

Intellectual Property

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Chapter 1

Introduction

1.1 Concept of intellectual property

The concept of property was totally alien to the nomadic community. Later, they came to recognise movables and chattels as property. Craftsmen kept their profitable secrets to themselves for as long as they could, from the fear of being exploited. As science developed, the need for publication of knowledge became inevitable. This necessitated some form of protection to be given to the creator. Early inventions were the foundation for the development of modern technology. Industrial development can take place only through improvements in industrial techniques. Incentive for disclosure was the method for encouraging disclosure. Thus, scientific knowledge was transformed into a form of property.

The term "intellectual property" refers to a loose cluster of legal doctrines that regulates the use of different sorts of ideas and insignia. Intellectual property denotes the rights over a tangible object of the person whose mental efforts created it. There is no intellectual property in mere ideas. Only the particular expression of an idea is protected. Intellectual property provides rights of ownership in the product created by human intellect but not in the product itself. The fortunes of many businesses now depend heavily on intellectual property rights. Intellectual property rights grant the holder, the ability to stop others from doing something, a negative right, but not necessarily a right to do it himself, a positive right. But intellectual property also gives two different rights—one positive and one negative. The positive one is the right to do certain things in relation to the subject-matter, *i.e.* the owner of the right is entitled to exploit commercially the idea he expressed previously. The negative right entitles its

owner to prevent others from doing what his positive right permits him to do. The corollary of this right is the duty imposed on others to not to infringe rights of the owner. Subsequently, the owner of the right enjoys the privilege to exploit the idea in a monopoly position.

1.1.1 Legal status

Intellectual property refers to certain kinds of exclusive rights to intellectual capital, some forms of which can expire after a set period of time, and other forms of which can last indefinitely.

II

1.2 Common types of intellectual property

The most common forms of intellectual property are patents, copyrights, trade marks and trade secrets, apart from other forms of protection.

Patents give the holder an exclusive right to use and licence use of an invention for a certain period, typically 20 years.

Copyrights give the holder some exclusive rights to control some reproduction of works of authorship, such as books and music, for a certain period of time.

Trade marks are distinctive names, phrases or marks used to identify products to consumers.

Trade secrets, where a company keeps its information as secret. This is possible by enforcing a contract under which those given access to the information are not permitted to disclose it to others.

1.2.1 Intellectual property systems and net social benefits¹

The linkage between intellectual property rights and economic benefits to the society as a whole has traditionally followed the logic that intellectual property rights increase the innovators' ability to obtain returns from their intellectual labours; the resulting potential for increased private gains to the innovators, stimulates additional innovation. Additional benefits accrue to society as a whole because of increased innovation.

In *Mazer v. Stein*², the US Supreme Court stated this rationale as

The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in 'Science and the useful Arts'.

1. See generally, Catherine Colston, *Principles of Intellectual Property Law* (Cavendish Publishing Ltd., 1999).

2. 98 L Ed 630; 347 US 201, 219 (1954).

Public goods and the underlying rationale for granting rights

1.2.2

In economic terms, a public good is one that has the property of non-exclusivity. Once the good has been produced, it is impossible to exclude any individual from benefiting from it, whether or not he or she pays. Individuals usually refrain from paying for the good in the hope of getting access as free riders. The inability to exclude free riders distorts market signals and results in inefficient allocation of resources. The establishment of a system of well-defined intellectual property rights can help alleviate this difficulty.

The framers of the US Constitution dealt with this market imperfection by giving the Congress power to grant copyrights and patents.

The Congress shall have power ... to promote the Progress of Science and useful Arts, by securing for limited times to Authors and Inventors the exclusive rights to their respective Writings and Discoveries.³

In granting a limited monopoly through patent, the government attempts to compensate for distortions arising from non-exclusivity. According to this rationale, without the counterbalancing grants of monopoly power bestowed through patent, the inability of inventors to appropriate economic returns from their labours would result in the underproduction of new works and inventions.

Economic theory typically suggests that a free market with no intellectual property rights will lead to too little production of intellectual works. Thus, by increasing rewards for inventors and other producers of intellectual capital, overall efficiency might be improved. On the other hand, intellectual property law could in some circumstances lead to increased transaction costs that outweigh these gains.

Technological innovation, science and creative activity are recognised as important sources of material progress and welfare. However, despite the important scientific and technological advances and promises of the 20th and early 21st centuries in many areas, a significant "knowledge gap" as well as a "digital" divide continue to separate the wealthy nations from the poor. In this context, the impact of intellectual property has been widely debated in the past years. Intellectual property protection is intended as an instrument to promote technological innovation, as well as the transfer and dissemination of technology. Intellectual property protection cannot be seen as an end in itself. The role of intellectual property and its impact on development must be carefully assessed on a case by case basis.⁴

3. US Constitution, Art. I, S. 8, cl. 8.

4. James Boyle, "WIPO and Intellectual Property Reform" (September 2004) 7(14) SEATINI BULLETIN, 5.

III

1.3 Theories of intellectual property⁵

The literature linking the patent system to economic theory is enormous.

The first approach is a natural theory of property, one which defends the claim, that natural facts determine what is property and who owns what. The second approach is in fact a broad class of theories that consider property as a social construction validated in terms of its instrumental capacity to produce or secure other ethical goals. The third approach is a labour theory that grounds property claims in productive activity.

1.3.1 Natural theory

It is possible to believe that certain things are naturally fit to become property, while others are not.

An element of natural property theory is one which treats all of nature as a heritage to be shared equally by all human beings. Burger J's majority opinion of the US Supreme Court decision in *Diamond v. M. Chakrabarty*⁶ appeals to such a view implicitly, holding that Chakrabarty deserved a patent for his bacterium because it was his own handiwork, and not "a manifestation of nature, free to all men and reserved exclusively to none".

The natural rights influence in the development of modern patent doctrine is encapsulated in Lord Ellenborough's decision in *Huddart v. Grimsbaw*⁷. In this dispute over a patent for a new form of manufacturing cables, Lord Ellenborough states:

An invention of this sort, and every other, through the medium of mechanism, there are some materials which are common, and cannot be supposed to be appropriated in the terms of any patent. There are common elementary materials to work with, in machinery, but it is the adoption of those materials, to the execution of any particular purpose, that constitutes the invention, and if the application of them be new; if the combination in its nature be essentially new; if it be productive of a new end, and beneficial to the public, it is that species of invention, which, protected by the king's patent, ought to continue to the person, the sole right of vending it, but if prior to the time of his obtaining a patent, any part of that, which is the substance of the invention has been communicated to the public in the shape of a specification of any other patent, or is a part of the service of the country, so as to be a known thing, in that case, he cannot claim the benefit of his patent; ... and if in stating the means necessary to the production of that end, he oversteps the right, and appropriates more than is his own, he cannot avail himself of the benefit of it.

5. See generally, Anthony D'Amato and Doris Estelle Long (Eds.), *International Intellectual Property Law* (1st Edn., Kluwer Law International, London 1997).

6. 65 L Ed 2d 144; 447 US 303 (1980).

7. Dav Pat Cas 265, 298 (KB 1803).

The structure of Lord Ellenborough's argument reflects the normative framework of Locke's labour theory of property.

Locke's labour theory of property

Another approach that currently dominates the theoretical literature springs from the propositions that a person who labours upon resources that are either not owned or "held in common", has a natural property right to the fruits of his or her efforts, and that the State has a duty to respect and enforce that natural right. These ideas, originating in the writings of John Locke, are widely thought to be especially applicable to the field of intellectual property.

The core of Locke's labour theory of property is presented in Chapter V, "Of Property", in the Second Treatise of the two treatises of government.

Though the earth, and all inferior creatures be common to all men, yet every man has a property in his own person: this no body has any right to but himself. The labour of his body, and the work of his hands, we may say, are properly his. Whatsoever then he removes out of the state that nature hath provided, and left it in, he hath mixed his labour with, and joined to it something that is his own, and thereby makes it his property. It being by him removed from the common state nature hath placed it in, it hath by this labour something annexed to it, that excludes the common right of other men: for this labour being the unquestionable property of the labourer, no man but he can have a right to what that is once joined to, at least where there is enough, and as good, left in common for others.

The raw material is deemed to be held in common and the labour contributes to the value of finished products. The labour theory of property holds that a person's productive work is the basis for a property claim. People are entitled to claim what they make or create as their own. The mere act of discovery does not establish a property claim, but the appropriation of the discovered goods to some further purpose does imply some element of labour.

There are many difficulties in applying the general theories to intellectual property. This is true in the efforts to apply labour theory to intellectual property. An answer to the problem is found in the Second Treatise. Locke states:

Intuitions regarding self-ownership point in the direction of appropriating the fruits of one's labour. Each person plainly has a property in his own person, including the labour of his body, and the work of his hands. It seems only natural that whatever he mixes that labour with should belong to him as well. Most of the value of the things useful to men derives not from the value of the raw materials from which they are made, but from the labour expended on them.

1.3.2

As the crux of the matter, the Second Treatise would seem to provide strong support for most forms of intellectual property. According to this view, intellectual property permits to reward the creator for his work in order to encourage him in his innovative work, he will be more inspired to produce and more willing to make his work available to the public. This establishes a labour criterion of property, whereby individuals may claim property in all goods they appropriate from the state of nature through the work of their hands.

The labour theory has a seam with regard to intellectual property. While the intellectual labourer is as entitled to own the immediate fruits of his or her labour as any other, this entitlement does not establish the terms on which publication will take place. In a totally *laissez-faire* system, such terms would presumably be negotiated between the intellectual labourer and others desiring the intellectual good.

Locke further emphasises that in the state of nature, there is no positive law parcelling out ownership or giving any particular person that right to command anyone else. There are, however, moral duties that constrain persons' behaviour towards each other. All persons have a duty, not to harm others, except in some cases of extreme need. All individuals have many rights. Some we possess by virtue of what we do, and some we possess by virtue of our humanity.

The essential logic of Locke's labour theory of property is

Labour is mine and when I appropriate objects from the common I join my labour to them. If you take the objects I have gathered you have also taken my labour, since I have attached my labour to the objects in question. This harms me, and you should not harm me. You therefore have a duty to leave these objects alone. Therefore I have property in the objects.

The requirement of novelty easily fits into the Lockean moral and political schema that maintains that an individual's right to his property is grounded in the labour that begets property itself.

1.3.3 Utilitarian guidelines

The most popular of the familiar utilitarian guidelines that lawmakers' beacon when shaping property rights should be the maximisation of net social welfare. Pursuit of that end in the context of intellectual property requires lawmakers to strike an optimal balance between, on one hand, the power of exclusive rights to stimulate the creation of inventions and, on the other, the partially offsetting tendency of such rights to curtail widespread public enjoyment of those creations. The first task in developing a utilitarian theory of intellectual property is translating the Benthamite ideal of the "greatest good of the greatest number" into a more precise and administrable standard.

The concept of utilitarian guideline has been transposed to copyright law by William Landes and Richard Posner. According to them consumption of a copyrighted work does not reduce the enjoyment by one due to the enjoyment by another.⁸ The theory also provides an answer to the financial loss suffered by the copyright holder due to the use by the copyrighted material without permission of the holder of the right. Licensing arrangements are argued by Landes and Posner as the solution to this problem. They also argue that trade marks reduce consumer search cost and is a utilitarian proposition from the viewpoint of the consumer.⁹

Monopoly was considered as spurring innovation. Though Adam Smith was in general opposed to the theory of monopoly, he supported limited monopoly for promoting innovation.¹⁰ Jeremy Bentham had also supported the utilitarian concept of intellectual property rights and also argued that innovators incur fixed cost which has to be recouped in the absence of which innovation will be deterred.¹¹

Hegelian philosophy

The premise of the Hegelian approach, derived from the writings of Kant and Hegel, is that private property rights are crucial to the satisfaction of some fundamental human needs. Intellectual property rights may be justified on the ground that they create social and economic conditions conducive to creative intellectual activity, which in turn is important to human flourishing.

Individual's will was considered as the most important value in the existence of an individual. According to Hegel, the will depends on the personality of an individual. Hegelian theory can also be called as personality theory.

Intellectual property is the personification of the personality of an individual. The expression of an idea; a novel invention are all such personifications. The Hegelian theory thus supports the basic presumption of personality of an individual. The notion of moral rights in copyright, namely paternity right, integrity right, attribution right, etc., point to the personality of an individual and aptly supports the Hegelian philosophy.

Immanuel Kant also maintained a natural obligation to respect the ownership of an author's work.

Incentive theory

The incentive theory is well illustrated by William Nordhaus' classic treatment of patent law.

8. William Landes and Richard Posner, "An Economic Analysis of Copyright Law" (1989) 18 *Journal of Legal Studies* 325.

9. *Ibid.*, 265.

10. Adam Smith (1776), *The Wealth of Nations* in E. Cannan (Ed.), (Oxford, Clarendon 1976), 277-78.

11. Jeremy Bentham, *A Manual of Political Economy* (New York, G.P. Putnam 1839) 71.

1.3.4

1.3.5

Nordhaus was primarily concerned with determining the optimal duration of a patent, but his analysis can be applied more generally. Each increase in the duration or strength of patents, stimulates an increase in inventive activity. Social welfare is reduced by such things as larger administrative costs and larger deadweight losses associated with the higher prices of intellectual products that would have been created even in the absence of the enhanced incentive. Ideally, patent duration or strength should be increased up to the point where the marginal benefits equal the marginal costs.

1.3.6 *Incentive to invent theory*

In analysing how patents promote scientific progress, the courts have emphasised two mechanisms: *first*, the prospect of obtaining a patent monopoly provides an incentive to invest in research to make new inventions; and *second*, the patent system promotes disclosure of new inventions and thereby, enlarges the public storehouse of knowledge. The incentive to invent theory holds that too few inventions will be made in the absence of patent protection because inventions once made are easily appropriated by competitors of the original inventor who have not shared in the costs of invention. If successful inventions are quickly imitated by free riders, competition will drive prices down to a point where the inventor receives no return on the original investment in research and development. Patents serve to bring the private benefits of inventions in line with their social values by allowing inventors to use their monopoly positions to extract a price.

1.3.7 *Incentive to innovate theory*

Although, courts have relied primarily on the incentive to invest and the incentive to disclose arguments in support of the patent system, there is an additional argument that a patent monopoly is necessary to induce firms to invest in innovation, *i.e.* putting existing inventions to practical use. Even after an invention has been made, considerable further investment, research and development, and to bring it into large-scale production is often necessary before it is ready for commercial exploitation. The protection of a patent monopoly enhances the likelihood that a firm will be willing to undertake these investments.

The incentive to innovate theory holds that the patent system achieves its objectives by offering monopoly profits as a lure to promote innovation. Both the incentive to invest and the incentive to disclose theories are concerned with incentive that operates before a patent issues. By contrast, the incentive to innovate theory gives existing patents an ongoing role in preserving the incentives of patent holders to invest in development during the patent term.

Reward theory

John Stuart Mill argued for a reward to the inventor and considered patent system as a limited monopoly that rewarded the inventor depending on the utility of the invention to the consumer.

1.3.8

Schumpeterian theory

The Schumpeterian thesis that monopolies are conducive to innovation is generally associated with the work of Joseph Schumpeter on economic development. While Schumpeter does not focus exclusively on either technological innovations or the patent system, his analysis suggests how patent monopolies might promote technological innovation. He emphatically distinguishes innovation from invention, noting that invention itself produces "no economically relevant effect at all". Innovation, on the other hand, brings about incessant revolutionary changes in the economic system through what Schumpeter calls "a process of creative destruction". In this process, new firms continually arise to carry out new innovations, driving out old firms that provide obsolete goods and service. Competition from new commodities and new technologies is far more significant in this model than price competition among firms offering similar goods and services.

1.3.9

Prospect theory

Edmund Kitch offers a more elaborate analysis of the role of patents in post-invention innovation in what he calls the "prospect theory" of patent protection. According to this theory, the patent system promotes efficiency in the allocation of resources to the development of existing inventions by awarding exclusive, publicly recorded ownership of new technological prospects shortly after their discovery.

1.3.10

Kitch asserts that the patent monopoly is generally not limited to the primitive version of the invention described in the patent application but extends to subsequent refinements as well. Subsequent improved versions of the invention falling within the scope of the patent claims and newly discovered uses for the invention, although the product of further research by others, will still be subject to the control of the patent holder until the patent expires. The patent holder will, therefore, stand to benefit from subsequent research to improve the invention, while other researchers will have little incentive to pursue further research on a patented invention without first arranging for a licence to the underlying patent. Kitch argues that taken together, these features of the patent system tend to promote control over subsequent research on patented inventions by patent holders and their licences, and that such control promotes efficiency.

In dealing with a patent case, a court anywhere in the world would like to examine the policy reasons for protecting patents. These policy reasons can be grouped under the various theories.

IV

1.4 Economic benefits of intellectual property

Intellectual property right is the government's attempt to encourage creative output by ensuring creators certain rights that limit or control the use of their inventions by others. Intellectual property system has been termed as one of the cornerstones of modern economic policy. Intellectual property deals with creations of human intellect. Confidence in intellectual property protection is a powerful stimulus to innovation. The protection of intellectual property rights enables countries to participate in international trade. Intellectual property has acquired increased prominence at both national and international levels.

The existence of a patent system reduces the uncertainty that inevitably surrounds inventive activity. Without a patent system, there is not only technological uncertainty, but also uncertainty about whether the firm can appropriate and licence the invention. A patent system is alleged to reduce the second kind of uncertainty. The prospect of obtaining a monopoly provides an incentive to invest in research to make new inventions. Disclosure and dissemination of the new knowledge enlarges the public storehouse of knowledge.¹² The concept of diminishing marginal utility is applicable to knowledge. The utility of the knowledge tends to decrease as you consume more of it. New knowledge is precious for the first time, but its utility decreases in subsequent uses. Hence, until some form of protection is given to knowledge, there will be no value in it.¹³

The patent system seeks to protect novel inventions. Inventions to be patentable must be new, non-obvious and capable of industrial application. In order to obtain protection, the inventor has to disclose the invention and also describe the method of performing it. Patent protection will be granted only if the disclosure is enabling.¹⁴ The issuance of a patent creates a legal situation in which the patented invention can be exploited only with the consent of the patent holder. While the protection is limited in time, disclosure is an important source of information. Effective use of this documentation is an aid in the transfer of technology. The technology disclosed serves to stimulate ideas for further invention and innovation. The economic value of patent information is that it provides industry with technological information that can be used for commercial purposes. Creation of new inventions requires substantial investment in terms of time, skill, material resources and funding. Obtaining exclusive rights in respect of an invention through a patent provides the successful inventor with a chance of recouping the investment. Technological pro-

12. Incentive Theory.

13. For a detailed study, see, Paul A. Samuelson and William D. Nordhaus, *Economics* (McGraw Hill International).

14. European Patent Convention (EPC), Art. 83; Indian Patents Act, S. 10.

gress is an important means of attaining economic growth. Patent system with the wealth of technological information is an important resource in technological development. An essential rationale of the patent system is to provide the necessary incentive for the creation of new technology. The value of the patent system is demonstrated by the fact that in almost all advanced countries, the number of patents granted has shown substantial increase.

The patent system is there to provide a research and investment incentive but it has a price. That price (what economists call "transaction costs") is paid in a host of ways—the costs of patenting, the impediment to competition, the compliance cost of ensuring non-infringement, the cost of uncertainty, litigation costs and so on. If the encouragement of patenting and of patent litigation as industries in themselves were a purpose of the patent system, then the case for construing the categories narrowly (and indeed for removing them) is made out. But not otherwise.¹⁵

The economic literature concerning patents has recognised a wide range of advantages and disadvantages stemming from their existence. Even those who believe an invention to have an element of spontaneity, accept that the expense of innovation in a risky world can justify the granting of a temporary monopoly for protection from imitation. Moreover, the very fact that a patent has to be accompanied by a specification leads to dissemination of technical knowledge. This is a beneficial externality made available by the patent system and must be counted among its benefits. The objection that a temporary monopoly will result in a price greater than marginal cost has not much force as the product concerned would, but for the existence of the patent system, not otherwise, have been available at all. The monopoly is only temporary, and the knowledge on which it is based is made public. After expiry of the period of protection, the knowledge becomes public property. The temporary monopoly itself provides supernormal profits which can be used by the original patent holder as the basis for further product development expenditure.

Of particular importance is the idea that a patent system provides protection for small firms, yielding both bargaining counters and sources of royalties as well as protection from economically more muscular organisations during the vital stage of market innovation.

V

Pinning down evolution

Intellectual property rights fall into different categories like patent, copyright, trade mark, etc. The Paris Convention and the Berne Conventions are attempts at international level for protection of patents and copyright.

15. *Aerotel Ltd. v. Telco Holdings Ltd.*, 2006 EWCA Civ 1371; 2007 RPC 7.

Madrid Convention is the international Convention to protect trade marks.

The Paris Convention established many fundamental principles like national treatment, the right of priority and the guarantee of a certain minimum protection. The nationals of a country belonging to the Convention must enjoy in other countries of the Convention, the same rights with regard to intellectual property as their own nationals.¹⁶ The national treatment rule guarantees that not only foreigners will be protected, but also, they will not be discriminated against. Article 2(3) states an exception to the national treatment rule. The national law relating to judicial and administrative procedure, to jurisdiction and to requirements of a mere procedural nature is expressly reserved and special condition may be imposed on foreigners. The Convention also provides for the application of the national treatment rule to nationals of non-member countries, if they are domiciled or have an industrial or commercial establishment in a member country.

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Berne Convention for the protection of Literary and Artistic works laid down standards for the protection of literary and artistic works and defined them.¹⁷ The Berne Convention also guarantees authors in respect of works for which they are protected under the Convention, in countries of the Union other than the country of origin, the rights which their respective laws grant to their nationals, as well as the rights specially

16. Paris Convention, Art. 2.

17. Berne Convention, Art. 2 (1), reads:

The expression 'literary and artistic works' shall include every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression, such as books, pamphlets and other writings; lectures, addresses, sermons and other works of the same nature; dramatic or dramatico-musical works; choreographic works and entertainments in dumb show; musical compositions with or without words; cinematographic works to which are assimilated works expressed by a process analogous to cinematography; works of drawing, painting, architecture, sculpture, engraving and lithography; photographic works to which are assimilated works expressed by a process analogous to photography; works of applied art; illustrations, maps, plans, sketches and three-dimensional works relative to geography, topography, architecture or science.

granted by this Convention.¹⁸ Moral rights are granted by the Berne Convention apart from the economic rights.¹⁹

VI

Negotiating TRIPS

TRIPS is an international agreement and establishes minimum standards that require member countries to provide strong intellectual property protection in their domestic law.²⁰ The evolution of TRIPS Agreement can be traced to the GATT Agreement. Post World War II, there was a general consensus amongst countries to remove trade barriers that existed between countries. This desire found expression in the GATT Agreement. The GATT Agreement promulgated a new set of rules and relied on the principle of reciprocity. The Agreement also recognised the most favoured nation treatment principle, which means non-discrimination by importers across different foreign exporters. The fundamental concept of national treatment found in the Paris Convention is also a dominating feature of the GATT Agreement. The domestic laws of many countries were found to distort trade and the World Trade Organisation (WTO) was established in the Uruguay round of trade negotiations. The Uruguay round of negotiations for the first time brought intellectual property rights within the fold of GATT round of negotiations. WTO became effective on 1 January 1995. India also became a member of WTO. Most favoured nation treatment and the principle of national treatment were the fundamental principles of WTO. The TRIPS Agreement was one of the important Agreements of WTO and encompasses all fields of intellectual property rights like patent, copyright, trade mark, industrial design. The Agreement requires each member to accord to the nationals of other members treatment no less favourable than that it accords to its own nationals with regard to the protection of intellectual property.²¹ The most favoured nation treatment principle embodied in the Agreement requires members to grant with regard to the protection of intellectual property, any advantage, favour, privilege or immunity granted by the member to the nationals of any other country immediately and unconditionally to the nationals of all other members.²² The Agreement also calls for protecting computer programs as literary works under the Berne Convention.²³ Taking into account the interests of performers, producers of phonograms (sound recordings) and broadcasting organisations, the Agreement envisions levels of protection for them.²⁴

18. Berne Convention, Art. 5(1). 19. *Ibid.*, Art. 6bis.

20. TRIPS Agreement, Art. 1(1).

21. *Ibid.*, Art. 3.

22. *Ibid.*, Art. 4.

23. *Ibid.*, Art. 10.

24. *Ibid.*, Art. 14 reads:

1. In respect of a fixation of their performance on a phonogram, performers shall have the possibility of preventing the following acts when undertaken without their

As far as trade marks are concerned, the Agreement makes eligible for registration, personal names, letters, numerals, figurative elements and combinations of colours as well as any combination of such signs. Where signs are not inherently capable of distinguishing the relevant goods or services, members may make registrability depend on distinctiveness acquired through use. Members may require, as a condition of registration, that signs be visually perceptible.²⁵ The Agreement also lays down minimum standards for protecting geographical indication and industrial design.

The most important change which affected India due to the TRIPS Agreement was in the area of patents. The TRIPS Agreement mandates granting product patent protection.²⁶ India had to in consequence to this provision shift from process to product patent and amendments were

made to the Patent Act of India in 2002 and 2005 to comply with the requirements of the TRIPS Agreement. The ramifications of the TRIPS Agreement was also felt in the area of protecting plant varieties. The Agreement required members to provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof.²⁷ India legislated the Plant Varieties Protection and Farmers Rights Act, which was a *sui generis* legislation, the first of its kind granting rights to farmers.

1. Performers shall have the right to prevent the following acts when undertaken without their authorization: the broadcasting by wireless means and the communication to the public of their live performance.

2. Producers of phonograms shall enjoy the right to authorize or prohibit the direct or indirect reproduction of their phonograms.

3. Broadcasting organizations shall have the right to prohibit the following acts when undertaken without their authorization: the fixation, the reproduction of fixations, and the rebroadcasting by wireless means of broadcasts, as well as the communication to the public of television broadcasts of the same. Where Members do not grant such rights to broadcasting organizations, they shall provide owners of copyright in the subject matter of broadcasts with the possibility of preventing the above acts, subject to the provisions of the Berne Convention (1971).

4. The provisions of Article 11 in respect of computer programs shall apply *mutatis mutandis* to producers of phonograms and any other right holders in phonograms as determined in a Member's law. If on 15 April 1994 a Member has in force a system of equitable remuneration of right holders in respect of the rental of phonograms, it may maintain such system provided that the commercial rental of phonograms does not give rise to the material impairment of the exclusive rights of reproduction of right holders.

5. The term of the protection available under this Agreement to performers and producers of phonograms shall last at least until the end of a period of 50 years computed from the end of the calendar year in which the fixation was made or the performance took place. The term of protection granted pursuant to paragraph 3 shall last for at least 20 years from the end of the calendar year in which the broadcast took place.

6. Any Member may, in relation to the rights conferred under paragraphs 1, 2 and 3, provide for conditions, limitations, exceptions and reservations to the extent permitted by the Berne Convention. However, the provisions of Article 18 of the Berne Convention (1971) shall also apply, *mutatis mutandis*, to the rights of performers and producers of phonograms in phonograms.

²⁵ *Ibid.*, Art. 15.

²⁶ *Ibid.*, Art. 27(2).

Subject to the provisions of paragraphs 1 and 3, patents shall be available for any invention, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. Subject to the provisions of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced.

²⁷ *Ibid.*, Art. 27(2).

Chapter 2

Copyright

Background of copyright

Tracing history

Development

The copyright law in India is on close parallels with the history of British copyright law. In the ancient times, copying of a manuscript was a painstakingly slow process done mainly by monks and was limited to copying religious works for orders and the royal courts of Europe. The early writers authored works for fame. The scholars of Ancient Greece and the Roman Empire were the first to be concerned about being recognised as the authors of their works, but they were devoid of any economic rights.

With the advent of the printing press, the need for some form of protection arose. The Republic of Venice was the first to grant privilege to print books. The method, the government chose, was to establish a guild of private-sector censors, the London Company of Stationer. The Stationers were granted a royal monopoly over all printing in England, old works as well as new. No book could be printed until it was entered in the Company's Register, and no work could be added to the register until it had passed the Crown's censor, or had been self-censored by the Stationers.¹

Around the end of the 17th century, the government allowed the Stationers' monopoly to expire. The first recognisably modern copyright, the Statute of Anne, was passed in 1709 and took effect in 1710. This Act

1. Benjamin Kaplan, *An Unhurried View of Copyright* (Columbia University Press 1967) 4-5.

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CBS could not obtain copyright protection for the concept of reality programming, or the concept of voyeuristic reality programming. While the concept CBS attempts to protect is more concrete than these broad abstractions, it is still quite general and in any event consists of unprotectable elements.

The court held that the shows characters are “varied”; the dialogue is “improvised”; and, most tellingly, the shows are aimed at eliciting nearly every human emotion that one might expect to find in anything resembling the dramatic arts. The “drama” that occurs in the voyeuristic variant of reality television develops, by design, in an unpredictable way. Until the cameras begin to record, there is no plot, there is no dialogue, there is no pace or sequence of events, and there are no fixed characters because there is no author. There is a setting, which is hardly novel, and some general ideas regarding the structure of the show, but little else. The court was not persuaded by CBS’s argument that these elements, taken together and in combination, give rise to a finding of “substantial similarity”. CBS contends that Glass House’s wholesale borrowing of Big Brother’s constituent features “emulates the key expressive features of Big Brother—namely, an unscripted house reality competition show whose voyeuristic feel depends on minimal interaction between cast and production, and viewer and production.” That characterisation, however, still fails to identify the sort of concrete discernible and protectable “plot”, “themes”, or “dialogue” that might give rise to a finding of similarity. The court held that CBS cannot merely cobble together a series of structural and conceptual reality television “elements” having little, if anything to do with “specific details” or “concrete elements” of the artwork.

In order to find out similarity in two concepts what is to be seen is the substances, the foundation, the kernel and the test as to whether reproduction is substantial is to see if the rest can stand without it. If it cannot, then even if many dissimilarities exist in the rest, it would nonetheless be a substantial reproduction liable to be restrained.⁴⁰²

A television reality show “Swayamvar” providing a platform for match-making giving a choice to the bride with mediation of an anchor to choose a husband of a choice from a line-up of suitors in the presence of her parents in the studio was conceived. The concept of swayamvar as conceived by the plaintiff was found to be novel concept in original though capable of being protected. In this matter, the defendant also had a TV Reality Show “Subh Vivah” based on concept of spouse selection in any form so to depict match-making in the form of reality TV show as a real drama. It was held that the defendants were aware of the concept of Swayamvar and the concept developed and evolved by the plaintiff was the result of the work done by the plaintiff and if the defendant is allowed to show their own reality show based on the concept of originally conceived by

402. *Zee Telefilms Ltd. v. Sundial Communications (P) Ltd.*, (2003) 27 PTC 457 (Bom).

the plaintiff, it will be allowing the defendant to use that concept and to reap the fruits of the labour of the plaintiff and consequently it was held that the plaintiff has *prima facie* case pertaining to his TV reality show “Swayamvar” in his favour and the defendants were restrained from its own TV reality show “Shubh Vivah” and balance of convenience was also found to be in favour of the plaintiff leading to restraint against the defendants from transmitting or enabling the transmission by television of the programme entitled “Shubh Vivah”.⁴⁰³

In *Roadshow Films Pty Ltd. v. iiNet Ltd. (No. 3)*⁴⁰⁴, Roadshow was primarily concerned with the question of whether iiNet, one of the largest ISPs in Australia, authorised infringing acts of its subscribers if those subscribers, without the licence of the copyright owners, downloaded films protected by copyright. The claimants represented the major film studios in the US and Australia and brought these proceedings with the aim of preventing copyright infringement by means of a peer-to-peer system known as BitTorrent which was being used by some of iiNet’s subscribers. The BitTorrent system is an extremely powerful tool for the making of illicit copies because it allows a user to assemble a copy of a film by acquiring all its constituent parts from other users of the system. The judge recognised that infringement of the claimants’ works was occurring on a wide scale but dismissed the claim for three reasons: *first*, because the copyright infringements occurred directly as a result of the use of the BitTorrent system and iiNet did not control and was not responsible for the operation of that system; *second*, because iiNet did not have a relevant power to prevent those infringements occurring; and *third*, because iiNet did not sanction, approve or countenance copyright infringement; it had done no more than supply an internet service to its users.

XVI

Defences

Concurrent registration is not a valid defence for the infringement of copyright.⁴⁰⁵

2.16

Fair dealing

The doctrine of fair use or fair dealing is an integral part of copyright law. It permits the contours for reproduction of the copyrighted work without threat of infringement.

2.16.1

According to the Copyright Act prior to the amendment of 2012, the following acts shall not constitute an infringement of copyright, namely:—

403. *Anil Gupta v. Kunal Dasgupta*, AIR 2002 Del 379.

404. 2010 FCA 24.

405. *Hindustan Pencils (P) Ltd. v. Universal Trading Co.*, 2000 PTC 561 (Del).

- (a) a fair dealing with a literary, dramatic, musical or artistic work for the purposes of—
 - (i) research or private study;
 - (ii) criticism or review, whether of that work or of any other work;
- (b) a fair dealing with a literary, dramatic, musical or artistic work for the purpose of reporting current events—
 - (i) in a newspaper, magazine or similar periodical or
 - (ii) by broadcast or in a cinematograph film or by means of photographs.

The Copyright Amendment 2012 has extended the ambit of works which can be used for private and personal use by incorporating the words “any work”.

This allows for fair use defence to any works for the purposes of—

- (i) private or personal use, including research;
- (ii) criticism or review, whether of that work or of any other work;
- (iii) the reporting of current events and current affairs, including the reporting of a lecture delivered in public.

The amendment of Section 52(1)(a) has basically widened the reach of fair use provisions to cinematograph works as well.

The use of the words “any work in Section 52(1)(c) has been amended to provide fair dealing with any work, not being a computer programme, for the purposes of private and personal use. With this amendment, the fair use provision has been extended to cinematograph and musical works.

After the amendment of 2012, the reproduction of any work for the purpose of a judicial proceeding or for the purpose of a report of a judicial proceeding also falls within the sphere of fair use. The reproduction or publication of any work prepared by the Secretariat of a legislature or, where the legislature consists of two Houses, by the Secretariat of either House of the legislature, exclusively for the use of the members of that legislature is considered as fair use.

The making of a three-dimensional object from a two-dimensional artistic work, such as a technical drawing, for the purposes of industrial application of any purely functional part of a useful device shall be considered as fair use.⁴⁰⁶

406. Copyright Act, S. 52, reads:

52. *Certain acts not to be infringement of copyright.*—(1) The following acts shall not constitute an infringement of copyright, namely—

- (a) a fair dealing with any work, not being a computer programme, for the purposes of—
 - (i) private or personal use, including research;
 - (ii) criticism or review, whether of that work or of any other work;
 - (iii) the reporting of current events and current affairs, including the reporting of a lecture delivered in public.

Explanation.—The storing of any work in any electronic medium for the purposes mentioned in this clause, including the incidental storage of any computer programme which is not itself an infringing copy for the said purposes, shall not constitute infringement of copyright.

- (aa) the making of copies or adaptation of a computer programme by the lawful possessor of a copy of such computer programme, from such copy—
 - (i) in order to utilise the computer programme for the purpose for which it was supplied; or
 - (ii) to make back-up copies purely as a temporary protection against loss, destruction or damage in order only to utilise the computer programme for the purpose for which it was supplied;
- (ab) the doing of any act necessary to obtain information essential for operating interoperability of an independently created computer programme with other programmes by a lawful possessor of a computer programme provided that such information is not otherwise readily available;
- (ac) the observation, study or test of functioning of the computer programme in order to determine the ideas and principles which underline any elements of the programme while performing such acts necessary for the functions for which the computer programme was supplied;
- (ad) the making of copies or adaptation of the computer programme from a personally legally obtained copy for non-commercial personal use;
- (b) the transient or incidental storage of a work or performance purely in the technical process of electronic transmission or communication to the public;
- (c) transient or incidental storage of a work or performance for the purpose of providing electronic links, access or integration, where such links, access or integration has not been expressly prohibited by the right holder, unless the person responsible is aware or has reasonable grounds for believing that such storage is of an infringing copy:

Provided that if the person responsible for the storage of the copy has received a written complaint from the owner of copyright in the work, complaining that such transient or incidental storage is an infringement, such person responsible for the storage shall refrain from facilitating such access for a period of twenty-one days or till he receives an order from the competent court refraining from facilitating access and in case no such order is received before the expiry of such period of twenty-one days, he may continue to provide the facility of such access;

- (d) the reproduction of any work for the purpose of a judicial proceeding or for the purpose of a report of a judicial proceeding;
- (e) the reproduction or publication of any work prepared by the Secretariat of a Legislature or, where the Legislature consists of two Houses, by the Secretariat of either House of the Legislature, exclusively for the use of the members of that Legislature;”;
- (f) the reproduction of any work in a certified copy made or supplied in accordance with any law for the time being in force;
- (g) the reading or recitation in public of reasonable extracts from a published literary or dramatic work;
- (h) the publication in a collection, mainly composed of non-copyright matter, bona fide intended for instructional use, and so described in the title and in any advertisement issued by or on behalf of the publisher, of short passages from published literary or dramatic works, not themselves published for such use in which copyright subsists:

Provided that not more than two such passages from works by the same author are published by the same publisher during any period of five years.

Explanation.—In the case of a work of joint authorship, references in this clause to passages from works shall include references to passages from works by any one or more of the authors of those passages or by any one or more of those authors in collaboration with any other person;

- (i) the reproduction of any work—
- (i) by a teacher or a pupil in the course of instruction; or
 - (ii) as part of the questions to be answered in an examination; or
 - (iii) in answers to such questions;
- (j) the performance, in the course of the activities of an educational institution, of a literary, dramatic or musical work by the staff and students of the institution, or of a cinematograph film or a sound recording if the audience is limited to such staff and students, the parents and guardians of the students and persons connected with the activities of the institution or the communication to such an audience of a cinematograph film or sound recording;
- (k) the causing of a recording to be heard in public by utilising it,—
- (i) in an enclosed room or hall meant for the common use of residents in any residential premises (not being a hotel or similar commercial establishment) as part of the amenities provided exclusively or mainly for residents therein; or
 - (ii) as part of the activities of a club or similar organisation which is not established or conducted for profit;
- (l) the performance of a literary, dramatic or musical work by an amateur club or society, if the performance is given to a non-paying audience, or for the benefit of a religious institution;
- (m) the reproduction in a newspaper, magazine or other periodical of an article on current economic, political, social or religious topics, unless the author of such article has expressly reserved to himself the right of such reproduction;
- (n) the storing of a work in any medium by electronic means by a non-commercial public library, for preservation if the library already possesses a non-digital copy of the work;
- (o) the making of not more than three copies of a book (including a pamphlet, sheet of music, map, chart or plan) by or under the direction of the person in charge of a non-commercial public library for the use of the library if such book is not available for sale in India;
- (p) the reproduction, for the purpose of research or private study or with a view to publication, of an unpublished literary, dramatic or musical work kept in a library, museum or other institution to which the public has access :
 Provided that where the identity of the author of any such work, or, in the case of a work of joint authorship, of any of the authors is known to the library, museum or other institution, as the case may be, the provisions of this clause shall apply only if such reproduction is made at a time more than sixty years from the date of the death of the author or, in the case of a work of joint authorship, from the death of the author whose identity is known or, if the identity of more authors than one is known from the death of such of those authors who dies last;
- (q) the reproduction or publication of—
- (i) any matter which has been published in any Official Gazette except an Act of a Legislature;
 - (ii) any Act of a Legislature subject to the condition that such Act is reproduced or published together with any commentary thereon or any other original matter;
 - (iii) the report of any committee, commission, council, board or other like body appointed by the Government if such report has been laid on the Table of Legislature, unless the reproduction or publication of such report is prohibited by the Government;
 - (iv) any judgment or order of a court, tribunal or other judicial authority, unless the reproduction or publication of such judgment or order is prohibited by the court, the tribunal or other judicial authority, as the case may be;
- (r) the production or publication of a translation in any Indian language of an Act of a Legislature and of any rules or orders made thereunder—

- (i) if no translation of such Act or rules or orders in that language has previously been produced or published by the Government; or
- (ii) where a translation of such Act or rules or orders in that language has been produced or published by the Government if the translation is not available for sale to the public:
 Provided that such translation contains a statement at a prominent place to the effect that the translation has not been authorised or accepted as authentic by the Government;
- (s) the making or publishing of a painting, drawing, engraving or photograph of a work of architecture or the display of a work of architecture;
- (t) the making or publishing of a painting, drawing, engraving or photograph of a sculpture, or other artistic work falling under sub-clause (iii) of clause (e) of Section 2, if such work is permanently situate in a public place or any premises to which the public has access;
- (u) the inclusion in a cinematograph film of—
- (i) any artistic work permanently situate in a public place or any premises to which the public has access; or
 - (ii) any other artistic work, if such inclusion is only by way of background or is otherwise incidental to the principal matters represented in the film;
- (v) the use by the author of an artistic work where the author of such work is not the owner of the copyright therein, of any mould, cast, sketch, plan, model or study made by him for the purpose of the work:
 Provided that he does not thereby repeat or imitate the main design of the work;
- (w) the making of a three-dimensional object from a two-dimensional artistic work, such as a technical drawing, for the purposes of industrial application of any purely functional part of a useful device;
- (x) the reconstruction of a building or structure in accordance with the architectural drawings or plans by reference to which the building or structure was originally constructed:
 Provided that the original construction was made with the consent or licence of the owner of the copyright in such drawings and plans;
- (y) in relation to a literary, dramatic, artistic or musical work recorded or reproduced in any cinematograph film, the exhibition of such film after the expiration of the term of copyright therein :
 Provided that provisions of sub-clause (ii) of clause (a), sub-clause (i) of clause (b) and clauses (d), (f), (g), (m), and (p) shall not apply as respects any act unless that act is accompanied by an acknowledgment—
- (i) identifying the work by its title or other description; and
 - (ii) unless the work is anonymous or the author of the work has previously agreed or required that no acknowledgment of his name should be made, also identifying the author;
- (z) the making of an ephemeral recording, by a broadcasting organisation using its own facilities for its own broadcast by a broadcasting organisation of a work which it has the right to broadcast; and the retention of such recording for archival purposes on the ground of its exceptional documentary character;
- (zb) the performance of a literary, dramatic or musical work or the communication to the public of such work or of a sound recording in the course of any bona fide religious ceremony or an official ceremony held by the Central Government or the State Government or any local authority.
Explanation.—For the purpose of this clause, religious ceremony includes a marriage procession and other social festivities associated with a marriage.
- (zb) the adaptation, reproduction, issue of copies or communication to the public of any work in any accessible format, by—
- (i) any person to facilitate persons with disability to access to works including sharing with any person with disability of such accessible format for private or personal use, educational purpose or research; or

The publication of a compilation of addresses or speeches delivered in public is not a fair dealing of such work within the meaning of this clause.⁴⁰⁷

In deciding the question of fair use, courts should look to the nature and objects of the selections made, the quantity and value of the materials used, and the degree in which the use may prejudice the sale, or diminish the profits, or supersede the objects, of the original work.⁴⁰⁸

The crucial test, the four-factor test, as developed by the American courts, is the transformative character of the use. The courts should ask whether the purpose served by the infringing work is substantially different from the purpose served by the prior work. The subsequent work must be different in character; it must not be a mere substitute, in that, it is not sufficient that only superficial changes are made, the basic character remaining the same, to be called transformative. This determination, according to the court is closely knit with the other three factors, and therefore, central to the determination of fair use. If the work is transformative, then it might not matter that the copying is whole or substantial. Again, if it is transformative, it may not act as a market substitute and consequently, will not affect the market share of the prior work.⁴⁰⁹

The breadth of the fair use doctrine use was put to test in *Harper Row Publishers Inc. v. Nation Enterprises*⁴¹⁰. Harper had contracted to publish President Ford's memoirs. In exchange for \$25,000, Harper allowed *Time*

(ii) any organisation working for the benefit of the persons with disabilities in case the normal format prevents the enjoyment of such works by such persons:

Provided that the copies of the works in such accessible format are made available to the persons with disabilities on a non-profit basis but to recover only the cost of production:

Provided further that the organisation shall ensure that the copies of works in such accessible format are used only by persons with disabilities and takes reasonable steps to prevent its entry into ordinary channels of business.

