



# Patent Proceeding and Infringement Analysis

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**Abstract:** *The patent proceeding is the process of enforcing the patent rights to the particular territory by avoiding the infringement suits in that territory. The infringement is the process of making, selling, and offering the patented product without the permission of its owner. The present technique related to the patent proceeding and infringement analysis by using the doctrine of equivalence test in order to provide results in form of triple identity test result which is described in terms of function, way, and result by employing the independent test equation. The presence of elements in the form of positive and negative value is use to determine the infringement. Due to the presence of function, way, and result term in the form of a numeric value such as 1 and -1 to determine the result of infringement in the positive and negative value. Thus, the result identifies by the presence of infringement or non-infringement by checking criteria mentioned in the equation wherein the given equation equates with a positive and negative value of 1 according to which given equation to provide substantial result over the triple identity test.*

**Keyword:** *Doctrine of equivalence, Function-way-result, Infringement analysis, Triple identity test.*

## INTRODUCTION

Patent are exclusive rights given by the government to the patentee for the term of 20 years in order to make, sell, and use the invention in the public domain to enjoy the monopoly of rights. A patent gives the right to the patentee to exclude others for make sale or use the invention in the time limit of the 20-year inventor can exploit their technology by commercializing it .Patent also a territorial right and geographically bounded wherein patent can only enforce in particular territory according to the law of the country [1]. The procedure for the granting of the patents, requirements present on the patentee, and the boundary in relation of the exclusive rights are vary widely present in between countries according to the national laws as well as the international agreements.

A patent is also an intellectual property that gives right to an inventor for the new novel, a non-obvious, and industrial applicable invention for enforcement of rights. In the present days there are a large number of patent filing are proceeding are occurring, due to which technology comes closer to each other in that case, there are so many chances to the repetition of technology by the different patentees that repetition is may create the infringement for the patent. The patented overlapped technology is identified as infringing technology whereby implementing the analysis it can be obtain the white place between the technology and the same analysis identify the patent infringement [2].

Patents are territorial rights which are change according to one jurisdiction to another jurisdiction and law enforcement on the territory if one patent is filled in Indian territory but not in US territory so any one can make sell and use the patent freely in US territory so it is required to protect the patentable invention one territory or more than one territory.

Patent infringement: the patent infringement is an act of manufacturing, selling or using the patented product without taking the permission of patent holder and which can be in form of direct making selling and using or in form of indirectly by contributing to make sell or use by providing help in form of third party, there is various type of patent infringement act are present such as direct infringement, indirect infringement wherein direct infringement are those type of infringement in which making, selling, using and offering without permission of the inventor[3]. Literal infringement is use to prove there must be a direct relationship between the present infringing device or as well as the process and the patented device or process [4]. Furthermore, an indirect type of infringement pertains when the defendant does not itself commit direct infringement but causes another party to do so .The indirect infringement comprises induced infringement and contributory type of the infringement which includes steps of action which contribute ( potentially contribute) to someone different person to infringing a patented product, even if those steps of actions have not directly infringed the patent [5].

Induced infringement has occurred when an individual or company helps in patent infringement by providing the parts and components of the device or helping to manufacture the patented product, selling of the patented product, or offer a patented product. It happens by offering instructions, preparing instructions, or licensing plans or processes [6]. Willful type of infringement is the type of infringement in which the infringer knew that the technology in which he works that is already patented technology and he has no right to make, sell or use the technology without permission of patentee or license from patentee .The damages against the willful infringement is the three times of normal infringement proceeding [7]. There is various type of analysis to judge the infringement proceeding such as the doctrine of equivalence, all element test, the doctrine of estoppel and triple identity test our present technique pertains to the doctrine of equivalence test under which more particularly to technique belongs to triple identity test wherein by utilize the numerical method to identify the infringement analysis by applying the function, way and result test to identify the infringement as per analysis it is know that single technology may infringe by various function by employing various way in that case the numeric equation is helpful to provide the actual identification of infringement [8].

