

INVENTIVE STEP OR NON-OBVIOUSNESS: A CONDITION FOR PATENTABILITY (INDIAN PERSPECTIVE)

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Abstract: This paper considers the patentability requirement which can be considered as the ultimate condition for the grant of patent protection: the requirement that the inventive step be involved and that the invention be non-obvious, in Indian pretext. The Patents Act, 1970 defines the term “invention” under section 2 (1)(j) which means “a new product or process involving an inventive step and capable of an industrial application. Hence it provides the tripartite criteria for patentability which involves: novelty, inventive step and industrial application. This project work is thus structured in a way so as to provide complete analysis over the “inventive step” criteria for patentability in India along with a little brief hint of comparative study with that of USA and UK. The project work has been divided into various chapters such as “meaning and definition of patent” which dealt with various definitions of “patent” which is followed by next chapter dealing with “international commitments for patents” which dealt with various international conventions which talked about the patent protection. Another chapter is “evolution of patent law in India” which dealt with the gradual development of Indian Patent Law, this chapter is followed by the next chapter “patentable inventions” which dealt with the introduction of patentability requirements and followed by the last chapter “inventive step: criteria for patentability” which respectively dealt with ‘definition of inventive step’; ‘inventive step: ground for revocation’; ‘essential ingredients of inventive step’; ‘obviousness approach’; ‘assessment of inventive step in an invention’ and ‘comparative overview of obviousness approach.

Keywords: PATENT, INVENTIVE STEP, NON OBVIOUSNESS, INVENTIONS, PATENTABLE INVENTION

MEANING AND DEFINITION OF PATENT

A patent is a form of intellectual property right¹ granted and protected by the law. Intellectual property rights is a special genre of rights which protect the results of intellectual and creative labour and like all other intellectual property rights, patent too, offer protection over creative labour for a specified period of time.² A patent is a set of exclusive rights granted by a sovereign state to an inventor or assignee for a limited period of time in exchange of detailed public disclosure of an invention.³ The Cambridge Dictionary provides for the meaning of “patent” as “the official legal right to make or sell an invention for a particular number of years”.⁴ A patent is an exclusive right granted on an invention, which may be either a product or process. Patents provide incentives to individuals by offering them recognition for their creativity and material reward for their marketable inventions. The purpose of this system is to encourage inventions by promoting their protection and utilization so as to contribute to the development of industries, which in turn contributes to the promotion of technological innovation and to the transfer and dissemination of technology.⁵ The word ‘patent’ refers to a monopoly right over an invention. Not all inventions are patentable nor is it essential to protect inventions solely through patents.⁶ A patent is a grant of right, privilege or authority over an invention in the form of limited monopoly.⁷ Having discussed the meaning of patent, definition of patents is another important aspect which is worth discussing before proceeding to analyse the Indian scenario about the “inventive step or non-obviousness”, the most important criteria for grant of patent protection.

The word ‘patent’ implies openness and accessibility. The term patent originated from the Latin term *litterae patentes* (Letters Patent) which means ‘open letters’.⁸ The Patent Act defines ‘patent’ as a patent for any invention⁹ granted under the Act.¹⁰ A patent confers a bundle of rights on the patentee for a limited period of time which includes the right to exclude others from manufacturing, using, offering for sale, selling or importing the invention in India.¹¹

¹ IPR is a generic name for patents, copyrights, trademarks, design rights, trade secrets and other like rights.

² Feroz Ali Khader, *The Law of Patents-with a special focus on Pharmaceuticals in India* 1 (LexisNexis Butterworths, New Delhi, 2007).

³ An invention is a solution to a specific technological problem and is a product or process.

⁴ Available at: dictionary.cambridge.org/dictionary/english/patent (last accessed on February 11, 2016)

⁵ Dr. Shreenivasulu.N.S.(ed.), *Intellectual Property Rights* 28 (Regal Publications, New Delhi).

⁶ *Supra* note 2 at 2.

⁷ Lionel Bentley and Brad Sherman, *Intellectual Property Law* 309 (Oxford University Press, 2000).

⁸ Halsbury Laws of England 135 (Vol.35,4th edn.).

⁹ Patents Act, 1970, Section-2(j).

¹⁰ *Id* at Section-2(m).

¹¹ *Supra* note 2 at 3.