Explanation.—For the purposes of this sub-clause, “any organisation” includes an organisation registered under Section 12-A of the Income Tax Act, 1961 (43 of 1961) and working for the benefit of persons with disability or recognised under Chapter X of the Persons with Disabilities (Equal Opportunities, Protection or Rights and Full Participation) Act, 1995 (1 of 1996) or receiving grants from the government for facilitating access to persons with disabilities or an educational institution or library or archives recognised by the Government.

(zc) the importation of copies of any literary or artistic work, such as labels, company logos or promotional or explanatory material, that is purely incidental to other goods or products being imported lawfully.

(2) The provisions of sub-section (1) shall apply to the doing of any act in relation to the translation of a literary, dramatic or musical work or the adaptation of a literary, dramatic, musical or artistic work as they apply in relation to the work itself.

407. Copyright Act, S. 52, *Explanation*.

408. *Folsom v. Marsh*, 9 F Cas 342 (CCD Mass 1841).

409. *Ibid.*

410. 85 L Ed 2d 588; 471 US 539, 556 (1985).

Magazine to extract 7500 word passage from the book, which dealt with the pardon to President Nixon. The Editor of *Nation* Magazine wrote an article relying on an unauthorised version of the memoir, which reproduced 300 to 400 words of the passage contracted to the *Time* Magazine. The article in *Nation* appeared before the article in *Times* and the latter refused to pay up the balance money to Harper. Harper brought an action for infringement of copyright, and *Nation* put up a fair use defence.

Reckoning with the *Nation's* argument that fair use could permissibly be made of President Ford's unpublished memoirs because the imminent publication demonstrated that the author has no interest in non-publication. The court said that the court underscored the idea that unpublished letters normally enjoy insulation from fair use copying under ordinary circumstances.

The court noted four factors as especially relevant in determining whether the use was fair. They were: 1) the purpose and character of the use; 2) the nature of the copyrighted work; 3) the substantiality of the portion used in relation to the copyrighted work as a whole; 4) the effect on the potential market for or value of the copyrighted work. The Harper Court while analysing the concept of fair use concluded that the fourth test namely the commercial use of the copyrighted material was the most important of all the tests to determine whether the use is fair use or not.

The issue whether the biographer of a renowned author has made “fair use” of unpublished letters was considered in *Salinger v. Random House*⁴¹¹.

An important source of material was several unpublished letters Salinger wrote. The letters were obtained by the biographer from a university library to which the representatives of the recipients of the letter had donated them. The letters has been close paraphrased. The court concluded that the biographer who copies only facts incurs no risk of an injunction. By rendering facts in his own words, the biographer is not distorting them. But if the biographer copies the letter writer's expression of facts and if he copies more than minimal amounts of unpublished expressive content, he will be enjoined. If he distorts the expressive content, he will be criticised for “sacrificing accuracy and vividness”. But the biographer has no inherent right to copy the “accuracy” or the “vividness” of the letter writer's expression. Indeed, “vividness of description” is precisely an attribute of the author's expression that he is entitled to protect. The court held that Salinger's letters are unpublished, and they have not lost that attribute by their placement in libraries where access has been explicitly made subject to observance of at least the protections of copyright law. While ruling that fair use defence is not applicable to the case, the court found all the Harper test to be satisfied in favour of Salinger.

411. 811 F 2d 90 (2nd Cir 1987).



US Supreme Court had observed in *Sony Corp. of America v. Universal City Studios Inc.*⁴¹², that “every commercial use of copyrighted material is presumptively an unfair exploitation of the monopoly privilege that belongs to the owner of the copyright”.

The appellant, in *Syndicate of the Press of The University of Cambridge v. B.D. Bhandari*⁴¹³, claimed that the respondent had infringed their copyright of two books titled “Oxford Mathematics Part A” and “Oxford Mathematics Part B” meant for the students of class XI following the course structure prescribed by the Jammu and Kashmir State Board of School Education. According to the appellant, the contents of the books of the respondents have been brazenly copied, reproduced and incorporated from the subject works. The infringing books copy in toto the exercises given in the subject works. The infringing works contain only those exercises and problems which are contained in the subject works and have been copiously copied therefrom. Neither do they bring any new problems/exercises in the infringing works, nor do they take the minimal effort of making ostensible changes in the order/arrangement of those problems and exercises.

The court found that the respondent’s work could be said to be “transformative” amounting to “review” under Section 52(1)(a)(ii), Copyright Act. In the context of a mathematical work, a review could involve re-examination or a treatise on the subject. In that sense, the defendants’ revisiting the questions, and assisting the students to solve them, by providing the “step by step” reasoning *prima facie* amounts to a review, thus falling within the “fair dealing” provision of Section 52(1)(a)(ii) of the Act.

It was also held that the appellant cannot claim copyright in the questions in the textbook as most of these questions are ad verbatim reproduction of other textbooks like R.D. Sharma, S. Chand Publication and Laxmi Publication. The respondents have been able to show that a large number of questions which were part of the appellant’s textbook, of which infringement was being claimed, were in fact, verbatim reproduction from other textbooks.

The boundaries of the fair use standard shifted with the decision in *Campbell v. Accuff-Rose Music Inc.*⁴¹⁴ The Supreme Court unanimously upheld the claim of the defendants that their parody to the plaintiff’s song “Oh, Pretty Woman” was covered by the fair use exception. The court held that all the traditional four factors employed to reach a conclusion of fair use are to be treated together, not in isolation and no undue preference can be given to any one of them. Discussing at length the first test for identifying fair use, it was held that the court must look into the nature of the use, i.e. whether it was for educational purposes or for review or

412. 78 L Ed 2d 574; 464 US 417 (1984).

413. (2005) 31 PTC 58 (Del).

414. 510 US 569 (1994).

criticism. The central enquiry is to see if the work merely supersedes and supplants the original work or instead adds something new. The question to be addressed would be “is there a value addition, which alters the original work in a not insignificant measure.”

Parody or satire, is when one artist, for comic effect or social commentary, closely imitates the style of another artist and in so doing creates a new art work that makes ridiculous the style and expression of the original. Parody and satire are valued forms of criticism, encouraged because this sort of criticism itself fosters the creativity protected by the copyright law.⁴¹⁵

A parody frequently needs to be more than a fleeting evocation of an original in order to make its humorous point.⁴¹⁶

A parody entitles its creator under the fair use doctrine to more extensive use of the copied work than is ordinarily allowed under the substantial similarity test.⁴¹⁷ This copyright infringement suit concerns a skit, shown on the television programme “Saturday Night Live”, poking fun at New York City’s public relations campaign and its theme song. In the four-minute skit the town fathers of Sodom discuss a plan to improve their city’s image. The satire ends with the singing of “I Love Sodom” to the tune of “I Love New York”. The parody did not make more extensive use of appellant’s song than was necessary to “conjure up” the original. A parody is entitled at least to “conjure up” the original. Even more extensive use would still be fair use, provided the parody builds upon the original, using the original as a known element of modern culture and contributing something new for humorous effect or commentary. It was concluded that the parody was protected fair use.

A parody will likely not affect the market for the original because the parody and original usually serve different market functions.⁴¹⁸ In *Leibovitz v. Paramount Pictures Corp.*⁴¹⁹, a film company parodied the iconic photograph of a pregnant Demi Moore, taken by Annie Leibowitz. The court held that fair use defence is available to the parody of the copyrighted photograph.

In the UK, in *Hubbard v. Vosper*⁴²⁰, the court while dealing with the question of what amounts to fair use observed that it is a question of degree to be determined on the basis of the number and extent of the quotations and extracts. If they are used as a basis for comment, criticism or review, that may be a fair dealing. If they are used to convey the same information as the author, for a rival purpose, that may be unfair.

415. *Warner Bros. Inc. v. American Broadcasting Co. Inc.*, 720 F 2d 231 (2d Cir 1983).

416. *Columbia Pictures Corp. v. National Broadcasting Co.*, 137 F Supp 348, 354 (SD Cal 1955).

417. *Elsmere Music Inc. v. National Broadcasting Co.*, 623 F 2d 252 (2d Cir 1980).

418. *Leibovitz v. Paramount Pictures Corp.*, 137 F 3d 109 (2d Cir 1998).

419. 137 F 3d 109 (2d Cir 1998).

420. (1972) 2 QB 84; (1972) 2 WLR 389; (1972) 1 All ER 1023 (CA).



CASE PILOT



CASE PILOT

The defence of fair dealing depends on three factors: 1) whether the alleged fair dealing is in commercial competition with the owner's exploitation of work/instance of the owner of the copyright; 2) whether the work/ performance has already been published or otherwise exposed to the public; and 3) the amount and importance of the work, copyright of which has been taken.⁴²¹

The use by Google of various keywords and thumbnails were held to be non-infringing and the US Court of Appeal of the 9th Circuit held as follows:

A work is transformative when the new work does not merely supersede the objectives of the original creation but rather adds something new, with a further purpose or different character, altering the first with new expression, meaning, or message.... As noted in Campbell, a transformative work is one that alters the original work with new expression, meaning, or message....⁴²²

It was concluded that the significantly transformative nature of Google's search engine, particularly in light of its public benefit, outweighs Google's superseding and commercial usages of the thumbnails in this case. The more transformative the new work, the less will be the significance of other factors, like commercialism, that may weigh against a finding of fair use.⁴²³

Reproduction of even literary work as part of questions to be answered in an examination or in answers to such question shall not constitute infringement of copyright.⁴²⁴ The defence of fair use as provided under Section 52(1)(i) of the Act is only available to the teacher and pupil to reproduce the literary work in the course of instructions or examination paper setter to reproduce the literary work as part of the questions or to the pupil to reproduce the literary work as answers to such questions.

A fair dealing with the literary work for the purpose of research or private study does not constitute infringement of copyright. The words "research or private study" have been substituted by the words "private use including research" by the Copyright (Amendment) Act, 1994. This was expanded in the 2012 Amendment to include personal use also. What is contemplated is a defence to the person conducting research or private study who while doing so, if dealing fairly with a literary work, may not incur wrath of the copyright having been infringed. But, if a publisher publishes a book for commercial exploitation and in doing so infringes a copyright, the defence under Section 52(1)(a)(i) would not be available

421. *Ashdown v. Telegraph Group Ltd.*, 2002 Ch 149; (2001) 3 WLR 1368; (2001) 4 All ER 666.

422. *Perfect 10 Inc. v. Amazon.com Inc.*, 508 F.3d 1146 (9th Cir 2007).

423. *Sony Corp. of America v. Universal City Studios Inc.*, 78 L. Ed. 2d 574; 464 US 417 (1984).

424. Copyright Act, S. 52(1)(b).

to such a publisher though the book published by him may be used or be meant for use in research or private study.⁴²⁵

Only so much of the work, as is absolutely necessary, can be used and no more. The literary, dramatic, musical or artistic works which are used, should have relevance to, and connection with the current event which is sought to be reported. Any such work, which is unrelated to the current event sought to be reported, cannot be made as an excuse to exploit the copyrighted work of another.

What Section 52(1)(a) permits is that any work may be reproduced without fear of infringement of copyright in such works, if such reproduction is a fair dealing of the copyright work in question, for the purpose of criticism or review.

In *ESPN Star Sports v. Global Broadcast News Ltd.*⁴²⁶ it was held that fair dealing is a question of fact and has to be determined on case by case basis. News channels are within their rights to reasonably use footage of cricket matches for programmes based on cricket or cricket matches.⁴²⁷

Prior to the 2012 Amendment, sound recordings and cinematograph films are not the subject-matter of fair dealing for the purpose of criticism or review under Section 52(1)(a), or the subject-matter of fair dealing for the purpose of reporting current events by broadcast under Section 52(1)(b).⁴²⁸

The question of fair dealing came up for consideration in *Civic Chandran v. Ammini Amma*⁴²⁹. The defendants had published a play "Ningal Are Communistakki", that was intended to be a critique of a famous play "Ningal Enne Communistakki". The court concluded that the play was meant to be a critique and, therefore, constituted fair dealing under Section 52. It observed that the latter work was not market competitor to the prior work, and by itself constituted a literary work with some amount of originality. The court further held that the nature of the work, that is to criticise the social structures in Kerala, by itself meant that certain sequences, events and incidents would be common to both the prior and the subsequent work, and that the latter was not meant to imitate the former.

In *Chancellor Masters and Scholars of the University of Oxford v. Narendera Publishing House*⁴³⁰ it was held that the doctrine of fair use legitimises the reproduction of a copyrightable work. Coupled with a limited copyright term, it guarantees not only a public pool of ideas and information, but also a vibrant public domain in expression, from which an individual can draw as well as replenish. Fair use provisions must be

425. *Rupendra Kashyap v. Jivan Publishing House*, (1996) 38 DRJ 81.

426. (2008) 38 PTC 477 (Del).

427. *Ibid.*

428. *Super Cassettes Industries v. Chintamani Rao*, (2012) 49 PTC 1 (Del).

429. (1996) 16 PTC 670 (Ker).

430. (2008) 38 PTC 385 (Del).



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interpreted so as to strike a balance between the exclusive rights granted to the copyright holder, and the often competing interest of enriching the public domain.

While determining fair use, the purpose for which a copyrightable material was used is considered.⁴³¹ The Apex Court also considered the opinion of the spectator or the reader after seeing or reading the works.⁴³² Other factors that are taken into account while determining fair use are the quantum and value of the matter taken and also the effect on the market share of the prior work.⁴³³

The making of an ephemeral recording, by a broadcasting organisation using its own facilities for its own broadcasting by a broadcasting organisation of a work which it has the right to broadcast; and the retention of such recording for archival purposes on the ground of its exceptional documentary character does not amount to infringement.⁴³⁴

2.16.2 *De minimis as a defence for infringement*

In the popular *Betamax case*⁴³⁵, the legal maxim *de minimis non curat lex* has been considered by highlighting that the little copying which had been done had caused no demonstrable harm to the right of the copyright owner.⁴³⁶ The appearance of the photographs of the plaintiffs inconspicuously in the background of the defendant's film was held as use qualifying for *de minimis* treatment.⁴³⁷

The need to apply *de minimis* as applied in the other areas of the law to the law of copyright, stands aptly described in the opinion reported on *On Davis v. Gap Inc.*⁴³⁸ in the following words:

Most honest citizens in the modern world frequently engage, without hesitation, in trivial copying that, but for the *de minimis* doctrine, would technically constitute a violation of law. We do not hesitate to make a photocopy of a letter from a friend to show another friend, or of a favourite cartoon to post on the refrigerator. Parents in Central Park photograph their children perched on Jose De Creft's Alice in Wonderland sculpture. We record television programmes aired while we are out, so as to watch them at a more convenient hour. Waiters at a restaurant sing 'Happy Birthday' at a patron's table. When we do such things, it is not that we are breaking the law but unlikely to be sued

431. *Blackwood & Sons Ltd. v. A.N. Parasuraman*, AIR 1959 Mad 410.

432. *R.G. Anand v. Delux Films*, (1978) 4 SCC 118; AIR 1978 SC 1613.

433. *Chancellor Masters and Scholars of the University of Oxford v. Narendera Publishing House*, (2008) 38 PTC 385 (Del).

434. Copyright Act, S. 52(2).

435. *Sony Corp. of America v. Universal City Studios Inc.*, 78 L Ed 2d 574; 464 US 417 (1984).

436. *Ibid.*

437. *Sandoval v. New Line Cinema Corp.*, 147 F 3d 215 (2d Cir 1998).

438. 246 F 3d 152 (2nd Cir 2001).

given the high cost of litigation. Because of the *de minimis* doctrine, in trivial instances of copying, we are in fact not breaking the law.⁴³⁹

In *India TV Independent News Service (P) Ltd. v. Yashraj Films (P) Ltd.*⁴⁴⁰ the court laid down the following factors commonly considered by courts in applying *de minimis*: 1) the size and type of the harm; 2) the cost of adjudication; 3) the purpose of the violated legal obligation; 4) the effect on the legal rights of third parties; and 5) the intent of the wrongdoer.

In an interview with the famous singer Vasundhara Das, in the natural setting of a chat show, she sang bits of nine songs and the singing duration was limited to a minute or so at a time. It was held to be a case of *de minimis* use and hence the appropriation of the lyrics would not constitute an actionable violation of the copyright in the sound recording. The court cautioned that if the programme has a very little chat and the major part is consumed by the performer singing, it may be a different situation inasmuch as it could then be said that the so called chat show is a ruse and the real intent is to broadcast the sound recording to the public. The facts of each chat show, its theme, its setting and the participation by the live audience at the show are all factors which have to be kept in mind.⁴⁴¹

First sale doctrine: Exhaustion of rights

The genesis of the principle of exhaustion of rights is based on the theory that the right holder can only control the first sale of the article and exercise the rights on the same and cannot complain of the infringement on each and every subsequent sale of the same. Exhaustion of rights is linked to the distribution right. The right to distribute objects means that such objects are released by or with the consent of the owner as a result of the transfer of ownership. Content-wise, the distribution rights are to be understood as an opportunity to provide the public with copies of a work and put them into circulation, as well as to control the way the copies are used. The exhaustion of rights principle thus limits the distribution right, by excluding control over the use of copies after they have been put into circulation for the first time.

The content of copyrights in respect of each nature of work, literary, dramatic, or musical work, on the one hand, computer program, artistic work, cinematograph film, etc., on the other are distinct. The phrase "copies in circulation" is used to limit the copyright owner's right to dictate further use of a literary, musical and dramatic work.⁴⁴² None of the owners of other classes of work are subject to that limitation. The

439. *On Davis v. Gap Inc.*, 246 F 3d 152 (2nd Cir 2001).

440. (2012) 192 DLT 502, available at <<http://lobis.nic.in/dhc/PNJ/judgement/21-08-2012/PNJ21082012FAOS5832011.pdf>>.

441. *Ibid.*

442. Copyright Act, S. 14(a)(ii).



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2.16.3



restriction of one class of copyright owner, structured in the statute serves a dual purpose—it limits the owner of that class of copyright; and at the same time leaves it open to the copyright owner of other kinds of work, to place such restrictions.

The High Court of Australia construed the Australian Copyright Act regarding importation of copyrighted work in *Time-Life International (Netherlands) v. Interstate Parcel Express Co. (P) Ltd.*⁴⁴³. The court held that an importer who purchased books in the US from the American licensee of the copyright infringed the Australian Act by importing the books into Australia without the licence of the Australian licensee. The importer argued that he had an implied licence to import and sell the books by reason of the sale in America in the ordinary course of business without any restriction upon resale. It was held that here was no licence, express or implied, that the buyer of a subject to copyright obtained rights no more and no less than the buyer of any other chattel, and that the rights which flowed from the acquisition of ownership and possession does not relieve any implied licence. The same view was taken by the Court of Appeal in England in *Polydor Ltd. v. Harlequin Record Shos. Ltd.*⁴⁴⁴.

Issue of copies for public distribution is publication. In *Penguin Books Ltd. v. India Book Distributors*⁴⁴⁵, the right of publication in India is given to Penguins under an exclusive licence. The importation, sale and public distribution of American editions constitute infringement of copyright of the exclusive licensee.

The court found that publication generally refers to issue to public and importation for the specified purpose is a necessary step in the process of issuing to the public, and, therefore, of publishing. The exclusive right of Penguins to print, publish and sell these titles in India would extend to the exclusive right to import copies into India for the purpose of selling or by way of trade offering or exposing for sale. It is an infringement of copyright knowingly to import into India for sale or hire infringing copies of a work without the consent of the owner of the copyright, though they may have been made with the consent of the owner of the copyright in the place where they were made.

Import of Britain published books from US without seeking licence from exclusive licensee amounts to infringement of copyright. The court held that an importer would be subject to the law of the particular country to which he happens to take the books. The importer cannot disregard the laws of other countries. American books cannot be sold into India so as to defeat the rights of the exclusive licensee.⁴⁴⁶

443. 1978 FSR 251.

444. 1980 FSR 362 (CA).

445. AIR 1985 Del 29; (1984) 26 DLT 316.

446. *Penguin Books Ltd. v. India Book Distributors*, AIR 1985 Del 29; (1984) 26 DLT 316.

In *John Wiley & Sons Inc. v. Prabhat Chander Kumar Jain*⁴⁴⁷, the owners of copyright in certain books had issued licences for low priced editions of the books for sale in the Indian market and certain territories. The licence agreement was subject to the territorial restriction. The defendant purchased the low priced edition which was meant for sale within the territories as specified in the licence agreement and sold said low priced books from the websites <www.alibris.com>, <www.biblio.com> to territories outside the prescribed ones on the book. The plaintiff's claimed that the said act of sale amounted to infringing the copyright of the plaintiffs. According to the defendant the principle of exhaustion of rights is applicable and so the sale by the defendants cannot be considered as infringing the rights of the plaintiff. The court found that the rights of the owner may be broader than the limited rights of the exclusive licensee. The rights of the owner and exclusive licensee may not be the same and the rights of the exclusive licensee shall also be subject to the fetters imposed by the agreement between the licensor and licensee. The acts of the defendants of purchase of the books from the exclusive licensees are legitimate in nature, but once the defendant offers for sale the books and puts them into circulation by selling or offering for sale or by taking orders for sale to the territories beyond the ones for which permission has been granted by the owners of the copyright, the said acts are *prima facie* tantamount to putting into circulation or issuance of copies not being in circulation in other territories where the right to do so is of the owner to exercise and violates the rights of the owner of the copyright under Section 14 read with Section 51 of the Act, if not the rights of the exclusive licensee. In other words, the said acts of selling the books from India or offering for sale from India through website and thereafter accepting the money and couriering the books to an unauthorised territory will violate the right of the owners of the copyright to issue the copies to the public not already in circulation and thus will infringe their copyright.

XVII

Remedies

Two kinds of remedies are made available in respect of infringement of copyright; one civil and the other criminal.

2.17

Civil remedies

Under Section 55, civil remedy is provided for infringement of copyright. The owner of the copyright shall be entitled to all such remedies by way of injunction, damages and accounts for the infringement of a right.

2.17.1

447. (2010) 170 DLT 701.

- *Canadian Shredded Wheat Co. Ltd. v. Kellogg Co. of Canada Ltd.*, AIR 1938 PC 143
- *Corn Products Refining Co. v. Shangrila Food Products Ltd.*, AIR 1960 SC 142: (1960) 1 SCR 968
- *Dhodha House v. S.K. Maingi*, (2006) 9 SCC 41: AIR 2006 SC 730: (2006) 32 PTC 1
- *Durga Dutt Sharma v. Navaratna Pharmaceuticals Laboratories*, AIR 1965 SC 980: (1965) 1 SCR 737
- *Erven Warnink Besloten Vennootschap v. J. Townend & Sons (Hull) Ltd.*, 1979 AC 731: (1979) 3 WLR 68: (1979) 2 All ER 927 (HL)
- *Harrods Ltd. v. Harroddian School Ltd.*, 1996 RPC 697
- *Honda Motors Co. Ltd. v. Charanjit Singh*, (2002) 101 DLT 359: (2003) 26 PTC 1
- *Kalpataru Properties (P) Ltd. v. Kalpataru Hospitality & Facility Management*, (2011) 48 PTC 135 (Bom)
- *Kellogg Co. v. National Biscuit Co.*, 83 L Ed 73: 305 US 111 (1938)
- *Marks & Spencer Plc. v. One in a Million Ltd.*, 1998 FSR 265
- *National Bell Co. v. Metal Goods Mfg. Co. (P) Ltd.*, (1970) 3 SCC 665: AIR 1971 SC 898

The following statutes from this chapter are available through EBC Explorer:

- Trade and Merchandise Marks Act, 1958
- Trade Marks Act, 1999



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Chapter 4

Patents

I

Early history

The history of intellectual property can be traced back to the ancient days when monopolies existed in the Byzantine Empire. Ancient Greece in the 7th century BC granted monopoly to cooks for one year to exploit new recipes. But a few centuries later, Roman emperor, Zeno, rejected the concept of monopoly. By 1432, the Senate of Venice enacted a statute providing exclusive privileges to those inventing any machine or process to speed up silk-making. This protection was soon extended to other devices. Any new idea thus introduced, started obtaining protection. The earliest of the legislation for the protection of intellectual property rights was in the area of patents. In 1474, the first ordinance in patent was voted by the Venetian Senate. Thus, it can be seen that the patent system has evolved over 500 years.

A patent is not, accurately speaking, a monopoly, for it is not created by the executive authority at the expense and to the prejudice of all the community except the grantee of the patent.¹ The term "monopoly" connotes the giving of an exclusive privilege for buying, selling, working, or using a thing which the public freely enjoyed prior to the grant. Thus, a monopoly takes something from the people. An inventor deprives the public of nothing which it enjoyed before his discovery, but gives something of value to the community by adding to the sum of human knowledge.² He may keep his invention secret and reap its fruits indefinitely. In consideration of its disclosure and the consequent benefit to the community,

1. *Seymour v. Osborne*, 20 L Ed 33: 78 US 516 (1870).

2. *United States v. American Bell Telephone Co.*, 42 L Ed 144: 167 US 224, 239 (1896).

the patent is granted. An exclusive enjoyment is guaranteed to him, but, upon the expiration of that period, the knowledge of the invention inures to the people, who are thus enabled without restriction to practice it and profit by its use.³

The system of patents is intended to strike a balance between the rights of the intellectual property holders and the public at large.

The existence of a patent system reduces the uncertainty that inevitably surrounds inventive activity. Without a patent system, there is not only technological uncertainty, but also uncertainty about whether the firm can appropriate and licence an invention. The economics of intellectual property concentrates on national grants of patent. Private incentives are expected to arise from the rights holders' limited monopoly power.

The patent system seeks to protect novel inventions. Inventions to be patentable must be new, non-obvious and capable of industrial application. The inventor, in order to obtain protection, has to disclose the invention and also describe the method of performing it. Patent protection will be granted only if the disclosure is enabling.⁴ The issuance of a patent creates a legal situation in which the patented invention can be exploited only with the consent of the patent holder. While the protection is limited in time, disclosure is an important source of information. Effective use of this documentation is an aid in the transfer of technology. The technology disclosed serves to stimulate ideas for further invention and innovation. The economic value of patent information is that it provides industry with technological information that can be used for commercial purposes. Creation of new inventions requires substantial investment in terms of time, skill, material resources and funding. Obtaining exclusive rights in respect of an invention through a patent provides the successful inventor with a chance of recouping the investment. Technological progress is an important means of attaining economic growth. Patent system with the wealth of technological information is an important resource in technological development. An essential rationale of the patent system is to provide the necessary incentive for the creation of new technology. The value of the patent system is demonstrated by the fact that in almost all advanced countries, the number of patents granted has shown substantial increase.

The patent system is there to provide a research and investment incentive but it has a price.

4.2 Birth of patents in United Kingdom⁵

The origins of patents for invention are obscure and no one country can claim to have been the first in the field with a patent system. However,

3. *Ibid.*

4. European Patent Convention, 1973, Art. 83; Indian Patents Act, S. 10.

5. See generally, William Aldous et al., *Terrell on the Law of Patents* (13th Edn., Sweet and Maxwell 1982).

Britain does have the longest continuous patent tradition in the world. Its origin can be traced back to the 15th century, when the Crown started making specific grants of privileges to manufacturers and traders.

The history of patents begin with royal grants by Queen Elizabeth for monopoly privileges that advanced her economic and industrial policies.

The term "patent" reveals that the origin of this legal device rests in the royal prerogative of granting letters patent.

The Crown's prerogative to issue letters patent was a central tool in bestowing privileges upon individuals. The issuance of letters patent was central to enticing tradesmen and industrialists to come to England. Beginning in the 14th century, King Edward III began issuing letters patent of protection for foreigners willing to come to England to train his subjects in their respective trades. The first such instance of a grant was in 1331 to John Kempe of Flanders.

The earliest known English patent for invention was granted by Henry VI to Flemish-born John of Utynam in 1449. The patent gave John a 20-year monopoly for a method of making stained glass, required for the windows of Eton College, that had not been previously known in England. It was not until the 16th century that the Crown began issuing letters patent to individuals for manufacturing monopolies within England. Edward VI granted the first such letters patent to Henry Smyth in 1552. The grant to Smyth required him 1) to bring to England the foreign trade of manufacturing "Normandy glass", 2) to benefit the overall realm by lowering prices and increasing the number of commodities, and 3) to train Englishmen in the production of "Normandy glass". In exchange for these commitments, Edward III granted Smyth a 20-year monopoly in which anyone who produced "Normandy glass" without his licence would do so under the threat of "pain or forfeiture".

*Darcy v. Allen*⁶ (*Darcy*), identified as the *Case of Monopolies* in Coke's Reports, came directly on the heels of an earlier compromise reached between Parliament and Queen Elizabeth in 1601. This was an action on the case brought by Edward Darcy against Thomas Allen for the infringement of a patent granted to one Ralph Bowes and his assigns, for the exclusive making and importing, and sale of playing cards during 12 years, and renewed for an additional 12 years to the plaintiff, evidently an assignee of Bowes. The playing card monopoly granted to Edward Darcy in 1598 provided for Darcy's complete monopolisation over all manufacture, importation and sales of playing cards.

The defendant argued that, as a citizen of London, he had a free right to trade in all merchantable things; and to this plea, the plaintiff demurred. The argument against the validity of the patent insists that the Crown has no power to grant such a patent, and refers to cases in which monopolies

6. (1602) 11 Co Rep 84b; 77 ER 1260.

of office, toll, etc., had been held void by the courts. It also denounces the patent as contrary to common right, destroying trade and labour, raising prices, and filling the market with inferior goods.

This case lays the groundwork for moving towards the evolution of patents away from being viewed as a monopoly grant under the royal prerogative to being viewed as grant of legal rights to inventors. The judges found, "such a charter of a monopoly, against the freedom of trade and traffic... against diverse Acts of Parliament... and is a monopoly against the common law".

If there was any doubt as to the holding of *Darcy*⁷, they were alleviated by the *Clothworkers of Ipswich case*⁸. It was held that if a man has brought in a new invention and a new trade within the kingdom, in peril of his life and consumption of his estate or stock, etc., in such cases the king can as a recompense of his costs and travail, may grant by charter unto him, that he only shall use such a trade or traffic for a certain time. But when that patent is expired, the king cannot make a new grant and the trade is considered as common. This judgment lays out doctrinal conditions for a valid grant of a letters patent.

Although *Darcy*⁹ declared a common-law limitation on the use of letters patent, King James continued to abuse the royal prerogative in issuing letters patent for monopolies. Parliament and the Crown, thus, came to loggerheads over monopoly patents again in the early 1620s. The result was that Parliament passed the Statute of Monopolies in 1623. The Statute of Monopolies has been regarded as the first and final source of authority on the subject of patents.

The Patents Act, 1977 replaces the old system of British patent law. The Act provides for patents to be granted by the European Patent Office (EPO). The legislation in force at present is the Patents Act, 1977. This was the most radical piece of patents legislation.

4.3 History of patents in India

The patent system in India emerged when India was a colony of the British and, therefore, the British used their own system as a drawing account while drafting the Indian Patents Act. The first Act for protection of inventions in India, i.e. Act VI of 1856 on protection of inventions, was based on the British Patent Law of 1852. Certain exclusive privileges were granted to the inventors of new manufacturers for a period of 14 years. The Act was modified in 1859 and certain exclusive privileges were granted to inventors for making, selling and using inventions in India, and authorising others to do so for 14 years from the date of filing specifications.

7. (1602) 11 Co Rep 84b: 77 ER 1260.

8. 1653 Godbolt 252: 78 ER 147.

9. (1602) 11 Co Rep 84b: 77 ER 1260.

The Patents and Designs Protection Act was enacted in 1872, and in 1883, the Protection of Inventions Act was enacted. Both the Acts were consolidated as the Inventions and Designs Act in 1888. The Indian Patents and Designs Act came into effect in 1911. After Independence, the national government decided to change the Colonial Patent Act amended in 1911. The study made by two committees headed by Bakshi Tek Chand and N. Rajagopala Ayyangar JJ led to the emergence of the new Patents Act. On 20 April 1972, the Indian Patents Act (Act 39 of 1970) came into force. The Indian Patents Act, 1970 was later amended in 1999, 2002 and 2005. The Patents (Amendment) Act, 2005 seeks to bring the Indian Patents Act in line with the Trade Related Intellectual Property Rights (TRIPS) Agreement.

International developments in patent protection¹⁰

Globalisation of trade and commerce has now given an international character to intellectual property. Before the existence of any international convention, it was difficult to obtain protection in many countries due to diversity in national laws. Globalisation necessitated harmonisation of industrial laws. The international character of intellectual property is recognised in the various international conventions like the Paris Convention, Berne Convention, Universal Copyright Convention, etc.

4.4

Paris Convention

The foundation for international patent protection was created in the late 19th century at various Congresses in Vienna and elsewhere, culminating in the Paris Convention of 1883 that provided inventors with a rational base for international patent protection. The Paris Convention is the starting point for a consideration of any intellectual property rights in virtually any part of the world. The original Paris Treaty from 1883 has been revised several times and today stands in the form of its 1967 Stockholm Revision.

4.4.1

The Paris Convention of 1883 is one of the most important legislations in the field of intellectual property rights. The Paris Convention established many fundamental principles like national treatment,¹¹ the right of priority¹² and the guarantee of a certain minimum protection. Most of the countries have been attracted to introduce patent system in the hope that it will act as a lure to foreign technology. This has induced them to open their system of filing foreign applications and the origin of the concept of national treatment can be traced to this logical need.

10. For a detailed study, see, Guy Tritton, *Intellectual Property in Europe* (Sweet and Maxwell, London 1996).

11. Paris Convention, Art. 2.

12. *Ibid.*, Art. 4.

The Paris Convention allows an applicant to obtain a priority date by filing an initial application, typically in the inventor's home country. The applicant may then file a patent application in any country bound by the Convention within 12 months and maintain the earlier priority date.¹³ Thus, the later applications enjoy a priority status with respect to all applications relating to the same invention filed after the date of the first application. The Paris Convention recognises expressly that the right of priority may be invoked by the successor-in-title of the first applicant.¹⁴

The issue of claiming priority was discussed in *Edwards Lifesciences AG v. Cook Biotech Inc.*¹⁵ The question that was considered was whether a Patent Cooperation Treaty (PCT) application would be entitled to priority of a US patent application, when the US patent application was filed by joint inventor and the subsequent PCT application was filed only by one of the inventors.

The PCT provides for claiming priority from earlier applications filed in any country that is a party to the Paris Convention for the Protection of Industrial Property. Article 4 of the Paris Convention specifies that a person is to enjoy a right of priority if he has filed a relevant application for a patent or if he is the successor-in-title to such a person. Further, any person wishing to take advantage of the priority of such a filing must be required to make an appropriate declaration. Both elements of Article 4 are reflected in Section 5, Patents Act which requires a declaration made by the applicant that complies with the relevant rules and specifies one or more earlier relevant applications made by the applicant or a predecessor-in-title.

The Chancery Division found that the effect of Article 4 of the Paris Convention and Section 5, Patents Act is that a person who files a patent application for an invention is afforded the privilege of claiming priority only if he himself filed the earlier application from which priority is claimed or if he is the successor-in-title to the person who filed that earlier application. If he is neither the person who filed the earlier application nor his successor-in-title then he is denied the privilege. Moreover, his position is not improved if he subsequently acquires title to the invention. It remains the case that he was not entitled to the privilege when he filed the later application and made his claim.

In most countries, no valid patent can be obtained if, before the application is filed, the invention has been described in a printed publication, either in the country of application or in any other country. The Convention gives applicants in member countries a period in which they can file applications in other countries after filing an application in their own country and obtain valid patents notwithstanding publication or use in the interval and before the filing of the foreign application. This is the

13. *Ibid.*, Art. 4.

15. 2009 EWHC 1304 (Pat).

14. *Ibid.*, Art. 4-A(1).

right of an applicant to have the foreign application treated at law as prior to the intervening publication or public use, instead of filing simultaneously with the home application, yet have it treated as though it were filed on the date of the home application. This is called convention priority. The foreign filing date is the convention date. This priority right was a protection to one who was trying to obtain patents in foreign countries, the protection being against patent-defeating provisions of national laws based on events intervening between the time of filing at home and filing abroad. Contracting States have the right to enact measures providing for compulsory licences for abuses of the patent, in particular for failure to work. Such licences are not to be applied for before the expiry of four years from the date of filing of patent application or three years from the date of grant of the patent, whichever is later.¹⁶ The Convention will continue to provide a substratum for patenting an invention in more than one country. The Paris Convention has provided the framework for the PCT, the European Patent Convention (EPC) and the Community Patent Convention. Contracting States are allowed to enter into separate treaties provided that these agreements do not contravene the provisions of the Paris Convention.¹⁷

Patent Cooperation Treaty

The national patent system requires the filing of an individual patent application for each country in which protection is sought. The PCT is an agreement for international cooperation in the field of patents and to make economical the filing of patent application for a series of countries. It is a special agreement under the Paris Convention and an agreement for international cooperation in the field of patents. The PCT is a procedural treaty and the actual grant is by the national patent offices. To achieve its objects, the PCT enables the filing with the receiving office a single application called the international application. It is a worldwide treaty. The countries that have acceded to it are deemed to belong to the International Patent Cooperation Union. India having acceded to the PCT belongs to the International Patent Cooperation Union.

European Patent Convention

Following World War II, global changes in the international patent system have proceeded at an accelerated pace. Numerous new treaties that followed the Paris Convention now provide inventors with a network of global rights. Following adoption of a uniform patent classification system, European States agreed to the 1963 Convention on the Unification of Certain Points of Substantive Law on Patents for Inventions. This

16. *Edwards Lifesciences AG v. Cook Biotech Inc.*, 2009 EWHC 1304 (Pat).

17. Paris Convention, Art. 19.

"Strasbourg Convention" set forth certain common substantive patent law principles, and formed the cornerstone of the EPC.

The EPC was signed at Munich on 5 October 1973 with the object of strengthening cooperation between the States of Europe in respect of protection of inventions. The EPC is a regional convention for the grant of patents in Europe.

In addition to mandating uniform patent eligibility criteria for Member States, the EPC establishes a single patent-granting authority, the EPO. The EPC, therefore, allows an applicant to file a single patent application at the EPO which may mature into a number of individual national patents. The EPC does not displace individual national patent regimes, but exists alongside them as an alternative route to obtaining intellectual property protection.

Applications for Europatents granted through this system will be the subject of a European search, early publication of the application and search report; examination upon the request of the applicant, taking account of all the Convention's requirements for a valid patent, and opposition before the EPO within a limited period after grant. The Europatents granted by the EPO will have a common form, but in essence, the grant will be of a bundle of national patents for the different Member States designated in the application. A Contracting State is obliged by the

Convention to treat Europatents as having the effect of, and being subject to the same conditions as, a national patent. Europatents must be accorded a term of 20 years from the date of filing of the application for it. Europatents may only be revoked on the grounds specified in the Convention; and Europatents and applications for them must be treated as giving rise to rights specified in the Convention. The Member States of the EPC are obliged to ensure that Europatents

1. have the same effect and are subject to the same conditions as national patents in Member States;¹⁸
2. confer on its proprietor the same rights as would be conferred by a national patent;¹⁹
3. are given the same or more protection upon publication as that of a published national patent application;²⁰
4. can only be revoked on grounds specified in the Treaty²¹; and
5. must have the same prior right effect as a national patent application and a national patent.²²

Thus, the Convention indirectly requires the law for national patents to be brought into line with that for Europatents. The Europatents provide

18. European Patent Convention, 1973, Art. 2.

19. *Ibid.*, Art. 64.

22. *Ibid.*, Art. 139(1).

20. *Ibid.*, Art. 67.

21. *Ibid.*, Art. 138.

for protection for a period of 20 years from the date of filing of the application and are granted for inventions which are new, involve an inventive step and are susceptible of industrial application.²³

Community Patent Convention

In Western Europe, other arrangements began to make progress as early as 1947 with the agreement to establish the International Patent Institute at the Hague.

Community Patent Convention provides for a true Europatent, in that one administrative agency would issue a single patent effective in every signatory nation. Additionally, patent litigation is limited to certain national courts, a common appeal court and the European Court of Justice. Despite several subsequent diplomatic conferences held to promote the Treaty, some European nations still have not ratified it.

The two Conventions were negotiated on the assumption that Member States would be left free to continue their national patent system as an alternative method of securing a patent for their territory.