In the present technique, the given analysis pertains to patent analysis for proceeding and infringement wherein by analyzing the patent infringement under the doctrine of equivalence by applying the new method and analysis furthermore patent infringement analysis pertains to triple identity test in form of function way result test in which in patent infringement analysis comprises test wherein no patent should have the same function which should not operate in the same way and not provide the same result and there should not be all elements present in the accused product [9][10]. The present technique pertains to the infringement analysis by using the doctrine of equivalence test by including the equation which identifies the presence of infringement proceeding by putting the value in the equation in form of function, way, and result in the numeric form to identify infringement. Moreover, present technique providing the easiest way to identify the claim infringement proceeding comparing to the conventional infringement analysis where

reference to various previous case study to identifying the infringement. Present technique only refer the function means how invention functioning, way how the invention proceeds in single way or multiple way and result to determine the outcome are same or not same. The element utilizing the same functions and operate in same way and providing the same result that is the triple identity test of the doctrine of equivalence.

### RESEARCH QUESTION

1. The present equation driving the doctrine of equivalence test in form of mathematical model how it identifies the infringement?
2. The present technique is how to provide easiest way to identify infringement analysis?
3. How to present technique can easily be understood by other person which not are person skilled in the art?
4. Does mathematical model is easy to identifying infringement?

### REVIEW OF LITERATURE

Tarun Mathur on the year of 2007 deals with the scope of the patent claim the paper examines certain limitations bars on the applicability of the doctrine of equivalence. In the case of patent infringement analysis, two-stage of analysis required to perform for identifying the infringement first state literal infringement and the another second stage is the infringement analysis under by applying the doctrine of equivalence in the case of literal infringement means each and every element recited in a claim has similar to the infringing device or process in literal infringement all element should be compared with infringing device .the another type of test or second stage test perform under the doctrine of equivalence at this stage test claims are interpreted beyond and after the strict present literal meaning where the doctrine of equivalence test is judiciary created concept where the test performed in the form of triple identity test in which function ,way and result test has to be required to perform and another test are Substantiality of difference test .The doctrine of equivalence test apply where the not present of literal infringement .There still be infringement proceeding present if the patented product or service has a structure or perform a similar function which is the equivalent to the element has recited in the particular claim. The equivalence means claim element having the same thing to perform in the same way and obtain the same result. If the literal infringement is absence the patent owner can perform the doctrine of equivalence test to establish infringement thus doctrine of equivalence initially use to designed to prevent the fraud on a patent, the doctrine of equivalence is the second method of proving infringement [11].

Various research has been done in the field of the patent proceeding and infringement including the doctrine of equivalence, the doctrine of estoppel, and many other research work wherein doctrine of equivalence perform the claim infringement analogy to check the function, way and result in which claims are compare in form of what is the function present in the accused product how the element of performing the operation and gives the same result or not by comparing the claim or by performing the claim analysis in a various different way the doctrine of equivalence test apply to case by case law in infringement. The court does not apply the doctrine of equivalence test in every patent court first check literal infringement after that court trying to find with doctrine of equivalence test.

Patents increase the innovation index of country and it is granted by one or more country jurisdiction for commercializing the new technology, if the patent is not filled in any country so

that invention directly come public domain for that country to exploit the technology by any person so in that case patentee is not able to proceed with the suit for infringement to the person of another country because it is geographically bounded by the jurisdiction of the country to country.

Patent infringement analysis is performed by all element rule test in which in the patent by applying the all element test rule wherein the product patent must contain every single element in the claim this type of analysis called claim to claim analysis in which all elements must be present in the single claim if any one element are missing so the infringement is not establishing. All element tests identify the doctrine of equivalence must be applied to all individual elements of claim not in the entire invention, so every element of the invention present in the accused product or process. All elements of the invention must be equivalent in the new invention that means it should be according to the triple identity test.

### METHODOLOGY

The present equation pertains to the doctrine of equivalence test in which analysis is perform by checking the presence of function, way, and result in the equation to identify the presence of infringement in the patented product. The present equation tests the triple identity test in form of mathematical model which is used to identify infringement proceeding of accused product is that product is infringing or not.