PATENTABLE INVENTIONS

The object of the Patents Law is to encourage scientific research, new technology, and industrial process. Grant of exclusive privilege to own, use or sell the method or the product for limited period, stimulates new invention of commercial utility. The price of the grant of monopoly is the disclosure of the invention, which after the expiry of the fixed period passes into public domain. The fundamental principle of the Patents Law is that the patent is granted only for an invention which must be new and useful. Hence, “Patents is granted for an invention” is the principle of Patents Law.¹² Invention is defined as “a new product or process involving an inventive step¹³ and capable of industrial application”.¹⁴ In general, inventions should satisfy the following requirements, which are universally recognized.¹⁵ The requirements are as follows:

- a) Novelty;
- b) Inventive step or Non-obviousness;
- c) Industrial application or utility; and
- d) Written description or Deposit of the Invention.

It means that the invention must be new and hitherto not in existence. The invention should involve certain inventive steps, which takes it further from the existing knowledge in the society. Invention should be capable of industrial application or the invention should be commercially viable. Finally, invention should be capable of being described in written form. However, in case of living invention where written description is not possible depositing the invention could satisfy this requirement.¹⁶

INVENTIVE STEP: CRITERIA FOR PATENTABILITY

A patentable invention must involve something which is outside the probable capacity of a craftsman- which is expressed by saying that it must have a subject matter or involve an “inventive step”. It demands exercise of the inventive power or innovative faculty. It is the result of any research, independent thought, ingenuity and skill.¹⁷ If the invention is obvious to the person skilled in the art, it cannot be said involving inventive steps. The test of obviousness has to be applied from the standard of a skilled person who is well acquainted with the field of invention, has unlimited capacity to assimilate information and has carefully read the act, but has no inventive capacity except that he has common good knowledge.¹⁸

• **Definition of “inventive step”**

The Patents Act defines an invention to mean a new product or process involving an inventive step and capable of industrial application. Section 2(1)(ja) defines inventive step as follows:

“inventive step means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art”.

The above given definition was introduced by the Patents (Amendment) Act 2005 which repealed the earlier definition on inventive step which read as “inventive step means a feature that makes the invention not obvious to the person skilled in the art”.

Hence, it can be said that the definition of “inventive step” provides three salient features which are:

- a) Technical advance
- b) Economic significance, or both, and
- c) Non-obvious to the ordinary person skilled in the art.

The Patent Act refers to ‘inventive step’ and ‘not obvious’ to a person skilled in the art. In other words, if it is established that the alleged invention is or was at the material date obvious, then it follows that it did not involve any inventive step.¹⁹

• **Inventive Step: Ground for revocation**

Apart from the presence of an inventive step being a necessary condition for patentability, a lack of inventive step is a valid ground for opposition under Section 25(1)(e) and 25(2)(e) and for revocation under section 64(1)(f) of the Act.²⁰

• **Essential Ingredients of “Inventive Step”**

Inventive step is the toughest and ambiguous patentability requirement. An invention should possess an inventive step in order to be eligible for patent protection.²¹ An invention will have inventive step only if it satisfies two conditions:

- a) The invention should be **technically advanced** in the light of the prior art or should have **economic significance**; and
- b) The invention should be **non-obvious** to a person with ordinary skill in the art in the light of prior art.²²

¹² D.P.Mittal, *Taxmann’s Indian Patent Law* 30 (Taxmann Allied Services (P.) Ltd., New Delhi, 1999).

¹³ Patents Act, 1970, Section-2(1)(ja).

¹⁴ *Id* at Section-2 (1)(j).

¹⁵ TRIPS art. 37.

¹⁶ *Supra* note 5 at 34-35.

¹⁷ *Bishwanath Prasad Radheyshyam v. Hindustan Metal Industries* AIR 1982 SC 1444.

¹⁸ *Supra* note 36 at 33.

¹⁹ *Supra* note 2 at 513-514.

²⁰ Rajan Mathew, Patentability Requirements in India, available at:

www.lakshmisri.com/uploads/mediatypes/documents/1&website_ipr_featured_ranjan.pdf. (last accessed on February 16, 2016).

²¹ *Supra* note 13 at 32.

²² *Supra* note 37.

• **Obviousness Approach**

The current understanding of the obviousness standard was incorporated in the Patent Act through the 2005 Amendment Act which came into effect retrospectively, from January 1, 2005.²³ Even though the term “obvious” has not been defined under the Patents Act, it can be safely stated to be a circumstance where a person of skill in the field, on going through the specification would complete the product. Therefore, even if any of the two ingredients²⁴ are available, if such person enables²⁵ a person of skill in the field, ongoing through the specification, to complete the product, such product can never be treated as an “inventive step” and consequently no patent can be validly issued. Therefore, it is clear that a patent must have the characters of novelty, non-obviousness and enablement and these ingredients must consecutively be present to have a valid patent.²⁶