The general principle will be that if an application for a Europatent designates any EEC country, a community patent will be granted, instead of a national patent for that country, in the bundle. A community patent is unitary in that it can be granted, transferred, revoked or allowed to lapse only in respect of the whole of the common market territories. It is subject to the legal regime established by the Community Patent Convention itself. The Convention was drafted in the expectation that the UK, as a major patenting country, would be joining the community, and when UK was not admitted, the plan was shelved.

World Intellectual Property Organisation

World Intellectual Property Organisation (WIPO) has adopted an international harmonisation treaty on patent formalities. The Patent Law Treaty (PLT) was adopted in June 2000 to standardise divergent formal requirements applied in national and regional patent systems to patent applications and patents. Users of the patent system will, thus, be able to rely upon predictable and simple procedures for filing national and regional patent applications and for maintaining of patents in all contracting parties. The PLT will come into force after 10 States have deposited their instruments of ratification or accession.

Trade Related Intellectual Property Rights Agreement

As regards patents, there is a general obligation under TRIPS to comply with the substantive provisions of the Paris Convention. In addition, the Agreement requires that 20-years' patent protection be available for all

23. *Ibid.*, Arts. 53 and 63.

inventions, whether of products or processes, in almost all fields of technology. Inventions may be excluded from patentability if their commercial exploitation is prohibited for reasons of public order or morality; otherwise, the permitted exclusions are for diagnostic, therapeutic and surgical methods, and for plants and (other than microorganisms) animals and essentially biological processes for the production of plants or animals (other than microbiological processes). Plant varieties, however, must be protectable either by patents or by a sui generis system.

4.4.7 Transition period

With respect to the implementation of the Agreement, it envisages a one-year transition period for developed countries to bring their legislation and practices into conformity. Developing countries and countries in the process of transformation from a centrally-planned into a market economy would have a five-year transition period, and least developed countries 11 years. Developing countries which do not at present provide product patent protection have up to 10 years to introduce such protection. However, in the case of pharmaceutical and agricultural chemical products, they must accept the filing of patent applications from the beginning of the transition period. This is known as the Swiss version of "pipeline protection", which covers applications filed after 1 January 1995. Though the patent need not be granted until the end of this period, the novelty of the invention is preserved as of the date of filing the application. If authorisation for the marketing of the relevant pharmaceutical or agricultural chemical product is obtained during the transition period, the developing country concerned must offer an exclusive marketing right for the product for five years, or until a product patent is granted, whichever is shorter.

The TRIPS Agreement provides for a general transition period of five years to developing countries for implementation of all the provisions of the Agreement. It also provides for an additional transition period of five years to those developing countries which do not presently provide for product patents in any field of technology, to extend product patents to those fields of technology. However, in respect of pharmaceutical and agrochemical products alone, the TRIPS Agreement requires that applications for product patents must be accepted as from the date of the Agreement itself. If those products are granted patents and marketing approval in any other country, and the patent owner desires to introduce those products in the Indian market, he should be given exclusive marketing right for five years or till his pending patent application in India is approved or rejected, whichever is earlier.

II

Novelty and anticipation

The concept of novelty in intellectual property jurisprudence lays down that only what is new at the time of the filing of the application for a patent is patentable. Patent eligible subject-matter is granted a patent if the subject-matter is novel, non-obvious and is capable of industrial application. Of these requirements, novelty is of core value. This is further emphasised by the definition of "invention" as set forth in the Indian Patents Act, 1970.²⁴ The Act lays down that invention consists of only a new product. "Invention" means a new product or process involving an inventive step and capable of industrial application.

In *Thomson Brandt v. Controller of Patents & Designs*²⁵, the Delhi High Court, setting aside the decision of the Controller of Patents, came to the conclusion that the Controller went wrong in finding that a process of manufacture unconnected with the product of manufacture, is not patentable.

Patentability always depends on novelty. The court in *AT&T Knowledge Ventures LP, re*²⁶ said, "... asking what the inventor has added to human knowledge necessarily means that the questioner has some notion of the state of the art. In other words, patentability cannot be put into a watertight compartment completely separate from novelty."

The US Court of Appeal in *Aerotel Ltd. v. Telco Holdings Ltd.*²⁷ has laid down some criteria to ascertain whether an invention is patentable. The court requires the following steps to be carried out to ascertain the novelty:

1. Properly construe the claim.
2. Identify the actual contribution.
3. Ask whether the identified contribution falls solely within the excluded subject-matter.
4. Check whether the actual or alleged contribution is actually technical in nature.

The actual contribution has to be assessed by considering the problem to be solved, how the invention works, what its advantages are. What has the inventor really added to human knowledge best sums up the exercise. The formulation involves looking at substance not form.

A new invention may consist of a new combination of all integers so as to produce a new or important result or may consist of altogether new integers.

24. Indian Patents Act, 1970, S. 2(i).

25. AIR 1989 Del 249.

26. 2009 EWHC 343 (Pat).

27. 2006 EWCA Civ 1371; 2007 RPC 7.

Patent system denies the issue of a patent to inventions that were disclosed prior to the time a patent application was filed at the Patent Office. One of the conditions laid down by the UK Patents Act, 1977 is that a patent may be granted only for an invention which is new.²⁸

An invention can be considered as new if it does not form part of the state of the art. The UK Patents Act, 1977 defines the "state of the art" as the name given to the entire body of technical knowledge that has been made public anywhere in the world in any possible way.²⁹ But the Indian Patents Act, 1970 does not define the concept of the state of the art. The UK Patents Act, 1977 was enacted to bring the law of UK into conformity with the corresponding provisions of the EPC. Hence, it is the duty of the UK courts to construe Section 2 such that, as far as possible, it has the same effect as Article 54 of the EPC. The "state of the art" is defined as "everything made available to the public by means of a written or oral description, by use, or in any other way before the date of filing of the European patent application".³⁰ This means that the invention has not been made public by written or oral description, by use, or in any other way before the date of filing of the patent. Novelty provisions primarily refer to the invention being known, used, patented or described by another, prior to the applicant's application. The Indian Patents (Amendment) Act, 2005 defines a "new invention" as any invention or technology which has not been anticipated by publication in any document or used in the country or elsewhere in the world before the date of filing of the application with the complete specification.³¹

4.5.1 Prior art

The matter relied upon as prior art must disclose subject-matter which, if performed, would necessarily result in an infringement of the patent.³² But patent infringement does not require that one should be aware that one is infringing.

28. UK Patents Act, 1977, S. 2 reads:

1. An invention shall be taken to be new if it does not form part of the state of the art.
2. The state of the art in the case of an invention shall be taken to comprise all matter (whether a product, a process, information about either, or anything else) which has at any time before the priority date of that invention been made available to the public (whether in the United Kingdom or elsewhere) by written or oral description, by use or in any other way.

29. UK Patents Act, 1977, S. 2(2).

30. EPC, Art. 54 reads:

- (1) An invention shall be considered to be new if it does not form part of the state of the art.

- (2) The state of the art shall be held to comprise everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the European patent application.

31. Indian Patents Act, 1970, S. 2(1); Indian Patents (Amendment) Act, 2005, S. 2(g).

32. *Synthon BV v. SmithKline Beecham Plc.*, (2006) 1 All ER 685; 2006 RPC 10, 22 (HL).

Kitchin J in *Novartis AG v. Johnson & Johnson Medical Ltd.*³³ noted that in order to sustain an action for lack of novelty, it had to be shown that the prior art contained a clear description of, or clear instructions to make, something that would necessarily infringe the patentee's claim if carried out after the grant of the patent.

In *King Pharmaceuticals Inc. v. Eon Labs Inc.*³⁴, the Federal Circuit Court held that informing the patient of the effect of the drug was not patentable.

In *Bombay Agarwal Co. v. Ramchand Diwan Chand*³⁵, a Division Bench of the Nagpur High Court held that in cases of patents, the court must see whether there was novelty in the process, whether the subject-matter of patent is proper and whether there is utility. By the subject-matter of patent, was meant the exact advance upon the existing knowledge which the patentee claims. It was further held that the patent can be defeated if it is not "a new manufacture or improvement, thereby, indicating that qua manufacture it was being indulged in by others prior to the date of the patent".

An improvement over the existing art is considered as importing novelty in an invention. The plaintiff held a patent for food-grade laminated paper, method and apparatus for manufacturing the laminated paper. The defendant contended that the claim of the plaintiff that he conceived the idea of artificial laminated banana leaves for serving and storing food, and it is his original intellectual property, is wholly unsustainable. They further argued that lamination is a technology well known in India for several decades and that the concept of food-grade laminated paper is well known and used all over the world. Both, the process of manufacture of food-grade laminated paper and the product itself, are well known and used in India.

The court found that the process involved in the manufacture of food-grade laminated paper was similar to that of the manufacture of layers of laminated plastic film as found in a US patent. It was held that the art of making laminated food-grade paper is very well known in India, as well as in other parts of the world, and so no invention is involved. Even so, the court found in favour of the plaintiff respecting innovation in the form of making banana leaf with artificial structure of food-grade quality and artificial scented smell of banana leaf, as found in the said product. The court, therefore, termed this as innovation and stated that some novelty was involved in the said product.³⁶

In the US system, from 16 March 2013, the date of the first-inventor-to-file provision, the patent applicants are prosecuting patent applications

33. 2009 EWHC 1671 (Pat).

34. 616 F 3d 1267.

35. AIR 1953 Nag 154.

36. *Mariappan v. A.R. Safiullah*, (2008) 38 PTC 341 (Mad).

under two legal frameworks for prior art—first-to-invent provisions and first-inventor-to-file provisions.

The requirement of novelty is laid down in the US in Title 35 of the United States Code (USC). The pre AIA provision on novelty is more elaborate and concentrates on the novelty with respect to first to invent.³⁷ The novelty condition for patentability for applications filed after 16 March 2013 based on assessing whether the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective date of filing the application for the patent.³⁸

37. Pre AIA 35 USC S. 102 reads:

A person shall be entitled to a patent unless—

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or
- (c) he has abandoned the invention, or
- (d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States, or
- (e) the invention was described in— (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language; or
- (f) he did not himself invent the subject-matter sought to be patented, or
- (g) (1) during the course of an interference conducted under Section 135 or Section 291, another inventor involved therein establishes, to the extent permitted in Section 104, that before such person's invention thereof, the invention was made by such other inventor and not abandoned, suppressed, or concealed, or
- (2) before such person's invention thereof, the invention was made in this country by another inventor who had not abandoned, suppressed, or concealed it. In determining priority of invention under this sub-section, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

38. 35 USC S. 102 reads:

(a) Novelty; Prior Art.— A person shall be entitled to a patent unless—

- (1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or
- (2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122 (b), in which

Australian courts have laid down that the test for determining whether an invention lacks novelty is the “reverse infringement test” as set out in *Meyers Taylor Pty. Ltd. v. Vicarr Industries Ltd.*³⁹, where Aickin J stated, “the basic test for anticipation or want of novelty is the same as that for infringement and generally one can properly ask oneself whether the alleged anticipation would, if the patent were valid, constitute an infringement”.

It follows from the reverse infringement test that

1. if a citation discloses all the features of a claim, the claim will lack novelty; however
2. if the citation does not disclose all the features of the claim, the claim will still lack novelty provided the citation discloses all the essential features of the claim; but
3. if an essential feature is not disclosed in the citation, the claim is novel.

Similarity will negate novelty and constitute anticipation. “That which would literally infringe if later in time anticipates if earlier than the date of invention.”⁴⁰ Novelty and anticipation are determined by reference to the language of the claim of the patent application. Under Section 64, Indian Patents Act, 1970, a patent shall be revoked “where it is not novel”.⁴¹ The Indian Patents (Amendment) Act, 2005 states that after an application for a patent has been published and before the grant of a patent, the grant of patent may be opposed on the ground of novelty.⁴²

the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention....

39. (1977) 137 CLR 228, 235; 1977 HCA 19.

40. *Lewmar Marine Inc. v. Barient Inc.*, 827 F 2d 744; 3 USPQ 2d 1766 (Fed Cir 1987).

41. Indian Patents Act, 1970, S. 64 reads:

Subject to the provisions contained in this Act, a patent, whether granted before or after the commencement of this Act, may be, revoked on a petition of any person interested or of the Central Government by the Appellate Board or on a counterclaim in a suit for infringement of the patent by the High Court on any of the following grounds, that is to say:

- (a) that the invention, so far as claimed in any claim of the complete specification, was claimed in a valid claim of earlier priority date contained in the complete specification of another patent granted in India;
- (e) that the invention so far as claimed in any claim of the complete specification is not new, having regard to what was publicly known or publicly used in India before the priority date of the claim or to what was published in India or elsewhere in any of the documents referred to in S. 13;
- (f) that the invention so far as claimed in any claim of the complete specification was secretly used in India, otherwise than as mentioned in sub-section (3), before the priority date of the claim;
- (g) that the invention so far as claimed in any claim of the complete specification was anticipated having regard to the knowledge, oral or otherwise, available within any local or indigenous community in India or elsewhere.

42. Indian Patents (Amendment) Act, 2005, S. 23.

4.5.2 Standard of anticipation

Anticipation is a two step analysis. The first step involves construction of the claims of the patent at issue. In the second step, the claims are compared to the prior art.

To be an anticipating reference, an item must disclose each and every element of the claimed invention. The test is to determine the elements of the claimed invention with that of the reference in issue.⁴³ To anticipate a claim for a patent, a single prior source must contain all its essential elements. A prior art reference must disclose all the elements of the claimed invention or their equivalents functioning in essentially the same way.⁴⁴ Anticipation occurs only when some single prior article, patent or publication contains within its four corners, every element of the claim in question. A patent is not anticipated when its elements are distributed among several prior publications and devices.⁴⁵ Anticipation cannot be shown by combining more than one reference to show the elements of the claimed invention.⁴⁶

In *Smith v. Snow*⁴⁷, the patented process of Smith related to staged incubation with a current of air to transfer heat among eggs in different stages of incubation. Before Smith, there had been efforts to set eggs in staged incubation, but without practical success, because of the difficulties of securing adequate heat distribution within the incubator. The prior reference, apart from a German patent, was to the description in the 1867 edition of *User's Dictionary* that gives a method of incubation devised in 1777 by Bonneman, a Frenchman, and not used since the French Revolution. The prior description was that eggs in stages of incubation were placed in a closed room heated by hot water pipes, but without other means of producing a current of air. The court held that such rudimentary experiments with isolated elements of Smith's combination did not anticipate his invention.

A citation can only be used as an anticipation if it clearly discloses each of the essential integers of the claim. To assess whether a citation has each of the essential features of a claim, it must be interpreted as at the date of its publication, having regard to the relevant surrounding circumstances which then existed, and without regard to subsequent events. The patentee's claim must similarly be construed as at its own date of publication having regard to the relevant surrounding circumstances then existing. If the earlier publication, so construed, discloses the same device as the

43. *SSIH Equipment S.A. v. United States International Trade Commission*, 718 F 2d 765; 218 USPQ 678 (Fed Cir 1983).

44. *Shanklin Corp. v. Springfield Photo Mount Co.*, 521 F 2d 609; 187 USPQ 129 (1st Cir 1975).

45. *Paeco Inc. v. Applied Moldings Inc.*, 562 F 2d 870; 194 USPQ 353 (3rd Cir 1977).

46. *Saunders, re*, 444 F 2d 599; 170 USPQ 213 (CCPA 1971).

47. 79 L Ed 721; 294 US 1 (1934).

device which the patentee by his claim, so construed, asserts that he has invented, the patentee's claim has been anticipated but not otherwise.⁴⁸

The Federal Circuit Court in *Bristol-Myers Squibb Co. v. Ben Venue Laboratories Inc.*⁴⁹ stated that anticipation does not require actual performance of suggestions in a disclosure. It only requires that those suggestions be enabling to one of skill in the art.

Though, not clearly defined, the concept of the state of the art is clearly enunciated in the Indian Patents Act, 1970.⁵⁰ The key date for ascertaining the state of the art is the priority date. Applications made after that date cannot form part of the state of the art.

A prior art publication cannot be modified by the knowledge of those skilled in the art for the purposes of anticipation. The information conveyed by prior art is crystallised as of the date it is made public and the crystals cannot be corrected or altered to convey information or facts later acquired by others skilled in the art.⁵¹

Inherency

If the prior art reference does not expressly set forth a particular element of the claim, that reference may still anticipate if that element is inherent in its disclosure. To establish inherency, the extrinsic evidence must make it clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be recognised by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognised by persons of ordinary skill.⁵²

If a feature of a prior art reference is necessarily present in an invention, that feature will be found to be inherently disclosed for purposes of anticipation and validity. On another count, it was held that inherent anticipation does not require recognition by a skilled person. Anticipation cannot be avoided merely because an element is undisclosed in a prior art reference.⁵³

48. *General Tire & Rubber Co. v. Firestone Tyre & Rubber Co. Ltd.*, 1972 RPC 457; 485 (CA).

49. 246 F 3d 1368; 58 USPQ 2d 1508 (Fed Cir 2001).

50. Indian Patents Act, 1970, S. 25(1)(a-d).

51. *Pfizer Inc. v. International Rectifier Corp.*, 685 F 2d 357; 217 USPQ 39 (9th Cir 1982).

52. *Oelrich, re*, 666 F 2d 578 (CCPA 1981).

53. *Schering Corp. v. Geneva Pharmaceuticals Inc.*, 339 F 3d 1373 (Fed Cir 2003).

4.5.3

4.5.4 Accidental anticipations

An accidental achievement of a product or process does not constitute an anticipation. A true accident does not give an assurance that the same result can be reached by others at a later time. On the other hand, anticipation is not avoided where the prior achievement was deliberate or a necessary consequence of what was intended, even though the achiever did not fully appreciate the uses, purposes or properties of the product.

In the famous *Tilghman v. Proctor*⁵⁴ case, the US Supreme Court did not regard the accidental formation of the fatty acid in Perkin's steam cylinder an anticipation of Tilghman's discovery.

The Supreme Court⁵⁵ held that prior devices capable of being adjusted so as to operate in the same manner as the patented device did not anticipate.

4.5.5 Prior publication

A prior publication must meet certain criteria if it is to render a claim "anticipated". As the Third Circuit Court has stated in an oft-quoted passage:

for a prior publication to be sufficient to defeat a patent, it must exhibit substantial representation of the invention in such full, clear, and exact terms that one skilled in the art may make, construct and practice the invention without having to depend on either the patent or his own inventive skills.⁵⁶

The claim for anticipation has to be either by prior user or by prior publication.⁵⁷

The Indian Patents Act, 1970 refers to prior art as that which was published before the claim in any claim of a completed specification:

1. in any specification filed for obtaining a patent in India on or after 1 January 1912; and
2. in India or elsewhere and also in any other documents.

The only exception is where the applicant proves that the matter published was obtained from him and was published without his consent, and that he had applied for the patent as soon as reasonably practicable after knowing about the publication.⁵⁸ But this exception will not be available

54. 26 L Ed 279; 102 US 707 (1881).

55. *Clough v. Gilbert & Barker Mfg. Co.*, 27 L Ed 134; 106 US 166 (1882).

56. *Philips Electronic and Pharmaceutical Industries Corpn. v. Thermal and Electronics Industries Inc.*, 450 F 2d 1164, 1169; 171 USPQ 641 (3rd Cir 1971).

57. *Martin and Biro Swan Ltd. v. H. Millwood Ltd.*, 1956 RPC 125.

58. Indian Patents Act, 1970, S. 29(2) reads:

Subject as hereinafter provided, an invention claimed in a complete specification shall not be deemed to have been anticipated by reason only that the invention was published before the priority date of the relevant claim of the specification, if the patentee or the applicant for the patent proves:

- (a) that the matter published from him, or (where he is not himself the true and first inventor) from any person from whom he derives title, and was published

where the invention has been commercially worked in India otherwise than for the purpose of reasonable trial. The Act lays down that working of the invention for the purpose of reasonable trial can be considered as not anticipating the invention.⁵⁹ The extent of publication required to constitute a ground for opposition was discussed in India in various decisions.

In *Press Metal Corpn. Ltd. v. Noshir Sorabji*⁶⁰, the invention was in relation to improvement in or relating to mufflers or exhaust silencers for internal combustion engines. The petitioners argued that the Controller was in error in rejecting the opposition that the invention as claimed by the inventor in the complete specification has been published before the priority date of the claim and that the invention was publicly known or used in India before the date. The Controller overruled the objection of prior publication in *Motor Manuals, Automobiles Engines* by Arthur W. Judge and *Motor Services Automotive Encyclopedia* on the ground that no details regarding the size of the perforations, which was one of the characterising features of the applicant's invention, was given in the books. The petitioners also opposed the grant of patent on the ground that the publication of the invention can be seen in the letters sent by Premier Automobiles Ltd. to the representatives of the inventor. The inventor had given five different mufflers to Premier Automobiles Ltd. for testing. The argument of the inventor was that none of the different silencers shown in the motor manuals can give any idea to any person to manufacture the applicant's muffler. Having regard to the evidence adduced, the court found that the claim made by the inventor is no more than a workshop improvement and the objection that the invention as is claimed in the claim of the complete specification is published before the priority date sustained.

*Ram Narain Kher v. Ambassador Industries*⁶¹ was a case in which the court found that the plaintiff had not specified the essentials required in a claim, as he had not specifically claimed that the design proposed by him was an improvement on any previously existing coolers.

without his consent or the consent of any such person; and
(b) where the patentee or the applicant for the patent or any person from whom he derives title learned of the publication before the date of the application for the patent, or in the case of a convention application, before the date of the application for protection in a convention country; that the application or the application in the convention country, as the case may be, was made as soon as reasonably practicable thereafter.

Provided that this sub-section shall not apply if the invention was before the priority date of the claim commercially worked in India, otherwise than for the purpose of reasonable trial, either by the patentee or the applicant for the patent or any person from whom he derives title or by any other person with the consent of the patentee or the applicant for the patent or any person from whom he derives title.

59. *Ibid.*

60. AIR 1983 Bom 144.

61. AIR 1976 Del 87.

In *Kay Laboratories v. Hindustan Lever Ltd.*⁶², the invention was titled as a new method for making a plant growth nutrient/stimulant. The opponent alleged that it was in fact discovered in 1977 at Michigan University and the results were published prior to the priority date of claims, and also the compound used in the invention was known much prior to 1977 and its reference was found in various books and literature, all available in India. The court held that prior publication was established and the application was rejected on grounds of anticipation.

Anticipation is judged by considering how a prior publication would be construed by a person skilled in the art. This issue was decided in *Walchnad Nagar Industries Ltd. v. Thermax (P) Ltd.*⁶³ The invention was entitled "a process for recovery of potassium sulphate from waste liquids such as distillery spirit wash". The opponents relied on prior publication and prior public knowledge. It was held that the opponents failed to indicate all the steps of the invention in any of the publications relied upon by them. The applicant's invention was held to have a further improvement of incineration technology and was considered as novel.

In *Indian Vacuum Brake Co. Ltd. v. E.S. Luard*⁶⁴, the petitioners were the holders of "Hardy's patent", and were importing from the factory in England and selling in British India vacuum brake cylinders having certain specific features. The designs were published and were publicly known in British India since 1910. The respondent obtained a patent relating to the pistons of vacuum brake cylinders identical to the one of the petitioner. On a detailed evidence, the court came to the conclusion that both, in the working principle and general character of construction, the petitioner's design and the respondent's patent are founded on Hardy's patent. It was also shown that the patented invention of the respondent was in use in Indian Railways long prior to the grant to the respondent.

In *Anup Engg. Ltd. v. BHEL*⁶⁵, the application for the grant of patent in respect of an apparatus for producing metallic bellows was opposed on grounds of prior publication, prior public knowledge and on use among the ground of obviousness. The opponents argued that the invention falls under prior publication as photocopies of a booklet captioned Zallea Expansion Joints were published by Zallea Brös, US. Process Engineering Bulletin and a catalogue published by opponents anticipate the invention by publication. In regard to prior public knowledge or use, the opponents submitted that they have entered into collaboration agreement with Process Engineering Inc., an American company, for design, development and manufacture of various types and sizes of expansion bellows and joints. The opponents had furnished details of the procedure being

62. (1988) 8 PTC 31 (Bom).

63. 1988 PTC 213.

64. AIR 1926 Cal 152; 92 IC 1008.

65. 1985 PTC 71.

practiced by them and argued that they had used them prior to the date of the present patent application under opposition. The court found that the only relevant disclosures do not anticipate the features of the claim.

Access and availability of publications

The extent of access and availability required of publications in order to constitute anticipation has been considered by the courts on various occasions. There are many ways in which a reference may be accessible to the public. Whether a reference is publicly accessible is determined based on the facts and circumstances surrounding the reference's disclosure to members of the public.⁶⁶

The patent laws have not recognised as prior art that which is not accessible to the public. The question that was addressed in *SRI International Inc. v. Internet Security Systems*⁶⁷ was whether the public accessibility of live traffic on a publicly accessible File Transfer Protocol (FTP) server for seven days constituted a prior art printed publication? The Federal Circuit Court found that the FTP server did not contain an index or catalogue or other tools for customary and meaningful research.

Prior art is a technology already available to the public. It is available when it is described in the world's accessible literature, including patents, or has been publicly known or is in public use or on sale in the country. It is knowledge that is available, including what would be obvious from it, at a given time, to a person of ordinary skill and art.⁶⁸ Not only publication, but use of technology anywhere in the world before the date of filing of complete specification will be considered as not novel.⁶⁹

The act or series of acts that make the invention available to the public need not have to be on a particularly wide scale. In *Potter Instrument Co. v. Odec Computer Systems*⁷⁰, it was held that limited circulation alone does not disqualify a publication from contributing to prior art. Papers distributed at various technological conferences in Europe constituted printed publication.⁷¹ Learned Hand J held that a printed catalogue in French sent by a German manufacturer to its customers in 1908 constituted a printed publication.⁷²

In *Garrett Corp. v. United States*⁷³, the reference involved was a report of a British government agency. The question was whether the reference was a "publication". Copies of the reference in question were distributed

66. *Klopfenstein, re*, 380 F 3d 1345, 1350 (Fed Cir 2004).

67. 511 F 3d 1186 (Fed Cir 2008).

68. *Kimberly-Clark Corp. v. Johnson & Johnson*, 745 F 2d 1437; 223 USPQ 603 (Fed Cir 1984).

69. Indian Patents Act, 1970, S. 2(i).

70. 499 F 2d 209; 182 USPQ 386 (1st Cir 1974).

71. *Deep Welding Inc. v. Sciaky Bros. Inc.*, 417 F 2d 1227, 1235 (7th Cir 1969).

72. *Jockmus v. Leviton*, 28 F 2d 812 (2nd Cir 1928).

73. 422 F 2d 874; 164 USPQ 521 (Ct Cl 1970).

4.5.5.1

without restriction to various British and American government agencies, as well as to six commercial companies. The court held, "while distribution to government agencies alone may not constitute publication, distribution to commercial companies without restriction on use clearly does."

A reference is considered publicly accessible if it was "disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject-matter or art exercising reasonable diligence, can locate it"⁷⁴.

Whether a document located in a library can be considered as publicly accessible depended upon the research tools available to permit an interested researcher to locate and examine the reference. In cases where the document has been indexed and catalogued, it was held that the document was publicly accessible.

The essential requisites for publication are that it should be

1. a work of public character intended for general use; and
2. within reach of the public.

A work of public character is such a book or other printed document as is intended and employed for the communication of ideas to persons in general, as distinguished from a particular individual. Private communications, although printed, do not come under this description, whether designed for the use of single person or of a few restricted groups of persons.

In *Marshall W. Cronyn, re*⁷⁵, it was concluded that the three student theses were not accessible to the public because they had not been either catalogued or indexed in a meaningful way. Although the titles of the theses were listed on 3 out of 450 cards filed alphabetically by the author in a shoebox in the chemistry department library, such "availability" was not sufficient to make them reasonably accessible to the public.

In order to constitute anticipation, the publication should be within the reach of the public. It must have been actually published in such a manner that anyone who chooses may avail himself of the information it contains.⁷⁶

In *Klopfenstein, re*⁷⁷, the Federal Circuit Court held that a 14-slide lecture, which was ultimately displayed as a poster, was sufficient to trigger the "printed publication" bar, even though hard copies of the presentation were neither disseminated nor indexed in a library. While deciding, the court laid a four factor test:

74. *Kyocera Wireless Corp. v. International Trade Commission*, 545 F.3d 1340, 1350 (Fed. Cir. 2008).

75. 890 F.2d 1158; 13 USPQ 2d 1070 (Fed. Cir. 1989).

76. *Bayer, re*, 568 F.2d 1359 (CCPA 1978).

77. 380 F.3d 1345, 1350 (Fed. Cir. 2004).

1. the length of time the display was exhibited;
2. the expertise of the target audience;
3. the existence (or lack thereof) of reasonable expectations that the material displayed would not be copied; and
4. the simplicity or ease with which the material displayed could have been copied.

The decision whether a particular reference is a printed publication must be approached on a case-by-case basis.

In *Northern Telecom Inc. v. Datapoint Corp.*⁷⁸, four reports were distributed to approximately 50 persons or organisations involved in a complex military project. While the reports were not under security classification, some or all of the reports contained the legend "reproduction or further dissemination is not authorised...not for public release". The reports were also housed in the library of a private corporation, with library access restricted to authorised persons. The court reasoned that there was no clear and convincing evidence that an interested person could have had access to the documents by the exercise of reasonable diligence. A distribution to a limited group with an injunction to secrecy was held by the court to be not a publication.

Publication does not depend on the degree of dissemination; communication to a single member of the public without inhibiting fetter is enough to amount to making available to the public.⁷⁹ There is no need even to show that a member of the public has actually seen the document. In *Monsanto (Brignac's) Application, re*⁸⁰, it was held that a company had published a document by supplying it to its salesmen, since it had been given to them with no restriction on disclosure; indeed it had been put into their hands with the intention that they should make the information available to the public.

The question as to the extent to which the prior publication should be available to the public was considered in *Gadd & Mason v. Mayor*⁸¹. The plaintiff's patent related to construction of gasholders and the defendants, who were sued for infringement, attacked its validity on a number of grounds, one of which was that the invention had been previously published by one Terrace, who had invented the same device, and the question was whether Terrace had prior published the invention.

On this issue, the decision of the court was unanimous. It is important to note the criterion applied by Lindley LJ:

Terrace's invention was never used in public, nor indeed at all; and such knowledge of it as the persons to whom it was communicated really had, cannot be regarded as knowledge acquired by or open to the public in any

78. 908 F.2d 931 (Fed. Cir. 1990), Cert. denied, 112 L. Ed.2d 249; 498 US 920 (1990).

79. *Bristol-Myers Co's Application, re*, 1969 RPC 146.

80. 1971 RPC 153.

81. (1892) 9 RPC 516.

sense whatever. The public has no access to Mr Terrace's description of his invention....

In 1956, the US Court of Customs and Patent Appeals decided that to be a prior publication, knowledge must be of a reduction to practice. In *Application of Schlittler*⁸², the single reference relied on by the Patent Office in rejecting the appellant's application is an article by Nystrom et al. which appeared in the November 1948 issue of the publication, "The Journal of the American Chemical Society". It has been held by the court that even a printed publication does not constitute a reduction to practice, but is evidence of conception only.

Prior knowledge of a patented invention would not invalidate a claim of the patent unless such knowledge was available to the public.⁸³

4.5.5.2 Post "*Schlittler*"

The decision in *Schlittler, re*⁸⁴ (*Schlittler*) was overruled in 1965 by the US Court of Customs and Patent Appeals after much deliberations as being illogical and anomalous.⁸⁵ The single reference relied upon by the Patent Office in rejecting the appealed claims is an Atomic Energy Commission document. The document is in the form of an unpublished memorandum and was classified as a secret document by the Commission until 9 March 1957, when it was declassified. The document was commonly known as "Samsel".

It was held that "Samsel" was clearly not publicly available during the period, it was under secrecy classification by the Atomic Energy Commission. Though the date of declassification was prior to the appellant's filing date, the court found that with respect to subject-matter covered by the patent provisions of the Atomic Energy Act, 1954 prior knowledge or use need not be accessible to the public.⁸⁶ Therefore, "Samsel" is available as evidence of prior knowledge insofar as the requirement for publicity is concerned. The status of "Samsel" as evidence of prior knowledge directly called into question the correctness of the unequivocal holding in *Schlittler*⁸⁷ that the knowledge must be of a reduction to practice, either actual or constructive.

Even the act of publication or the fiction of constructive reduction to practice will not suffice if the disclosure does not meet this standard. This issue was considered in several decisions. Falconer J has laid down the rule in *Genentech Inc. (Human Growth Hormone) Patent, re*⁸⁸. A disclosure

82. *Schlittler, re*, 234 F 2d 882: 110 USPQ 304 (CCPA 1956).

83. *Ibid.*

84. 234 F 2d 882: 110 USPQ 304 (CCPA 1956).

85. *Borst, re*, 345 F 2d 851 (CCPA 1965).

86. Atomic Energy Act, 1954, S. 155 (42 USC S. 2185).

87. 234 F 2d 882: 110 USPQ 304 (CCPA 1956).

88. 1989 RPC 613.

in order to constitute an anticipation should be an enabling disclosure. The reasoning of the judge was that the words in the European Patent Act "making available to the public" clearly enunciate an enabling disclosure. Though the US Patent Act only uses the word "publication", the courts have consistently held that the publication should be an enabling one in order to constitute an anticipation. The Indian Patents Act, 1970 also uses the word "publication" and not "making available to the public", but the word has to be given an interpretation as encompassing an enabling disclosure. This view is evident from the precedent laid down by the Indian courts.⁸⁹

A publication wherever found may anticipate a later invention. In order to constitute an anticipation, the publication must be an adequate description. The extent of adequacy of the disclosure has been formulated in various decisions.

Adequate description

4.5.5.3

"Seymour"—"Cohn" test

4.5.5.3.1

The Supreme Court urged in *Seymour v. Osborne*⁹⁰ (*Seymour*):

Patented inventions cannot be superseded... unless the description and drawings contain and exhibit a substantial representation of the patented improvement, in such full, clear and exact terms as to enable any person skilled in the art or science to which it appertains, to make, construct and practice the invention to the same practical extent as they would be enabled to do if the information was derived from a prior patent. Mere vague and general representations will not support such a defence....

The US Supreme Court indicated that a prior publication must contain a full enabling description in order to constitute an anticipation. Thus, a prior publication must contain the same information which could be derived from a prior patent. A patent must be supported by a full disclosure of how to make and use the invention.

The defendant sought to invalidate the patent-in-suit on the basis of articles published in the *Mechanics* magazine in London. On the basis of expert testimony, the court found that neither the description nor the drawings of the same, as exhibited in that magazine, show anything which is embodied in the complainant's patent. The prior publication should contain a substantial representation of the patented improvement in full, clear and exact terms to enable any person skilled in the art to construct the invention. Mere vague and general representations will not support such a defence.⁹¹

89. *Walchnad Nagar Industries Ltd. v. Thermax (P) Ltd.*, 1988 PTC 213.

90. 20 L Ed 33: 78 US 516 (1870).

91. *Seymour v. Osborne*, 20 L Ed 33: 78 US 516 (1870).

In *Cohn v. United States Corset Co.*⁹² (*Cohn*), the US Supreme Court suggested that a complete description of an invention in a prior publication may anticipate even though it does not disclose how the invention may be made. The plaintiff's invention was for an improved design of a corset. The improved features of the corset were described in an English provisional specification published many years before. The court stated that an anticipating publication need only be sufficient to enable persons skilled in the art to which the invention is related to comprehend or make it. The court went on to hold that the English specification was sufficient to enable one skilled in the art to make a corset.

The Supreme Court stated different tests as to the adequacy of the description in a publication to constitute an anticipation. In *Seymour*⁹³, it is stated that the description must be sufficiently full to enable one to make the invention. In *Cohn*⁹⁴, it is stated that the description must be sufficiently full to enable one to comprehend the invention. In *Cohn*⁹⁵ test, a description might anticipate even though it did not disclose how to make the invention. *Cohn*⁹⁶ and *Seymour*⁹⁷ were considered as alternative formulations of the same test.

4.5.5.4 Enablement requirement

To anticipate the patentee's claim, the prior publication must contain clear and unmistakable directions to do what the patentee claims to have invented. A signpost, however clear, upon the road to the patentee's invention will not suffice. The prior inventor must be clearly shown to have planted his flag at the precise destination before the patentee.⁹⁸

The proper test of a description in a publication requires a determination of whether one skilled in the art to which the invention pertains could take the description of the invention in the printed publication and combine it with his own knowledge of the particular art and from this combination be put in possession of the invention on which a patent is sought. The court held that a photograph of a hybrid rose in a publication did not constitute an adequate description of that rose such as would bar issuance of a plant patent. The photograph did not and could not enable one with skill in the art to make the rose.⁹⁹

In *Van der Lely v. Bamfords*¹⁰⁰, the plaintiff company developed a mechanised hay rake whose rake wheels instead of being driven round

92. 23 L Ed 907: 93 US 366 (1876).

93. 20 L Ed 33: 78 US 516 (1870).

94. 23 L Ed 907: 93 US 366 (1876).

95. *Ibid.*

97. 20 L Ed 33: 78 US 516 (1870).

98. *General Tire & Rubber Co. v. Firestone Tyre & Rubber Co. Ltd.*, 1972 RPC 457, 486 (CA).

99. *LeGrice's Application*, re, 301 F 2d 929, 933: 133 USPQ 365 (CCPA 1962).

100. 1963 RPC 61.

96. *Ibid.*

mechanically, were moved by contact with the ground. This was the principal feature of the invention as patented, but it was found to have been anticipated by a photograph of an American hay rake having the same characteristic. Claims, which referred to this feature, were accordingly held invalid.

To anticipate a later claimed invention, a prior publication must contain all the essential elements of the patent claim.¹⁰¹

Learned Hand J held that publication must contain within its four corners, a sufficient description to enable such a person to make the invention without an unreasonable amount of experimentation. If the earlier disclosure offers no more than a starting point for further experiments, if its teaching will sometimes succeed and sometimes fail, if it does not inform the art without more on how to practice the new invention, it has not correspondingly enriched the store of common knowledge and it is not an anticipation.¹⁰²

In *Elan Pharmaceuticals Inc. v. Mayo Foundation*¹⁰³, the Federal Circuit Court took the opportunity to clarify that invalidity based on anticipation requires that the asserted anticipating disclosure enabled the subject-matter of the reference without undue experimentation. The question was whether the reference in question enabled persons of ordinary skill in the field of the invention to make the invention without undue experimentation.

In interpreting an alleged anticipation, the question to be considered is how the prior document would strike an instructed reader and not what was in the mind of the writer.¹⁰⁴

It follows that a prior disclosure will only invalidate a claim if, after having read it, the skilled addressee could have produced all the essential integers of the claim.¹⁰⁵

Any information as to the alleged invention given by any prior publication must be for the purpose of practical utility, equal to that given by the subsequent patent. The latter invention must be described in the earlier publication that is held to anticipate it, in order to sustain the defences of anticipation. Where the question is solely one of prior publication, it is not enough to prove that an apparatus described in an earlier specification could have been used to produce this or that result. It must also be shown that the specifications contain clear and unmistakable directions to use it. It must be shown that the public have been so presented with the invention that it is out of the power of any subsequent person to claim the invention as his own.

101. *Scripps Clinic & Research Foundation v. Genentech Inc.*, 927 F 2d 1565: 18 USPQ 1001 (Fed Cir 1991).

102. *Dewey & Almy Chemical Co. v. Mimex Co. Inc.*, 124 F 2d 986 (2nd Cir 1942).

103. 346 F 3d 1057 (Fed Cir 2003).

104. *Bloch and Ilford Ltd.'s Patent*, 1936 RPC 92, 98.

105. *Canadian General Electric Co. Ltd. v. Fada Radio Ltd.*, (1930) 47 RPC 69, 90 (HL).

In *Samour, re*¹⁰⁶, it was held that a reference fully disclosing each element of a compound would anticipate if another reference adequately disclosed the method of making the compound.

The court held in *Wiggins, re*¹⁰⁷ (*Wiggins*) that the speculative listing of a theoretical compound will not necessarily anticipate even where the prior art discloses a means of preparing that compound.

The Federal Circuit Court distinguished *Wiggins*¹⁰⁸ and emphasised that while description of an invention in a publication must be enabling, it is not necessary that an invention disclosed in a publication shall have actually been made in order to satisfy enablement requirement.¹⁰⁹

For the purpose of assessing the state of the art for an invention, material in subsequently published patent application is included, so long as the priority date of that application is earlier than the priority date of the invention in question. Invention in a previously published specification is also a ground for opposition of patent grant.¹¹⁰

In *Wyer, re*¹¹¹, the US Court of Customs and Patent Appeals in 1981 held that an Australian application had anticipated a present US application. The application was held to have been anticipated on the grounds that it was laid open for public inspection and that the Australian Patent Office made two microfilm copies and six diazo copies from one of the microfilms, and the diazo copies were distributed in five sub offices where equipment was available for public to make enlarged reproduction of the diazo copies.¹¹²

The court held in *Thermax (P) Ltd. v. Deccan Sugar Industries*¹¹³ that the subsequent specification after priority date does not anticipate in any way the appellant's alleged invention.

Another landmark case relating to publication in a specification is *Merrell Dow Pharmaceuticals Inc. v. H.N. Norton & Co. Ltd.*¹¹⁴ (*Merrell Dow*). Merrell Dow had held a patent on the drug terfenadine, which had been highly successful as an antihistamine treatment. In the body, terfenadine was in fact metabolised into an acid metabolite and it was this substance that was almost exclusively responsible for its effectiveness. Nine years before the end of the terfenadine patent, Merrell Dow patented the acid metabolite.

106. 571 F 2d 559 (CCPA 1978).

107. 488 F 2d 538: 179 USPQ 21 (CCPA 1973).

108. 488 F 2d 538 (CCPA 1973).

109. *Donohue, re*, 766 F 2d 531 (Fed Cir 1985).

110. Indian Patents Act, 1970, S. 25(l), Patents (Amendment) Act, 2005, S. 23 reads that "the invention so far as claimed in any claim of the complete specification has been published before the priority date of the claim...".

111. 655 F 2d 221: 210 USPQ 790 (CCPA 1981).

112. *Ibid.*

113. 1987 PTC 137.

114. 1996 RPC 76 (HL).