#### *Instrument:*

The various terms such as function, way and result are define in form of  $f_x$ ,  $w_y$ ,  $R_z$  to analyze the independent equation -1 wherein each term present in the equation in positive and negative values of 1or -1.furthermore if any term present in the equation that will be indicated with positive value 1 and if any term not present in the equation that is indicated with negative value of 1 or -1.

$f_x$ = indicate function

$w_y$ =indicate way

$R_z$ = result

$I_A$ = Infringement

#### *Data analysis:*

The present equation pertains to infringement analysis of patent by examine the presence of function way or result indicators in form of presence and absence of term in equation such as  $f_x$ ,  $w_y$ ,  $R_z$ . Wherein if any term present in the equation that have been defined with positive value of as  $f_x$ ,  $w_y$ ,  $R_z$  and if any term not present in equation that will be defined with negative value  $-f_x$ ,  $-w_y$ ,  $-R_z$  and that terms equate in equation which is equal to total infringement and identify presence of happening or not.

$$(-f_x+f_x) + (-w_y +w_y) + (-R_z+R_z) = \text{Infringement} \quad (1)$$

If anything in function, way, result is present that should consider as positive  $f_x$ ,  $w_y$ ,  $R_z$

If anything in function, way, result is not present that should consider as negative  $-f_x$ ,  $-w_y$ ,  $-R_z$

As per according to equation1 consider all function way result are present so

$$(+f_x) + (+w_y) + (+R_z) = \text{Infringement}$$

Consider  $f_x = 1, w_y = 1, R_z = 1$

$$3 = I_A = \text{Infringement}$$

Infringement increasing by increasing  $I_A$  value

Consider  $-f_x = 1, -w_y = 1, -R_z = 1$

As per according to equation 1 consider all function way result are not present so

$$(-f_x) + (-w_y) + (-R_z) = \text{Non Infringement}$$

$$-3 = I_A = \text{Infringement.}$$

Infringement decreasing by decreasing  $I_A$

Case 1 assume function not present in equation 1

$$-f_x + (+w_y) + (+R_z) = \text{Infringement}$$

$$-1 + 2 = \text{Infringement}$$

$$1 = \text{infringement}$$

Infringement decreasing in absence of function or infringing decreasing by decreasing function.

Case 2 assume function and way both are not present.

$$-f_x + (-w_y) + (+R_z) = \text{Infringement}$$

$$-2 + 1 = \text{Infringement}$$

$$-1 = \text{infringement}$$

Infringement decreasing in absence of function and way or infringing decreasing by decreasing terms function and way

Case 3 assume function, way, result all are not present

$$(-f_x) + (-w_y) + (-R_z) = \text{Non Infringement}$$

$$-3 = \text{Non Infringement}$$

Infringement decreasing in absence of function, way and result or infringing decreasing by decreasing terms function, way and result.

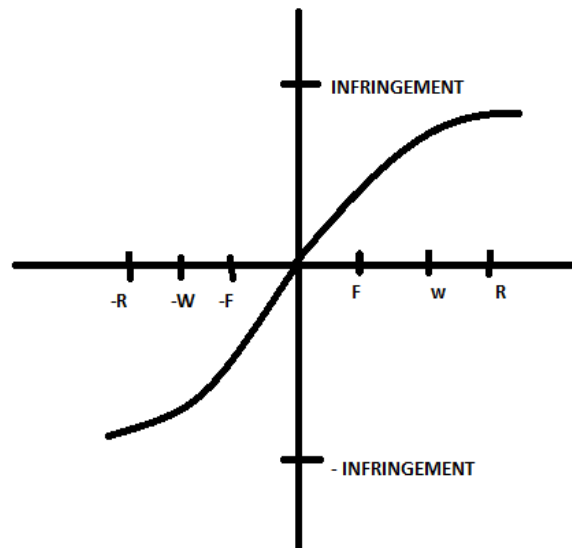
Thus according to above analysis it is finding that infringing are proceed in the presence of function, way and result in equation which is limited between -3 to 3

$$-3 \leq I_A \leq 3 \text{ or } -3 \leq I_A \leq 3.$$

If  $I_A \geq 3$  is greater or equation 3 then this case mention the maximum infringement or in positive value

If  $3 \leq I_A$  or between in negative value so it assume as no infringement or less infringement in that case  $-2 \leq I_A$  or  $-1 = I_A$  till value.

