵ Further after *Seagate*, the two-pronged test for willfulness was enquired as a question of fact or law; where earlier the decision-maker for both prongs was the jury. But the Federal Circuit’s recent decision in *Bard* held that the two prongs should have different legal standards.

Criminal Sanctions for Patent Infringement: The Disparity

The patent law of countries such as, Austria,³⁶ Brazil,³⁷ Germany,³⁸ Japan,³⁹ and Thailand,⁴⁰ provide for criminal sanctions for patent infringement. In *Global-Tech*, the US Supreme Court has imported the concept of willful blindness and imposed a criminal liability for patent infringement⁴¹ which has been

criticized by Jacob Sherkow.⁴² Scott McBride and Guy W. Barcelona Jr. while admitting the growing trend of ‘efficient infringement’ of patents and addressing the sufficiency of present remedies namely injunctions and enhanced damages, have further admitted the existence of patent infringement risk in spite of the present remedies.⁴³

The European Union did attempt to harmonize the IPR enforcement by making criminal sanctions uniform for all IP infringements including patent infringement, but there is severe criticism from stakeholders, and as a consequence the controversial element of ‘criminalising patent infringement’ was dropped.⁴⁴ The assessment was made by WIPO in 2007,⁴⁵ with regard to ‘enforcement of IPR by means of criminal sanctions. This assessment has identified ‘counterfeiting and piracy’ as key elements behind criminal sanctions in cases of infringement of ‘copyrights, trademarks and design registrations’. In case of patent infringement however, the findings in the assessment have identified certain policy reasons, which could possibly be taken into consideration for providing criminal sanctions for patent infringement. These policy reasons are, in case of developing countries, with no conclusive comment or analysis. The need to identify clear principles defining ‘willful infringement’ remains unaddressed.

In a special report prepared by the office of by United States Trade Representative (USTR)⁴⁶ executive office of the President of United States, United States recommends and prefers with particular reference to ‘patent protection’, that India should provide a stronger patent protection and an effective system for protection against ‘unfair commercial use’. Further, the report also comments on, efficiency of India’s judicial proceedings; need for strengthening its ‘criminal enforcement regime by imposition deterrent-level sentences’ for IPR violations, and considering the prosecution of IPR offenses at greater priority.

Conclusion

The prominent considerations in interpreting the ‘willfulness’ stated so far are as follows: duty to take care not to infringe the patent, in case of knowledge of its existence – to that effect obtaining a counsel’s opinion is considered reasonable action in disposing the said duty (however this factor has been criticised as inadequate), negligence, degrees of negligence, inducement, recklessness and now presently objective and subjective tests provided. However all possible interpretations have been remarked as ‘to be evaluated

conditionally’ and the condition being ‘totality of circumstances’. Even in case of objective test, in ‘Bard’ the question as to what would amount to willfulness was left to the judge’s interpretation.

Thus it is clear that, the doctrine of willful patent infringement needs to be analyzed further and clearly articulated. The application of criminal remedy, for willful infringement of patent cannot serve the purpose unless the basic principles of the willful infringement are analysed with clarity and articulated. Further, as stated above, the disparity in providing criminal sanctions for patent infringement wherein some nations provide criminal sanction for infringement of patent–willful or otherwise causes the ‘willfulness’ element in the doctrine of willful infringement lose its essence.

The concept of patents is of global scope and no longer a nation specific issue. It is not only preferred but now imperative that the doctrine of ‘willful infringement of patents’ stated under Article 61 of TRIPS, be analysed and articulated in a manner to provide clarity up to an extent where the determination of ‘willful element’ is not left for interpretation.

Relevantly, in Indian context, whether it would be feasible for Indian patent regime to incorporate a remedy the trebling of the damages or provide criminal sanction in form of imprisonment, in cases of willful infringement of patent atleast, remains to be further studied and the need for a clear articulation of the doctrine continues to exist. India being a developing nation and after a substantial journey in its patent regime, this study is imperative from both academic and industrial perspective.

References

- 1 Hiroko Y, *Interpreting TRIPS Globalisation of Intellectual Property Rights and Access to Medicines* (9 Hart Publishing Ltd) 2011, p. 10.
- 2 Pedro C, Drug Discovery in Jeopardy, *Journal of Clinical Investigation*, 116 (11) (2006) 2837-42.
- 3 Ladas, *The Law of 19 March 1474*, 6, 6-7.
- 4 On historical developments of different national laws, Ladas, 6 (1) 2-11.
- 5 Hiroko Y, *Interpreting TRIPS Globalisation of Intellectual Property Rights and Access to Medicines* (9 Hart Publishing Ltd.) 2011, p. 11.
- 6 Hiroko Y, *Interpreting TRIPS Globalisation of Intellectual Property Rights and Access to Medicines* (9 Hart Publishing Ltd.) 2011, p. 166.
- 7 Daniel G, *The TRIPS Agreement*, (491, Sweet and Maxwell), 2011, 491–492.
- 8 Scott McBride & Guy W Barcelona Jr, The two sides of ‘efficient patent infringement’, *The National Law Journal*, (13 Dec 2010) 1-2.