After the first patent expired, the respondents sold terfenadine. Merrell Dow alleged that they were infringing the acid metabolite patent by supplying consumers with the essential means of making the acid metabolite within the human body. The respondents argued that the making of the acid metabolite within the human body by the ingestion of terfenadine formed part of the state of the art prior to the grant of the patent, and therefore the invention was not "new" within the meaning of Section 2, UK Patents Act, 1977. They argued that the invention had previously been made available to the public, *firstly*, through its use (by persons taking terfenadine) and *secondly*, through disclosure in the specification for the terfenadine patent. Lord Hoffmann held that there was no anticipation through use, but found anticipation by disclosure. The terfenadine specification teaches that the ingestion of terfenadine will produce a chemical reaction in the body and for the purpose of working the invention in this form, this is a sufficient description of the making of the acid metabolite. Under that description, the acid metabolite was part of the state of the art. Hence, patent on acid metabolite has to be revoked.

It was concluded by Lord Hoffmann that the description contained in the terfenadine specification made available to the public knowledge was sufficient to work the invention by making the acid metabolite in their bodies.

*CPC/Flavour Concentrates*¹¹⁵ involved an application to patent a process for making flavour concentrates which was challenged on the basis that certain cookbook recipes disclosed, in non-technical terms, processes having the same effect. The Technical Board stated, "It is sufficient to destroy the novelty of the claimed process that this process and the known process are identical with respect to starting material and reaction conditions since processes identical in these features must inevitably yield identical products."

In *Continental Can Co. USA Inc. v. Monsanto Co.*¹¹⁶, it was held that invention in a previously issued patent anticipates an invention.

Publicly known or used by others

A person cannot patent what was known or used by others in the country. "All ideas in general circulation be dedicated to the common good unless they are protected by a valid patent."¹¹⁷ The purpose of the public use bar to patentability is to discourage "the removal of inventions from the public domain which the public justifiably comes to believe are freely available."¹¹⁸

4.5.6

115. (1989) 2 EPOR 95.

116. 948 F 2d 1264 (Fed Cir 1991).

117. *Lear Inc. v. Adkins*, 23 L Ed 2d 610: 395 US 653 (1969).

118. *Bernhardt, LLC v. Collezione Europa USA Inc.*, 386 F 3d 1371, 1379 (Fed Cir 2004).



The requirement for novelty differs from country to country. The US Patent Act considers use and knowledge within the country alone as anticipating an invention.¹¹⁹ The Federal Circuit Court held that the test for whether an invention is ineligible for a patent due to the 35 USC Section 102(b) public use bar "is whether the purported use 1) was accessible to the public; or 2) was commercially exploited".¹²⁰

The Indian Patents Act, 1970 provides that publication on or after the priority date of the applicant's claim filed in pursuance of an application for a patent in India, being a claim of which the priority date is earlier than that of the applicant's claim is a ground for opposition of patent.¹²¹

The UK Patents Act has reflected the difference in the position between the US and Indian laws. The UK Patents Act lays down that the state of the art can be said to contain everything that has been made available to the public, whether in the UK or elsewhere.¹²² Thus in the UK, use and knowledge anywhere will be considered as in the state of the art. Information that is "publicly available" is information that the public has or can acquire by consulting some source open to it, *i.e.* material that can be inspected "as of right" by the public. It is enough that the information is available to a single person so long as that person is able to use the information freely without an obligation of confidence.

The Indian Patents Act states that public knowledge and use can be a ground of opposition only where it was known or used in India.¹²³ *Neyveli Ceramics & Refractories Ltd. v. Hindustan Sanitary Ware & Industries Ltd.*¹²⁴ was a case on the issue of public knowledge. The question was whether a catalogue disclosing the invention, prior to the date of the invention which was in the possession of a witness and signed by the father of the witness, amounts to public knowledge and use. The case of the plaintiff, holder of the patent was that the catalogue was preserved as a kind of heirloom and was safely kept in the locker. The witness had also stated that he had preserved it in a locker as it contained the signature of his father. The High Court came to the conclusion that the mere fact that the catalogue was in the possession of the father of the witness itself is sufficient publication so as to destroy novelty of the invention.

119. 35 USC S. 102(a).

120. *Invitrogen Corp. v. Biocrest Mfg. LP*, 424 F 3d 1374, 1380; 76 USPQ 2d 1741 (Fed Cir 2005).

121. Indian Patents Act, 1970, S. 25(1); Patents (Amendment) Act, 2005, S. 23.

122. UK Patents Act, S. 2(2).

123. Indian Patents Act, 1970, S. 25(d) reads:

that the invention so far as claimed in any claim of the complete specification was publicly known or publicly used in India before the priority date of the claim.

Explanation: For the purposes of this clause, an invention relating to a process for which a patent is claimed shall be deemed to have been publicly known or publicly used in India before the priority date of the claim if a product made by that process had already been imported into India before that date except where such importation has been for the purpose of reasonable trial or experiment only.

124. (1950-2000) PTC Supp (2) 341 (Mad).

In the case of an invention relating to a process, importation of the product made by the process to India is also considered as public knowledge and use in India.

In *Surendra Lal Mahendra v. Jain Glazers*¹²⁵, the alleged invention is a laminating apparatus for producing a laminate by wet process as distinguished from dry process, plaintiff being already grantee of patents in respect of an invention for laminating apparatus but by dry process. The defendants denied the claim of the plaintiff contending that the patent was already known, published and used in India as well as throughout the world prior to the application in this case. In particular, they averred that Morane Maxibond laminating machines were being imported into India from England. The court on a juxtaposition of the plaintiff's invention and the Morane Maxibond invention came to the conclusion that the plaintiff had not added a scintilla of invention to produce the same.

In *Ganendro Nath Banerji v. Dhanpal Das Gupta*¹²⁶, the plaintiff invented a process of duplicating the die used for manufacture of corks and took patent for the process. It was held that the process of taking of impression of the original die on a thin metal sheet was not new since such an impression is often taken on a silver paper by children. But the court found novelty in soldering/fixing to the backside of the metal sheet some hard substance so that the metal sheet without the body behind it could be used as a die.

A patent can be defeated if it is not a new improvement thereby indicating that it was being indulged in by others prior to the date of the patent.¹²⁷ An invention consisting of the production of new substances from known materials by known methods cannot be held to possess subject-matter merely on the ground that the substances produced are new, for the substances produced may serve no useful purpose, in which case the inventor will have contributed nothing to the common stock of useful knowledge.¹²⁸

Samples of a device freely shown and delivered to persons who are actively interested in the construction, have been held to constitute public knowledge. A prior use is sufficient to anticipate a patent if it involves work done openly and in the ordinary course of business activities without any deliberate attempt at concealment or effort to exclude the public, even though no deliberate act was taken to bring the work to the attention of the public at large, and even though the invention may be of a nature that it cannot be seen or observed by the public eye.¹²⁹

125. [1981] 1 PTC 112 (Del).

126. AIR 1945 Oudh 6.

127. *Bombay Agarwal Co. v. Ramchand Diwan Chand*, AIR 1953 Nag 154.

128. *Farbwerke Hoechst & B. Corp. v. Unichem Laboratories*, AIR 1969 Bom 255; (1974) 76 Bom LR 130.

129. *State Industries Inc. v. Rheem Mfg. Co.*, 769 F 2d 762; 227 USPQ 375 (Fed Cir 1985).

In *Gopi Lal v. Lakshpat Rai*¹³⁰, it was held that the use before the date of the patent negates the novelty in the invention. In this case, the letters patent was granted in respect of improvements in the manufacture of a medicinal preparation and as stated in the specification, the present invention relates to "improvements in the treatment of a substance found in the interior of some bamboos and known as 'tabakshir' or 'bamboo mannah' for the purpose of refining the same when in the raw state and to convert it into a nutritious and saleable article."

This medicinal preparation was commonly known and marketed as "banslochan" and admittedly had for many years prior to the date of the said patent been refined and sold throughout India. The improvements alleged to have been discovered by the respondents, and in respect of which letters patent was granted consist in the addition of sulphuric acid to the substance at a defined stage of the process, viz. when red hot and in the use of the process of heating in a stove constructed as described and illustrated in the letters patent. It was decided that long before the plaintiff's application for the patent, the stove with earthen vessels and of the same construction as the patent stove was commonly used by other manufacturers at Calcutta, and that sulphuric acid was also applied to the material while it was red hot. Hence, the patent was revoked.

There is a distinction between public user and private user only, so also there is a distinction between public user of the invention by working it commercially, and public user of the invention from the point of view of publication. The prior public user of the invention for the purpose of trade may in certain cases defeat a patent for want of novelty quite apart from the question of publication. If the public has once become possessed of the knowledge of the invention or has anticipated it by prior public knowledge before the date of the application, no patent subsequently granted will be valid. As to the sufficiency of the publication, it is necessary that the publication of knowledge must be a publication in India. It may not be necessary that members of the public should have actually read it. It is enough if the publication is accessible to the public without much trouble. With regard to the sufficiency of the knowledge, the earlier publication must give the requisite knowledge clearly, and it is not enough that it merely gives the means of attaining such knowledge. It must give sufficient information to a workman skilled in the particular art or craft in order to enable him to carry out the invention. How far that knowledge anticipates new invention is again a question of fact depending on the facts and circumstances of each case.¹³¹

A use of the invention for the purpose of trade may constitute a prior user which invalidates the patent and the prior public sale of goods or

130. (1923) 18 LW 141; AIR 1923 PC 103.

131. *Lallubhai Chakubhai Jariwala v. Chimanlal Chunilal & Co.*, AIR 1936 Bom 99; (1935) 37 Bom LR 665.

articles treated according to the invention is a public user of the invention, for the sale is strong evidence that the user was really commercial and not experimental. In order, however, for the sale to constitute sufficient evidence of public user, it should be open and in the ordinary way of business. The publication of the invention by sale of the articles treated by it for the purposes of trade by the patentee or by others, may constitute a prior user even if there is no publication.

In *Grain Processing Corpn. v. American Maize-Products Co.*¹³², the court held that there was no public use when "the testing period was short, very small quantities of the samples were shipped, and they were free of charge".

In *Sears, Roebuck & Co. v. Stiffel Co.*¹³³ (*Sears*), it was found that publicly known design and utilitarian ideas which were unprotected by patent occupied the same position as the subject-matter of an expired patent. An unpatentable article, like an article on which the patent has expired, is in the public domain and may be made and sold by whoever chooses to do so.

The prior user may be of an experimental nature, or may be such as if it is genuinely necessary for the inventor to satisfy himself as to the practicability of his invention. If it exceeds such limit and is carried on for profit, such a user will defeat the subsequent patent. But a distinction is drawn between the use of an invention for profit and the carrying out of experiments which turn out successful and only incidentally bring in profit to the inventor.¹³⁴

The provisions of the UK Patents Act differs from the Indian Patents Act, in that the state of the art includes any material available to the public anywhere. The medium carrying the information about the state of the art is not what matters. The technical knowledge could have been made public either through a written description or in any other way. An oral description of the technical knowledge will result in the technical knowledge becoming part of the state of the art. Any use or application of the technical knowledge that can make the substance of the technical knowledge public also leads to the same result. By knowledge and use, the legislature meant knowledge and use existing in a manner accessible to the public. In cases of foreign inventions, if the foreign invention had been printed or patented, it was already given to the world and open to the people of this country, as well as of others, upon reasonable inquiry. They would, therefore, derive no advantage from the invention here. It would confer no benefit upon the community, and the inventor, therefore, is not considered to be entitled to the reward. But if the foreign discovery

132. 840 F 2d 902; 5 USPQ 2d 1788 (Fed Cir 1988).

133. 11 L Ed 2d 661; 376 US 225 (1964).

134. *Lallubhai Chakubhai Jariwala v. Chimanlal Chunilal & Co.*, AIR 1936 Bom 99; (1935) 37 Bom LR 665.

is neither patented nor described in any printed publication, it might be known and used in remote places for ages, and the people of this country be unable to profit by it, the means of obtaining knowledge would not be within their reach; and, as far as their interest is concerned, it would be the same thing as if the improvement had never been discovered. It is the inventor that brings it to them, and places it in their possession. And as he does this by the effort of his own genius, the law regards him as the first and original inventor and protects his patent, although the improvement had in fact been invented before and used by others.

In *Monsanto Co. v. Coramandal Indag Products (P) Ltd.*¹³⁵, the plaintiff was the patentee of inventions entitled "Phytotoxic Compositions" and "Grass Selective Herbicide Compositions". The ingredients, the active ingredient, the solvent and the emulsifier were known; the process was known, the product was known and the use was known and hence, the patent was held liable to be revoked.

To satisfy the requirement of being publicly known as used in clauses (e) and (f) of Section 64(1), it is not necessary that it should be widely used to the knowledge of the consumer public. It is sufficient if it is known to the persons who are engaged in the pursuit of the knowledge of the patented product or process either as men of science or men of commerce or consumers.

In *Cadila Pharmaceuticals v. Instacare Laboratories (P) Ltd.*¹³⁶, it was held that the process of making combination drugs of a chemical material and a microorganism was a well-accepted process and isolation of one of the ingredients by giving it a coating is also accepted. Hence, the process had developed prior to the use by the appellants. Since the patent was for the process and not for the combination and as the process was known to pharmaceutical world for decades, the invention was found to be not novel.

In *Beachcombers International Inc. v. Wildewood Creative Products Inc.*¹³⁷, the court found public use where a designer demonstrated a kaleidoscope invention to guests during a private party at her home. The court explained that the inventor "did not retain control over the use of the device and the future dissemination of information about it".

The US court found public use where forms incorporating the patent was distributed to an unknown number of employees throughout the corporation.¹³⁸ During this period, the inventors exercised no control over where the forms were sent, who received them, or how they were used.

The extent to which a prior use can negate novelty was considered in *Fomento Industrial SA Biro Swan Ltd. v. Mentmore Mfg. Co. Ltd.*¹³⁹ The

135. (1986) 1 SCC 642; AIR 1986 SC 712.

136. 2001 PTC 472 (Gui).

137. 31 F 3d 1154 (Fed Cir 1994).

138. *Minnesota Mining and Mfg. Co. v. Appleton Papers Inc.*, 36 F Supp 2d 1138; 50 USPQ 2d 1091 (1999).

139. 1956 RPC 87.

Court of Appeals asserted that if the information, whether in documentary form or in the form of the invention itself, has been communicated to a single member of the public that is enough to amount to making available to the public.

In *Catnic Components v. C. Evans & Co.*¹⁴⁰, the action concerned lintels that were also the subject of *Catnic Components Ltd. v. Hill & Smith Ltd.*¹⁴¹ (*Catnic*). Evans bought the lintels from Hill and Smith and attacked the validity of the patent on the basis of prior discovery of the invention by an architect, Edmonds. Some years before the priority date of the patent, Edmonds made a drawing of a cross section for such a lintel and had arranged for a portion of it to be made up. Falconer J found that all persons to whom Edmonds had shown his drawings and sections were bound by implied obligations to confidence, so that the invention had not been made available to the public. Equally there had been no prior use, since the model did not itself constitute a lintel.

The extent to which use of an invention can be made before applying for a protection was considered in *Moleculon Research Corp. v. CBS Inc.*¹⁴² It was held that private use of one's own inventions is permissible.

Any disclosure that contains sufficient details to enable the invention to be utilised and understood can no longer be patented. The technical knowledge forming the state of the art increases from day to day. The place where the technical knowledge has been made public is not relevant either. Prior publication had to provide clear and unmistakable directions to its addressee before it could count as an enabling disclosure.

Prior invention by another constitutes anticipation even though the prior inventor made no effort to obtain a patent on or commercially exploit the invention.¹⁴³

Desertion of an invention consisting of a machine, never patented, may be proved by showing that the inventor, after he had constructed it, and before he had reduced it to practice, broke it up as something requiring more thought and experiment, and laid the parts aside as incomplete, provided it appears that those acts were done without any definite intention of resuming his experiments, and of restoring the machine with a view to apply for letters patent. Until the invention is so perfected and adapted to use it is not patentable under the patent laws.¹⁴⁴

The ratio in *Brush v. Condit*¹⁴⁵ was that prior use of a single device within one company constituted an anticipation.

In 1829, the US Supreme Court in *Pennock v. Dialogue*¹⁴⁶ held that an inventor may abandon his invention and surrender or dedicate it to the

140. 1983 FSR 401.

141. 1982 RPC 183 (HL).

142. 793 F 2d 1261; 229 USPQ 805 (Fed Cir 1986).

143. *Corona Cord Tire Co. v. Dovan Chemical*, 72 L Ed 610; 276 US 358 (1928).

144. *Seymour v. Osborne*, 20 L Ed 33; 78 US 516 (1870).

145. 33 L Ed 251; 132 US 39 (1889).

146. 7 L Ed 327; 27 US 1 (1829).





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public. In *Windsurfing International Inc. v. Tabur Marine (GB) Ltd.*¹⁴⁷ the court upheld Tabur Marine's claim that a boy's invention predated the plaintiffs' application for a UK patent and the patent was rendered invalid notwithstanding that Chilver's sailboard was of a slightly different design.

In *Egbert v. Lippman*¹⁴⁸ it was held that an inventor's own prior commercial use, albeit kept secret, may constitute public use.

The use of a great number may tend to strengthen the proof, but one well-defined case of such use is just as effectual to annul the patent as many. Whether the use of an invention is public or private does not necessarily depend upon the number of persons to whom its use is known. If an inventor, having made his device, gives or sells it to another, to be used by the donee or vendee, without limitation or restriction, or injunction of secrecy, and it is so used, such use is public, even though the use and knowledge of the use may be confined to one person. A single use of an invention by a single third party, even though the invention is not discernable to the unpracticed eye, will be a public use unless the inventor exercises adequate control over that use by the third party.

That the testing leads to and is followed by commercial success does not convert the test activity into an invalidating public use. Testing at the potential customer's site does not raise a public use bar as a matter of law. All of the circumstances must be considered to ascertain whether on the entirety of the evidence, it has been proved that the patented invention was publicly used. The law recognises an inventor's need to test the invention, to ascertain whether the work is complete or further changes should be made, and to show that the invention will work for its intended purpose. Such testing and development may encompass or even require disclosure to the public, without barring the inventor's access to the patent system.¹⁴⁹

The US Supreme Court has laid down certain guidelines as to what constitutes public use of an invention:¹⁵⁰

1. In order to constitute public use of an invention, it is not necessary that more than one of the patented articles should be publicly used. One well-defined use is just as effectual to annul the patent as many.
2. Whether the use of an invention is public or private does not necessarily depend on the number of persons to whom its use is known. If the inventor gives or sells his invention to another to be used without rest, it is a public use.
3. Some inventions by their very character are only capable of being used where they cannot be seen or observed by the public eye.

147. 1985 RPC 59; 1985 FSR 59.

148. 26 L Ed 755; 104 US 333 (1881).

149. *Allied Colloids Inc. v. American Cyanamid Co.*, 64 F 3d 1570 (Fed Cir 1995).

150. *Ibid.*

In *Shining Industries v. Sri Krishna Industries*¹⁵¹, the respondent invented a new design of lock. Later, a new type of lock was invented with improved key operated padlock and the respondent obtained patent for the new lock as well. The appellants were also manufacturing locks. In considering the question of infringement, it was held that the mere fact that shackle of old lock contained one groove and shackle of new lock contained three grooves, that the old lock contained an inner housing only on two sides, while the new lock contained an inner housing on all the four sides, did not bring any new change in lock. It was held that the system remained the same. Improvements made cannot be called an invention.

Unpublished information used for research purposes by a person who was completely independent of the inventor of the patent-in-suit was a public use. This evolved a new rule of law, that unpublished laboratory use after a reduction to practice is a public use.¹⁵²

The Delhi High Court in *Franz Xaver Huemar v. New Yash Engineers*¹⁵³ found that the patented device was anticipated on the ground of prior use. The plaintiff, an Australian citizen, obtained a patent in respect of process for "four shuttle high speed circular room". The plaintiff sought interim injunction complaining infringement of patent. The defendant argued that the plaintiff was not an inventor of the patented device as the device was already being used in machines for several years. At the most, the defendant contended that the device can amount to arrangement or rearrangement of the already known device which does not amount to an invention. The court relying on the defendant's contention, rejected the plaintiff's application. It was held that the device was already being used in machines for several years in several countries. The defendant's machine was in use in India for two decades. Thus, patent was revoked and petition was dismissed.

It was held in *Standipack (P) Ltd. v. Oswal Trading Co. Ltd.*¹⁵⁴ that mere arrangement or re-arrangement or duplication of known device cannot be patented.

In *Polar Industries Ltd. v. Jay Engg. Works Ltd.*¹⁵⁵, it was held that split type shackles have been in use long prior to the application for patent. The claimed patent also used a similar type of mechanism both at the lower end of rod by which ceiling fan is hanged and also at top shaft of fan. This mechanism has already been used before in top end of rod.

The first inventor cannot acquire a good title to a patent if he offers the thing invented to go into public use, or to be publicly sold for use before he makes application for a patent.¹⁵⁶

151. AIR 1975 All 231.

152. *Baxter International Inc. v. Cobe Laboratories Inc.*, 88 F 3d 1054 (Fed Cir 1996).

153. AIR 1997 Del 79; *Franz Xaver Huemar v. New Yash Engineers*, 1996 PTC 164 (Del).

154. (1999) 19 PTC 479 (Del).

155. 2000 Supp (2) PTC 310.

156. *Shaw v. Cooper*, 8 L Ed 689; 32 US 292 (1833).

In adapting the old contrivance to the new purpose, there must be difficulties to be overcome, requiring what is called invention, or there must be some ingenuity in the mode of making the adaption.¹⁵⁷

The court drew a distinction between the use in public and secret use in *Dunlop Holdings Ltd. v. Ram Golf Corpn.*¹⁵⁸ A public use of an invention forecloses a finding of suppression or concealment even though the use does not disclose the discovery.

A conclusion that the public use bar invalidates a patent must be based on clear and convincing evidence, and must be drawn in light of the totality of the circumstances.

4.5.7 Prior secret use

A man may make experiments in his own closet; if he never communicates these experiments to the world, and lays them by, and another person has made the same experiments, and, being satisfied, takes a patent, it would be no answer to say that another person had made the same experiments. There may be several rivals starting at the same time; the first who comes and takes a patent, it not being generally known to the public, that man has a right to clothe himself with the authority of the patent, and enjoys the benefit of it.¹⁵⁹

Where there has been no more than a secret use of the invention by the inventor with a view of taking out a patent, or the manufacture for the inventor and under injunctions as to secrecy by a manufacturer, the patent will be good. But this will not be the case where the secret process has been used for profit. Secret use or working of the invention prior to the patent for profit on a commercial scale is sufficient to invalidate the patent. If use of the invention is made in the presence of persons other than the inventor, who are in no way bound by any confidential relationship not to disclose the invention, and in circumstances which enable them to appreciate the essentials of the invention, the use would in general constitute publication, although it was experimental only. A secret process, of which publication has been going on for a number of years by manufacturer with the aid of workmen who are not bound to secrecy, is considered no longer secret. It becomes public property.¹⁶⁰

An anticipating prior use must be accessible to the public. Learned Hand J in *Gillman v. Stern*¹⁶¹ had held that commercial use of an invention by another under strict secrecy did not constitute anticipation.

157. *Rickmann v. Thierry*, (1896) 14 Pat Ca 105.

158. 524 F 2d 33 (7th Cir 1975).

159. *Cornish v. Keene*, (1837) 3 Bing NC 570; 132 ER 530; 1 WPC 501, 507.

160. *Lalubhai Chakubhai Jariwala v. Chimanlal Chunilal & Co.*, AIR 1936 Bom 99; (1935) 37 Bom LR 665.

161. 114 F 2d 28, 31 (2nd Cir 1940).

Gillman involved a patent on a machine which had previously been developed by a man named Haas. The inventor had used the machine in his own factory under tight security. The output from the machine had been sold, but the public had not been given access to the machine itself. In holding that Haas was not the first inventor, Learned Hand J drew a distinction between a secret use and a non-informing public use. It was not the inventor, but a third person who used the machine secretly and hence, the court held that there was no abandonment or forfeiture by the inventor. Where the matter was not publicised and completely forgotten, it was held not to anticipate the invention.

If the inventor secretly prepared the article and sold it to the public in a manner that the public would not be possessed of the knowledge as to how it is manufactured, the patent can be taken by anyone who wants to get the public possessed of the knowledge of its preparation.¹⁶²

In *Gayler v. Wilder*¹⁶³, the court came to the conclusion that if the inventor had not made his discovery public, but had used it simply for his own private purpose and it had been forgotten or abandoned, such a discovery would be no obstacle to the taking out of a patent by another person.

The concept of prior secret use has been often cited in the decision of *Macbeth-Evans Glass Co. v. General Electric Co*¹⁶⁴. The case concerned a process patent for making illuminating glass. The patentee had kept the process secret for 10 years and had sold the glass, although the sale did not appear to disclose the process. The court held that the patent was invalid as the delay indicated an intention to abandon or forfeit the invention, thus making it a prior use.

The plaintiff in *Ganendro Nath Banerji v. Dhanpal Das Gupta*¹⁶⁵ invented a process for duplicating the die used for the manufacture of corks. Not only has he been manufacturing corks by this process and selling them in the market for 15 years before the patent was taken out, but also took no precautions to keep the process secret. It was held that there was publication of the process before the patent was granted.

The Fifth Circuit Court of Appeals in *E. Rosaire v. Baroid Sales Division, National Lead Co.*¹⁶⁶ held that the prior user need not have taken any affirmative or positive steps to make the device or process known widely to those skilled in the art or to the public generally. A secrecy exception should be limited to cases where the first user or inventor deliberately decided to practice the invention secretly and was absolutely successful in doing so.

162. *Pope Appliance Corpn. v. Spanish River Pulp and Paper Mills Ltd.*, AIR 1929 PC 38.

163. 13 L. Ed 504; 51 US 477 (1850).

164. 246 F 695 (6th Cir 1917).

165. AIR 1945 Oudh 6.

166. 218 F 2d 72; 104 USPQ 100 (5th Cir 1955).



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A patent shall be revoked if the invention as claimed in a complete specification was secretly used in India otherwise than for the purpose of reasonable trial or experiment or for use by the government or by any other person who had obtained the knowledge with the consent of the applicant for the patent.¹⁶⁷

4.5.8 Abandoned experiment

The concept of abandoned experiment was clearly illustrated by the US Supreme Court in *Brown v. Guild*¹⁶⁸:

The defendant relied on a machine by Remy and Kelly as anticipating the plaintiff's patent. Only one machine was ever made and this was made merely for an experiment in Brookville, Indiana in 1849. It did not contain the pulley strap for turning the seed rollers. Remy in trying the machine walked alongside of it and gave an oscillating motion with his hand and Burges kept it driving. They planted five acres, but the machine was never used again. Remy made many other corn-planting machines on different principles. But all were mere experiments which were never repeated. The basis for the court holding was that Remy-Kelly machine was not for the same invention and was not operative. Presence or absence of either experimentation or abandonment did not directly bear on the anticipatory effect of the prior machine.

4.5.9 Exclusions

The Act provides for certain exclusions in relation to information made publicly available through publication or use when deciding whether an invention is novel.

These exclusions involve:

1. Any matter published without the consent of the patentee or his nominated person is to be disregarded so long as the patentee had on learning of the publication made the application as soon as was reasonably practicable.¹⁶⁹ But this exclusion cannot be applied where the invention was before the priority date of the claim commercially worked in India otherwise than for the purpose of reasonable trial either by the patentee or the applicant for the patent.
2. Communication to the government or to any person authorised by the government to investigate the invention or its merits.¹⁷⁰

167. Indian Patents Act, 1970, S. 64(1)(l).

168. 23 L Ed 161; 90 US 181 (1874).

169. Indian Patents Act, 1970, S. 29(2).

170. Indian Patents Act, 1970, S. 30 reads:

An invention claimed in a complete specification shall not be deemed to have been anticipated by reason only of the communication of the invention to the Government or to any person, authorised by the Government to investigate the invention or its merits, or of anything done, in consequence of such a communication, for the purpose of the investigation.

3. Publication of an invention at a recognised exhibition; description of the invention in a paper by the true inventor before a learned society and publication in the transactions of such society.¹⁷¹
4. Public working of the invention for the purpose of reasonable trial having regard to the nature of the invention.¹⁷²
5. Publication of any matter described in the provisional specification after the date of filing of the specification.¹⁷³

171. Indian Patents Act, 1970, S. 31 reads:

An invention claimed in a complete specification shall not be deemed to have been anticipated by reason only of—

- (a) the display of the invention with the consent of the true and first inventor or a person deriving title from him at an industrial or other exhibition to which the provisions of this section have been extended by the Central Government by notification in the Official Gazette, or the use thereof, with his consent for the purpose of such an exhibition, in the place where it is held; or
- (b) the publication of any description of the invention in consequence of the display or use of the invention at any such exhibition as aforesaid; or
- (c) the use of the invention, after it has been displayed or used at any such exhibition as aforesaid, and during the period of the exhibition, by any person without the consent of the true and first inventor or a person deriving title from him; or
- (d) the description of the invention in a paper read by the true and first inventor before a learned society or published with his consent in the transactions of such a society, if the application for the patent is made by the true and first inventor or a person deriving title from him not later than six months after the opening of the exhibition or the reading or publication of the paper, as the case may be. [Patents (Amendment) Act, 2005 has substituted the words "six months" with "twelve months".]

172. Indian Patents Act, 1970, S. 32 reads:

An invention claimed in a complete specification shall not be deemed to have been anticipated by reason only that at any time within one year before the priority date of the relevant claim of the specification, the invention was publicly worked in India:

- (a) by the patentee or applicant for the patent or any person from whom he derives title; or
- (b) by any other person with the consent of the patentee or applicant for the patent or any person from whom he derives title;

if the working was effected for the purpose of reasonable trial only and if it was reasonably necessary, having regard to the nature of the invention, that the working for that purpose should be effected in public.

173. Indian Patents Act, 1970, S. 33 reads:

(1) Where a complete specification is filed or proceeded within pursuance of an application which was accompanied by a provisional specification or where a complete specification filed along with an application is treated by virtue of a direction under sub-section (3) of Section 9 as a provisional specification then, notwithstanding anything contained in this Act the Controller shall not refuse to grant the patent, and the patent shall not be revoked or invalidated, by reason only that any matter described in the provisional specification or in the specification treated as aforesaid as a provisional specification was used in India or published in India or elsewhere at any time after the date of the filing of that specification.

(2) Where a complete specification is filed in pursuance of a convention application, then, notwithstanding anything contained in this Act the Controller shall not refuse to grant the patent, and the patent shall not be revoked or invalidated, by reason only that any matter disclosed in any application for protection in a convention country upon which the convention application is founded was used in India or published in India or elsewhere at any time after the date of that application for protection.

The industrial or other exhibition in order to fall within the exclusion clause should have been one to which the provisions of the section have been extended by the Central Government by notification in the Official Gazette. The application for the patent has to be made within six months of such exhibition or reading of the paper.

4.5.10 Prior experimental use

Inventors may wish to demonstrate their invention to others, usually to secure investment or to show to potential licensees. Such demonstrations may run the risk of jeopardising the novelty of the invention. Testing of an invention in the normal context of its technological development is permitted under the provisions of the law. But the inventor must be careful not to disclose the details of the invention.

A key purpose of the patent system is the dissemination of knowledge and advancement of technology. Any rider preventing the experimental use of the patent would defeat the purpose of the disclosure and will be contrary to public policy. The experimental use exception in the US grew out of the opinion of Story J in *Whittemore v. Cutter*¹⁷⁴. Story J stated, "It could never have been the intention of the legislature to punish a man who constructed such a machine merely for philosophical experiments, or for the purpose of ascertaining the sufficiency of the machine to produce its described effects."¹⁷⁵

Research exemption is also known as the Hatch-Waxman exemption in the US while in Canada, it is known as the Bolar provision.

The question posed by the experimental use doctrine is

whether the primary purpose of the inventor at the time of the sale, as determined from an objective evaluation of the facts surrounding the transaction, was to conduct experimentation.¹⁷⁶

The experimental use doctrine operates in the inventor's favour to allow the inventor to refine his invention or to assess its value relative to the time and expense of prosecuting a patent application. If it is not the inventor or someone under his control or "surveillance" who does these things, the exception is not available.¹⁷⁷

Many factors may be relevant in determining whether a use was experimental. The degree of control is a primary requirement. A use cannot be experimental if the inventor failed to maintain sufficient control over the invention and its testing. Requiring indicia of control guarantees both, that the inventor was actually experimenting in an attempt to acquire information about whether the invention would work for its intended

174. 29 Fed Cas 1120 (CCD Mass 1813).

175. *Whittemore v. Cutter*, 29 Fed Cas 1120 (CCD Mass 1813).

176. *Allen Engg. Corp. v. Bartell Industries Inc.*, 299 F 3d 1336 (Fed Cir 2002).

177. *Minnesota Mining and Mfg. Co. v. Appleton Papers Inc.*, 36 F Supp 2d 1138; 50 USPQ 2d 1091 (1999).

purpose and that the invention has been reasonably protected from disclosure to the relevant public so that competitors could not reasonably conclude it has been dedicated to the public. Absent such control, there can be no realistic conclusion that the inventor was truly experimenting or that the competitors and the public were not misled.¹⁷⁸

In *Atlanta Attachment Co. v. Leggett & Platt Inc.*¹⁷⁹, prior to the critical date, Atlanta had a series of dealings with one Sealy and different prototypes were made to the order of Sealy, who had also given feedbacks to Atlanta. Though Sealy had paid for the machine, it was not delivered. It was held that since Atlanta did not maintain control over the prototypes and as the experimentation was conducted at the customer's request, the use was not experimental.

Bradley J delivering the opinion of the court in *Elizabeth v. Pavement Co.*¹⁸⁰ discussed the issue of experimental use. The question that was considered was: Whether Nicholson's invention was in public use or on sale, with his consent and allowance, for more than two years prior to his application for a patent? The appellants contended that the pavement that Nicholson put down by way of experiment, on Mill-dam Avenue in Boston, in 1848, was publicly used for the space of six years before his application for a patent, and that this was a public use within the meaning of the law. It was perfectly clear from the evidence that he did not intend to abandon his right to a patent. He had constructed the pavement in question by way of experiment, for the purpose of testing its qualities.

In *Bertram, re*¹⁸¹, the court held an invention unpatentable because it had been operated publicly solely for the purpose for which it was intended and profit had resulted.

In *Pall Corp. v. Commercial Hydraulics (Bedford) Ltd.*¹⁸², the plaintiff sent samples of his claimed products to a potential customer for testing in comparison with other membranes. Other suppliers were present at the test which had been arranged. However, details of the nature and construction of the membrane were not disclosed and it was not possible to determine the details from a visual inspection of the membrane. After the patent had been granted, it was challenged on the basis that it had been made available to the public before the priority date. It was held that delivering samples in confidence to persons who knew they were experimental and secret did not make the invention available to the public and did not prejudice the novelty of the invention.

For an assertion of experimental use to have merit, it must be clear that the inventor kept control over his invention in the course of its testing.¹⁸³

178. *Lough v. Brunswick Corp.*, 103 F 3d 1517; 41 USPQ 2d 1385 (Fed Cir 1997).

179. 516 F 3d 1361 (Fed Cir 2008).

180. 24 L Ed 1000; 97 US 126 (1877).

181. 88 F 2d 834 (1937).

182. 1990 FSR 329.

183. *Hamilton, re*, 882 F 2d 1576 (Fed Cir 1989).



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In *Kolmes v. World Fibers Corpn.*¹⁸⁴, the patent concerned a cut-resistant yarn for use in making cut-resistant gloves. Before the critical date, sample gloves made from the new yarn were sent to certain of Kolmes' customers for testing. Kolmes sent the gloves out for testing in order to see whether they would work in that environment and withstand repeated laundering. Kolmes sued World for infringement. It was concluded that the patent was not invalid as they were in experimental use and thus, did not create a statutory bar.

In order to anticipate an invention by use, it is not necessary to prove that anybody actually saw the disclosure provided the relevant disclosure was in public. Field trials of a traffic light control system were carried out before the relevant filing in *Lux Traffic Controls Ltd. v. Pike Signals Ltd.*¹⁸⁵ The defendant argued that the invention had been made available to the public because a prototype had been used in public. Aldous J confirmed that anticipation of a patent required an enabling disclosure such that the public were enabled to make or obtain the invention. If a prototype of an invention is used in public and its internal working methods can be deduced by examination of this prototype, the invention will lack novelty. In this case, the patent was in respect of traffic light control systems. One system extended the green period by an additional time when it detected the movement of a vehicle crossing to ensure that opposing traffic was held by a red light. The purpose of the invention was to provide a pause between a green light in one direction and a red light turning green in an opposing direction. The prototype lights were demonstrated for development purposes in public. The defendants claimed that had a skilled engineer examined the lights system he would have discovered how it worked. Aldous J considered that for an invention to be anticipated, it must be possible for the public to discover how to make or obtain the invention.

The fact that the system was made publicly available and that if a skilled person had examined it, he would have seen how it worked, rendered the relevant claim in the patent to be invalid on the grounds of lack of novelty. Where it is possible for the skilled person to discover the composition of a substance or the internal structure of the product and to reproduce it without undue burden, then both the product and the composition of internal structure become part of the state of the art.

The same question was again considered in *Milliken Denmark AS v. Walk Off Mats Ltd.*¹⁸⁶ The patent was for washable floor mats with a rubber or plastic backing having perforations so as to allow machine washing without the risk of backing bursting. There had been non-confidential prior use by an American company that was a part owner of the defendant company. The American company had previously supplied customers,

184. 107 F 3d 1534; 41 USPQ 2d 1829 (Fed Cir 1997).

185. 1993 RPC 107.

186. 1996 FSR 292.

mats with perforations and mere knowledge of the perforations would enable the skilled man to work the invention, and the fact that he might not realise the advantage of having perforations was considered irrelevant and hence, the patent was revoked.

The philosophy behind the concept of novelty is not only that patent should not grant the same monopoly twice but also that it is against the public interest to grant a patent for a subject-matter that has already been publicly disclosed.

III

Obviousness

4.6

Patent law rewards the discovery and disclosure of inventions that are new, useful and non-obvious advances. Patent rights are not available for new advances that are merely obvious extensions or modifications of prior designs that could be achieved without the lure of patent rights. A patent may not be obtained though the invention is not identically disclosed or described, if the differences between the subject-matter sought to be patented and the prior art are such that the subject-matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the said subject-matter pertains. In addition to novelty, patentability is to depend upon the "non-obvious" nature of the "subject-matter sought to be patented" to a person having ordinary skill in the pertinent art.

An obviousness determination is not the result of a rigid formula dissociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not.¹⁸⁷

Akin to the US Act¹⁸⁸, the Indian Patents Act also incorporates the requirement of non-obviousness.¹⁸⁹ Under the Indian Patents Act, a patent can be revoked if the invention is obvious.¹⁹⁰ The UK Patents Act also

187. *Leapfrog Enterprises Inc. v. Fisher-Price Inc.*, 485 F 3d 1157, 1161 (Fed Cir 2007).

188. 5 USC S. 103(a) reads:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

189. Indian Patents Act, 1970, S. 25(x) reads:

(e) that the invention so far as claimed in any claim of the complete specification is obvious and clearly does not involve any inventive step, having regard to what was published as mentioned in clause (b) or having regard to what was used in India before the priority date of the applicant's claim; Patents (Amendment) Act, 2005, S. 25.

190. Indian Patents Act, 1970, S. 64(1)(f) reads:

that the invention so far as claimed in any claim of the complete specification is

requires an invention to be non-obvious to a person skilled in the art.¹⁹¹ The EPC requires that an invention shall be considered as involving an inventive step if, having regard to the state of the art, it is not obvious to a person skilled in the art.¹⁹² The Patents Act of India has defined inventive step.¹⁹³ In order to constitute an inventive step, a feature of the invention should involve technical advance as compared to the existing knowledge or have an economic significance or both and should also make the invention not obvious to a person skilled in the art.

An invention or manufacture which is the result of mechanical skill is one thing, invention is a different thing. Bradley J in *Atlantic Works v. Brady*¹⁹⁴ stated:

to grant to a single party a monopoly of every slight advance made, except where the exercise of invention, somewhat above ordinary mechanical or engineering skill, is distinctly shown.... The design of the patent laws is to reward those who make some substantial discovery or invention, which adds to our knowledge and makes a step in advance in the useful arts.... It was never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufactures....

A mere carrying forward of an original patented conception, involving change of form, proportion or degree, or the substitution or equivalent is not an invention as will sustain a patent though the changes may produce better results. The court invalidated the patent on a new fabric weave on the ground that it was like a workman carrying forward old ideas.¹⁹⁵

The same concept was in issue in *Non-Drip Measure Co. Ltd. v. Strangers Ltd.*¹⁹⁶ where Lord Russell stated:

Whether there has or has not been an inventive step in constructing a device for giving effect to an idea, which when given effect to seems a simple idea which ought to or might have occurred to anyone, is often a matter of dispute. More especially is this the case when many integers of the new device are already known. Nothing is easier than to say after the event, the thing was obvious and involved no invention.

obvious or does not involve any inventive step, having regard to what was publicly known or publicly used in India or what was published in India or elsewhere before the priority date of the claim.

191. UK Patents Act, 1977, S. 3 reads:

An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of the art by virtue only of section 2(2).

192. EPC, Art. 56.

193. Indian Patents Act, 1970, S. 2(ja); Patents (Amendment) Act, 2005, S. 2.

194. 27 L Ed 438; 107 US 192 (1883).

195. *Smith v. Nichols*, 22 L Ed 566; 88 US 112 (1874).

196. (1943) 60 RPC 135, 142 (HL).

In considering the question of obviousness, the court should follow the structured approach commended in *Pozzoli v. BDMO*¹⁹⁷:

1. (a) Identify the notional "person skilled in the art";
(b) Identify the relevant common general knowledge of that person;
2. Identify the inventive concept of the claim in question or, if that cannot readily be done, construe it;
3. Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed; and
4. Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

In order to show that the defendant has violated the plaintiff's product, the plaintiff was to give analysis of its patent and show that the invention claimed by it involved some technical/scientific advance as compared to the existing knowledge.¹⁹⁸ Even though a claimed system is new and involves technical considerations if it did not have necessary inventive quality, it is not entitled to patent protection.