• **Assessment of inventive step in “an invention”:** The test to ascertain whether an invention involves inventive step or not, is expressed in Halsbury Laws of England. Which in simpler words states: ‘would a non-inventive mind have thought of the alleged invention?’ If the answer is ‘no’ the invention is “non-obvious”. A two-pronged test may be adopted to ascertain whether an invention involves “an inventive step” which is: firstly, to ascertain what was the state of the art before the relevant date of complete specification filed pursuant to the application for a patent; and secondly, to ascertain whether the alleged inventive step would have been obvious to a person skilled in the art having regard to all existing state of the art.²⁷

The Manual of Patent Practice and Procedure provides for the approach of Indian Patent Office to assess whether an invention involves in it any inventive step or not. Section 3.14 titled ‘Determination of Inventive Step’ provides for the steps to assess the “inventive step” in any invention which are:

- a) Determining scope and content of the prior art;
- b) Assessing the technical result and economic significance achieved by the invention;
- c) Difference between the prior art and the alleged invention;
- d) Defining the technical problem to be solved as the object on invention to achieve the result; and
- e) Final determination of non-obviousness etc.

Hence, it is pertinent that the assessment of Inventive Step hinges on the “person ordinarily skilled in the art” which has been focussed by the definition provided by the Section 3.15 of the MOPP who is presumed to know: common general knowledge in the art at relevant date; average skill; and state of the art.²⁸

It can be seen that the “inventive step criterion” is often assessed along with novelty as it has been laid down in the case of *Bilcare Limited v. Amartara (P) Ltd.*²⁹

The Courts in India have through various decisions laid down some guidelines for determining non-obviousness of an invention.³⁰ Some of which are enumerated as follows:

• *Bishwanath Prasad Radhey Shyam v. Hindustan Metal Industries*³¹, the patent in the case related to a means for holding utensils for turning purposes. The validity of the patent was challenged on the ground of lack of novelty and inventive step. **The Court started its analysis of inventive step by stating that in order to be patentable, an improvement on something known before, or combination of different matters already known, should be something more than a mere workshop improvement, and must independently satisfy the test of invention or inventive step.** As per the Court, **an invention would have an inventive step if the combination of old known integers may be so combined that by their working inter-relation they produce a new process or improved result.** The Court then stated that an invention must not be the obvious or natural suggestion of what was previously known and if a person was able to make the invention based on the knowledge existing on the priority date, the invention would lack inventive step. After analysing the case the Court concluded that the invention lacked novelty and inventive step. This case is the most important case in “inventive step” jurisprudence in India.³²

• *F. Hoffman-La Roche Limited and Anr. v. Cipla Limited*³³, the Court **stated that the test of obviousness:** whether in the light of prior art, it was possible for a normal but unimaginative person skilled in the art to discern the inventive step of the invention on the basis of the general common knowledge of the art at the priority date; and whether the differences between the prior art would, without knowledge of the alleged invention, constitute steps which could have been obvious to the skilled man or whether they required any degree of invention. And if the answer is ‘yes’ then the invention is said to have an inventive step. The Court stated that the inventive step should be something that could not have been discernable to the unimaginative person skilled in the art and not something which was published in the prior art.³⁴

²³ Miriam Divya Williams and Dr. T.K.Bandhopadhyaya, *An Analysis of Obviousness Standard in Patent Law- US and Indian Perspective* (Rajiv Gandhi School of IP Law, IIT Kharagpur, Kharagpur).

²⁴ *Supra* note 37.

²⁵ Enablement is nothing but concept of putting novelty into action.

²⁶ Dr. Avtar Singh, *Intellectual Property Law* (Eastern Book Co., Lucknow, 1st edn. 2013).

²⁷ *Molnlycke A.B. v. Procter and Gamble* 1994 RPC 49; *Hoechst Celanese Corp. v. B.P.Chemicals* 1997 FSR 547.

²⁸ *Supra* note 47.

²⁹ *Bilcare Limited v. Amartara (P.) Ltd.* IA Nos. 10848/2006, 13971/2006 and 11160/2006 in CSOS No. 1847/2006.

³⁰ *Supra* note 13 at 32-33.

³¹ (1979)2 SCC 511; AIR 1982 SC 1444.

³² *Supra* note 13 at 33-35.

³³ 148(2008) DLT 598; MIPR 2008(2)35

³⁴ *Supra* note 13 at 37-38.

• *Bajaj Auto Limited v. TVS Motor Company Limited*³⁵, the Court pointed out that determination of novelty and inventive step was a mixed question of law and fact, and reiterated the decision of the Supreme Court in Bishwanath's case³⁶, which held that an invention would not be patentable if it was a mere workshop improvement.