- 9 Eric C W, Breaking the law to break into the black: Patent infringement as a business strategy, *Intellectual Property Law Review*, 11 (2007) 193.
- 10 Jacob S S, Patent infringement as criminal conduct, *Mich. Telecomm. & Tech. L. Rev.* 1 (2012) 19.
- 11 The Supreme Court's recent decision in *Global-Tech Appliances, Inc v SEB S.A.*, 131 S. Ct. 2060 (2011).
- 12 Stephanie P, Willful patent infringement: Theoretically sound? A proposal to restore willful infringement to its proper place within patent law, *University of Illinois Law Review*, 3 (2007) 674 – 675.
- 13 Timothy R H, The intent element of induced infringement, *Santa Clara High Technology Law Journal*, 22 (3) (2005) 44-52.
- 14 Lynda J O, The intent element of inducement to infringe under patent law: Reflections on Grokster, *Michigan Telecommunications and Technology Law Review*, 13 (1) (2005) 233 – 246.
- 15 Mark A L, *University of California, Davis, School of Law*, 39 (1) (2005).
- 16 Douglas Y B, Written opinions from counsel, 29 *A M. Intell. Prop. L. Ass'n Q.J.* (2001) 65 112; Robert O B & William C R, Imputing knowledge to determine willful patent infringement, 24 *AM. INTELL. PROP. L. ASS'N Q.J.* (1996) 157, 168.
- 17 *General Electric Company v Sciaky Bros, Inc.*, 415 F. 2d at 1073 (1969).
- 18 *Milgo Electric Corp v United Business Communications, Inc*, 623 F. 2d 645, 666, 206 USPQ 481, 497 (10th Cir. (980) cert. denied, 449 U.S. 1066, 66 L. Ed 2d 610, 101 S. Ct. 794 (1980)
- 19 <http://openjurist.org/717/f2d/1380/underwater-devices-incorporated-v-morrison-knudsen-company-inc-morrison-knudsen-company-inc> (accessed on 27 April 2015).
- 20 *Underwater Devices, Inc. v Morrison-Knudsen Co.*, 717 F. 2d 1380 (Fed. Cir. 1983).
- 21 Court cited *Milgo Electronic Corp. v. United Business Communications, Inc.*, 623 F.2d 645, 666, 206 USPQ 481, 497 (10th Cir.1980),cert. denied, 449 U.S. 1066, 101 S.Ct. 794, 66 L.Ed.2d 611 (1980), to corroborate its opinion.
- 22 *General Electric, Supra*, at 1073-74, 163 USPQ at 261; *Marvel Specialty Co. v Bell Hosiery Mills, Inc.*, 386 F.2d 287, 155 USPQ 545 (4th Cir.1967), cert. denied, 390 U.S. 1030, 88 S.Ct. 1409, 20 L.Ed.2d 286 (1968).
- 23 *Bott v Four Star Corp.* 807 F.2d 1567, 1572 (Fed. Cir. 1986). Whether the infringer deliberately copied ideas or design of another? Whether the infringer, when he knew of the other's patent protection, investigated the scope of the patent and formed a good-faith belief that it was invalid or that it was not infringed?; Infringer's behavior as a party to litigation.
- 24 <https://casetext.com/case/bott-v-four-star-corp> (accessed on 27 April 2015).
- 25 <http://openjurist.org/970/f2d/816> (accessed on 27 April 2015).
- 26 *Corp. v Portec, Inc.*, 970 F.2d 816 (Fed. Cir. 1992).
- 27 *Jurgens v CBK, Ltd.*, 80 F.3d 1566, 1570 (Fed. Cir. 1996).
- 28 *Warner-Jenkinson Co. v Hilton Davis Chemical Co.* 520 U.S. 17 (1997).
- 29 *Comark Communications, Inc. v Harris Corp.*, 156 F.3d 1182, 1190 (Fed. Cir. 1998) (explaining that a determination of willfulness involves an evaluation of the "totality of the circumstances" and that willfulness may range from an unknowing or accidental to a deliberate or reckless disregard of the patentee's rights).
- 30 *Embrex Inc v Serv Eng'g Corp.*, 216 F.3d 1343, 1350 (Fed. Cir. 2000).
- 31 <https://casetext.com/case/knorr-bremse-systeme-fuer-nutzfahrzeuge-v-dana> (accessed on 27 April 2015).
- 32 *Re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc).
- 33 *Powell v Home Depot U.S.A. Inc.*, 663 F. 3d 1221 (Fed. Cir. 2011).
- 34 *Bard Peripheral Vascular, Inc v W. L. Gore & Associates, Inc.*, No. 14-1114 (Fed. Cir. Jan. 13, 2015).
- 35 Masurovsky L P & Schroeder Jacob A, *A Radical Change in Willful Infringement Litigation*, *Law360* <http://www.finnegan.com/resources/articles/articlesdetail.aspx?news=fa1f12f3-e9bd-4003-b26a-0ceaab135a30> (accessed on 27 April 2015).
- 36 Austrian Patent Law, S 159.
- 37 Section 183, 184, 185, 186 Law No. 9.279 of May 14, 1996 (Industrial Property Law).
- 38 *Patent Act of Germany v 1981 (BGBl. I S.142)*.
- 39 Japanese Patent Law Article, 196.
- 40 Patent Act B.E. 2522, as amended by the Patent Act (No.2) B.E. 2535, and the Patent Act (No.3) B.E. 2542 (Sec 85).
- 41 *Global-Tech Appliances, Inc. v SEB S.A.*, 131 S Ct. 2060 (2011).
- 42 *Underwater Devices, Inc v Morrison-Knudsen Co*, 717 F. 2d 1380 (Fed. Cir. 1983).
- 43 Daniel G, *The TRIPS Agreement*, (491, *Sweet and Maxwell*), 2011, 491 - 492
- 44 *Commission of The European Communities*, Brussels, 26.4.2006 COM(2006) 168 final 2005/0127 (COD), Art 3.
- 45 *The Enforcement of Intellectual Property Rights by Means of Criminal Sanctions: An Assessment*, WIPO/ACE/4/3.
- 46 *United States Trade Representative (USTR) Special 301 Report*, 28, (2011), <http://www.ustr.gov/sites/default/files/05012013%202013%20Special%20301%20Report.pdf>.