When a work is available in one field, design incentives and other market forces can prompt variations of it, either in the same field or in another. If a person of ordinary skill in the art can implement a predictable variation, and would see the benefit of doing so, obviousness likely bars its patentability.¹⁹⁹ Moreover, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognise that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond that person's skill. A court must ask whether the improvement is more than the predictable use of prior-art elements according to their established functions. Following these principles may be difficult if the claimed subject-matter involves more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement. To determine whether there was an apparent reason to combine the known elements in the way a patent claims, it will often be necessary to look to interrelated teachings of multiple patents; to the effects of demands known to the design community or present in the marketplace; and to the background knowledge possessed by a person having ordinary skill in the art. To facilitate review, this analysis should be made explicit. One of the ways in which a patent's subject-matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims.

197. 2007 FS 37; 2007 EWCA Civ 588.

198. *Asian Electronics Ltd. v. Jumbo Electric Co.*, (2010) 42 PTC 99 (Del).

199. *KSR International Co. v. Teleflex Inc.*, 167 L Ed 2d 705; 550 US 398, 417 (2007).

In *Dunbar v. Myers*²⁰⁰, the court invalidated a patent on a machine "for sawing lumber into thin stuff" on grounds of obviousness. It referred to the testimony of "one of the most intelligent and learned of the class" to the effect that the patented improvement required no invention.

Patents ought not to be granted for every trivial advancement. Minor improvements were considered as reflecting the work of a skilful mechanic for which protection ought not be granted. It is often difficult to determine whether a given improvement is a mere mechanical advance or the result of the exercise of the creative faculty amounting to a meritorious invention. The fact that the invention seems simple after it is made, does not determine the question.²⁰¹

In *Aventis v. Lupin*²⁰², it was held that "where the prior art gives the reason or motivation to make the claimed compositions, it creates a *prima facie* case of obviousness".

The rationale of the court was that obviousness flowed from recognition of the properties of similar prior-art compounds combined with recognition of the presence of the claimed isomer in the prior-art mixture.

Unlike novelty, where the claimed invention is compared with a single prior art, non-obviousness compares the relevant invention with the prior art as a whole. Obviousness is judged from the perspective of the hypothetical person having ordinary skill in the art who is presumed to be aware of all the pertinent prior art. One of the key questions in applying these factors is, of course, the extent to which it is proper to combine the teachings of different pieces of prior art.

In *Technograph Printed Circuits Ltd. v. Mills & Rockley (Electronics) Ltd.*²⁰³, Lord Reid said:

that the hypothetical addressee is supposed to be incapable of a scintilla of invention and that when dealing with obviousness, unlike novelty, it is permissible to make a mosaic out of the relevant documents, but it must be a mosaic which can be put together by an unimaginative man with no inventive capacity.

In *General Electric Co. v. Jewel Incandescent Lamp Co.*²⁰⁴, the case involved a patent on an improved frosted bulb for electric lamps. The court viewed the invention as one of discovering a new property in or use of an old product which was not patentable.

4.6.1 "Hotchkiss" requirement

The US Supreme Court formulated a general condition of patentability in 1851 in *Hotchkiss v. Greenwood*²⁰⁵ (*Hotchkiss*). The patent involved

200. 24 L Ed 34; 94 US 187 (1876).

201. *Expanded Metal Co. v. Bradford*, 53 L Ed 1034; 214 US 366 (1909).

202. 499 F 3d 1293; 84 USPQ 2d 1197 (Fed Cir 2007).

203. 1972 RPC 346, 355.

204. 90 L Ed 43; 326 US 242 (1945).

205. 13 L Ed 683; 52 US 248 (1850).



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a mere substitution of materials, porcelain or clay for wood or metal in doorknobs. The court condemned the patent, holding that "unless more ingenuity and skill...were required...than were possessed by an ordinary mechanic acquainted with the business, there was an absence of that degree of skill and ingenuity which constitute essential elements of every invention".

In other words, the improvement is the work of the skilful mechanic, not that of the inventor. *Hotchkiss*, by positing 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. The *Hotchkiss*²⁰⁶ test laid the cornerstone of the judicial evolution suggested by Jefferson and left to the courts by Congress. In *Smith v. Goodyear Dental Vulcanite Co.*²⁰⁷, Goodyear Dental Vulcanite Co. held a patent on false teeth set in rubber. The prior practice used inflexible metal plates. The patent was asserted to be a mere substitution of materials within the skill of a mechanic under the test of *Hotchkiss*²⁰⁸. The court held that the patent involved invention and relied upon the recognition of the value of the invention by members of the art and the commercial success it enjoyed.

"Graham" trilogy

The Supreme Court decided a trilogy of cases in 1966 which includes the *Graham*, *Calmar* and *Adams* cases.

Even though an applicant's modification results in great improvement and utility over the prior art, it may still not be patentable if the modification was within the capabilities of one skilled in the art, unless the claimed ranges "produce a new and unexpected result which is different in kind and not merely in degree from the results of the prior art".²⁰⁹

The Supreme Court in *Graham v. John Deere Co.*²¹⁰ (*Graham*) has stated a number of things that can be considered when determining whether something was obvious at the time of its invention. The court set out a tripartite test for obviousness:

1. The scope and content of the prior art.
2. The differences between the prior art and the claimed invention.
3. The level of ordinary skill in the pertinent art.

206. 13 L Ed 683; 52 US 248 (1850).

207. 23 L Ed 952; 93 US 486 (1876).

208. 13 L Ed 683; 52 US 248 (1850).

209. *Woodruff, re*, 919 F 2d 1575; 16 USPQ 2d 1934 (Fed Cir 1990).

210. 15 L Ed 2d 545; 383 US 1 (1966).

4.6.2

The matter of obviousness is to be judged by reference to the state of the art in the light of all that was previously known by persons versed in that art derived from experience of what was practically employed as well as from the contents of previous writing, specifications, textbooks and other documents.

The patent in issue in both *Calmar Inc. v. Cook Chemical Co.*²¹¹ (*Calmar*) and *Colgate-Palmolive Co. v. Cook Chemical Co.*²¹² (*Cook*) involved a single patent relating to a plastic finger sprayer with a "hold-down" lid used as a built-in dispenser for containers or bottles packaging liquid products, principally household insecticides. The court concluded that the claims in issue in the Scoggin patent must fail as not meeting the test of obviousness since the differences between them and the pertinent prior art would have been obvious to a person reasonably skilled in that art.

*United States v. Adams*²¹³ (*Adams*) is a companion case to *Graham*²¹⁴, decided along with *Calmar*²¹⁵ and *Cook*²¹⁶.

The court in *Adams* found that despite the fact that each of the elements of the Adams battery was well known in the prior art, to combine them as did Adams, required that a person reasonably skilled in the prior art must ignore that 1) batteries which continued to operate on an open circuit and which heated in normal use were not practical; and 2) water-activated batteries were successful only when combined with electrolytes detrimental to the use of magnesium. These long-accepted factors, when taken together, would, the court said, deter any investigation into such a combination as is used by Adams. This is not to say that one who merely finds new uses for old inventions by shutting his eyes to their prior disadvantages thereby discovers a patentable innovation. The court emphasised that known disadvantages in old devices which would naturally discourage the search for new inventions may be taken into account in determining obviousness. The court hence found that the Adams patent was valid.

4.6.3 Post "*Graham*"

There has been a conflict of decisions on the issue whether synergism or the criteria articulated in *Graham*²¹⁷ should be the controlling test in a combination patent claim. In *Burland v. Trippe Mfg. Co.*²¹⁸, it was found that synergism can be found where one of the elements functions differently in combination than it did previously, and that the combination results in an effect greater than the sum of the several parts taken separately. The synergism test involves a two-pronged hypothesis.

211. *Ibid.*

213. 15 L Ed 2d 572; 383 US 39 (1966).

214. 15 L Ed 2d 545; 383 US 1 (1966).

215. *Ibid.*

218. 43 F 2d 588 (7th Cir 1976).

212. *Ibid.*

216. *Ibid.*

217. *Ibid.*

217. *Ibid.*

One is that the subject-matter of the patent claim comprises a combination of several elements, each of which was known in the prior pertinent art. The second limb is that the combination is synergistic or at least produces a synergistic effect.

The Supreme Court reaffirmed and relied upon the *Graham*²¹⁹ three-pronged test, in its consideration and determination of obviousness in the fact situations presented in both *Sakraida v. AG Pro Inc. (Sakraida)*²²⁰ and *Anderson's-Black Rock Inc. v. Pavement Salvage Co. Inc.*²²¹ In each case, the court went on to discuss whether the claimed combinations produced a "new or different function" and a "synergistic result", but clearly decided whether the claimed inventions were non-obvious on the basis of the three-way test in *Graham*²²². Nowhere in its decisions in those cases does the court state that the "new or different function" and "synergistic result" tests supersede a finding of non-obviousness or obviousness under the *Graham*²²³ test.

*Sakraida*²²⁴ involved a patent describing a specially constructed dairy barn. By employing water which was stored in tanks or pools and flushed over sloped floors, the invention readily removed waste from the barn. Brennan J concluded that the combination of these old elements to produce an abrupt release of water directly on the barn floor from storage tanks or pools can properly be characterised as synergistic, *i.e.* resulting in an effect greater than the sum of the several effects taken separately. Rather, this patent simply arranges old elements with each performing the same function it had been known to perform, although perhaps producing a more striking result than in previous combinations. Such combinations are not patentable under standards appropriate for a combination patent. It was found that the particular use of the assembly of old elements would be obvious to any person skilled in the art of mechanical application. The court did not establish synergism as a requisite for patentability, but interpreted that every combination invention must have a synergistic effect to be patentable.

In *Richardson-Vicks, re*²²⁵, Jacob J said that it is not permissible to take into account surprising technical benefits which are not described or foreshadowed in the specification.

A patent may be saved from a finding of obviousness if a combination otherwise obvious has some unexpected advantage, and, in particular, an advantage caused by an unpredictable co-operation between the elements of the combination.²²⁶

219. 15 L Ed 2d 545; 383 US 1 (1966).

220. 47 L Ed 2d 784; 425 US 273 (1976).

221. 24 L Ed 2d 258; 396 US 57 (1969).

222. 15 L Ed 2d 545; 383 US 1 (1966).

224. 47 L Ed 2d 784; 425 US 273 (1976).

225. 1995 RPC 568, 581.

226. *Cipla Ltd. v. Glaxo Group Ltd.*, 2004 RPC 43; 2004 EWHC 477.

223. *Ibid.*

The mere existence of differences between the prior art and an invention does not establish the invention's non-obviousness. In *Dann v. Johnston*²²⁷, it was held that the gap between the prior art and the respondent's system was simply not so great as to render the system non-obvious to one reasonably skilled in the art.

In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification.²²⁸

4.6.4 Secondary considerations

Notwithstanding the *Graham* factors and the permissive language used regarding secondary considerations, secondary considerations of obviousness can be considered by the court before reaching a conclusion on obviousness. These secondary considerations include, but are not limited to the following:

1. the commercial success of the invention;
2. whether the invention satisfied a long-felt need in the industry;
3. failure of others to find a solution to the problem at hand; and
4. unexpected results.

There must be a connection between the success of the product using the invention and the invention itself; the success cannot be due to superior marketing or similar considerations. The independent development of the invention by others is an indication that the invention is obvious to those skilled in the art.

*Hallen Co. v. Brabantia (UK) Ltd.*²²⁹ is an authority for the proposition that foresight of commercial success on the part of the notional skilled person was not the right test, as it was enough if the claimed solution would have been obvious to him even though there would be other solutions he might prefer to concentrate on and take further.

As Lord Herschell pointed out in *Siddell v. Vickers*²³⁰, and adapting his language to the new statutory definition, obviousness connotes something which would at once occur to a person skilled in the art who was desirous of accomplishing the end, or in *Lopes LJ's* much-quoted phrase, "it must not be the obvious or natural suggestion of what was previously known". When obviousness has to be determined retrospectively, commercial success is an important and telling factor that can be taken into account. If

227. 47 L Ed 2d 692; 425 US 219 (1976).

228. *Linter's Application*, re, 458 F 2d 1013; 173 USPQ 560 (CCPA 1972).

229. 1989 RPC 307.

230. (1887) 39 Ch D 92; (1890) 15 AC 496.

the invention fulfils a long-felt want, this is evidence of non-obviousness, even if the prior art is old.²³¹

The argument of commercial success involves four inferences:

1. that the commercial success is due to the innovation;
2. that if an improvement has in fact become commercially successful, it is likely that this potential commercial success was perceived before its development;
3. the potential commercial success having been perceived, it is likely that efforts were made to develop the improvement; and
4. the efforts having been made by men of skill in the art, failed because the patentee was the first to reduce his development to practice. Since men of skill in the art tried but failed, the improvement is clearly non-obvious.

Each inference is weak. The commercial success might not be due to the innovation but due to "sales promotion ability, manufacturing technique, ready access to markets, consumer appeal, design factors, and advertising budget"²³².

In assessing whether the commercial success argument was useful, the judge in *Haberman and V&A Mktg. Ltd. v. Jackel International Ltd.*²³³ set out a number of points which needed to be considered in assessing obviousness. These include:

1. What was the problem which the invention addressed and how long had it existed?
2. How significant was the problem?
3. How widely known was the problem and how many were seeking a solution to it?
4. What other solutions were put forward before the publication of the patentee's development?
5. To what extent were there factors which would have held back the exploitation of the solution even if it was technically obvious?
6. How well had the patentee's development been received?
7. To what extent was the commercial success due to the technical merits of the development, i.e. because it solved the problem?

In *Optical Coating Laboratory Inc. v. Pilkington P.E. Ltd.*²³⁴, Aldous J said that it was always important to consider why the alleged obvious step had not been suggested earlier, but evidence as to novelty, a delay of eight

231. *Brugger v. Medic Aid Ltd.*, 1996 RPC 635.

232. Philip B. Kurland (Ed.), *The Supreme Court and Patents and Monopolies* (The University of Chicago Press, Chicago 1975).

233. 1999 FSR 683; 1999 EWHC Patent 269.

234. (1995) 112 RPC 145, 166.

years and an advantage stemming from the invention carried no weight without evidence of a long-felt want or unsuccessful attempt to solve a particular problem.

Obviousness has to be assessed not by what is known now and what was known at the priority date and asking whether the former flows naturally and obviously from the latter, but by hypothesising what would have been obvious at the priority date to a person skilled in the art to which the patent-in-suit relates, who is assumed to have access to what was known of the art in the UK immediately before the priority date.

The hypothetical "skilled man" is a useful concept as setting a standard. In *Ben Huang, re*²³⁵, the prior art, Lau teaches that shock absorption derives in part from the compressible nature of the polyurethane layer. Given that the polyurethane layer absorbs shock, one of ordinary skill would logically infer that increasing the amount of the shock absorbing material would lead to an increase in the amount of shock absorption. Accordingly, one of ordinary skill would have experimented with various thicknesses to obtain an optimum range. Since Huang did not contend that he has achieved unexpected results by increasing the thickness of the polyurethane layer, it was concluded that the prior art grips in combination with Lau created a *prima facie* case of obviousness.

The invention may be the application of well-known technology to a particular problem, usually a new problem or an old one that has escaped attempts to solve it. Consideration of the magnitude of the problem and whether there have been many attempts to find a solution in the past, all of which have proved to be unsuccessful, will provide a useful rule of thumb. If such is the case, it can be presumed that the invention is not obvious, and again the commercial success of the invention can prove to be a helpful factor in deciding obviousness.

In *Parks-Cramer Co. v. G.W. Thornton and Sons Ltd.*²³⁶, the invention was for a method of cleaning floors between rows of textile machines. There had been many attempts to find a satisfactory solution but none of them, unlike the present invention, actually worked. The invention consisted of an overhead vacuum cleaner which moved automatically up and down the rows between the machines. But attached to the cleaners were long vertical tubes, reaching almost to the floor. The trial judge considered that the patent was invalid because it was obvious. He said that it was common knowledge to every competent housewife that dust could be removed from a floor by the passage of a vacuum cleaner. However, the Court of Appeals held that the patent was valid. The many unsuccessful attempts by inventors to find a solution and the immediate commercial success of the invention denied the possibility of a finding of obviousness.

235. 100 F 3d 135 (Fed Cir 1996).

236. 1966 RPC 407, 418 (CA).

Test of hindsight

The point in time that is critical for an obviousness determination is at the time of the invention.

To impute one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.²³⁷

It is incorrect to "pick and choose among individual parts of assorted prior art references as a mosaic to recreate a facsimile of the claimed invention".²³⁸

In evaluating obviousness, courts have been cautious to avoid hindsight bias. An obviousness analysis must focus on the prior art at the time of the invention. Courts must exclude from consideration any additions from technical knowledge that occurred after the date of the invention. The question of hindsight reconstruction was in issue in *Winslow, re*²³⁹.

Prior art for non-obviousness

Whether the invention is obvious is a question of fact. In *Lux Traffic Controls Ltd. v. Pike Signals Ltd.*²⁴⁰, the defendant claimed that the plaintiff's two patents in relation to traffic signal control systems were invalid on a number of grounds. The second patent was for a means of varying the intergreen period, the safety period between the lights in one direction changing to red and before the lights in the other direction changed to green. It was argued that the invention was obvious. The court found that the invention may have been simple, but it represented an advance and a technical contribution to the art. The question of obviousness depends on a great extent on the prior art.

The question of obviousness involves asking the question whether the invention would have been obvious to a non-inventive worker in the field equipped with the common general knowledge as at the priority date. In *Wellcome Foundation Ltd. v. V.R. Laboratories (Aust) Pty. Ltd.*²⁴¹, it was held that a consideration of the question of obviousness must be made against the background of the common general knowledge in the art in Australia.

The notion of common general knowledge itself involves the use of that which is known or used by those in the relevant trade. It forms the background knowledge and experience which is available to all in the trade in

237. *W.L. Gore & Associates Inc. v. Garlock Inc.*, 721 F 2d 1540: 220 USPQ 303 (Fed Cir 1983) cert. denied, 469 US 851 (1984).

238. *Akzo N.V. v. US International Trade Commission*, 808 F 2d 1471, 1481 (Fed Cir 1986).

239. 365 F 2d 1017 (1996).

240. 1993 RPC 107.

241. 1982 RPC 343.

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considering the making of new products, or the making of improvements in old, and it must be treated as being used by an individual as a general body of knowledge.²⁴²

A piece of particular knowledge as disclosed in a scientific paper does not become common general knowledge merely because it is widely read, and still less because it is widely circulated. Such a piece of knowledge only becomes general knowledge when it is generally known and accepted without question by the bulk of those who are engaged in the particular art.²⁴³

A basic premise of invention evaluation in prior art under patent law is that obviousness should be based upon the prior art existing at the time the invention was made. Later acquired knowledge should be ignored.

In *O'Farrell, re*²⁴⁴, the appellants sought to control the expression of cloned heterologous genes inserted into bacteria. They reported the results of their early efforts in a publication, the three authors of which included two of the three co-inventor-appellants (the Polisky reference), that is undisputed prior art against them.

The prior art explicitly suggested the substitution that is the difference between the claimed invention and the prior art, and presented preliminary evidence suggesting that the method could be used to make proteins. It was held that so much of the appellants' method was revealed in the Polisky reference that making a protein by substituting its gene for the ribosomal RNA gene in Polisky would have been obvious to one of ordinary skill in the art at the time that the invention was made.

In *Hazeltine Research Inc. v. Brenner*²⁴⁵, the sole question was whether an application for a patent pending in the Patent Office at the time a second application is filed, constitutes part of the prior art. The court found that the disclosures contained in the patent become a part of the prior art as of the time the application was filed and not at the time the patent is issued.

4.6.7 The pertinent art

Ascertaining the differences between the prior art and the claims at issue requires interpreting the claim language, and considering both the invention and the prior art references as a whole. The reference should spring from an analogous art in order to be considered pertinent for non-obviousness. The technology must also issue from a technical discipline that is relevant to the claimed invention. Technology developed prior to the invention date may be used as a reference for determining obviousness. In

242. *Minnesota Mining and Mfg. Co. v. Beiersdorf (Aust) Ltd.*, (1980) 144 CLR 253; 1980 HCA 9.

243. *British Acoustic Films Ltd. v. Nettlefold Productions Ltd.*, (1935) 53 RPC 221, 250 (CA).

244. 853 F 2d 894; 7 USPQ 2d 1673 (Fed Cir 1988).

245. 15 L Ed 2d 304; 382 US 252 (1965).

determining the differences between the prior art and the claims, the question is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious.²⁴⁶

A patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified.

In *Sponnoble, re*²⁴⁷, the claim was directed to a plural compartment mixing vial wherein a centre seal plug was placed between two compartments for temporarily isolating a liquid-containing compartment from a solids-containing compartment. The claim differed from the prior art in the selection of butyl rubber with a silicone coating as the plug material instead of natural rubber. The prior art recognised that leakage from the liquid to the solids compartment was a problem, and considered the problem to be a result of moisture passing around the centre plug because of microscopic fissures inherently present in moulded or blown glass. The court found that the inventor had discovered the cause of moisture transmission was through the centre plug, and there was no teaching in the prior art which would suggest the necessity of selecting applicant's plug material which was more impervious to liquids than the natural rubber plug of the prior art.

In *Wiseman, re*²⁴⁸, the court held that even if the applicants had discovered the cause of a problem, the solution would have been obvious from the prior art which contained the same solution for a similar problem.

In determining whether the invention as a whole would have been obvious, the invention must be delineated as a whole. In delineating the invention as a whole, not only should the subject-matter which is literally recited in the claim in question but also those properties of the subject-matter which are inherent in the subject-matter and are disclosed in the specification, should be considered.²⁴⁹ Obviousness cannot be predicated on what is not known at the time an invention is made, even if the inherency of a certain feature is later established.²⁵⁰ A prior art reference must be considered in its entirety, *i.e.* as a whole, including portions that would lead away from the claimed invention.

Analogous arts

For the purpose of analysing the obviousness of the subject-matter at issue, it must be determined what is "analogous prior art".

In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavour or, if

246. *Stratoflex Inc. v. Aeroquip Corpn.*, 713 F 2d 1530; 218 USPQ 87 (Fed Cir 1983).

247. 405 F 2d 578, 585 (CCPA 1969).

248. 596 F 2d 1019; 201 USPQ 658 (CCPA 1979).

249. *Antonie, re*, 559 F 2d 618 (CCPA 1977).

250. *Rijckaert, re*, 9 F 3d 1531; 28 USPQ 1955 (Fed Cir 1993).

not, then be reasonably pertinent to the particular problem with which the inventor was concerned.²⁵¹

Courts should not consider references that are "too remote to be treated as prior art".

In resolving the question of obviousness, the court should presume full knowledge by the inventor of all the prior art in the field of his endeavour. However, with regard to prior art outside the field of his endeavour, the court should presume knowledge from those arts reasonably pertinent to the particular problem with which the inventor was involved. The rationale behind this rule precluding rejections based on combination of teachings from references from non-analogous arts is the realisation that an inventor could not possibly be aware of every teaching in every art. The court found that determination that a reference is from a non-analogous art is, therefore, twofold. First, it should be decided if the reference is within the field of the inventor's endeavour. If it is not, then proceed to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved.²⁵²

A basis for determining whether art is analogous is to look at whether it deals with a problem similar to that being addressed by the inventor.²⁵³

The test is whether the claimed invention, considered as a whole, would have been obvious or non-obvious.²⁵⁴ In *Sage Products Inc. v. Devon Industries Inc.*²⁵⁵, the court held that a patent on a "simple and secure street letter box" formed analogue art to a disposal container for hazardous medical waste. According to the court, the patent on the letter box "was concerned with a container which could receive deposits, yet prevent persons from reaching inside", exactly the task to which the disposal container was directed.

The determination of whether a prior art reference is within the inventor's field or an analogous art, is a factual issue. Courts consider two factors in determining whether prior art is analogous:

1. whether the art is from the same field of endeavour, regardless of the problem addressed; and
2. if the reference is not within the field of the inventor's endeavour, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.²⁵⁶

A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavour, it is the one which, because

251. *Oetiker, re*, 977 F 2d 1443; 24 USPQ 2d 1443 (Fed Cir 1992).

252. *Union Carbide Corp. v. American Can Co.*, 724 F 2d 1567; 220 USPQ 584 (Fed Cir 1984).

253. *Pagliari, re*, 657 F 2d 1219; 210 USPQ 888 (CCPA 1981).

254. *Carl Schenck v. Nortron Corp.*, 713 F 2d 782, 785 (Fed Cir 1983).

255. 880 F Supp 718 (CD Cal 1994).

256. *Clay, re*, 966 F 2d 656, 658 (Fed Cir 1992).

of the matter with which it deals, logically would have commended itself to an inventor's attention in considering the problem. Thus, the purpose of both the invention and the prior art are important in determining whether the reference is reasonably pertinent to the problem the invention attempts to solve. If a reference disclosure has the same purpose as the claimed invention, the reference related to the same problem, and that fact supports use of that reference in an obviousness rejection. An inventor may well have been motivated to consider the reference when making his invention. If it is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it.

The claims in *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.*²⁵⁷ asserted invention of a cashier's counter equipped with a three-sided frame, or rack, with no top or bottom, which, when pushed or pulled, would move groceries deposited within it by a customer to the checking clerk and leave them there when it was pushed back to repeat the operation. It was kept on the counter by guides. That the resultant device works as claimed, speeds the customer on his way, reduces checking costs for the merchant, has been widely adopted and successfully used, appear beyond dispute. The court found that the invention if in a non-analogous art has to be sufficient to throw light on the inventor to make the invention.

A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavour, it is the one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem.²⁵⁸

In *Bland, ex p*²⁵⁹ claims were drawn to a particulate composition useful as a preservative for an animal foodstuff comprising verxite having absorbed thereon propionic acid. All references were concerned with absorbing biologically active materials on carriers, and therefore the teachings in each of the various references would have been pertinent to the problems in the other references and the invention at hand.

Combining references: Mosaicing

As long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor.²⁶⁰

When an obviousness determination relies on the combination of two or more references, there must be some suggestion or motivation to combine the references. The suggestion to combine may be found in explicit or implicit teachings within the references themselves, from the ordinary

257. 95 L Ed 162; 340 US 147 (1950).

258. *Clay, re*, 966 F 2d 656 (Fed Cir 1992).

259. 3 USPQ 2d 1103 (Bd Pat App & Inter 1986).

260. *Beattie, re*, 974 F 2d 1309, 1312 (Fed Cir 1992).



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knowledge of those skilled in the art, or from the nature of the problem to be solved. When determining the patentability of a claimed invention which combines two known elements, the question is whether there is something in the prior art as a whole to suggest the desirability, and thus, the obviousness, of making the combination.²⁶¹

In *Bilcare Ltd. v. Amartara (P) Ltd.*²⁶², it was observed in respect to mosaicing that it would not be a defence of the defendant to show that the various integers were known separately and the combination thereof cannot be patented as it would amount to mosaicing which is not permissible for determining the validity of the patent.

In *B.F. Goodrich Co. v. Aircraft Braking Systems Corpn.*²⁶³, it was held that the patent granted was invalid due to obviousness as a previous article made the invention obvious to a person skilled in the art.

A key aspect of the practical administration of the non-obviousness standard is making the determination that the combination of two or more pieces of prior art is appropriate in a given case. There must be some reason, suggestion or motivation found in the prior art or in the prior art references to make a combination to render an invention obvious. The test is whether the teachings of the prior art, taken as a whole, would have made obvious the claimed invention and what the combined teachings would have suggested to one of ordinary skill in the art. Prior art as a whole must suggest the desirability of making the combination. But it is not necessary that the prior art specifically suggests making the combination. Such suggestion or motivation to combine prior art teachings can derive solely from the existence of a teaching which one of ordinary skill in the art would be presumed to know and the use of that teaching to solve the same or similar problem which it addresses.

In *Rouffet, re*²⁶⁴, the court concluded that the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. The court also identified three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art.

When the references are in the same field as that of the applicant's invention, knowledge thereof is presumed. However, the test of whether it would have been obvious to select specific teachings and combine them as did the applicant must still be met by identification of some suggestion,

261. *WMS Gaming Inc. v. International Game Technology*, 184 F 3d 1339; 51 USPQ 2d 1385 (Fed Cir 1999).

262. (2007) 34 PTC 419 (Del).

263. 72 F 3d 1577, 1582 (Fed Cir 1996).

264. 149 F 3d 1350 (Fed Cir 1998).

teaching, or motivation in the prior art, arising from what the prior art would have taught a person of ordinary skill in the field of the invention.

The combination of elements from non-analogous sources in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness. There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination.²⁶⁵

While there must be some teaching, reason, suggestion, or motivation to combine existing elements to produce the claimed device, it is not necessary that the cited references or prior art specifically suggest making the combination.²⁶⁶ Such suggestion or motivation to combine prior art teachings can derive solely from the existence of a teaching, which one of ordinary skill in the art would be presumed to know, and the use of that teaching to solve the same or similar problem which it addresses.²⁶⁷

In *Medtronic Inc. v. Cardiac Pacemakers Inc.*²⁶⁸, patent claims were drawn to a cardiac pacemaker which comprised, among other components, a runaway inhibitor means for preventing a pacemaker malfunction from causing pulses to be applied at too high a frequency rate. Two references disclosed circuits used in high-power, high-frequency devices which inhibited the runaway of pulses from a pulse source. The court held that one of ordinary skill in the pacemaker designer art faced with a rate-limiting problem would look to the solutions of others faced with rate-limiting problems and, therefore, the references were in an analogous art.

Person skilled in the art: Hypothetical skilled person

4.6.10

Determination of the appropriate level of skill in the art often proves a difficult inquiry. The person skilled in the art is someone with a wide knowledge of the technology within which the invention lies. The question is: Would the invention be obvious to such a person? The court in considering the skills of the notional "person skilled in the art" for the purposes of obviousness will have regard to the reality of the position at the time.²⁶⁹

In *Environmental Designs Ltd. v. Union Oil Co.*²⁷⁰, the court provided the following list of factors to be considered in determining the level of ordinary skill in the art:

265. *Oetiker, re*, 977 F 2d 1443; 24 USPQ 2d 1443 (Fed Cir 1992).

266. *Nilsen, re*, 851 F 2d 1401; 7 USPQ 2d 1500 (Fed Cir 1988).

267. *Wood, re*, 599 F 2d 1032; 202 USPQ 171 (CCPA 1979).

268. 721 F 2d 1563; 220 USPQ 97 (Fed Cir 1983).

269. *Dyson v. Hoover*, 2002 RPC 465.

270. 713 F 2d 693 (Fed Cir 1983), Cert. denied, 464 US 1043 (1984).

1. the educational level of the inventor;
2. type of problems encountered in the art;
3. prior art solutions to those problems;
4. rapidity with which inventions are made;
5. sophistication of the technology; and
6. educational level of active workers in the field.

The hypothetical person having ordinary skill in the art to which the claimed subject-matter pertains would, of necessity, have the capability of understanding the scientific and engineering principles applicable to the pertinent art.²⁷¹

The notional skilled addressee is the ordinary man who may not have the advantages that some of the employees of large companies may have. What would be obvious to one skilled in the art is a different question from what would be obvious to a layman. An artisan is likely to extract more than a layman from reading a reference.

Instead of ascertaining what was subjectively obvious to the inventor at the time of invention, the court must ascertain what would have been objectively obvious to one of ordinary skill in the art at such time. Hence, the level of ordinary skill in the art is a factual question that must be resolved and considered.

In *Dyson Appliances Ltd. v. Hoover Ltd. (2)*²⁷² (*Dyson*), the court looked at obviousness in detail, concluding that the level of skill of the skilled man would depend on the proper scope of the subject-matter of the patent in question. The court held that when considering the common general knowledge, it was customary to consider the "positive" aspects of the knowledge with which the skilled man would be familiar, but in certain cases it was also necessary to consider the "negative" aspects, i.e. what the skilled man would be prejudiced against doing. Furthermore, if the skilled man does not perceive a problem with the prior art, it becomes difficult to establish the obviousness of taking a particular step which would bring that prior art within the scope of the claims in question.

Probative of the required level of skill in the art are factors such as educational level of the inventor, educational level of those who work in the industry which manufactures powered system activation devices, and the sophistication of technology involved.

In *Valensi v. British Radio Corpn. Ltd.*²⁷³, Buckley LJ said:

... the hypothetical addressee is not a person of exceptional skill and knowledge, and he is not to be expected to exercise any invention nor any prolonged research, inquiry or experiment. He must, however, be prepared to display a reasonable degree of skill and common knowledge of the art in making trials

271. *Hiyamizu, ex p.*, 10 USPQ 2d 1393 (Bd Pat App & Inter 1988).
272. 2001 RPC 544.

273. 1973 RPC 337; 1972 FSR 275 (CA).

and to correct obvious errors in the specification, if a means of correcting them can be easily found.

In *Standard Oil Co. v. American Cyanamid Co.*²⁷⁴ it was said, "a person of ordinary skill in the art is also presumed to be one who thinks along the lines of conventional wisdom in the art and is not one who undertakes to innovate".

The nature of the person skilled in the art was discussed in *Beloit Technologies Inc. v. Valmet Paper Machinery Inc.*²⁷⁵, where Aldous LJ said:

the person skilled in the art was the notional addressee of the patent. He lacked inventive capacity, but was deemed to have the common general knowledge in the art. He was the ordinary man who might not have the advantages, such as libraries and patent departments, that some employees of large companies might have.

The qualities of the notional skilled man were reviewed by Laddie J in *Pfizer Ltd.'s Patent*²⁷⁶, thus:

The question of obviousness has to be assessed through the eyes of the skilled but non-inventive man in the art. This is not a real person. He is a legal creation. He is supposed to offer an objective test of whether a particular development can be protected by a patent. He is deemed to have looked at and read publicly available documents and to know of public uses in the prior art. He understands all languages and dialects. He never misses the obvious nor stumbles on the inventive. He has no private idiosyncratic preferences or dislikes. He never thinks laterally. He differs from all real people in one or more of these characteristics. A real worker in the field may never look at a piece of prior art—for example he may never look at the contents of a particular public library—or he may be put off because it is in a language he does not know. But the notional addressee is taken to have done so.

The hypothetical technician must also be taken as applying his mind to the commercial consequences which might follow if the step or process in question were found in practice to achieve or assist the objective which he had in view.²⁷⁷

The concept of obviousness has now assumed a broader significance. Where a team of individuals is to be involved, courts have held that if the invention would be obvious to the team then that is enough.

Laddie J accepting that there could be invention in the marrying of two different skills held:

In some cases a patent claim may cover a wide field so that some parts of it will be obvious to the notional skilled person in one field and other parts will

274. 774 F 2d 448; 227 USPQ 293 (Fed Cir 1985).

275. 1997 RPC 489, 494.

276. 2001 FSR 201.

277. *Hallen Co. v. Brabantia (UK) Ltd.*, 1991 RPC 195, 213.

be obvious to the notional skilled person in another. That is not unfair to the patentee... but is simply a reflection of the fact that the scope of the protection sought is wide. I accept, of course, that in some cases there will be invention in marrying together concepts from two unrelated arts.²⁷⁸

In *Schlumberger Holdings Ltd. v. Electromagnetic Geoservices AS*²⁷⁹, Jacob LJ stated:

Person skilled in the art need not be necessarily the same before and after the invention is made. The person skilled in the art for obviousness is not necessarily the same person skilled in the art for performing the invention once it is made... Some inventions are themselves art changing. If a patentee says 'marry the skills of two different arts to solve a problem', marrying may be obvious or it may not. If it is not, and doing so results in a real technical advance then the patentee deserves and ought to have a patent. His vision is out of the ordinary.

The court while deciding the case laid down that the correct approach should be to find out "was the marriage obvious to either notional partner?"

4.6.11 Test of inventive step

The decision of the Court of Appeals in *Windsurfing International Inc. v. Tabur Marine (GB) Ltd.*²⁸⁰ (*Windsurfing*) presents a detailed discussion of the British standard of obviousness. The question to be decided when an objection is made on the ground of obviousness is one which has to be answered not by looking with the benefit of hindsight. The plaintiff held a patent for a windsurfer, which claimed the following combination of features:

1. an unstayed spar (*i.e.* a mast without lines to hold it in position) seated in a universal joint (allowing it to move in all directions above the board); and
2. a Bermuda rig (*i.e.* a triangular sail) held taut between a pair of arcuate booms, themselves mounted on the spar, so as to be able to move laterally around it and fixed together at the other end.

The second half of these groups of features was well known at the priority date. What was novel was its combination with the unstayed spar in a universal joint which allowed the users to escape from too high winds by capsizing the sail into the water, both crucial features of the craft.

The patent was attacked as obvious using two pieces of prior art:

1. an article by Darby; and
2. use by Chilvers of a home-built craft for two summers at Hayling Island, which embodied the same concept, save that the booms were straight, at least when not in use.

278. *Inhale Therapeutic Systems Inc. v. Quadrant Healthcare Plc*, 2002 RPC 21, 42.
279. 2010 EWCA Civ 819.
280. 1985 RPC 59; 1985 FSR 59.

Oliver LJ (for the Court of Appeals) laid down the principles to be considered:

1. The first is to identify the inventive concept embodied in the patent-in-suit.
2. Thereafter, the court has to assume the mantle of the normally skilled but unimaginative addressee in the art at the priority date and to impute to him what was, at the date, common general knowledge in the art in question.
3. The third step is to identify what, if any, differences exist between the matter cited as being "known or used" and the alleged invention.
4. Finally, the court has to ask itself whether, viewed without any knowledge of the alleged invention, those differences constitute steps which have been obvious to the skilled man or whether they required any degree of invention.

The *Windsurfing*²⁸¹ test has been approved and applied on numerous occasions ever since. It does not, however, alter or supplement the statutory provision; it merely affords a structured way of assessing whether the requirement of inventive step has been satisfied.

In *PLG Research Ltd. v. Ardon International Ltd.*²⁸², the Court of Appeals confirmed that patents for heavy-duty plastic netting made by stretching sheets of perforated plastic were non-obvious, reversing the decision of Aldous LJ in the Patent Court. Millett LJ summarised the principles to be adopted in terms of obviousness, thus:

1. the criterion for determining whether the claimed invention involves an inventive step is wholly objective and is defined in Section 3 of the Act;
2. the test is qualitative, not quantitative, and paraphrasing the statutory test in other cases does not assist;
3. the court must make findings of fact as to the state of the art at the priority date and, in the light of that, decide whether the invention was obvious to the skilled person;
4. assessment of obviousness with hindsight must be avoided; and
5. where the validity of a patent is being attacked on the basis of lack of inventive step, the burden of proof lies on the person making the attack to show that the invention did not involve an inventive step.

Almost invariably, a court faced with the task of deciding whether an invention involves an inventive step, will adopt the *Windsurfing*²⁸³ test.

281. 1985 RPC 59; 1985 FSR 59.
282. 1995 RPC 287; 1995 FSR 116.
283. 1985 RPC 59; 1985 FSR 59.

4.6.12 Improvements

The main thrust of the decision in *Fives-Cail Babcock's Application*²⁸⁴ was whether substitution of material can be considered as non-obvious.

The assessment of whether the problem's solution, which consists in replacing metal by a synthetic resin reinforced with glass fibres, involves an inventive step must be made by reference to the knowledge and ability of a material's specialist. A material's specialist customarily uses plastic in place of traditional materials, particularly in cases where traditional materials would not function satisfactorily. He also knows that synthetic resins reinforced with glass fibres meet those requirements. It was held that the subject-matter of the claim does not involve an inventive step.²⁸⁵

The Bombay High Court in *Press Metal Corpn. Ltd. v. Noshir Sorabji*²⁸⁶ held that the claim made of the muffler was no more than a workshop improvement and hence was considered as not patentable. In view of the disclosure of the prior art in the two books referred, it was held that the alleged invention was obvious and clearly lacking in inventive step.

In *Mobey Chemical's Application*²⁸⁷, the applicant claimed a process for producing MBP, which was liquid and stable in storage, by heating the substance in the presence of a catalyst to a temperature of 180 to 300°C and then quenching it to 100°C or less. This was said to be an improvement over the prior art, in which quenching was not used and the catalyst had to be removed by the use of a poison which itself had undesirable consequences. Alternatively, higher temperatures had to be used. That the catalysts decompose at higher temperature, represents a valuable simplification of the state of the art which could not have been found without an inventive step.

4.6.13 Standard for combination patents

Evidence of unexpected functionality can overcome the presumption of obviousness of combinations of old elements. The presumption could be overcome by proving that either the prior art could have provided no motivation to make the combination or the combination has unexpected functional characteristic. No patent could be validly issued without the development of a new idea and the exercise of inventive faculty. Application of old process to new subjects does not require the exercise of inventive faculty.²⁸⁸

In *Laxmi Dutt Roop Chand v. Nankan*²⁸⁹, the plaintiff held a patent for manufacture of hollow wares. Hollow wares were manufactured at

284. 1982 OJ EPO 225.

285. *Fives-Cail Babcock's Application*, 1982 OJ EPO 225.

286. AIR 1983 Bom 144.

287. 1982 OJ EPO 394.

288. *Brown v. Piper*, 23 L Ed 200: 91 US 37 (1875).

289. AIR 1964 All 29.

the place where the defendant resided from time immemorial. The court found:

The plaintiff had to prove that an improvement had been made on something which was already known by a new combination of different parts. He had further to prove that the patented combination... was one in which the component parts were so combined as to produce a new result in a better or some expeditious or some economical manner. A mere collection of two or more things, however, without some exercise of the inventive faculty in combining them is not a subject-matter for a patent.

The court found that there was no novelty in the process because jointless hollow wares were being prepared in Bandhua from times immemorial and for the last 25-26 years, "darjas" were also used.

It was possible to read in obviousness when evidence of each of the limitations of the claim-at-issue was present in the two prior art references, with the exception of one element which was well known in the art at the time of the invention. The Federal Circuit Court in *Leapfrog Enterprises Inc. v. Fisher-Price Inc.*²⁹⁰ concluded that the subject-matter of the claim of the patent in issue would be obvious in view of the combination of two prior art references and the knowledge of one of ordinary skill in the art.

In *Gillette Co. v. S.C. Johnson & Son Inc.*²⁹¹, the claimed combination is a composition whose individual components were concededly well known at the time of the invention. It was held that nothing in the prior art suggested the idea of a post-foaming shaving gel, much less one in which water soluble polymers were used. The Bluard patent, which is the closest prior art and the only reference to disclose a post-foaming preparation, would discourage the art worker from attempting substitution suggested by Gillette.

The court in *Sabaf SpA v. MFI and Meneghetti SpA*²⁹² held that it must not be forgotten that the very act of putting together two or more features may involve an inventive step. Great care must therefore be exercised in relation to an invention involving such a combination.