NOTE: If the elements in the prior art can be combined by a person skilled in the art to make the invention without exercising inventive faculty or imagination, the invention would lack inventive step and will amount to **mosaicing**. Hence, an invention will have an inventive step only if the invention has technical advance or economic significance, and a person skilled in the art cannot make the invention after combining the prior art. The invention will be non-obvious if a person skilled in the art cannot think about the solution given by the invention in the light of prior art.³⁷

The subject-matter exclusions under Section 3 relate to the obviousness criteria and are often read together and it is said that Section 3 (d), (e), (f), (k) and (p) are aiding provisions to assess obviousness. Therefore, while considering "obviousness" standard in Indian context it must be read along with the subject matter exclusions in Section 3 of Patents Act 1970.³⁸ Conclusively it can be said that "inventive step determination is fraught with ambiguities and is not straightforward".³⁹

1. **Comparative overview of "obviousness approach":** The development of law regarding "inventive step" or "obviousness" started from a well known case of judicial activism⁴⁰, in which Court followed the "sweat of the brow" principle. The element of "obviousness" was analysed on the basis of PHOSITA.⁴¹ Hotchkiss posited the condition that 'a patentable invention evidences more ingenuity and skill than that possessed by an ordinary mechanic acquainted with the business, merely distinguished between new and useful innovations that were capable of sustaining a patent and those that were not.⁴² In the year 1941, US Supreme Court concluded in the case of *Cuno Eng'g Corp. v. Automatic Devices Corp*⁴³ concluded that to be patentable, an invention must "reveal the flash of creative genius, not merely the skill of the calling". This high standards of obviousness met severe resistance which can be seen in the case *re Shortell*⁴⁴ where the Court expressly interpreted the term "flash of genius" as to mean nothing more than the requirements of patentable inventions to involve more than the skill of the art to which it relates. The new Obviousness standard in the form of Section 103(a) of US Patent Act was truly interpreted for the first time in the case of *Graham v. John Deere*⁴⁵, and has stated a number of things that can be considered while determining whether something was obvious at the time of its invention and hence set out a tripartite test for the same:

- a) The scope and content of the prior art
- b) The differences between the prior art and the claimed invention
- c) The level of ordinary skill in the pertinent art.

In UK, criteria for determining "inventive step" or "non-obviousness" as a requirement for patentability is not very stringent. It has also been said that "inventive step is a leap forward from obviousness. The position of UK law is based on two landmark judgements which are namely as follows:

- a) ***Windsurfing International Corporation v. Tabur Marine, 1985.***, which lays down various steps for the assessment of "inventive step" in an invention:
 - i. identify inventive step
 - ii. analyse or assess from the angle of an unimaginative or normally skilled person,
 - iii. identify the difference between prior art and present art, and
 - iv. whether in the light of the prior art, he would have come out with the same step.

b) *Poggoli v. BDMD*

In the first case, various steps have been laid down to determine the "inventive step" and in the second case it has been laid down that, "even if something is already known, it cannot restrict the possibility of new invention".

CONCLUSION

After analysing the Indian scenario regarding the assessment of one of the patentability criteria, the criteria of "inventive step" in an invention, it can conclusively be said that India moved from technical point of view to the common sense point of view as it first analyses the "state of the art" and then considers whether there is any technical advance, or economic significance or both and then moves to assess the inventive step by looking it via "obviousness approach" that is whether that invention is obvious to the ordinary person who is skilled in the art or not.

USA, on the other hand start assessing the "inventive step" criteria from the common sense point of view that is the PHOSITA element which is followed by "flash of genius", then the assessment has been codified which has been followed by concept of

³⁵ (2009) 3 CTC 129.

³⁶ *Supra* note 41.

³⁷ *Supra* note 13 at 40.

³⁸ *Novartis A.G. v. Union of India; Eli Lilly Canada Inc. v. Novopharm Ltd.* 2010 FCA 197 and *Sinclair and Carroll Co. v. Interchemical Corp.* 325 US 327, 65 USPQ 297 (1945).

³⁹ *Supra* note 13 at 39.

⁴⁰ *Hotchkiss v. Greenwood.*

⁴¹ Person having ordinary skill in the art.

⁴² *Supra* note 26 at 100.

⁴³ 314 US 84 (1941).

⁴⁴ *Re Shortell* 142 F.2d 292.

⁴⁵ 383 US 1 (1966).

“secondary considerations” which lead the progress towards “could-would approach” also known as “teaching-suggestion-modification approach”.

UK moving on completely different stream doesn't provide any stringent criteria for the assessment of “inventive step” as criteria for patentability.

Hence, it can be concluded with the opinion of the author that India is by far providing the most appropriate manner for the assessment of “inventive step”.

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