The present graph mentioned below show the infringement proceeding in term of function way and result there is graph Clearly mention the presence of infringement is due to presence of function, way and result indicated in the graph mentioned below wherein infringement  $I_A$  increasing in the presence of  $f_x, w_y, R_z$  and the infringement reducing by absence of function way and result by indicating negative  $-f_x, -w_y, -R_z$ .



**Fig. 1 Graphical Representation of Infringement**

The graphical way of infringement analysis mentioned in the above Fig. 1 wherein infringement indicated between negative value of  $-f_x, -w_y, -R_z$  and positive value of  $f_x, w_y, R_z$ .

### RESULT AND DISCUSSION

The present technique pertaining to infringement analysis by taking reference of doctrine of equivalence test wherein present technique calculating the numeric value to identify the triple identity test for finding the infringement, more over present technique includes function way and result in form of term which are dealing with infringement analysis by putting the terms in the given equation to identify infringement occurring or not the way of identifying the infringement present or not simply include the term in equation if the term is present by putting positive value and also putting the negative value if the term is not present in equation. Thus the final result is obtain by equating the function, way, result equal to 1 for the both positive and negative value of  $f_x=1, w_y=1, R_z=1$  and  $-f_x=1, -w_y=1, -R_z=1$  and equate with infringement value  $I_A$  which is also equal to one and final result also varying between  $-3$  to  $3$ . thus the final result obtain by equation  $-3 \leq I_A \leq 3$ .

The present technique is helpful when identifying infringement when the accused device infringes by more than one function in the patent and more than one way to operate the patented device, and gives the same result therefore, the identifying the patent infringement by using this present equation are adequate to identify the infringement by applying given equation to obtain analyzed result.

## RESULT

The present technique pertains to identifying the infringement proceeding of any accused device by applying the mathematical equation wherein infringement identify by checking the presence of elements which work as same function to operate in the same way and gives the same result. The present technique provide the substantial equation is able to check the infringement by putting the value in equation in the form of function, way and result and determine the value of  $I_A$  between the -3 to 3 by putting the value of function between -1 or 1 value of “way” -1 or 1 and result -1 or 1 in the given equation more specifically if function, way and result present in the device that should be indicated by positive value of 1 and if not present it should be indicated by negative value -1 in the equation and after computing the equation result should be between -3 to 3.

## CONCLUSION

The present technique is used for identifying infringement over the triple identity test by employing an independent equation which similarly works as the doctrine of equivalence test but the present equation is work in form of putting numeric value so that is easy to identify the infringement proceed or not. The present technique based to the mathematical calculation so it is easy for a normal user to identifying the infringement by feeding the simple value in an equation in form of 1 and -1 to obtain infringement result, furthermore patent claim infringement is easily detected by the present technique in order to establish the claim infringement. Present technique pertaining to the numeric calculation by function, way, and result in triple identity test in a numeric form which is different from conventional triple identity test which consuming more time to identify the correlation between the presence of terms such as function way and result. The present equation pertains to the numeric calculation which identifies the infringement in the form of mathematical calculation by performing of the triple identity test.

The present equation is subjected to various modification and alteration by a person skilled in the art to make a more accurate calculation to obtain the infringement result and calculation furthermore there are various application of the present equation to identify the infringement by including the function way and result test in form of numeric data calculation which provides an easy way to identify infringement without using a case study or time-consuming study the present calculation method identify the infringement by putting the value of terms in a positive and negative value of 1 due to which it can identify both presence of function ,way and result as well as non-presence of function, way and result that present technique are easier than conventional case study and time-consuming study moreover by this technique any non-skilled person may also check the infringement.

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