In a case alleged to involve a mere collocation of two known concepts, the correct question was whether it would be obvious to the skilled man to combine those concepts.²⁹³

*American Home Products Corpn. v. Novartis Pharmaceuticals UK Ltd.*²⁹⁴ was a case where the basis of the invention was the discovery that rapamycin, a known product, acted as an immunosuppressant. The variant was an analogue of rapamycin and the court held that it would

290. 485 F 3d 1157, 1161 (Fed Cir 2007).

291. 919 F 2d 720: 16 USPQ 2d 1923 (Fed Cir 1990).

292. 2003 RPC 267.

293. *Wood v. Gowshall Ltd.*, (1936) 54 RPC 37.

294. 2001 RPC 159 (CA).

not have been obvious to the skilled person that the particular analogue would work as an immunosuppressant.

A new application of an old device may not be patented if the result claimed as new is the same in character as the original result. This issue has been settled in *Cuno Engg. Corp. v. Automatic Devices Corp.*²⁹⁵ The claim in question was filed by Mead for improvements in lighters. Earlier a Morris lighter was issued for a wireless or cordless lighter. Mead added to the so-called wireless or cordless lighter, a thermostatic control responsive to the temperature of the heating coil. Copeland, filed before Mead, showed an electric lighter for cigars and cigarettes with thermostatic control. The question was: Whether it was invention for one skilled in the art and familiar with Morris and Copeland and with the extensive use of the automatic thermostatic control of an electric heating circuit, to apply the Copeland automatic circuit to the Morris removable heating unit in substitution for a circuit manually controlled. It was found that Mead merely incorporated the well-known thermostat in the old wireless lighter to produce a more efficient, useful and convenient article. Ingenuity was required to effect the adaptation, but no more than that was to be expected of a mechanic skilled in the art.

An analysis of obviousness of a claimed combination must include consideration of the results achieved by that combination.²⁹⁶ In *Seymour v. Osborne*²⁹⁷, the Supreme Court held that a combination of or improvement upon old elements was patentable if it produces a new and useful result.

Law requires more than a change of form, or juxtaposition of parts, or of the external arrangement of things, to give patentability.²⁹⁸ The court invalidated a patent claiming the combination of an ordinary pencil and an Indian rubber eraser.²⁹⁹ It is the prior art itself, and not the applicant's achievement, that must establish the obviousness of the combination.³⁰⁰

The function of a patent is to add to the sum of useful knowledge. Patents cannot be sustained when their effect is to subtract from former resources freely available to skilled artisans. Courts should scrutinise combination patent claims with care.

The mere aggregation of a number of old parts or elements which, in the aggregation, perform or produce no new or different function or operation than that theretofore performed or produced by them, is not patentable invention. The conjunction or concert of known elements must

295. 86 L Ed 58: 314 US 84 (1941).

296. *Interconnect Planning Corp. v. Feil*, 774 F 2d 1132: 227 USPQ 543 (Fed Cir 1985).

297. 20 L Ed 33: 78 US 516 (1870).

298. *Reckendorfer v. Faber*, 23 L Ed 719: 92 US 347 (1875).

299. *Ibid.*

300. *Interconnect Planning Corp. v. Feil*, 774 F 2d 1132 (Fed Cir 1985).

contribute something; only when the whole in some way exceeds the sum of its parts is the accumulation of old devices patentable.³⁰¹

A patent for a combination which only unites old elements with no change in their respective functions, obviously withdraws what already is known in the field of its monopoly and diminishes the resources available to skilful men. This patentee has added nothing to the total stock of knowledge, but has merely brought together segments of prior art and claims them in congregation as a monopoly.

A combination of old elements is patentable only if "a separate independent effect" is achieved beyond the separate and well-known effects produced by old elements.³⁰²

In *Anup Engg. Ltd. v. BHEL*³⁰³, the application was for the grant of patent in respect of apparatus for producing metallic bellows. In regard to the ground of obviousness, the opponents had asserted that no inventive step or skill was required for arranging two known machines, *i.e.* the hydraulic forming machine and the roll forming machine, in the manner done by the applicants. The opponents submitted that the alleged invention consisted of a combination of two known machines. The court came to the conclusion that the invention was only a combination and hence not entitled to protection.

In *Williams v. Nye*³⁰⁴, the plaintiff patented a machine for making sausages which was in effect a combination of a mincing machine and a filling machine, both of which were old. He brought an action for infringement against the defendant who put in issue the validity of the patent on the ground that the alleged invention consisted simply in joining two well-known machines and, therefore, was not patentable.

Gilbert and Nye's patent consisted of two things: first of all there was the cutting part and then there was the filling part, that filling part being a screw which operated upon the cut meat and forced it along into the skin which had to be filled. Donald improved the cutting part. He did nothing to the filling part, but left it out. Therefore what the plaintiff had done was to substitute Donald's cutter for Gilbert's cutter. The object was perfectly well known; the utility of the forcing nozzle was known; the object of it had been attained before and there was nothing which amounted to what is understood by an invention. Lindley LJ held that the patent must be held invalid.

If a new combination and arrangement of known elements produce a new and beneficial result, never attained before, it is evidence of invention.³⁰⁵

301. *Lincoln Engg. Co. v. Stewart-Warner Corp.*, 82 L Ed 1008: 303 US 545 (1938).

302. *Pickering v. McCullough*, 26 L Ed 749: 104 US 310 (1881).

303. 1985 PTC 71.

304. (1890) 7 RPC 62 (CA).

305. *Loom Co. v. Higgins*, 26 L Ed 1177: 105 US 580 (1881).

IV

4.7 Patentable subject-matter

Patent eligibility means the subject-matter that is open to patenting. Patents are granted to inventions that satisfy the statutory requirements of novelty, inventive step and industrial application. In addition to this statutory criteria, a patent will be granted only where the invention is not an excluded category. Under the US law, an invention is patent eligible if it satisfies the requirements of a patentable invention.³⁰⁶ In contrast to the US statutes, the EPC does not expressly state which sorts of inventions are patent eligible. The drafters defined patent eligibility in the negative excluding the following categories of inventions, namely:

1. discoveries, scientific theories and mathematical methods;
2. aesthetic creations;
3. schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers; and
4. presentation of information.³⁰⁷

The Indian Patents Act corresponds to the negative method of excluding the categories of inventions that are not patent eligible. Patent law contains a non-exhaustive list of things which shall not be regarded as inventions. The exclusions on this list are either abstract or not technical.³⁰⁸

306. 35 USC S. 101.

307. EPC, Art. 52, reads:

1. European patents shall be granted for inventions [in all fields of technology], as far as they are new, involve an inventive step and are susceptible of industrial application.
2. The following in particular shall not be regarded as inventions within the meaning of Para. 1:
 - (a) discoveries, scientific theories and mathematical methods;
 - (b) aesthetic creations;
 - (c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;
 - (d) presentation of information.
3. The provisions of Para. 2 shall exclude patentability of the subject-matter or activities referred to in that provision only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.
4. Methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practised.

308. Indian Patents Act, S. 3, reads:

The following are not inventions within the meaning of this Act:

- (a) an invention which is frivolous or which claims anything obviously contrary to well-established natural laws;
- (b) an invention the primary or intended use or commercial exploitation of which could be contrary to public order or morality or which causes serious prejudice to human, animal or plant life or health or to the environment;
- (c) the mere discovery of a scientific principle or the formulation of an abstract theory or discovery of any living thing or non-living substances occurring in nature;

The TRIPS Agreement also defines patentable subject-matter as follows³⁰⁹:

27. *Patentable subject matter.*—(1) Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced.

(2) Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.

(3) Members may also exclude from patentability:

- (d) the mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or new use for a known substance or of the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant;

Explanation: For the purposes of this clause, salts, esters, ethers, polymorphs, metabolites, pure form, particle size, isomers, mixtures of isomers, complexes, combinations and other derivatives of known substance shall be considered to be the same substance, unless they differ significantly in properties with regard to efficacy.

- (e) a substance obtained by a mere admixture resulting only in the aggregation of the properties of the components thereof or process for producing such substance;
- (f) the mere arrangement or rearrangement or duplication of known devices each functioning independently of one another in a known way;
- (g) [* * *]
- (h) a method of agriculture or horticulture;
- (i) any process for the medicinal, surgical, curative, prophylactic [diagnostic, therapeutic] or other treatment of human beings or any process for a similar treatment of animals [* * *] to render them free of disease or to increase their economic value or that of their products;
- (j) plants and animals in whole or any part thereof other than micro-organisms by including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals;
- (k) a mathematical or business method or a computer program *per se* or algorithms;
- (l) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions;
- (m) a mere scheme or rule or method of performing mental act or method of playing game;
- (n) a presentation of information;
- (o) topography of integrated circuits;
- (p) an invention which in effect, is traditional knowledge or which is an aggregation or duplication of known properties of traditionally known component or components.

309. TRIPS Agreement, Art. 27.

- (a) diagnostic, therapeutic and surgical methods for the treatment of humans or animals; and
- (b) plants and animals other than microorganisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof. The provisions of this subparagraph shall be reviewed four years after the date of entry into force of the WTO Agreement.

4.7.1 *Frivolous inventions and inventions contrary to natural laws: Section 3(a)*

An invention that lacks utility because it serves no purpose or use is called a frivolous invention. It was held in *Indian Vacuum Brake Co. Ltd. v. E.S. Luard*³¹⁰ that patent for making in one-piece articles which were formerly prepared in two or more pieces could not be called to be a valid patent and was frivolous. Mere usefulness is not sufficient to support the patent.

Recently there has been a flood gate of frivolous patents in the pharmaceutical sector. Section 3(d), Indian Patents Act is an attempt to stop such frivolous patents.

4.7.2 *Inventions contrary to public order or morality: Section 3(b)*

There is no universally accepted notion of *ordre public*. Member countries have some flexibility to define which situations are covered, depending upon their own social and cultural values. Under the TRIPS Agreement also, *ordre public* is one of the recognised grounds for exceptions from patentability.³¹¹ Article 27.2 indicates that the concept is not limited to security reasons, it also relates to the protection of "human, animal or plant life or health" and may be applied to inventions that may lead to "serious prejudice to the environment".

Inventions that are contrary to *ordre public* and morality are not granted patent protection. The EPC states, "inventions the commercial exploitation of which would be contrary to *ordre public* or morality; such exploitation shall not be deemed to be so contrary merely because it is prohibited by law or regulation in some or all of the contracting States".³¹²

In *Plant Genetic Systems/Glutamine Synthetase Inhibitors*³¹³, the invention related to the genetic engineering of plants and seeds in order to make them herbicide resistant.

In the Board's judgment, none of the claims of the patent-in-suit refer to subject-matter which relates to a misuse or destructive use of plant biotechnological techniques, because they concern activities and products which cannot be considered to be wrong as such in the light of conventionally

310. AIR 1926 Cal 152; 92 IC 1008.

311. TRIPS Agreement, Art. 27(2).

312. EPC, Art. 53(a).

313. 1995 EPOR 357.

accepted standards of conduct of European culture. Alleged environmental consequences due to these activities will have to be considered against the background of the *ordre public* issue.

The function of the Patent Office is to grant patents, *i.e.* exclusive rights to make use of inventions claimed in said patents for a limited geographical area and for a specified time. The Board agreed with the appellant's submission that Patent Offices are placed at the crossroads between science and public policy. However, at this crossroad, Patent Officers are not alone, but find themselves side by side with an increasing number of other authorities and bodies, in particular, regulatory authorities and bodies, whose function is, *inter alia*, to ensure that the exploitation of a given technology, regardless of whether it is protected by a patent or not, takes place within the regulatory framework provided by laws, international treaties, administrative provisions, and so on. The assessment of the hazards stemming from the exploitation of a given technology is one of the important duties of such regulatory authorities and bodies.

In most cases, potential risks in relation to the exploitation of a given invention for which a patent has been granted cannot be anticipated merely on the basis of the disclosure of the invention in the patent specification.

Developments in technology have associated risks. Genomes are discovered by research into diseases. Patent for such inventions can raise legal, ethical and moral issues. The issue of patenting of genomes has become highly controversial in the context of application for patenting human genomes.

The recent EPO jurisprudence is to adopt a narrow interpretative approach to morality. In *R. v. Leland Stanford/Modified Animal*³¹⁴, the patent for an immunocompromised chimeric mouse was upheld and the EPO ruled that the controversial nature of the technology did not act as a bar to patenting. In the opposition proceedings, the patent was amended to exclude human or animal embryonic cells. On the issue of *ordre public* and morality, the Opposition Division carried out the balancing test and noted that the claimed invention provided the only animal model for HIV-1 infection and could be used to test potential anti-AIDS therapies before human trials were undertaken. Other benefits included the promise of a supply of human cells and organs of transplant in the future. The Opposition Division dismissed the hypothetical potential risks associated with the invention. In order for risks to be taken into account, they had to be conclusively documented hazards and not just possibilities. Further, the Opposition Division noted that xenotransplantation was already subject to regulatory control and that it agreed with the patentee that "as long as a claimed invention has a legitimate use, it cannot be the role of the EPO to act as a moral censor and invoke the provisions of morality".

314. 2002 EPOR 2.



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The implications of *ordre public* were considered by courts in *Harvard Onco-Mouse*³¹⁵. In 1985, the President and Fellows of Harvard College applied for a Europatent entitled “Method for producing transgenic animals”. The Examining Division granted the patent in 1992 in respect of “non-human mammalian animals” arguing that patent law is not the right legislative tool for regulating problems arising in connection with the genetic manipulation of animals. The genetic manipulation of mammalian animals is problematic, as the activated oncogene reinserted to make an animal abnormally sensitive to carcinogenic substances and stimuli, and consequently prone to develop tumours, causes suffering. Inventions in connection with a new technology have to be weighed with the risks on the one hand and the positive aspects on the other in order to ascertain whether they satisfy the requirement of the EPC.³¹⁶ The examiners adopted the balancing approach that was utilitarian, weighing the pain inflicted on the mice with the beneficial consequence on humans. Oppositions against the patent led to the decision in November 2001 to maintain the patent but limited its application to “transgenic rodents”. Several appeals against that decision lodged in March 2003 were heard by the Technical Board of Appeal that decided to restrict the patent further to “transgenic mice”.

In *Howard Florey Institute/Relaxin*³¹⁷ (*Relaxin*), the office upheld a patent for a genetically engineered form of the human H2-Relaxin protein despite challenges that it was tantamount to slavery and an attempt to patent life.

The decision of the Enlarged Board of Appeal on the patentability of Wisconsin Alumni Research Foundation’s (WARF) application filed by James Thomson and WARF has set a precedent by which no Europatent would issue on inventions the exploitation of which involves the destruction of a human embryo.

The question was whether the invention relating to a process for obtaining stem cells from human embryos falls under the prohibition of the rules of EPC. On its face, Rule 28(c) EPC prohibits the patenting if a human embryo is used for industrial or commercial purposes. Such a reading is also in line with the concern of the legislator to prevent a misuse in the sense of a commodification of human embryos and with one of the essential objectives of the whole directive to protect human dignity. The appellant argued that the very fact that the community funds such research shows that the legislator did not want to exclude activities such as those underlying the present invention and which include the point use and destruction of human embryos. The Enlarged Board of Appeal did not find favour with this contention of the appellant and found that selective funding in no way supports the appellant’s position.

315. 1991 EPOR 525; 1990 OJ EPO 476 (Tech Bd App).
317. (1995) 162 OJ EPO 388.

316. *Ibid.*

The Enlarged Board of Appeal found:

What needs to be looked at is not just the explicit wording of the claims but the technical teaching of the application as a whole as to how the invention is to be performed. Before human embryonic stem cell cultures can be used they have to be made. Since in the case referred to the Enlarged Board the only teaching of how to perform the invention to make human embryonic stem cell cultures is the use (involving their destruction) of human embryos, this invention falls under the prohibition of Rule 28(c).

The Enlarged Board of Appeal also held that it is not the fact of the patenting itself that is considered to be against *ordre public* or morality, but it is the performing of the invention, which includes a step (the use involving its destruction of a human embryo) that has to be considered to contravene those concepts.³¹⁸

Discoveries of scientific principles and natural phenomenon: Section 3(c)

4.7.3

Discoveries having no way of carrying them into effect, mere ideas, mere schemes and plans, scientific theories and mathematical algorithms have traditionally been regarded as not *per se* patentable, because they do not exhibit the requirements of a manner of manufacture. Discoveries as such are an excluded category, for to allow a patent to a bare discovery would monopolise every application subsequently found for that discovery within the duration of the patent. No patent statute in any country contains a definition of the word “invention”. The logic behind excluding discoveries is evident from the discussions of Healy Circuit Judge in *Vitamin Technologists Inc. v. Wisconsin Alumni Research Foundation*³¹⁹, wherein he stated, “Ultraviolet light is a natural form of energy.... Ultraviolet rays is the property of all mankind.... It could be a monstrous thing if the energy itself could be made the subject of monopoly.”

This would have the effect of deterring further research, inhibit competition and deprive the public of a knowledge that had always existed, only waiting to be uncovered.

The fact that a known material or article is found to have a hitherto unknown property is a discovery and not an invention. But if the discovery leads to the conclusion that the material can be used for making a particular article or in a particular process, then the article or process could be patentable.

In all the natural sciences, there is a close relationship between the act of discovery and the act of invention. Invention often follows so closely upon the heels of discovery that it can be difficult to distinguish between them. The statement of Buckley J made nearly a century ago helps to draw the line:

318. WARF/Thomson Stem Cell Application, 2009 OJ EPO 306.
319. 146 F 2d 941 (9th Cir 1944).

Of course the difference between discovery and invention is very familiar. Discovery adds to the amount of human knowledge, but it does so only by lifting a veil and disclosing something which before had been unseen or dimly seen. Invention also adds to human knowledge, but not merely by disclosing something. Invention necessarily involves also the suggestion of an act to be done and it must be an act which results in a new product, or a new result, or a new process, or a new combination for producing an old product or an old result.

As early as in 1931, the US Supreme Court distinguished between discovery and invention. The claim in *American Fruit Growers v. Brogdex Co.*³²⁰ among others comprised of "fresh citrus fruit of which the rind or skin carries borax in amount that is very small but sufficient to render the fruit resistant to blue mold decay".

The Supreme Court held that the addition of borax to the rind of natural fruit does not produce from the raw material an article for use which possesses a new or distinctive form, quality, or property. Acknowledging that the complete article is not found in nature and treatment, labour and manipulation went into producing the fruit, the court held that the fruit did not become an article of manufacture unless it possesses a new or distinctive form, quality or property compared to the naturally occurring article.

Distinguishing product of nature from invention, the Supreme Court held in *American Wood Paper Co. v. Fibre Disintegrating Co.*³²¹ that refined cellulose, consisting of purified pulp derived from wood and vegetable was unpatentable because it was an extract obtained by the decomposition or disintegration of material substance.

The concept of product of nature was elaborated by the Federal Circuit Court in *Marden, re*³²². It was held that uranium is a product of nature and the appellant is not entitled to a patent on the same, or upon any of the inherent natural qualities of that metal.

The finding of a new substance or microorganism occurring freely in nature is a discovery and not an invention, but if it were necessary to isolate and extract it then a process developed for this purpose, and also the material when obtained by this process, could both be patentable. Furthermore, if the material had no previously recognised existence, and can be adequately identified without reference to the process by which it is obtained, then it may be patentable *per se*.

Robert W. Sweet J of the Southern District of New York ruled in favour of the plaintiffs in *Assn. of Molecular Pathology v. US Patent and Trademark Office*³²³ (*Myriad*), granting partial summary judgment

320. 75 L Ed 801: 283 US 1, 12 (1931).

321. 23 L Ed 31: 90 US 566 (1874).

322. 47 F 2d 957: 8 USPQ 363 (CCPA 1931).

323. 702 F Supp 2d 181 (SDNY 2010).

that the claims of several patents on breast cancer (BRCA1) were invalid as encompassing non-statutory subject-matter. The court found that the purification of a native DNA does not alter its essential characteristic, its nucleotide sequence that is defined by nature and central to both its biological function within the cell and its utility as a research tool in the lab. On appeal, the Federal Circuit Court of Appeals reversed the District Court and held that Myriad's patents were valid.³²⁴ The US Supreme Court³²⁵ decided that cDNA was patent eligible but genomic DNA (and fragments thereof including oligonucleotides) was not. A naturally occurring DNA segment is a product of nature and not patent eligible merely because it has been isolated.

The ratio of Neuberger J in *Kirin-Amgen Inc. v. Roche Diagnostics GmbH*³²⁶ is that inventions which involve a technical contribution will not be refused a patent merely because they relate to business methods or mental acts. The essential feature of the invention was discovery, namely, DNA sequence of a substantial part of a particular gene. Nevertheless, it was a discovery that made a technical contribution and was suitable for the claimed purpose, and therefore not excluded from patentability.

The principle laid down in *Hickton's Patent Syndicate v. Patents & Machine Improvements Co. Ltd.*³²⁷ was that if there is invention in the idea plus the way of carrying it out, then it is good subject-matter for letters patent.

Thus it is clear that an invention whose novelty and inventive step reside solely in excluded matter can still be patentable. Hence, it is necessary to consider the contribution made by the invention as a whole without regard for its individual parts and the individual contributions they may make.

Courts have cited evidence of novelty or non-obviousness to defeat the argument that a patent was granted on a product of nature.³²⁸ In *Merck & Co. v. Chase Chemical Co.*³²⁹, a patent for purified Vitamin B-12 survived a challenge that it was a product of nature. Vitamin B-12 is useful as a treatment for pernicious anaemia. The vitamin occurs naturally in the liver of cattle, and before it was isolated, patients were treated by adding substantial quantities of liver to their diets. The inventors were the first to isolate the vitamin in crystalline form from the fermentation products of a specific fungus and identify it as a B-Vitamin.

In the light of the delicate distinctions to be made, it is no wonder that the court in *Dennis v. Pitner*³³⁰ declared:

324. *Assn. for Molecular Pathology v. US Patent and Trademark Office*, 689 F 3d 1303 (CA Fed 2012).

325. *Assn. for Molecular Pathology v. Myriad Genetics Inc.*, 569 US (2013).

326. 2002 RPC 1.

327. (1909) 26 RPC 339 (CA).

328. *Merck & Co. v. Chase Chemical Co.*, 273 F Supp 68, 83 (DNJ 1967).

329. *Ibid.*

330. 106 F 2d 142 (7th Cir. 1939).



b) The statements, 'The laws of nature', 'the principles of nature', 'the fundamental truths', etc., are not patentable, have been oft repeated but seldom understandingly used. They have led to misunderstanding and much confusion, not limited to members of the Bar. In fact, the words... are all words of broad and also elastic meaning and are frequently used carelessly and without any attempt at refined distinctions.

For the purposes of patentability, products of nature tend to be compositions of matter that can be taken directly from the environment and put immediately to use. Products of nature are not patentable. The chemical elements fall into this category, even though they may be difficult to isolate, because they are fundamental building blocks of the natural world. In theory, anti-matter elements are as fundamental to nature as are the elements, being the building blocks of a mirror-image world, but they may be classified differently for patent purposes.

Lindley LJ in *Lane Fox v. Kensington and Knightsbridge Electric Lighting Co.*³³¹ stated:

... a man who discovers that a known machine can produce effects which no one before him knew could be produced by it has made a discovery, but has not made a patentable invention unless he so uses his knowledge and ingenuity as to produce either a new and useful thing or result, or a new and useful method of producing an old thing or result.

But no general definition can be given as to what constitutes a discovery as opposed to an invention. The truth is that the distinction between discovery and invention is not precise. There may be a discovery without invention, either because the discovery is some piece of abstract information without any suggestion of a practical application of it to a useful end, or because its application lies outside the realm of "manufacture".

A chemical substance or microorganism which is discovered in nature without any practical application is a "mere chemical curiosity" and not patentable subject-matter.

In *Funk Bros. Seed Co. v. Kalo Inoculant Co.*³³², the elusive distinction between discovery and invention was the main thrust.

The Supreme Court held that discovery of the fact that certain strains of each species of these bacteria can be mixed without harmful effect to the properties of either, is a discovery of their qualities of non-inhibition. It is no more than the discovery of the handiwork of nature and hence, is not patentable. The aggregation of select strains of the several species into one product is an application of that newly-discovered natural principle. But however, ingenious the discovery of that natural principle may have been, the application of it is hardly more than an advance in the packaging of the inoculants. Each of the species of root-nodule bacteria contained in

331. (1892) 3 Ch 424 (CA).

332. 92 L Ed 588; 333 US 127 (1948).

the package infects the same group of leguminous plants, which it always infects. No species acquires a different use.

A patent can only issue if an invention achieves a tangible and practical result. Excluded are the speculative and the abstract such as the theoretical, mathematics or inchoate ideas.³³³ While a scientific truth, or the mathematical expression of it is not patentable invention, a novel and useful structure created with the aid of knowledge of scientific truth may be.³³⁴

A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented as no one can claim in either of them an exclusive right.³³⁵

Phenomenon of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.³³⁶

In *IBM Corp. v. Commr. of Patents*³³⁷, the use of a mathematical formula in a computer to produce an improved curve image was held to be patentable, since the production of the improved curve image is a commercially useful effect in computer graphics.

In *O'Reilly v. Morse*³³⁸, it was decided that a claim in broad terms for the use of the motive power of the electric or galvanic current called electromagnetism, however developed, for making or printing intelligible characters, letters or signs, at any distances, although a new application of that power was first made by Morse, was void. But a claim for making use of the motive power of magnetism when developed by the action of such currents or events as a means of operating or giving motion to machinery which may be used to imprint signals upon paper for the purpose of communication at any distances was held to be sustained. The use of magnetism as a motive power without regard to the particular process with which it was connected in the patent could not be claimed, but its use in that connection could be claimed.

Claims directed to a principle *per se* are not allowable. However, claims directed to a "principle" coupled to a general method of manufacture may be allowable so long as it is new and there is described at least one mode of carrying it into effect.³³⁹

Charles Weizmann during World War II isolated a particular bacterium that could produce butyl alcohol and acetone in commercial quantities.

333. *Fuller v. Yentzer*, 24 L Ed 103; 94 US 288 (1876).

334. *Mackay Radio Telegraph Co. v. Radio Corp. of America*, 83 L Ed 506; 306 US 86 (1939).

335. *Rubber-Tip Pencil Co. v. Howard*, 22 L Ed 410; 87 US 498 (1874).

336. *Le Roy v. Tatham*, 14 L Ed 367; 55 US 156 (1852).

337. (1991) 22 IPR 417.

338. 14 L Ed 601; 56 US (15 How) 62, 86 (1853).

339. *R.C.A. Photophone Ltd. v. Gaumont-British Picture Corp. Ltd.*, (1935) 53 RPC 167 (CA).

The bacteria invented was a new one and the patent claim was for successfully employing the bacteria in a process for producing butyl alcohol and, hence, was patentable subject-matter.³⁴⁰

In *Kahn (David) Inc. v. Conway Stewart Co. Ltd.*³⁴¹, it was observed:

A patentee may rightly claim a monopoly wider in extent than what he has invented. If he has discovered a general principle or invented a general method and discloses one way of carrying it out, he may claim all ways of carrying it out, but 'he is not entitled to claim a monopoly more extensive than is necessary to protect what he has himself said is his invention'. He cannot claim all solutions to a problem unless invention lies in the identification of the problem.

But a wide claim to an application of a principle must not be so extensive as to amount to any method of solving a particular problem.³⁴²

4.7.4 Discovery of a new property to a known substance: Section 3(d)

A prior identical product or process will anticipate even though it is contained in a different and non-analogous art from that of the later invention. Anticipation is not avoided by the discovery of a new use, property, or advantage of an old product or process. A patent cannot be valid unless it is new in all its elements as well as in the combination, if it is a combination.

The European courts have held in *Bayer's Application*³⁴³ that a new use of a known substance is patentable if a newly-discovered technical effect is described in the patent. This case referred to the Enlarged Board of Appeal, the question whether it was permissible to seek claims in the form "use of compound X for a stated purpose", in order to protect the discovery that the compound, already known for one use, has a further useful characteristic that previously was unknown. The attaining of such a technical effect should then be considered as a functional technical feature of the claim. If that technical feature has not been previously made available to the public by any of the means as set out in Article 54(2) EPC then the claimed invention is novel, even though such technical effect may have inherently taken place in the course of carrying out what has previously been made available to the public.

To comply with TRIPS requirements, India amended its patent law in 2005, allowing new chemical entities to be patented. The amendment also sought to prevent evergreening by making small modifications to a chemical entity, thus extending the patented life of the drug. According to the Patents (Amendment) Act, 2005:

340. *Guaranty Trust Co. of New York v. Union Solvents Corpn.*, 54 F.2d 400 (1931).

341. 1974 RPC 279, 319-20.

342. *British United Shoe Machinery Co. Ltd. v. Simon Collier Ltd.*, (1908) 26 RPC 21.

343. 1990 OJ EPO 114.

mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or new use for a known substance or of the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant, is not a patentable subject-matter.³⁴⁴

The explanation to the section makes clear that salts, esters, ethers, polymorphs, metabolites, pure form, particle size, isomers, mixtures of isomers, complexes, combinations and other derivatives of known substance shall be considered to be the same substance, unless they differ significantly in properties with regard to efficacy. Though the primary intention of this amendment was to prevent evergreening of patents, many combination drugs like anti-retroviral drugs are being made. These drugs are entitled to protection as they are considered to be of greater efficacy. Such drugs are constantly entering the market especially in the area of HIV drugs.

The amendment was challenged by the pharmaceutical major, Novartis. The Indian government rejected the patent application filed by Novartis for beta crystalline form of Glivec, Imatinib Mesylate on the ground that Glivec is not a new entity because forms of it were known before 1995, and Glivec does not show any enhancement in efficacy.

Novartis challenged the decision of the Patent Office. The Intellectual Property Appellate Board ruled that Novartis was not entitled for a patent on two grounds. The first is that it fails to satisfy the requirements under Section 3(d), Indian Patents Act, 1970 which requires that in order to be patentable, a pharmaceutical derivative must demonstrate significantly enhanced efficacy over and above the prior known molecule. Another reason for deciding against the grant of the patent was that it was on the ground of "excessive price" noting it was not reachable to the common man and against public order. The Swiss drug major appealed to the Supreme Court against the patent rejection.³⁴⁵

The Supreme Court in *Novartis Ag v. Union of India*³⁴⁶, found that the drug Glivec directly emanates from an earlier Zimmermann patent and comes to the market for commercial sale.

It was concluded that Imatinib Mesylate cannot be said to be a new product, having come into being through an "invention" that has a feature that involves technical advance over the existing knowledge and that would make the invention not obvious to a person skilled in the art. The inaction of Novartis in not obtaining patent for Imatinib Mesylate in non-crystalline form while it had obtained patent for several different forms of Imatinib, was interpreted by the court that Novartis had always

344. Indian Patents Act, 1970, S. 3(d).

345. *Novartis Ag v. Union of India*, (2007) 4 MLJ 1153.

346. (2013) 6 SCC 1.



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maintained that Imatinib Mesylate is fully a part of the Zimmermann patent and does not call for any separate patent. The argument of invention was not accepted by the court on the reasoning that Imatinib Mesylate is known as a substance in the Zimmermann patent and its pharmacological properties are also known in the Zimmermann patent and in the article published in the Cancer Research journal.

Relying on the NDA submitted by the appellant before the US FDA, the court found that beta crystalline form of Imatinib Mesylate or even Imatinib was a known substance with known efficacy and hence Section 3(d) was applicable. In order to overcome the hurdle of Section 3(d), the appellant was obliged to show the enhanced efficacy of the beta crystalline form of Imatinib Mesylate over Imatinib Mesylate (non-crystalline). There was no material in the subject application to make any comparison of efficacy, or even solubility, between the beta crystalline form of Imatinib Mesylate and Imatinib Mesylate (non-crystalline).

The mere change of form with properties inherent to that form would not qualify as "enhancement of efficacy" of a known substance. Increased bioavailability alone may not necessarily lead to an enhancement of therapeutic efficacy. Whether or not an increase in bioavailability leads to an enhancement of therapeutic efficacy in any given case must be specifically claimed and established by research data.

In *Ciba-Geigy (DurrAg's) Application*³⁴⁷, the plaintiff discovered that a known chemical could be used as a selective weed killer to kill monocotyledonous weeds occurring in a monocotyledonous crop. It was held that a pack containing only a well known and admittedly old material has not by the words used in any way modified their pack or qualified it for the purpose for which the material is intended to be used. It is really in effect only claiming the old material as such. The mere writing cannot make the contents in the container a manner of new manufacture. One cannot have a patent for a new use of an old product unless there is invention in the adaptation of the old product to the new use.³⁴⁸ The test is whether the new use lies in the track of the old use.

The discovery of a new property or use of a previously known composition, even when that property and use are not obvious from the prior art, cannot impart patentability to claims to the known composition.³⁴⁹ The conversion of an old contrivance to a new purpose was considered in *Bilcare Ltd. v Amartara (P) Ltd.*³⁵⁰, where the court found that there must be difficulties to be overcome, requiring what is called invention, or there must be some ingenuity in the mode of making adoption.

347. 1977 RPC 83 (CA).

348. *Acetylene Illuminating Co. Ltd. v United Alkali Co. Ltd.*, (1904) 22 RPC 145 (HL).

349. *Spada, re*, 911 F 2d 705; 15 USPQ 2d 1655 (Fed Cir 1990).

350. (2007) 34 PTC 419 (Del).

Accordingly, the court invalidated a patent for a frosted light bulb because the prior art disclosed the bulb's design, even though the prior art did not disclose the property of the bulb that made it useful, its strength.³⁵¹

Admixture of substances: Section 3(e)

By "mere mixture of known ingredients" is meant a mixture exhibiting only the aggregate of the known properties of the ingredients. Not only must the ingredients be known, but the property that makes the ingredients useful for the purpose of the invention must also be known. If the result achieved by the invention is more than might be expected from a mere mixture, the invention is patentable.

It is possible that a substance is not excluded from being a mere admixture merely on the basis that the physical form of an ingredient has been changed, for example, a sweet formed from a mixture of sugar and cellulose which has been turned hard by boiling.³⁵² In order to overcome the Section 3(e) barrier, a patentee is required to prove that the combination of the known substances has resulted in a synergism wherein the combination displays properties that are not displayed individually by each component.

Arrangement of known devices: Section 3(f)

The concept of "manner of manufacture" also includes a threshold inventiveness requirement that would exclude an invention that was merely a new use of an old substance, involving old integers without a working interrelationship producing a new or improved result or was otherwise obvious on the face of the specification.

In *Wellcome Foundation Ltd. v. Commr. of Patents*³⁵³, the claims in dispute were package claims, i.e. claims to a container with its contents together with a set of written directions. The circumstances in which such package claims will be valid are limited. Novelty in the process for which the package may be used will not be sufficient. A patentable combination is a new combination of old integers having a working interrelationship or, in the case of chemical combinations, having a synergistic effect.

In *Commr. of Patents v. Microcell*³⁵⁴, rocket projectors of known design manufactured from reinforced synthetic resinous plastic material were held by the court as not eligible for patent protection. The court found that there was in truth nothing but a claim for the use of a known material in the manufacture of known articles for the purpose of which its known properties make that material suitable.

351. *Bilcare Ltd. v Amartara (P) Ltd.*, (2007) 34 PTC 419 (Del).

352. *Ashe Chemicals Ltd. (Deadman's) Application*, 1972 RPC 613.

353. 1980 AOJP 2759.

354. (1959) 102 CLR 232 (Aust).

4.7.5

4.7.6

A patent that did not reflect any discovery or new scientific insight but the manufacture of a known product from known materials selected to achieve commercially acceptable efficiency loss was considered as not patentable.³⁵⁵

4.7.7 Method of agriculture or horticulture: Section 3(b)

Tracing history, we find that the Indian policy was based on the concept that plant varieties and seeds were the common heritage of mankind. Though there was an increase in the rate of growth in agriculture, the State could not meet the rising demand for food. The need for attaining self-sufficiency in food led to the pursuit of the Green Revolution. During the colonial period, food production was on the decline. Land reforms had a great impact on the agrarian structure. The rise of the modern technology culminated in agricultural research. This formed the foundation of technological farming. The vision of our forefathers was towards alleviation of poverty. This could be done only by attaining self-sufficiency in food production which could be obtained only by excluding methods of agriculture from protection. Large population of the country derive their livelihood from agriculture. Agriculture is the backbone of India's economy. Small and marginal farmers predominate agriculture. The main aim of excluding methods of agriculture from protection was to alleviate poverty and also to ensure that there would be self-sufficiency in food sector.

4.7.8 Methods of treatment: Section 3(i) and Section 27(a), TRIPS

A method of medical treatment for an ailment is not a patent eligible subject-matter. A process consisting of the use of a known compound for treating a human being medically has never been held to be patentable, because courts have consistently expressed the opinion that a process for medical treatment of human beings is not a proper subject for a patent monopoly.

There are some jurisdictions in which methods of treatment of the human body are considered as patentable. The Supreme Court of Israel in *Wellcome Foundation Ltd. v. Plantex Ltd.*³⁵⁶ considered an action for infringement of a patent relating to the use of a known chemical substance in the treatment of gout. The question arose as to whether the discovery of novel properties in a known substance enabling it to be used for new and therapeutic purpose warranted the granting of a patent at all. Whitton J held that it did. He believed that injustice would not be done to the recent developments in the world as regards the policy in respect of the grant of

355. *NV Philips v. Mirabella International Pty. Ltd.*, (1992) 26 IPR 513.
356. 1974 RPC 514.

patents if the prohibition by which no patents are granted on methods of therapeutic treatment of the human body is not abolished outright.

The European Technical Board of Appeal gave a wider meaning to the word "therapy" and construed it as including preventive, i.e. to say, prophylactic treatment as well as curative treatment of disease of the human body and the animal body.³⁵⁷ The applicant, relying on medical works, argued that "therapy" related only to curative and not to prophylactic treatment. After reviewing the arguments in detail, it was concluded that the word "therapy" is to be given a wide meaning.³⁵⁸

In *Salminen-Pigs III*³⁵⁹, the patentee claimed a method and apparatus for preventing piglets from suffocating under the dam in a brooding pen, in which a sensor, such as a photoelectric cell, was placed to detect when the dam stood up. Hot air was then blown beneath her so as to discourage the piglets from going to her. It was found that this cannot reasonably be called a treatment by therapy, which is practised on the bodies of piglets. The invention is concerned with preventing accidents and hence was patentable.³⁶⁰

In *Siemens-Flo, re*³⁶¹, it was held that a method does not become non-patentable if there is no functional link and no physical causality between its constituent steps carried out in relation to a therapy device and the therapeutic effect produced on the body by that device.

In *Wellcome/Pigs I*³⁶², the applicants for a European patent claimed a method of controlling an infestation by applying a pesticide to areas of a pig's body. It was held that treatment of pigs infected with mange is treatment of a disease.

Methods for collecting bodily fluids for diagnosis was considered by the EPO as entitled to patent protection.³⁶³

Though the UK legislation excludes methods of treatment from the ambit of patent protection, courts have construed the provision to the extent of allowing patent protection to a contraceptive process.

In *Schering's Application*³⁶⁴, the applicant sought to patent its discovery that a known type of oral contraceptive, a particular gestagen, could effectively be administered in much smaller dose than had previously been given. This reduced undesirable side effects.

The court found that it is a process involving a chemical treatment which will avoid or suppress conception. Since the claim was to a treatment of the human body, as opposed to medical treatment to cure or prevent disease, the court concluded that there was no reason why such a claim should not be allowed. The obiter was that the reasons for such

357. *Unilever Ltd., re*, 1983 RPC 219.

359. 1989 EPOR 125; T 58/87.

361. 1989 OJ EPO 171.

363. *BAXTER/Blood Extraction Method*, 1998 OJ EPO 241.

364. 1971 RPC 337.

358. *Ibid.*

360. *Ibid.*

362. *Ibid.*

an exclusion was based on ethics rather than logic but if there is to be a change of policy, which would appear to us to be sensible, this ought to be in our view to be effected by legislation rather than by interpretation.

It has long been established that claims to methods of medical treatment should not be accepted. It should also be noted that Article 27(3)(a), TRIPS Agreement states that "diagnostic, therapeutic and surgical methods for the treatment of humans or animals may be excluded from patentability".

Australian patent law does not exclude medical methods from protection. Australian courts have considered the issue of patentability of medical methods and have stated that there is no logic in excluding methods of treatment and surgical procedure from patentability.

The Australian High Court, considering a cosmetic method of treating baldness with a hair-weaving technique, came to the conclusion that it was patentable.³⁶⁵ The patentability of a method of medical treatment of the human body was discussed extensively by each member of the Full Court in *Anaesthetic Supplies Pty. Ltd. v. Rescare Ltd.*³⁶⁶, reaching the conclusion that the courts should now take a realistic view in the light of current scientific development and legal process; the law must move with changing needs and times. In *Bristol Myers Squibb Co. v. F H Faulding & Co. Ltd.*³⁶⁷, the Federal Court of Australia reiterated the view that medical methods should be granted protection.

In *Commr. of Patents v. Wellcome Foundation Ltd.*³⁶⁸, the Court of Appeal of New Zealand considered a patent for an invention which related to the use of a drug, previously used for the treatment of malaria, for the purpose of treating leukaemia. It was held by all three members of the Court of Appeal that a process for the treatment of human illness or disease is not a manner of manufacture and it was therefore excluded from patentability.

In *Organon Laboratories Ltd.'s Application*³⁶⁹, the validity of a "pack claim" for the administration of a drug as an oral contraceptive for women was considered. It was held that though the basic discovery lies in the method of treatment and not in the arrangement of the pills on the card, the arrangement itself is no guarantee that the treatment will be followed and was considered as not obvious.

4.7.9 *Plants and animals in whole: Section 3(j) and Section 27, TRIPS*

Plant variety protection laws have been developed in almost all countries providing sui generis protection for agricultural and horticultural innovations. Patent protection was not originally considered to be a particularly

365. *Joos v. Commr. of Patents*, 1973 RPC 59.

366. (1994) 50 FCR 1.

369. 1970 RPC 574.

367. 2000 FCA 316.

368. (1983) 2 IPR 156.

effective system for the protection of plant varieties. Prior to the development of modern biotechnology, the breeding of a new variety could not be said to involve an inventive step. Plant variety protection is highly specific to the variety and their scope is limited by reference to the propagating material itself.

Plant varieties were originally excluded from patentable subject-matter because, as "products of nature", they did not meet the requirement of new, non-obvious subject-matter, and because they could not be described with enough specificity to meet the patent statute written description requirement.

In *Plant Genetic Systems*³⁷⁰, claims on plants *per se* were not considered patentable. A claim to a genetically engineered plant was refused on the ground that it met the requirements for a plant variety. Claims to individual non-biologically transformed plant cells were allowed, as were claims to processes for producing the plant.

This view was later reiterated in the *Novartis II case*³⁷¹ by the Enlarged Board of Appeal when the Technical Board of Appeal referred the patentability of processes for the protection of plants and of plant varieties to the Enlarged Board of Appeal. It held that a claim could cover plant varieties provided that plant varieties were not individually claimed. Article 64(2) EPC does not preclude protection for plant varieties. Plant varieties containing a gene introduced into an ancestral plant by recombinant gene technology are excluded from patentability.

The Indian Patents Act, 1970 excludes plants and animals in whole from patent protection.³⁷² In *Speaking Roses International Inc. v. Controller-General of Patents*³⁷³, the Bombay High Court had reversed an order of rejection of a patent by the Controller-General of Patents.

The petitioners had applied for grant of patent for providing an image on an organic product, being flowers. The respondent rejected the petitioners' application on many grounds, one of which was being non patentable under Section 3(j), Indian Patents Act, 1970. Under this section, no patent can be granted, inter alia, for plants or for any biological processes for production or propagation of plants.

The High Court found:

the application of the Petitioners makes it very clear that the patent that is required by the petitioners is not for or in respect of any flowers or any such organic product. Hence, their Patent is not for plants. Their Patent is for providing an image on an organic product. Such organic product may be plants. The illustration setting out the method as well as the instrument thereof by which an image can be brought about on the flower or any such organic product is a mechanical process. It is not a biological process. There is no bar to the

370. 1995 OJ EPO 545.

371. 2000 OJ EPO 111; 2000 EPOR 303.

372. Indian Patents Act, 1970, S. 3(j).

373. (2007) 109 Bom LR 630.

grant of patent for making an image of an organic product by a non-biological process. Hence, the Petitioners' claim falls completely outside the purview of Section 3(i) of the Patent Act. Rejection of the Petitioners' submission in para. 5(1-A) of the impugned order is therefore, completely misconceived and must be rejected.

The Protection of Plant Varieties and Farmers' Rights Act, 2001 of India now allows protection of new and distinct varieties of plants that satisfy the requirements of the Act.

4.7.9.1 Patenting of microorganisms

The TRIPS Agreement now obliges the patenting of microorganisms.³⁷⁴

The decision of the Supreme Court in *Diamond v. M. Chakrabarty*³⁷⁵ held that microorganisms produced by genetic engineering are not excluded from patent protection by 35 USC Section 101.

The relevant distinction was not between living and inanimate things but between products of nature, whether living or not, and human-made inventions. His claim was not to a hitherto unknown natural phenomenon, but to a non-naturally occurring manufacture or composition of matter—a product of human ingenuity having a distinctive name, character and use.

The tests set forth by the court are:

1. "The laws of nature, physical phenomena and abstract ideas" are not patentable subject-matter.
2. A "non-naturally occurring manufacture or composition of matter—a product of human ingenuity—having a distinctive name, character, and use" is patentable subject-matter.
3. "A new mineral discovered in the earth or a new plant found in the wild is not patentable subject-matter. Likewise, Einstein could neither patent his celebrated, $E=mc^2$; nor could Newton have patented the law of gravity. Such discoveries are 'manifestations of... nature, free to all men and reserved exclusively to none'."
4. "The production of articles for use from raw materials prepared by giving to these materials new forms, qualities, properties, or combinations whether by hand labour or by machinery" is a "manufacture" under Section 101.

It is clear from the Supreme Court decision and opinion that the question of whether or not an invention embraces living matter is irrelevant to the issue of patentability. The test set down by the court for patentable subject-matter in this area is whether the living matter is the result of human intervention.

374. TRIPS Agreement, Art. 27.

375. 65 L Ed 2d 144; 447 US 303 (1980).

Under the provisions of the TRIPS Agreement, microorganisms have to be given a patent protection.³⁷⁶ The Indian Patents Act has also excluded microorganisms from the list of non-patentable inventions.³⁷⁷

In *Allen, ex p*³⁷⁸, the Board decided that a polyploid pacific coast oyster could have been the proper subject of a patent under 35 USC Section 101 if all the criteria for patentability were satisfied. The Board held that the claimed polyploid oysters were non-naturally occurring manufactures or compositions of matter under Section 101.

*Harvard Onco-Mouse*³⁷⁹ was a landmark judgment in the area of patenting.

It was held that exclusion from patentability cannot be justified merely because a technology is dangerous. There are many examples of inventions, the patentability of which has never been questioned, which cannot be used without severe security measures. For example, work with certain pathogens is allowed under very limited conditions only and release of the material into the environment must be excluded by appropriate measures. Patentable inventions may nevertheless arise from such work.

The regulation of the handling of dangerous material is not the task of the EPO but is rather the business of specialised governmental authorities.

In *American Cyanamid Co. v. Berk Pharmaceuticals Ltd.*³⁸⁰, it was held that the production of the required antibiotic may require a whole series of selection and mutation steps, and the whole process is one which will involve a great variety of manufacturing techniques. Such a process is in no way analogous to the production by selective breeding.

In India, the Patents Act, 1970 is silent with regard to patenting of living subject-matter.

Most recently, the Calcutta High Court in *Dimminaco AG v. Controller of Patents*³⁸¹ has held differently. The application was for a patent on a process that resulted in the manufacture of a live vaccine that was useful as a cure for infectious bursitis in poultry. The Patent Office had rejected the application as the vaccine was a living vaccine and that the definition of manufacture did not include a process that resulted in a living organism. The Calcutta High Court has set aside the decision of the Controller and found that the Patents Act did not prohibit the patenting of biotechnological inventions. As there is no statutory meaning of "manufacture", the court relied on the dictionary meaning of manufacture which does not exclude a vendible product containing living organism, and directed the Patent Office to reconsider the application. The Controller pursuant to the decision of the High Court has granted protection.

376. TRIPS Agreement, Art. 27.

377. Indian Patents Act, 1970, S. 3(f).

378. 2 USPQ 2d 1425 (Bd Pat App & Inter 1987).

379. 1991 EPOR 525; 1990 OJ EPO 476 (Tech Bd App).

380. 1976 RPC 231.

381. (2002) 1 PLR 255.



CASE PILOT



CASE PILOT

4.7.10 *Mathematical or business method: Section 3(k)*

There has been a wave of litigation in the area of software and business method patents and also as regards mathematical algorithms.

A mathematical algorithm is a procedure for solving a given mathematical problem. A mathematical algorithm *per se* is neither an artificially created state of affairs nor is it something having "utility in the field of economic endeavour".

A mathematical formula alone, sometimes referred to as a mathematical algorithm, viewed in the abstract, is considered as unpatentable subject-matter. Courts have used the terms "mathematical algorithm", "mathematical formula", and "mathematical equation" to describe types of non-statutory mathematical subject-matter without explaining whether the terms are interchangeable or different. Even assuming the words connote the same concept, there is considerable question as to exactly what the concept encompasses. It will not have utility in the field of economic endeavour until it has been implemented.

The Indian Patents Act has excluded computer program *per se* from the list of patentable inventions. The non-patentability of computer program as such does not preclude the patenting of computer-implemented inventions.

Since the US Supreme Court first addressed the patentability of computer software in *Gottschalk v. Benson*³⁸² (*Gottschalk*), there has been considerable change in this doctrine. The patent sought is on a method of programming a general-purpose digital computer to convert signals from binary-coded decimal form into pure binary form. It was held that if a claim is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is non-statutory.

Almost a decade later, the Supreme Court in *Diamond v. Diehr*³⁸³ (*Diehr*), first recognised that a computer program may indeed deserve patent protection.

In this case, the patent in question claimed a process for curing synthetic rubber which includes in several of its steps, the use of a mathematical formula and a programmed digital computer which was held to be a patentable subject-matter under 35 USC Section 101.

In finding this software patentable, the Supreme Court held that a claim drawn to subject-matter otherwise statutory does not become non-statutory simply because it uses a mathematical formula, computer program or digital computer.

It was concluded that the respondent's claim is not altered by the fact that in several steps of the process, a mathematical equation and a programmed digital computer are used.

382. 34 L Ed 2d 273; 409 US 63 (1972).

383. 67 L Ed 2d 155; 450 US 175 (1981).

For some time after the *Diehr*³⁸⁴ decision, the Court of Appeals for the Federal Circuit Court applied what was called the "Freeman-Walter-Abele test" to determine whether a mathematical algorithm is patentable pursuant to Section 101.

Freeman-Walter-Abele test

This analysis has been designated the Freeman-Walter-Abele test for statutory subject-matter. The court explained in *Abele, re*³⁸⁵:

Patentable subject-matter is not limited to claims in which structural relationships or process steps are defined, limited or refined by the application of the algorithm. Rather, Walter should be read as requiring no more than that the algorithm be 'applied in any manner to physical elements or process steps,' provided that its application is circumscribed by more than a field of use limitation or non-essential post-solution activity.

The Court of Customs and Patent Appeals set forth the test as follows:³⁸⁶

Determine whether the patent claim recites, directly or indirectly, a mathematical algorithm. If it does, the second step is to determine whether the mathematical algorithm is implemented in a specific manner to define structural relationship between the physical elements of the claim or to refine or limit claim steps.

If the second step is satisfied, the claim states statutory subject-matter.

In *Alappat, re*³⁸⁷, the Federal Circuit Court did not apply the Freeman-Walter-Abele test, rather opting for the mathematical subject-matter exception. The Federal Circuit Court explained:

The proper inquiry in dealing with the so-called mathematical subject-matter exception to Section 101 alleged herein is to see whether the claimed subject-matter as a whole is a disembodied mathematical concept, whether categorised as a mathematical formula, mathematical equation, mathematical algorithm, or the like, which in essence represents nothing more than a 'law of nature', 'natural phenomenon', or 'abstract idea'.

Any doubt that the Freeman-Walter-Abele test was dead was put to rest in 1998 by the Federal Circuit Court. On 23 July 1998, the Federal Circuit Court came down with a decision³⁸⁸ that will continue to advance patent law and its relation to computers and the high-tech world.

The court held that the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a

384. 67 L Ed 2d 155; 450 US 175 (1981).

385. 684 F 2d 907.

386. *Walter, re*, 618 F 2d 758; 205 USPQ 397, 407 (CCPA 1980).

387. 33 F 3d 1526 (Fed Cir 1994).

388. *State Street Bank and Trust Co. v. Signature Financial Group Inc.*, 149 F 3d 1368; 47 USPQ 2d 1596 (Fed Cir 1998).



mathematical algorithm, formula, or calculation, because it produces "a useful, concrete and tangible result"—a final share price momentarily fixed for recording and reporting purposes, and even accepted and relied upon by regulatory authorities and in subsequent trades. The court found that the claim directed to a machine programmed with the Hub and Spoke software and admittedly produces a "useful, concrete, and tangible result".

In *Bilski v. Kappos*³⁸⁹, the US Supreme Court considered the applicability of the machine transformation test in the present information age.

The patent application claimed a procedure for instructing buyers and sellers how to protect against the risk of price fluctuations. The arguments advanced against granting protection were: it is not tied to a machine and does not transform an article; it involves a method of conducting business; and it is merely an abstract idea.

Kennedy J of the US Supreme Court while deciding the case, answered in the negative to the question whether the machine transformation test was the exclusive test for what constituted patentable process. All the nine judges deciding the case were unanimous in their opinion that the claims in *Bilski v. Kappos*³⁹⁰ fail to satisfy the test of patentable claims under Section 101, being attempts to patent abstract ideas.

An excellent review of the development of the mathematical algorithm exception and its application to software patents can be seen in *AT&T Corp. v. Excel Communications Inc.*³⁹¹

The court found that the judicially-defined proscription against patenting of a "mathematical algorithm", to the extent such a proscription still exists, is narrowly limited to mathematical algorithms in the abstract. The court reiterated the State Street formulation that a mathematical algorithm may be an integral part of patentable subject-matter such as a machine or process if the claimed invention as a whole is applied in a "useful" manner.

Patents that claim mathematical algorithms even if clothed in a different form is not entitled to patent protection.

It was held in *Meyer, re*³⁹² that in considering a claim for compliance with 35 USC Section 101, it must be determined whether a scientific principle, law of nature, idea, or mental process, which may be represented by a mathematical algorithm, is included in the subject-matter of the claim. If it is, it must then be determined whether such principle, law, idea, or mental process is applied in an invention of a type set forth in 35 USC Section 101. The law crystallised about the principle that claims directed solely to an abstract mathematical formula or equation, including the

389. 130 S Ct 3218; 177 L Ed 2d 792; 561 US (2010).

390. *Ibid.*

391. 172 F 3d 1352, 1356 (Fed Cir 1999).

392. 688 F 2d 789, 795; 215 USPQ 193 (CCPA 1982).

mathematical expression of scientific truth or a law of nature, whether directly or indirectly stated, are non-statutory under Section 101; whereas claims to a specific process or apparatus that is implemented in accordance with a mathematical algorithm will generally satisfy Section 101.

In *Hotel Security Checking Co. v. Lorraine Co.*³⁹³, the court had occasion to consider the patentability of business methods. In that case, the patent was found invalid for lack of novelty and invention, not because it was improper subject-matter for a patent. The court stated that the fundamental principle of the system is as old as the art of bookkeeping, *i.e.* charging the goods of the employer to the agent who takes them. If at the time of the patent application, there had been no system of bookkeeping of any kind in restaurants, we would be confronted with the question whether a new and useful system of cash registering and account checking is such an art as is patentable under the statute.

The subject-matter of the patent in *Burroughs Corp. (Perkins') Application*³⁹⁴ involved a method of causing computers to interact with one another and transmit information from one computer to another. Their Honours went further and concluded by way of obiter dicta:

It also follows from what we have said, though this is not strictly necessary for the purposes of our decision, that in our view, computer programmes which have the effect of controlling computers to operate in a particular way, where such programmes are embodied in physical form, are proper subject-matter for letters patent.

Literary, dramatic, musical or artistic work: Section 3(l)

4.7.11

The subject-matter of a literary, dramatic, musical or artistic work is protectable under the Copyright Act. The protection is for the original expression of the idea and not for the idea. Moreover, the requirements for obtaining a patent protection cannot be satisfied in the case of the above works. Copyright protects the original expressions and hence it is possible to obtain protection for the same expression provided it is original. Unlike this, the patent system grants protection only where the invention is new.

In *Coloured Disk Jacket/Fuji*³⁹⁵, the subject-matter of the application in question related to a flexible disk jacket made of a plastic sheet presenting to the outside world, a surface colour of a certain minimum light intensity. The Board stated that the feature of having a specific colour as such did not constitute a technical feature indicating that an object or device was entirely or partly covered by that colour. The Board concluded that the alleged resistance to fingerprints was a purely aesthetic effect which contributed nothing technical to the invention concerned and the advantage of easy classification by colour represented a non-technical effect in

393. 160 F 467 (2nd Cir 1908). 394. 1974 RPC 147.

395. 1990 OJ EPO 395.

the form of a presentation of information and hence was excluded from patentability.

4.7.12 *A mere scheme, method of performing a mental act: Section 3(m)*

A patent cannot be obtained for a mere scheme or plan. The best known authority for this is *Cooper's Application*³⁹⁶, in which Sir Robert Finlay, A-G said, "You cannot have a patent for a mere scheme or plan—a plan for becoming rich; a plan for the better government of a State; a plan for the efficient conduct of business."

In *Cooper's Application*³⁹⁷, one or more spaces were left across the printed page of a newspaper where the paper was to be folded in order to enable the paper to be read when folded and was held to be patentable.

A scheme or plan with a way of putting it into effect is no longer considered to be a mere scheme or plan. In *Abrams, re*³⁹⁸, the method of detecting petroleum by computing the rates of pressure change was held not to be eligible for patent protection. However, a patent may be granted for a means or method that put the scheme or plan into effect.

In the well known UK case of *Fishburn's Application, re*³⁹⁹, a method of arranging information on a ticket in a manner that allowed the ticket to be divided either transversely or longitudinally was found patentable. The arrangement of printing upon a ticket was found to serve a technical purpose, in that information was not lost when the ticket was torn.

In *Pitman's Application*⁴⁰⁰, variations in the visual significance of printed characters in order to assist in voice production by a recording machine or a human reader were held to be patentable. This decision can be contrasted with *Nelson's Application*⁴⁰¹ relating to a medium carrying an instructional message in three parts: visual, verbal and humorous. This was found to be merely intellectual in nature.

In *Rhode's Application*⁴⁰², a vehicle speedometer adapted to show "impact speed" was found to be patentable.

The statements of Aldous J in *Wang, re*⁴⁰³ give valuable insight into the areas that are considered as an exclusion of "a scheme, rule or method for performing a mental act".

He said:

The fact that the scheme, rule or method is part of a computer program and is therefore converted into steps which are suitable for use by a person operating

396. (1902) 19 RPC 53.

397. *Ibid.*

398. 188 F 2d 165 (CCPA 1951).

399. (1938) 57 RPC 245.

400. 1969 RPC 646.

401. 1980 RPC 173.

402. 1973 RPC 243.

403. 1991 RPC 463.

the computer does not matter. What is excluded from being patented is a scheme, rule or method for performing a mental act, whatever mental steps or process is involved.⁴⁰⁴

Presentation of information: Section 3(n)

An invention in order to obtain patent protection should have a technical result. In *Hiller's Application*⁴⁰⁵, the application was for an improved plan for subterranean utility distribution scheme. It was held:

the issuance of instructions to a gang of workmen to dig excavations and lay conduits as indicated on a plan of a site cannot of itself constitute any development in a useful art... patentability does not attach to any novelty or ingenuity which can be asserted for such a plan.

Mere presentation of information can be considered as an original expression of an idea which is within the ambit of protection of the copyright system.

In *Colour Television Signal/BBC*⁴⁰⁶, regarding a colour TV signal characterised by technical features of the system in which it occurred, does not fall within the exclusions and is regarded as an invention.

In *Marker/Beattie*⁴⁰⁷, the invention consisted of an apparatus for and a method of learning how to play a keyboard instrument, with numbers corresponding to notes on a sheet of music appearing on the keys too. The patent application was for a marker to be laid on a musical keyboard to facilitate learning music. The only distinction over the previous marker was the information printed on it. The technical feature claimed was the marking of the keys. Patentability was ruled out by Article 52(2)(c) and (d) EPC. Since the key markings were merely known technical features, the contribution made by the claimed invention to the working of the teaching apparatus lay solely in the content of the information displayed, not in the apparatus itself. The invention was not based on a technical problem but on an improvement to a teaching method which was equivalent to an improvement to a method for performing mental acts. Since the contribution of the purported invention resided in the content of the displayed information and not in the apparatus itself, it was held to be not patentable.

Topography of integrated circuits: Section 3(o)

Integrated circuits are protected by the Semiconductor Integrated Circuits Layout-Design Act, 2000 and is not a patentable subject-matter.

404. *Wang, re*, 1991 RPC 463, 471.

405. 1969 RPC 267.

406. 1990 OJ EPO 379.

407. 1992 OJ EPO 230.

4.7.13

4.7.14

4.7.15 *Traditional knowledge: Section 3(p)*

"Traditional knowledge" (TK) is essentially culturally oriented or culturally based, and it is integral to the cultural identity of the social group in which it operates and is preserved. The definition of the TK used by the WIPO includes indigenous knowledge relating to categories such as agricultural knowledge, medicinal knowledge, biodiversity-related knowledge, and expressions of folklore in the form of music, dance, song, handicraft, designs, stories and artwork.

The development of new technology and the new use of the TK-based products today are the major threats to the survival of many of these communities. The modern cultural industries as well as the manufacturing industries now commercially exploit the TK-based products using new technology without the permission and sharing of profits with the communities. It is possible today to bring out new products or find out new use of existing products based on the TK utilising the technological developments in the field of biotechnology. This is proved beyond doubt particularly in the field of medicines, agriculture, etc.

The Himachal Pradesh High Court had occasion to consider the question of TK in *Dhanpat Seth v. Nil Kamal Plastic Crates Ltd.*⁴⁰⁸

The patent has been granted in respect of a device used for manufacture of manually hauling the agricultural produce. The defendant contested the suit and contended that the plaintiffs have fraudulently obtained the patent and the patent has wrongly been granted in their favour. The defendant further alleged that there is no novelty or invention in the patent and in fact it is just centuries old device popularly known as "Kilta" which was originally made of bamboo and has now been produced in plastic. The plaintiffs contended that the plastic Kilta developed by the plaintiffs is an invention and in the alternative, submitted that the development of the traditional Kilta into a plastic one with adjustable nylon straps is an inventive step and amounts to an invention.

The High Court while deciding the case opined:

even a process involving an inventive step is an invention within the meaning of the Act and so it was not necessary that the product developed should be a totally new product. Even if a product is substantially improved by an inventive step, it would be termed to be an invention. The definition of 'inventive step' provides that when technical advances as compared to existing knowledge take place in an existing product or there is improved economic significance in the development of the already existing device and the invention is not obvious to people skilled in the art, it would amount to an inventive step.

The question which arose for consideration was whether change of material from bamboo to plastic and the development of adjustable nylon straps with buckles, is an inventive step falling within the meaning of Section 2(ja).

408. (2008) 36 PTC 123 (HP).

The traditional Kilta used in Himachal Pradesh is supported by adjustable ropes going over the shoulders. These have been in existence for times immemorial. Therefore, it was held that the mere fact that the device is made of polymeric material instead of bamboo is not an inventive step involving any novelty. There is nothing new about the process of manufacturing the traditional Kilta made of natural material from synthetic material. Even nylon straps now added are virtually copies of the ropes used in the traditional Kilta. The device developed by the plaintiffs is the result of the TK and aggregation/duplication of known products such as polymers and, therefore, cannot be said to be an invention. The plaintiffs are, therefore, not entitled to any injunction.

The current IPR system cannot protect the TK for three reasons:

1. The current system seeks to privatise ownership and is designed to be held by individuals or corporations, whereas the TK has collective ownership.
2. This protection is time-bound, whereas the TK is held in perpetuity from generation to generation.
3. It adopts a restricted interpretation of invention which should satisfy the criteria of novelty and be capable of industrial application, whereas traditional innovation is incremental, informal and occurs over time.

A sui generis, or alternative law is, therefore, necessary to protect the TK.

Inventions relating to atomic energy

Under Section 4, Indian Patents Act, 1970 no patent shall be granted in respect of inventions relating to atomic energy falling within Section 20(1), Atomic Energy Act, 1962. Section 20, Atomic Energy Act makes special provisions as to inventions that are useful or relate to atomic energy. The Act requires that patents shall not be granted to such inventions. The Controller of Patents has to refer the application to the Central Government for direction as to whether the invention is one related to atomic energy. The decision of the Central Government shall be final. The Atomic Energy Act has a derogatory provision which states that notwithstanding anything contained in the Indian Patents Act, the decision of the Central Government on points connected with or arising out of Section 20 shall be final. In *Raytheon Co. v. Controller of Patents & Designs*⁴⁰⁹, the Calcutta High Court considered whether the decision of the Central Government is appealable under Section 116, Indian Patents Act. The court came to the conclusion that a direction issued by the Central Government cannot be appealed under the Indian Patents Act, 1970. The court also found that the question whether an opinion expressed under

409. AIR 1974 Cal 336.

Section 20(x), Atomic Energy Act, 1962 was properly formed or not, also cannot be considered in an appeal under the Indian Patents Act.

V

4.8 Patent prosecution

A patent is the grant of monopoly on an invention that fulfils features such as novelty, non-obviousness, utility or industrial application. It is a right secured through law. As intellectual property rights are territorial in nature, the right granted by the national laws is limited to its border. The inventor will have to comply with several legal provisions for securing his monopoly in other jurisdictions. The process of obtaining a patent is called patent prosecution. It consists of preparing and filing the patent application, then filing responses and amendments to the objections of the patent examiner. Patent prosecution will result in either the issuance of a published patent or the rejection or abandonment of the application.

4.8.1 Patent application in India

A patent application should be filed at the appropriate Patent Office based on residence or principal office of business.⁴¹⁰ The procedure for making an application, its examination in the Patent Office and matters incidental thereto are contained in the Patents Rules. The forms to be used are listed in the Second Schedule and the fees to be paid in the First Schedule to the Rules.

Different fee structure is prescribed for natural persons and other than natural persons.

Patents (Amendment) Rules, 2014 has introduced a third category of applicant wherein person other than a natural person shall include a "small entity".⁴¹¹ Small entity is defined by the amendment as an enterprise which is engaged in the manufacture or production of goods whose investment in plant and machinery does not exceed ₹10 crores, or an enterprise engaged in providing or rendering of services whose investment in equipment does not exceed ₹5 crores.⁴¹²

An application should be confined to one invention only. The language of the application and any documents filed with the application should be in either Hindi or English.

Every application should be accompanied by a provisional or a complete specification.⁴¹³ Where an applicant for a patent is also prosecuting for a patent in any country outside India in respect of the same or similar invention, he shall file along with his application a statement detailing the

410. Indian Patents Rules, 1972, Rule 4.

411. Patent (Amendment) Rules, 2014, Rule 2(da).

412. *Ibid.*, Rule 2(fa).

413. Indian Patents Act, 1970, S. 7(4).

particulars of the invention and an undertaking to keep the Controller informed in respect of the other application.⁴¹⁴ Under Section 8, a patent applicant must provide a statement disclosing the detailed particulars of any application filed outside India corresponding to its Indian patent application.

In *Chemtura Corp'n. v. Union of India*⁴¹⁵, Muralidhar J held that the obligations established under Section 8 is mandatory and are not fulfilled if the applicant simply provides the Patent Office with the filing details and a status report on its corresponding foreign applications. The plaintiff had failed to advise the office of various developments in its corresponding US application and of an examination report issued for its European application.

The court stated:

the national phase application is itself a part of the scheme of filing patent claims internationally in terms of the PCT. The very function of the Controller is to ensure that a patent is granted keeping in view the current knowledge of the closest prior art relevant to the subject device or process. This is being statutorily facilitated by requiring the applicant to keep the Controller updated of all developments in the pending applications in other countries made for the same patent. Given this object of the provision there can be no two opinions that the disclosure has to be a periodic one and giving full particulars.

Applications for patents shall not be open to the public for a period of 18 months from the date of filing or date of priority, whichever is earlier.⁴¹⁶ Every application shall on expiry of the period be published unless there is a secrecy direction given under Section 35, Indian Patents Act. On publication, the Patent Office shall make the specifications and drawing available to the public and the depository institution shall make available the biological material.⁴¹⁷

An international application filed under the PCT designating India shall be deemed to be an application under the Indian Patents Act if a corresponding application has been filed before the Controller in India.⁴¹⁸ The receiving office, designated office and elected office for the purpose of international application filed under the PCT shall be the appropriate office as required under the Patents Rules.⁴¹⁹ An international application has to be filed in triplicate either in English or Hindi. The title, description, drawings and claims in the international application shall be treated

414. *Ibid.*, S. 8.

415. (2009) 41 PTC 260 (Del).

416. Indian Patents Act, 1970, S. 11-A. Patents (Amendment) Act, 2005 has substituted the period of 18 months with "for the period prescribed". Patents (Amendment) Rules, 2005 in Rule 24 has stated that an application for patent shall not be open for a period of 18 months from the date of filing of application or date of priority, whichever is earlier.

417. Indian Patents Act, 1970, S. 11-A(6).

418. *Ibid.*, S. 7(1-A).

419. Indian Patents Rules, Rule 20-B.

as the specification. The filing date of the application for patent and its complete specification shall be the international filing date accorded under the treaty.⁴²⁰

4.8.2 Persons entitled to apply for patent

An application for a patent for an invention must be made by any of the following persons:

1. Any person claiming to be the true and first inventor of the invention.
2. Any person being the assignee of the person claiming to be the true and first inventor in respect of the right to make such an application.
3. The legal representative of any deceased person who immediately before his death was entitled to make such an application.⁴²¹

In *V.B. Mohammed Ibrahim v. Alfred Schafranek*⁴²², it was held that a financial partner who did not contribute any part of his ingenuity or skill or technical knowledge towards the invention cannot be said to have the capacity to invent. He cannot be called an inventor although there may be no objection to his being registered as a patentee either on assignment by a patentee jointly with the true and first inventor. Similarly, a corporation cannot be the sole applicant claiming to be the inventor. Since a corporation cannot be an inventor, it can apply only as the assignee of the right to apply.

In *Shining Industries v. Sri Krishna Industries*⁴²³, it was held that a firm can also apply for a patent as an assignee.

4.8.3 Examination of application

After filing of the application, the applicant has to make a request for examination.⁴²⁴ The request for examination has to be made within a period of 48 months from the filing of the application. The rules require that request for examination has to be made after publication of application but within 48 months from the date of filing or date of priority, whichever is earlier.⁴²⁵ In case of an application filed before the commencement of the Patents (Amendment) Act, 2002, the request for examination shall be made within 12 months from the date of such commencement or within 48 months from the date of application, whichever is later.⁴²⁶ If the applicant or any other interested person does not make a request for examination within the period prescribed, the application shall be deemed to be withdrawn.

420. *Ibid*, Rule 20-D(3); Patents (Amendment) Act, 2005, S. 5.

421. Indian Patents Act, 1970, S. 6(1).

422. AIR 1960 Mys 173.

423. AIR 1975 All 231.

424. Indian Patents Act, 1970, S. 11-B(1).

425. Indian Patents Rules, 2006, Rule 24-B.

426. Indian Patents Act, 1970, S. 11-B(2). Patents (Amendment) Act, 2005 has omitted this sub-section.

The application will be examined by an examiner in respect of:

1. Whether the application and specification comply with the requirements of the Act?
2. Whether there is any lawful ground of objection to the grant of patent?
3. Search for anticipation by prior publications and prior claim.⁴²⁷

A search for anticipation will be made by the examiner among the specifications filed in pursuance of applications for patents made in India on or after 1 January 1912, but before the date of filing of the applicant's complete specification,⁴²⁸ and any documents other than those mentioned in Section 13(1) published in India or elsewhere before the date of filing of the applicant's complete specification.⁴²⁹

The Controller shall refer the application and specification to the examiner where the request for examination has been received within one month from the date of publication or one month from the date of request for examination, whichever is later.⁴³⁰ The report is submitted to the Controller within a period of 18 months from the date of reference. The examiner shall make his report within a period of one month but not exceeding three months from the date of reference of the application to him by the Controller.⁴³¹ First examination report along with the application and specification shall be sent to the applicant.⁴³² The examination and investigation carried under Section 13 shall not be deemed to warrant the validity of the patent.⁴³³

If the report is adverse to the applicant, the Controller shall communicate the gist of the objections to the applicant expeditiously. The Controller shall, if required by the applicant, give him an opportunity of being heard.⁴³⁴ If the application is not put in order for grant as required by the Controller within the prescribed time, the application shall be deemed to be abandoned.⁴³⁵ The time for putting an application in order for grant is 12 months from the date on which the first statement of objection is issued to the applicant to comply with the requirements.⁴³⁶

The scope of Section 21, Indian Patents Act was considered by the Delhi High Court in *Telefonaktiebolaget LM Ericsson (Publ.) v. Union of India*⁴³⁷.

427. *Ibid*, 1970, S. 12.

428. *Ibid*, S. 13(1).

429. *Ibid*, S. 13(2).

430. Indian Patents Rules, 2003, Rule 24-B(2)(i).

432. *Ibid*, Rule 24-B(3).

431. *Ibid*, Rule 24-B(2)(ii).

433. Indian Patents Act, 1970, S. 13(4).

435. *Ibid*, S. 21.

434. *Ibid*, S. 14.

436. Indian Patents Rules, 2006, Rule 24(4)(i).

437. (2010) 168 DLT 461, available at <http://lobis.nic.in/dhc/SMD/judgement/159-03-2010/SMD11032010CW_91262009.pdf> last accessed 7-10-2010.

The petitioner had filed a patent application and the petitioner replied to the first and second examination reports. The petitioner did not put the application in order within the time granted and hence, the application was deemed to have been abandoned. Along with the reply to the second examination report, the petitioner had also filed a request for hearing under Section 14.

The grievance of the petitioner was that despite replying to the objections raised in both the first examination report as well as the second examination report, the Patent Office has held that the petitioner's application "is deemed to have been abandoned" under Section 21(1) of the Act. Thus, there was no opportunity of filing an appeal which would otherwise have been available to the petitioner had an order rejecting the application been passed under Section 15 of the Act, as the order under Section 21 of the Act was not appealable under Section 117-A of the Act.

A collective reading of Sections 21 and 12, Indian Patents Act, 1970 shows that the applicant has to deal with the objections raised in the examination report. The court held that in the context of Section 21 an applicant should be deemed to have "abandoned" his application only when such applicant fails to comply with all the requirements imposed on him or under this Act. Where in response to an examination report, an applicant does nothing by way of meeting the objections raised therein within the time stipulated, and does not seek extension of time for that purpose, only then it can be said that such application should be "deemed to have been abandoned". If he has replied but such reply is not found satisfactory, even after a further opportunity if any is given, then the Controller should proceed to take a decision in terms of Section 15, after complying with Section 14 of the Act. The court concluded that the factual situations to attract the deeming fiction of abandonment in Section 21 was not satisfied.

In *Ferid Allani v. Union of India*⁴³⁸, it was held that abandonment requires a conscious act on the part of the petitioner which would reveal an intention to abandon the application. The court further held that there was a duty of the Controller to give a hearing to an applicant before exercising any discretionary power which was likely to adversely affect an applicant's claim for registration of patent.

If the application or any specification filed in pursuance of the application does not comply with any requirement of the Act or the rules, the Controller may require the application or specification to be amended.⁴³⁹

Where the invention appears to be anticipated, the Controller may refuse to accept the application unless the applicant shows that the priority date of the claim of his complete specification is not later than the

438. (2008) 37 PTC 448 (Del).

439. Indian Patents Act, 1970, S. 15.

priority date of the claim of the said specification or amends the complete specification to the satisfaction of the Controller.⁴⁴⁰ If the Controller is satisfied that the invention is anticipated by prior publication, the gist of the specific objections and the basis thereof has to be communicated to the applicant.⁴⁴¹ If the applicant contests the objection or refiles his specification along with his observation as to whether the specification is to be amended, the applicant shall be given an opportunity of being heard if he so requests.⁴⁴² If the applicant requests for a hearing within a period of one month from the date of communication of the gist of objections, or where the Controller considers it desirable to do so, the Controller shall fix a date of hearing. After hearing the applicant, or without hearing if the applicant does not attend the hearing, the Controller may specify or permit such amendment of the specification as he thinks fit or refuse to grant the patent if the amendment is not made within the period fixed.⁴⁴³

The Controller shall on an application by an applicant for a patent or by a patentee allow the application to be amended subject to conditions as he thinks fit.⁴⁴⁴ The application apart from stating the nature of the proposed amendment must also give reasons for the amendment. The Patents (Amendment) Act, 2002 states that an amendment shall be made by way of disclaimer, correction or explanation.⁴⁴⁵ If in consequence of the investigation or proceedings under the Indian Patents Act, 1970 it appears that an invention in respect of which the application has been made cannot be performed without substantial risk of infringement of a claim in any other patent, a reference to that other patent shall be inserted in the applicant's complete specification.⁴⁴⁶ After the applicant has complied with the requirements of the office, the Controller may accept the complete specification. On acceptance, the Controller will allot a serial number to the application which will be the number of the patent when granted.⁴⁴⁷ The fact of the acceptance of the specification will be advertised in the Official Gazette and thereafter, the application and specification will be open to public inspection.⁴⁴⁸ The Patents (Amendment) Act, 2005 has omitted this requirement of advertisement in the Official Gazette.

International arrangements

Where a person has made a basic application for patent in respect of an invention in a Convention country and later applies for a patent under the Indian Patents Act within a period of 12 months of the basic application,

440. *Ibid.*, S. 18.

441. Indian Patents Rules, 2003, Rule 28(1).

442. *Ibid.*, Rule 28(2).

444. Indian Patents Act, 1970, S. 57.

445. *Ibid.*, S. 59.

447. Indian Patents Rules, 2003, Rule 32.

448. Indian Patents Act, 1970, S. 23.

443. *Ibid.*, Rule 28(5).

446. *Ibid.*, S.19.

he shall be accorded the date of priority as that of the date of making of the basic application.⁴⁴⁹ The Patents (Amendment) Act, 2005 has substituted the requirement of notification by the Central Government and specifies that those countries which accord national treatment to the citizens of India and also countries that are signatory to international, bilateral convention or other arrangement to which India is a party, shall be considered as Convention countries.⁴⁵⁰

An application for a patent could only be a Convention application if the basic invention to which it related was in truth an invention for which protection had been sought in a Convention country.⁴⁵¹ In order to determine whether an application related to an invention for which protection was sought in a Convention country, it was not enough to discover what was disclosed by the foreign application for protection. That application may have disclosed features which formed no part of the invention for which protection had been sought and were only mentioned incidentally. One must attempt to identify the invention for which protection was sought.⁴⁵² The question to be asked is: Whether what was disclosed in the priority document afford a fair basis for the claims in the application? What was required to be fair was not the applicant's claim to priority but the basis which one document afforded for a claim in the other. It depended upon the contents and language of the relevant documents.⁴⁵³

A Convention application shall be accompanied by a complete specification and shall specify the date on which and the Convention country in which the application for patent was made.⁴⁵⁴

4.8.5 Opposition to grant

Before the grant of a patent and after the publication of the application for the patent, any person interested to oppose the application has to send his opposition to the Controller of Patents. The Act specifies the grounds on which the application may be opposed.⁴⁵⁵ The grounds for opposition of patent grant are almost the same as the tests for revocation of a patent once granted. An application may be opposed on the grounds of:

1. Wrongfully obtaining the invention.
2. Publication before the priority date of the claim.
3. The priority date of a claim in a specification, earlier than the application.
4. Public knowledge or public use in India.

449. *Ibid.*, S. 135.

450. *Ibid.*, S. 133; Patents (Amendment) Act, 2005, S. 68.

451. *Stauffer Chemical Co.'s Application*, 1976 FSR 303; 1977 RPC 33.

452. *Alfa Laval Aktiebolag's Application*, 1968 RPC 216.

453. *American Cyanamid Co. (Dann's) Patent*, 1971 RPC 425 (HL).

454. Indian Patents Act, 1970, S. 136.

455. *Ibid.*, S. 25.

5. Obviousness.
6. Being not an invention or not entitled to be patented under the Act.
7. Failure to disclose information required by the Controller.
8. In case of a Convention application, failure to apply within 12 months from the date of the first application.
9. Insufficient description of the invention in the complete specification.
10. Wrongful mention of the source or geographical origin of biological material used for the invention.
11. Knowledge within the local or indigenous community in India.⁴⁵⁶

The Patents (Amendment) Act, 2005 has substituted Section 25 dealing with the opposition proceedings. The amendment now allows an interested person to give notice of opposition to the Controller after the grant of patent and within one year from the date of publication. On receipt of the notice of opposition, the Controller shall notify the patentee and shall constitute an Opposition Board who shall examine the opposition. All 11 grounds which are now made available in the pre-grant stage is also available in the post-grant stage as earlier. The Controller shall on receipt of the recommendation of the Board either maintain, amend or revoke the patent.

Pre and post-grant opposition

Persons entitled to oppose the patent before the grant and after the grant are different. The Indian Patents Act as amended in 2005 provided "any person" to file a pre-grant opposition.⁴⁵⁷ Prior to the amendment, only an "interested" person could file a pre-grant opposition. The provision of post-grant opposition was newly inserted by the Patents (Amendment) Act, 2005. But only an "interested" person could file a post-grant opposition under Section 25(2), Indian Patents Act as amended. Indian Patents Act has defined the term "person interested" to include a person engaged in, or in promoting, research in the same field as that to which the invention relates.⁴⁵⁸ The meaning of the term "interested person" was considered by the Delhi High Court⁴⁵⁹ in a case relating to a revocation of a patent. Whether a user has an interest will depend upon the facts and circumstances of each case. It was found that an interested person must be a person who has a direct, present and tangible commercial interest or public interest which is injured or affected by the continuance of the patent on the register.

While a pre-grant opposition can be filed under Section 25(1), Indian Patents Act, 1970 at any time after the publication of the patent

456. *Ibid.*, S. 25

457. *Ibid.*, S. 25(1).

458. *Ibid.*, S. 2(1)(t).

459. *Ajay Industrial Corpn. v. Shiro Kanao of Ibaraki City*, AIR 1983 Del 496: (1983) 3 PTC 245.

application but before the grant of a patent, a post-grant opposition under Section 25(2), Indian Patents Act has to be filed before the expiry of one year from the date of the publication of the grant of patent.

The amended Section 25(2) also sets out the grounds on which post-grant opposition could be made. A significant difference is that the representation at the stage of pre-grant is considered by the Controller himself. In such a situation, notice will be given to the applicant for grant of patent who can file his reply and evidence. On receipt of a notice of opposition, the Controller has to constitute an Opposition Board consisting of such officers as he may determine and refer to such Opposition Board, the notice of opposition along with other documents for its examination and recommendations.⁴⁶⁰ After receiving the recommendations of the Opposition Board, the Controller has to give the patentee and the opponent an opportunity of being heard.

Under Section 25(6) in the event, the Controller orders that the patent shall be maintained subject to amendment of the specification or any other document, the patent shall stand amended accordingly.

4.8.5.2 Appellate provision in post-grant opposition

The appellate provisions in the two types of opposition are also different. In *Ucb Farchim SA v. Cipla Ltd.*⁴⁶¹, it was held:

Prior to its amendment in 2005, against an order under Section 15 refusing a patent and against an order under Section 25, an appeal lay in terms of Section 116 of the Patents Act to the High Court. Prior to 2005, there was no provision for a post-grant opposition. However, the 2005 amendments brought a significant change in this scheme.

After the amendment in 2005, while Section 117-A provides an appeal to the Intellectual Property Appellate Board against an order under Section 25(4), it does not expressly provide an appeal against an order in a pre-grant opposition under Section 25(1), Indian Patents Act, 1970.

4.8.5.3 Procedure for opposition

Representation for opposition under Section 25(1) shall be filed at the appropriate office and shall include a statement and evidence if any and also a request for hearing if desired.⁴⁶² On consideration of the representation, if the Controller is of the opinion that the application has to be refused or that it requires amendment, he shall give a notice to the applicant.⁴⁶³ On receiving the notice, the applicant can file a statement and

460. Indian Patents Act, 1970, S. 25(3).

461. (2010) 167 DLT 459.

462. Patents (Amendment) Rules, 2006, Rule 55(1).

463. *Ibid.*, Rule 55(3).

evidence in support of his application within one month from the date of the notice. The Controller may then refuse to grant the patent or require the complete specification to be amended before the grant. On receipt of a notice of opposition, the Controller shall constitute an Opposition Board consisting of three members and nominate one of the members as Chairman of the Board. The Opposition Board shall, after examination of the notice of opposition and the documents filed, submit a report with reasons on each ground taken in the notice of opposition with its joint recommendation within three months from the date on which the documents are forwarded to them.⁴⁶⁴ The opponent shall send a written statement in duplicate setting out the nature of the opponent's interest and the facts upon which he bases his case along with the notice of opposition and shall also deliver a copy to the patentee.⁴⁶⁵ If the patentee desires to contest the opposition, he shall leave at the appropriate office a reply statement within two months from the date of receipt of a copy of the written statement.⁴⁶⁶ If the patentee does not desire to contest or to leave his reply and evidence within the period specified, the patent shall be deemed to have been revoked. The opponent may within one month from the date of delivery of the patentee's reply leave at the appropriate office evidence in reply. The evidence in reply shall be confined to the matters in the patentee's evidence.⁴⁶⁷ No further evidence shall be delivered by either party except with the leave of the Controller. On completion of the presentation of evidence and on receiving recommendation of the Opposition Board, the Controller may fix a date for the hearing of the opposition and shall also give not less than 10 days notice of such hearing.⁴⁶⁸ If either party proceeding desires to be heard, he shall give notice to the Controller. The Controller shall refuse to hear a party who has not given notice. After hearing the party if they desire to be heard, the Controller shall decide the opposition and notify the decision to the parties after giving reasons thereof.⁴⁶⁹

Grant and sealing of patent

Where the complete specification has been accepted and if the application has not been opposed and the period of filing notice of opposition has expired or the opposition, if any, has been decided in favour of the applicant, the patent will be granted to the applicant on request made for the purpose, and the patent sealed and entered in the register.⁴⁷⁰ The Patents (Amendment) Act, 2005 states that on the grant of the patent, the Controller shall publish the fact that the patent has been granted and the

464. Indian Patents Rules, 2003, Rule 56(4).

465. *Ibid.*, Rule 57.

466. *Ibid.*, Rule 58.

467. *Ibid.*, Rule 59.

468. *Ibid.*, Rule 62(1).

469. *Ibid.*, Rule 62(5).

470. Indian Patents Act, 1970, S. 43.

application, specification and other documents related shall be open for public inspection.⁴⁷¹

Muralidhar J gave an interesting judgment as to when can a patent be said to be granted under the Indian Patents Act.⁴⁷² The court interpreted the provisions of Section 43, Indian Patents Act which requires grant of patent as expeditiously as possible in all cases where it has been decided to grant patents:

... with the seal of the Patent Office and the date on which the patent is granted shall be entered in the Register. Under Section 43(2), upon the grant of patent, the Controller 'shall publish the fact that the patent has been granted and thereupon the application, specification and other documents related thereto shall be open for public inspection'.

Regarding the date of grant of patent, the Delhi High Court opined:

If this Court were to hold that the date of the grant of patent is only the date on which the factum of such grant is entered in the Register, then there would be no end to filing of pre-grant oppositions as long as on account of some delay on the administrative side of the factum of grant of patent is not entered in the Register. Given the scheme of the Act, and the number of hurdles an applicant for grant of a patent has to overcome, even if the application is found to be in order for grant, it is not possible to accept the interpretation put forth by the pre-grant opposers.⁴⁷³

The court found that there has to be an order on file passed by the Controller holding that the patent has been found in order and that patent is granted. Until and unless such an order is passed on file, it cannot be said that the patent has been granted. The court held that for the purposes of Section 43(1) of the Act, the patent is granted on the date on which the Controller passes a final order to that effect on the file.

A patent will be granted in the prescribed form and shall have effect throughout India.⁴⁷⁴ The patent will be dated as of the date on which the application for the patent was filed.⁴⁷⁵ Its purpose is for calculating the duration of patent and reckoning the time for payment of renewal fee.

A patent is granted subject to the following conditions:⁴⁷⁶

1. that the machine, article or process in respect of which the patent is granted may be imported or made by or on behalf of the government for its own use;
2. that the machine, article or process in respect of which the patent is granted may be used by any person for the purpose of experiment or research; and

471. *Ibid.*, S. 43(2).

472. *Snehlata C. Gupte v. Union of India*, WP(C) No. 3516 of 2007, order dt. 15-7-2010 (Del).

473. *Ibid.*

475. *Ibid.*, S. 45.

474. Indian Patents Act, 1970, S. 46.

476. *Ibid.*, S. 47.

3. that the medicine or drug that is covered by the patent may be imported by the government for the purpose of its own use or for distribution in a dispensary having regard to the public service of such dispensary or hospital.

VI

Rights of patentees

A patent shall confer on the patentee the exclusive right to prevent third parties, who do not have his consent, from making, using, offering for sale, selling or importing of the patented product in India.⁴⁷⁷

The Madras High Court in *K. Ramu v. Adyar Ananda Bhavan and Muthulakshmi Bhavan*⁴⁷⁸ found *prima facie* case on the part of the plaintiff while granting interim injunction on the strength of their two patent certificates. It was held that Section 48, Indian Patents Act, 1970 will hold the field according to which a patent granted under this Act shall confer upon the patentee the exclusive right to prevent third parties from the Act of making, using, selling or importing that product in India if the subject-matter of the patent is a product.

In *Bajaj Auto Ltd. v. TVS Motor Co. Ltd.*⁴⁷⁹, the Madras High Court drew the distinction between Section 48, Indian Patents Act, 1970 as it stood before and after the amendment. Elaborating the difference, it was stated that the difference in Section 48, Indian Patents Act before and after the amendment is that before the amendment by Act 38 of 2002, the patentee was conferred an exclusive right to use by himself or through his agents or licensees and also to exercise or sell or distribute the inventions in India. The patent to which the patentee was entitled was the exclusive user related to the article or substance and to a method or process of manufacturing or the substance. After the amendment, the right conferred on the patentee in respect of the product and in respect of the process is the exclusive right to prevent third parties from using or selling, etc., of the patented invention.

VII

Paris Convention: An international filing treaty

The Paris Convention is an international treaty that dictates when foreign patent applications must be filed if maximum international benefits are to

477. *Ibid.*, S. 48.

478. (2007) 2 MLJ 907; (2007) 34 PTC 689.

479. (2008) 36 PTC 417 (Mad).

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be obtained. Most of the countries of the world subscribe to this treaty. Under the Paris Convention, and subject to the absolute novelty rule, if an inventor files a patent application in his home country, he then has one year, called the Convention year, from that application's filing date, called the priority date, in which to file applications for foreign counterpart patents in all of the other participating "Convention countries".⁴⁸⁰ If the counterpart patent applications are placed on file within that Convention year, the other countries will recognise that priority date when applying their laws to the counterpart application. The Paris Convention also requires that each Convention country must apply its law equally to all patent applications it receives, whether the applicants are citizens of that country or are from another Convention country.⁴⁸¹

4.11 Patent Cooperation Treaty

Applications for the protection of inventions in any of the Contracting States may be filed as international application under the PCT. It is a procedural treaty for the grant of the patent.

The PCT is a multilateral treaty that was concluded in Washington in 1970 and entered into force in 1978. It is administered by the International Bureau of WIPO. This treaty, negotiated under the auspices of WIPO, is designed "to simplify and render more economical the obtaining of protection for inventions where protection is sought in several countries" and also "to perfect the legal protection of inventions". The PCT procedure consists of two main phases. It begins with the filing of an international application and ends with the grant of a number of national patents.

The PCT offers as a first stage the chance to make a single "international application", leading to an international search conducted by one of the international searching authorities. The international phase consists of four main steps of which the first three occur automatically and the last is optional for the applicant. The first three steps consist of the filing of the international application by the applicant and its processing by the "receiving office", the establishment of the international search report by one of the "international searching authorities", and the publication of the international application together with the international search report as well as their communication by the International Bureau of WIPO to the national offices which the applicant designates in the international application, for obtaining protection, the so-called "designated offices". There is a prescribed form for the international application. This form must be accepted by all designated offices for the purposes of the national phase, so that there is no need to comply with a great variety of widely differing

480. Paris Convention, Art. 4.
481. *Ibid.*, Arts. 2, 3.

formal requirements in the many countries in which protection may be sought.

The following information is required in an international application:

1. the title of the invention;
2. a petition that the application be processed according to the PCT;
3. the designation of at least one Contracting State;
4. the name and State of the applicant and if applicable, his agent;
5. the name of the inventor if such information is required by a law of one of the designated States at the time of filing;
6. choice of type of protection;
7. an abstract, a description⁴⁸², a claim or claims⁴⁸³, and drawings⁴⁸⁴ where required; and
8. a signature by the applicant.

The international fees payable in respect of the filing of an international application may be paid at one time, at one office and in one currency. Any patents subsequently granted on the application by the designated or elected offices can be relied on by the applicant to a greater extent than would have been the case without the benefit of the international search report and the international preliminary examination report.

International publication serves to disclose to the public, the invention and to set out the scope of the protection that may be ultimately obtained.

There is also an optional fourth step, namely, the establishment of an international preliminary examination report by one of the "international preliminary examining authorities". International preliminary examination is available subject to certain conditions and qualifications being met.

On completion of the international phase, further action is required in each of the designated offices. In particular, the applicant has to pay to those offices the required national fees, furnish them with any translations that are required. There are time-limits within which those steps must be taken if the application is to proceed in the national phase. If the steps are not taken within the applicable time-limit, the effect of the international application may cease in the designated States concerned. The designated offices then examine the application and grant or refuse the national patent on the basis of their national laws. These procedures before the designated offices constitute what is usually referred to as the "national phase" of the PCT procedure.

The PCT permits the claiming of priority from one or more earlier applications.⁴⁸⁵ There is a grace period of 12 months during which the applicant may claim priority of an earlier application.⁴⁸⁶

482. PCT, Art. 5.
485. *Ibid.*, Art. 8.

483. *Ibid.*, Art. 6.
486. *Ibid.*, Art. 8.

484. *Ibid.*, Art. 7.

patent obtained. The reason is that he has only produced that which he was employed to invent. His invention is the precise subject of the contract of employment.⁴⁹⁷

A patent confers on the owner of an invention certain rights and hence it is essential to have the ownership in the patent established by prosecuting the application.

IX

4.13 Specification

A patent is a contract with consideration being disclosure of the invention to the public and the right to use it after the expiry of the period of protection. The Patents Act of all countries has a provision requiring the inventor to disclose how to make the claimed invention and also to give a written description of the invention in the specification. The contract between the inventor and the State requires that the inventor discloses and describes his invention sufficiently, to be repeatable.

The crucial document in the whole process of securing and relying upon a patent is the specification.

The purpose of a patent is to convey to the public what the patentee considers to be his invention and what monopoly he has chosen to obtain. These are not necessarily the same. The former is primarily to be found in the specification and the latter is primarily to be found in the claims. The patentee should be taken to be aware of the primary purposes of the specification and the claims when drafting his patent. So, the patentee must be taken to know the framework of form and purpose when he drafts his patent. It is his duty to communicate his invention and his assertion of monopoly to the public in a language it will understand.

A specification customarily begins, after the title, with a general preamble stating, usually in more detail than in the title, the subject to which the invention relates, indicating upon what old arrangements the invention is an improvement and the respects in which it needed improvement. It may otherwise state the object of the invention, summarising other proposals for solving the same problem and setting out the nature of the invention in general terms. This statement usually includes a clause in substantially the same terms as the main claim. Then follows a detailed description of one or more embodiments of the invention. The whole of this is known as the body of the specification. The specification ends with the claims, delimiting the monopoly granted by the patent. There may be included in the body, usually immediately before the claims, disclaimers of part of the matter covered by the language of the claims.

497. *Standard Parts Co. v. Peck*, 68 L. Ed. 560; 264 US 52 (1924).

In *Electric and Musical Industries Ltd. v. Lissen Ltd.*⁴⁹⁸, it was stated:

the preamble to the body and the claims, on the one hand and the remainder of the body, on the other, have quite different functions. The body, apart from the preamble, is there to instruct those skilled in the art concerned in the carrying out of the invention. The claims on the other hand, since they define the monopoly, will in the event of legal proceedings be scrutinised with as much care as any other document defining legal right and require to be as carefully drawn. The preamble, which may determine the manner in which a reader approaches the claims, should be drawn with almost equal care.

Provisional specification

In India, an application for a patent shall be accompanied by a provisional or complete specification.⁴⁹⁹ An applicant may file a provisional specification which need not be full and specific, and need not contain the claims. Its object is to ascertain the priority date of the patent. During the period between filing of provisional specification and complete specification, the applicant may conduct further research in his invention and perfect the method of carrying out the invention or introduce further developments which he may incorporate in the complete specification and claims. The priority date of the claim of a complete specification in respect of an application accompanied by a provisional specification where the claim is fairly based on the matter disclosed in the specification shall be the date of filing of the relevant specification.⁵⁰⁰ Where the claims in the complete specification are fairly based on the matter disclosed in the provisional

498. (1939) 56 RPC 23.

499. Indian Patents Act, 1970, S. 7(4) reads:

Every such application (not being a convention application) shall be accompanied by a provisional or a complete specification.

Patents (Amendment) Act, 2005 has substituted the following section for S. 7(4):

Every such application (not being a Convention application or an application filed under the PCT designating India) shall be accompanied by a provisional or a complete specification.

500. Indian Patents Act, 1970, S. 11 reads:

(1) There shall be a priority date for each claim of a complete specification.

(2) Where a complete specification is filed in pursuance of a single application accompanied by—

(a) a provisional specification; or

(b) a specification which is treated by virtue of a direction under sub-section (3) of Section 9 as a provisional specification; and the claim is fairly based on the matter disclosed in the specification referred to in clause (a) or clause (b), the priority date of that claim shall be the date of filing of the relevant specification.

(3) Where the complete specification is filed or proceeded with in pursuance of two or more applications accompanied by such specifications as are mentioned in sub-section (2) and the claim is fairly based on the matter disclosed—

(a) in one of those specifications, the priority date of that claim shall be the date of the filing of the application accompanied by that specification;

(b) partly in one and partly in another, the priority date of that claim shall be the date of the filing of the application accompanied by the specification of the later date.

4.13.1

specification, the applicant gets the liberty to publish or use his invention after the filing date of the application without endangering the validity of the patent when granted in due course of time.⁵⁰¹

Where an application for a patent is accompanied by a provisional specification, a complete specification shall be filed within 12 months from the date of filing of the application.⁵⁰² A complete specification can be filed after 12 months but within 15 months from the date of filing of the provisional specification, if a request to that effect is made to the Controller.⁵⁰³ After the amendment of the Patents Act in 2005, the complete specification has to be filed within 12 months of the filing of the provisional specification. If there has been failure in filing the complete specification within 12 months, the application shall be deemed to be abandoned.

4.13.2 Complete specification

The object and purpose of complete specification is that it should enable a reasonably well-informed artisan, technologist or skilled workman,

(3-A) Where a complete specification based on a previously filed application in India has been filed within twelve months from the date of that application and the claim is fairly based on the matter disclosed in the previously filed application, the priority date of that claim shall be the date of the previously filed application in which the matter was first disclosed. [Ins. by Act 15 of 2005, Section 9 (w.e.f. 1-1-2005).]

(4) Where the complete specification has been filed in pursuance of a further application made by virtue of sub-section (1) of Section 16 and the claim is fairly based on the matter disclosed in any of the earlier specifications, provisional or complete, as the case may be, the priority date of that claim shall be the date of the filing of that specification in which the matter was first disclosed.

(5) Where, under the foregoing provisions of this section, any claim of a complete specification would, but for the provisions of this sub-section, have two or more priority dates, the priority date of that claim shall be the earlier or earliest of those dates.

(6) In any case to which sub-sections (2), (3), (3-A), (4) and (5) do not apply, the priority date of a claim shall, subject to the provisions of Section 137, be the date of filing of the complete specification

501. Indian Patents Act, 1970, S. 11(8) reads:

A claim in a complete specification of a patent shall not be invalid by reason only of—

- (a) the publication or use of the invention so far as claimed in that claim on or after the priority date of such claim; or
- (b) the grant of another patent which claims the invention, so far as claimed in the first mentioned claim, in a claim of the same or a later priority date.

502. Indian Patents Act, 1970, S. 9(1) reads:

Where an application for a patent (not being a convention application or an application filed under the Patent Cooperation Treaty designating India) is accompanied by a provisional specification, a complete specification shall be filed within twelve months from the date of filing of the application, and if the complete specification is not so filed, the application shall be deemed to be abandoned.

503. Indian Patents Act, 1970, S. 9(1) reads:

Where an application for a patent (not being a convention application or an application filed under the Patent Cooperation Treaty designating India) is accompanied by a provisional specification, a complete specification shall be filed within twelve months from the date of filing of the application, and if the complete specification is not so filed, the application shall be deemed to be abandoned.

dealing with the subject-matter with which he is familiar, to make the thing so as to make it available for the public at the end of the protected period.

The specification is a written description of the invention and of the manner and process of making and using the same. The specification must be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention pertains to make and use the same. As the essential bargain for the exclusive right of the patent, the patentee must teach the public how the invention works; the patent instrument itself must "enable" other skilled artisans to practice the disclosed technology. Accordingly, there is a failure of consideration if the disclosure is not an enabling one. Where there is no complete specification sufficiently describing the invention and the method by which it is to be performed, the patent can be revoked.⁵⁰⁴

The purpose of specification is to ensure that the scope of the right to exclude, as set forth in the claims, does not overreach the scope of the inventor's contribution to the field of art as described in the patent specification.⁵⁰⁵ The description must clearly allow persons of ordinary skill in the art to recognise that the inventor invented what is claimed.⁵⁰⁶ Adequate description of the invention guards against the inventor overreaching by insisting that he recount his invention in such detail that his future claims can be determined to be encompassed within his original creation.

The enablement requirement serves to delimit the boundaries of patent protection by ensuring that the scope of a patent claim accords with the extent of the inventor's technical contribution. Disclosure includes publication. In *General Tire & Rubber Co. v. Firestone Tyre & Rubber Co. Ltd.*⁵⁰⁷, the plaintiffs had patented a process for tyre manufacture by combining a mixture of synthetic rubber, oil and carbon black. It was held that this invention was anticipated by reason of the publication of three earlier specifications in an article published in the trade journal "Rubber Age". The Court of Appeals considered the evidence of earlier documentation and articles and stated:

To anticipate the patentees claim the prior application must contain clear and unmistakable directions to do what the patentee claims to have invented.... A signpost, however clear, upon the road to the patentee's invention will not suffice. The prior inventor must be clearly shown to have planted his flag at the precise destination before the patentee.

504. *Star Textile Engg. Works Ltd. v. James Mackie Holdings Ltd.*, (1980-2000) Supp (1) PTC 226 (Cal).

505. *Gosteli, re*, 872 F 2d 1008; 10 USPQ 2d 1614 (Fed Cir 1989).

506. *Vas-Cath Inc. v. D. Mahurkar*, 935 F 2d 1555; 19 USPQ 2d 1111 (Fed Cir 1991).

507. 1972 RPC 457 (CA).



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4.13.3 Construing a specification

No special rules are applicable to the construction of the specification of a patent. Generally, a patent specification is construed like any other document. The claim in the specification of the patent need only be as clear as the subject admits, and the patentee need not so simplify his claim as to make it easy for infringers to evade it. The patentee's duty is not to prevent all possible arguments as to whether there is infringement or not in particular cases, but to enable the court to formulate the questions of fact to be answered. The complete specification must describe "an embodiment" of the invention claimed in each of the claims, and the description must be sufficient to enable those in the industry concerned to carry it into effect "without their making further inventions" and the description must be fair, *i.e.* it must not be unnecessarily difficult to follow.⁵⁰⁸

4.13.3.1 Specifications are construed like any written document

A patent specification is addressed to a person skilled in the relevant art of the specification. This person brings the understanding of the terminology and workings of the art to the construction of the specification. Thus, the specification is to be construed in the light of the common general knowledge, in the relevant art at the priority date of the application.⁵⁰⁹

The words of a specification should generally be given their ordinary English meaning.⁵¹⁰ The exception to this is that where a word or expression has a special meaning in the relevant art, then the specialised meaning should be adopted.⁵¹¹ This follows from the fact that the specification is read by a person skilled in the relevant art.⁵¹²

The specification is to be read as a whole. Consequently, the description is an aid to construing the claims, and vice versa.⁵¹³

Different parts of the specification have different functions, and so different weightage is to be given to information, from different parts of the specification.⁵¹⁴

It is the duty of the patentee to state clearly and distinctly the nature and limits of what he claims. If the language used by the patentee is obscure and ambiguous, no patent can be granted and it is immaterial whether the obscurity in the language is due to design or carelessness or want of skill. It is undoubtedly true that the language used in describing an invention would depend upon the class of persons versed in the art and who intend to act upon the specification.⁵¹⁵

508. *Farbwerke Hochst & B. Corpn. v. Unichem Laboratories*, AIR 1969 Bom 255; (1974) 76 Bom LR 130.

509. *Welch Perrin v. Worrel*, (1961) 106 CLR 588, 610; 1961 HCA 91.

510. *Interlego AG v. Toltoys Pty. Ltd.*, (1973) 130 CLR 461; 1973 HCA 1.

511. *Electric and Musical Industries Ltd. v. Lissen Ltd.*, (1939) 56 RPC 23.

512. *Patent Exploitation Ltd. v. Siemens Bros. N Co.*, (1904) 21 RPC 541.

513. *Rosedale Associated Manufacturers Ltd. v. Carlton Tyre Saving Co. Ltd.*, 1960 RPC 59.

514. *Welch Perrin v. Worrel*, (1961) 106 CLR 588; 1961 HCA 91.

515. *Press Metal Corpn. Ltd. v. Noshir Sorabji*, AIR 1983 Bom 144.

Enablement: How to be made

The patent laws of the US, Europe and India are substantially harmonised on the point of enablement.

4.13.4

The method of making an enabling disclosure is amply illustrated by the Indian Patents Act, 1970 which provides that every specification shall fully and particularly describe the invention and its operation or use and the method by which it is to be performed.⁵¹⁶ The Act states that a patent may be revoked, if

the complete specification does not sufficiently and fairly describe the invention and the method by which it is to be performed, that is to say, that the description of the method or the instructions for the working of the invention as contained in the complete specification are not by themselves sufficient to enable a person in India possessing average skill in, and average knowledge of, the art to which the invention relates, to work the invention, or that it does not disclose the best method of performing it, which was known to the applicant for the patent and for which he was entitled to claim protection.⁵¹⁷

Determining the sufficiency of a disclosure requires consideration of the particular invention, nature and state of development of the prior art, knowledge, kinds and degree of skills and experience of one skilled in the art.⁵¹⁸

As early as in 1895, the US Supreme Court⁵¹⁹ presented an interesting historical setting for the enablement doctrine. Sawyer and Mann sued the Edison Electric Light Company for infringement of a patent claiming "an incandescing conductor for an electric lamp, of carbonized fibrous or textile material. "...". Edison had independently discovered that a particular strain of bamboo, when carbonised, served best as a filament. The Supreme Court invalidated the Sawyer and Mann on the reasoning that the question really is whether the imperfectly successful experiments of

516. Indian Patents Act, 1970, S. 10(4) reads:

Every complete specification shall—

(a) fully and particularly describe the invention and its operation, use and the method by which it is to be performed.

517. Indian Patents Act, 1970, S. 64(1) reads:

Subject to the provisions contained in this Act, a patent, whether granted before or after the commencement of this Act, may, be revoked on a petition of any person interested or of the Central Government by the Appellate Board or on a counter-claim in a suit for infringement of the patent by the High Court on any of the following grounds, that is to say,—

(b) that the complete specification does not sufficient and fairly describe the invention and the method by which it is to be performed, that is to say, that the description of the method or the instructions for the working of the invention as contained in the complete specification are not by themselves sufficient to enable a person in India possessing average skill in, and average knowledge of, the art to which the invention relates, to work the invention, or that it does not disclose the best method of performing it which was known to the applicant for the patent and for which he was entitled to claim protection.

518. *A.B. Dick Co. v. Barnett*, 288 Fed 799 (2nd Cir 1923).

519. *Consolidated Electric Light Co. v. Mc Keesport*, 40 L Ed 221; 159 US 465 (1895).

Sawyer and Mann, with carbonised paper and wood carbon, conceding all that is claimed by them, authorised them to put under tribute the results of the brilliant discoveries made by others.

If the description is so vague and uncertain that no one can tell, except with the help of independent experiments, how to construct the patented device, the patent is void.

A specification is a model of clarity, leaves nothing to doubt or speculation and does not require any experiments to make and use the invention. But it need not set forth minute details or procedures that are clear to a skilled person.⁵²⁰ A specification will be sufficient even if a skilled person might have to make several trials and experiments before successfully making and using the invention as long as only the exercise of the ordinary skill is required to do so.⁵²¹ In *Morgan v. Seaward*⁵²², it was stated:

the specification ought to be framed so as not to call on a person to have recourse to more than those ordinary means of knowledge which a workman of competent skill in his art may be presumed to have. You may call upon him to exercise all the actual existing technical knowledge common to the trade, but you cannot call upon him to exercise anything more. You have no right to call upon him to tax his ingenuity or invention.

The specifications of letters patent are addressed primarily to those skilled in the art to which the invention relates.⁵²³

The US Supreme Court in *Joseph Grant v. E&H Raymond*⁵²⁴ stated that an enabling disclosure is necessary in order to give the public, after the privilege expires, the advantage for which the privilege is allowed, and is the foundation of the power to issue the patent.

In *No Fume Ltd. v. Frank Pitchford & Co. Ltd.*⁵²⁵ (*No Fume*), the plaintiff claimed a "smokeless" ashtray. The patentee does not tell the world within what limits the relative proportions of the integers he has mentioned must be kept to achieve the desired result. The court found that the patentee fulfils his duty, if in his complete specification he describes and ascertains the nature of the invention, and the manner in which the invention is to be performed, sufficiently and fairly. It is not necessary that he should describe in his specification the manner in which the invention is to be performed with that wealth of detail with which the specification of the manufacture of something is usually put before the workman who is engaged to manufacture it. Specifications very frequently contain mistakes; they also have omissions. But if a person skilled in the art can easily rectify the mistakes and can readily supply the omissions, the patent will not be held to be invalid. The test to be applied for the purpose of

520. *Folkers, re*, 344 F.2d 970; 145 USPQ 390 (CCPA 1965).

521. *A.B. Dick Co. v. Barnett*, 288 Fed 799 (2nd Cir 1923).

522. (1837) 2 M&W 544; 150 ER 874.

523. *Plimpton v. Malcolmsen*, (1876) 3 Ch D 531.

524. 8 L Ed 376; 31 US 218 (1832).

525. (1935) 52 RPC 231.

ascertaining whether such a person can readily do that, has been stated to be this: Can he rectify the mistakes and supply the omissions without the exercise of any inventive faculty? If he can, the description of the specification is sufficient. If he cannot, the patent will be void for insufficiency. The first thing to be remembered, in specifications of patents, is that they are addressed to those who know something about the matter.

If a workman skilled in the art can by trial and error readily discover for himself, what the proportions should be in order to give the desired result, and to discover those proportions required the exercise of no inventive faculty at all, the patentee is said to have complied with his obligation.

Tossing out the mere germ of an idea does not constitute enabling disclosure. The US Court of Customs and Patent Appeals in *Gould v. Hellwarth*⁵²⁶ (*Hellwarth*) concluded that the patent statutes do not contemplate grant of patents for such a disclosure which is merely a fertile field for experimentation.

When there is no disclosure of any specific starting material or of any of the conditions under which a process can be carried out, undue experimentation is required; there is a failure to meet the enablement requirement which cannot be rectified by asserting that all the disclosure related to the process is within the skill of the art. It is the specification, not the knowledge of one skilled in the art, that must supply the novel aspects of an invention in order to constitute adequate enablement.

To be enabling, a patent must contain a description that enables one skilled in the art, to make and use the claimed invention.⁵²⁷ That some experimentation is necessary does not preclude enablement; the amount of experimentation, however, must not be unduly extensive.

Baldwin, Circuit Judge in *Atlas Powder Co. v. E.I. Du Pont de Nemours & Co.*⁵²⁸ found that one skilled in the art would know how to modify slightly many of the failures to form a better emulsion.

The phrase an "effective amount", commonly used in the chemical and biological sciences, may or may not be indefinite. The test to determine whether such a terminology is definite is whether one skilled in the art can determine specific values of what is an "effective amount" based on the disclosure. This is often gleaned from the specification. Thus, the phrase "an effective amount... for growth stimulation" was held to be definite where the amount was not critical and those skilled in the art could determine from the specification what an effective amount meant.⁵²⁹ However, the phrase an "effective amount" was held to be indefinite when the claim failed to state the function to be achieved by such an "effective amount" and more than one effect could be implied from the specification or the relevant art.

526. 472 F.2d 1383 (CCPA 1973).

527. *Raytheon Co. v. Roper Corp.*, 724 F.2d 951; 220 USPQ 592 (Fed Cir 1983).

528. 750 F.2d 1569 (Fed Cir 1984).

529. *Halleck, re*, 422 F.2d 911; 164 USPQ 647 (CCPA 1970).

Proportions may be given broadly, unless the exact amount is of essence to the invention and essential to the success. There are cases in which the quantity of any chemical to be used is so vital to the successful production of an article that it cannot be varied without changing the nature of the product. There are also cases in which the quantity which is mentioned in the specification is the best for the purpose of achieving the result, though variations in that quantity may not lead to any different result and the finished product, though the same, may be of a better or a worse quality than the one intended. Different principles must be applied to these two kinds of cases. In the first case, the quality of chemicals used is an essence of the invention and a variation of its proportions might lead to the production of a totally different article. In the second case, the proportion of the chemicals to be used is not the essence of the patent and may not, by variation, lead to the production of a different article.

The patent in *Bombay Agarwal Co. v. Ramchand Diwan Chand*⁵³⁰ consisted of a preparation of a beverage by the decoction of gram husk. The decoction is according to the claim made, wholesome and takes the place of tea which by its prohibitive value is not available to the poor consumers. To make the article resemble the original beverage, an attempt has been made to produce a similar colour in the resulting beverage. To that end, it is obvious that ferrous sulphate is used to tint the vegetable matter so that the ultimate decoction may be of the colour which tea normally bears. A little more or a little less of ferrous sulphate might produce a richer or a weaker hue in the decoction, but it would not change the nature of the article in respect of which the claim for the patent was made. Since the patent in this case did not involve the use of any exact amount of ferrous sulphate in proportion to the gram husk, it was held as not of the essence of the invention.

Recent cases involving the pharmaceutical arts have shown that claims reciting an effective amount need not specifically state what function such an "effective amount" was intended for, if the supporting disclosures provided guidelines as to the intended utilities and how the uses could be achieved.⁵³¹

Enablement is not precluded by the necessity for some experimentation such as routine screening. However, experimentation needed to practice the invention must not be undue experimentation. The key word is "undue", not experimentation. The term "undue experimentation" does not appear in the statute, but it is well established that enablement requires that the specification teach those in the art to make and use the invention without undue experimentation. Whether undue experimentation is needed is not a single, simple factual determination, but rather is a conclusion reached by weighing many factual considerations.

530. AIR 1953 Nag 154.

531. *Skuballa, ex p*, 12 USPQ 2d 1570 (1989).

Factors to be considered in determining whether a disclosure would require undue experimentation include: 1) the quantity of experimentation necessary; 2) the amount of direction or guidance presented; 3) the presence or absence of working examples; 4) the nature of the invention; 5) the state of the prior art; 6) the relative skill of those in the art; 7) the predictability or unpredictability of the art; and 8) the breadth of the claims.

Balancing the scope of patent protection and the extent of an inventor's contribution is a difficult task. Too narrow an interpretation would encourage competitors to circumvent the patent by minor changes. But if the protection is advanced too liberally, then the patentee could obtain a windfall which strangles future technical advance. The Supreme Court's wariness of the latter was demonstrated when it encountered Samuel Morse's telegraph patent.⁵³²

The court ruled the claim invalid as Morse had simply claimed far more than he had invented.

The court in *Moleculon Research Corp. v. CBS Inc.*⁵³³ considered the patent on the popular Rubik's cube toy. The toy consisted of a cube puzzle divided into smaller cubes; rotation of the sides of the larger cube allowed the smaller cubes to be arranged into patterns. The patent claimed both the cube puzzle and a method for restoring a predetermined pattern of smaller cubes, but did not describe the precise sequence of moves necessary to solve the puzzle. The court held that the patent specification was nonetheless not invalid, in that the patent provided a general approach for solving the puzzle sufficient to satisfy the enablement requirement.

The Federal Circuit Court has repeatedly stressed that a specification can omit information known to one of ordinary skill in the art without rendering the specification non-enabling.⁵³⁴ The specification need not contain that which is known to those skilled in the art. "A patent need not teach, and preferably omits, what is well known in the art."⁵³⁵ "A patent applicant need not include in the specification that which is already known to and available to the public."⁵³⁶

Enablement: How to use

The "how to use" requirement of the Indian Patents Act⁵³⁷ provides that the specification shall describe the operation or use and the method by which it is to be performed.

532. *O'Reilly v. Morse*, 14 L. Ed 601; 56 US (15 How) 62, 86 (1853).

533. 793 F.2d 1261; 229 USPQ 805 (Fed Cir 1986).

534. *Martin v. Mayer*, 823 F.2d 500; 3 USPQ 2d 1333 (Fed Cir 1987).

535. *Hybritech Inc. v. Monoclonal Antibodies Inc.*, 802 F.2d 1367; 231 USPQ 81 (Fed Cir 1986).

536. *Paperless Accounting Inc. v. Bay Area Rapid Transit System*, 804 F.2d 659; 231 USPQ 649 (Fed Cir 1986).

537. Indian Patents Act, 1970, S. 10(4)(a).



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4.13.5

In *Fiers v. Revel*⁵³⁸, the Board held that an adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself. It was found that Revel's application did not demonstrate that the disclosed method actually leads to the DNA, and thus, that he had possession of the invention, since it only discloses a clone that might be used to obtain RNA. A bare reference to a DNA with a statement that it can be obtained by reverse transcription is not a description; it does not indicate that Revel was in possession of the DNA. The Board held that one cannot describe what one has not conceived. The court found that the Board's determination that the Israeli application does not contain a written description of a DNA coding for J-IF was thus not clearly erroneous.

The US Court of Customs and Patent Appeals in *Gardner, re*⁵³⁹ held that the specification should clearly state how to use the invention. The law requires that the disclosure in the application shall inform them how to use, not how to find out how to use for themselves.

The patentee must define the nature of the invention and disclose a process which produces the result to be aimed at. If the patentee claims protection for a process for producing a result and that result cannot be produced by the process, the consideration fails and the protection which is purchased by the promise of results cannot survive the proved failure of promise.⁵⁴⁰ In *James Lewis Kraft v. Oliver Kenneth McAulity*⁵⁴¹, the plaintiff was the holder of a patent in respect of "a process of sterilising cheese and an improved product produced by such process". One of the grounds of contest was that it was not possible by following out the directions contained in the specification to achieve the alleged result. The specification was designed to teach that a high temperature, sufficiently high to effect sterilisation, could be applied to Cheddar cheese. During the process of rendering the cheese of the Cheddar group to permanently keep, the temperature is raised to 175 degrees which, according to the specification, sterilises the cheese. The court found insufficiency in the description of the process to be followed as the substantial period during which the temperature should be retained at 175 degrees has not been stated in the specification.

4.13.6 Best mode

The Indian patents law requires an applicant for a patent to set forth the best mode which means the best experiments with the best conditions giving the best results, for example, the highest yields.⁵⁴²

538. 984 F 2d 1164 (Fed Cir 1993).

539. 427 F 2d 786: 166 USPQ 138 (CCPA 1970).

540. *Hatmaker v. Joseph Nathan & Co. Ltd.*, (1919) 36 RPC 231 (HL).

541. (1931) 34 LW 923; AIR 1931 PC 279. 542. Indian Patents Act, 1970, S. 10(4)(b).

The requirement that the best method of performing the invention be disclosed, prevents the patentee from keeping for oneself the best method, whilst also obtaining the benefit of the monopoly.

The disclosure required is directed to those skilled in the art. One must consider the level of skill in the relevant art in determining whether a specification discloses the best mode. It was consistently held that whether a best mode disclosure is adequate, that is, whether the inventor concealed a better mode of practicing his invention that he disclosed, is a function of not only what the inventor knew but also how one skilled in the art would have understood his disclosure. In *Dana Corp'n. v. IPC Ltd. Partnership*⁵⁴³, the best mode requirement was held as violated because the inventor failed to disclose whether to use specific surface treatment that he knew was necessary to the satisfactory performance of his invention, even though how to perform the treatment itself was known in the art.

The purpose underlying the best mode requirement is to keep inventors from obtaining the protection of the patent system while keeping secret the preferred embodiment of their inventions. By requiring the inventor to disclose the best mode for practicing his invention, the statute permits others skilled in the art to practice the patented invention most efficiently once the patent's monopoly expires. If the best mode contemplated by the inventor is not submitted in the patent application, the patent is invalid.

In *Chemcast Corp'n. v. Arco Industries Corp'n.*⁵⁴⁴, the Federal Circuit Court explained that a proper best mode analysis has two components. The first is, whether at the time the inventor filed his patent application, he knew of a mode of practicing his claimed invention that he considered to be better than any other. This part of the enquiry is wholly subjective, and resolves whether the inventor must disclose any facts in addition to those sufficient for enablement. If the inventor in fact contemplated such a preferred mode, the second part of the analysis compares what he knew with what he disclosed—Is the disclosure adequate to enable one skilled in the art to practice the best mode or, in other words, has the inventor concealed his preferred mode from the public? Assessing the adequacy of the disclosure, as opposed to its necessity, is largely an objective enquiry that depends upon the scope of the claimed invention and the level of skill in the art. Thus, a court must look at the scope of the invention, the skill in the art, the evidence as to the inventor's belief, and all of the circumstances in order to evaluate whether the inventor's failure to disclose particulars of manufacture gives rise to an inference that he concealed information which one of ordinary skill in the art would not know. Where a person skilled in the art "simply could not define" the most advantageous way to use an invention, the best mode requirement is not met. The

543. 860 F 2d 415 (Fed Cir 1988).

544. 913 F 2d 923 (Fed Cir 1990).

defendant must prove that the patent applicant failed to comply with the "best mode" requirement by clear and convincing evidence.

The "best mode" requirement has been interpreted to require the disclosure of the best mode subjectively contemplated by the inventor, not the objective best mode. The requirement is subjective in that it requires a finding of the inventor's subjective knowledge at the time of the patent application. The inventor need not disclose every detail as long as the best means of achieving the inventive results are disclosed. It may be found that the inventor did not contemplate any best mode and thus, there could be no duty to disclose a best mode. Non-compliance with the best mode requirement will be found only if the patent applicant has concealed, either knowingly or accidentally, "his or her preferred embodiment of the claimed invention".

While there is a presumption that the commercial version of the invention being sold at the time of the filing date is the best mode, patent law neither requires the patentee to disclose specific data on how to mass produce the invented product, nor to list the dimensions, tolerances, drawings, and other parameters of mass production not necessary to enable one skilled in the art, to practice the invention. The failure to disclose the best mode for practicing an invention can result in summary judgment against the patentee.

Our patent laws promote inventions by giving inventors the exclusive right to exploit their inventions for a limited time. In return for this protection, inventors must fully describe the invention, including the "best mode" of carrying out the invention.

The "best mode" requirement is one consideration exacted for the fixed term of monopoly rights granted to the inventor. It is independent of, and should not be confused with, the enablement provision that requires disclosure of the creation and use of the invention. The best mode requirement restrains inventors from applying for a patent while at the same time concealing from the public, preferred embodiments of their inventions which they have in fact conceived. It is also intended to ensure that a patent applicant plays "fair and square with the patent system", and "to allow the public to compete fairly with the patentee following the expiration of the patents".

The other objective limitation on the extent of the disclosure required to comply with the best mode requirement is the scope of the claimed invention.

Patent invalidity for failure to set forth the best mode requires: 1) the inventors knew of a better mode of carrying out the claimed invention that they disclosed in the specification; and 2) the inventors concealed that better mode. Failure of compliance must be proved by clear and convincing evidence.⁵⁴⁵ Determination of whether the best mode requirement

545. *Railroad Dynamics Inc. v. A. Stucki Co.*, 83 L Ed 2d 151; 469 US 871 (1984).

has been met is a question of fact.⁵⁴⁶ Compliance with the best mode requirement depends on the applicant's state of mind and is a question of fact, and the trial court's finding will not be disturbed unless it is clearly in error. Each claim must be considered individually for compliance with the best mode requirement.⁵⁴⁷

The best mode inquiry is directed to what the applicant regards as the invention, which in turn is measured by the claims.

The best mode requirement does not require an inventor to disclose production details so long as the means to carry out the invention are disclosed.

In *Evans v. Eaton*⁵⁴⁸, the US Supreme Court invalidated a patent issued in 1804 on flour milling equipment, saying:

The other object of the specification is to put the public in possession of what the party claims as his own invention so as to ascertain if he claimed anything that is in common use, or is already known, and to guard against prejudice or injury from the use of an invention which the party may otherwise innocently suppose not to be patented. It is, therefore, for the purpose of warning an innocent purchaser or other person using a machine, of his infringement of the patent; and at the same time, of taking from the inventor the means of practising upon the credulity or the fears of other persons, by pretending that his invention is more than what it really is, or different from its ostensible objects, that the patentee is required to distinguish his invention in his specification. Nothing can be more direct than the very words of the act. The specification must describe the invention 'in such full, clear and distinct terms, as to distinguish the same from all other things before known'.

Written description

Written description is another requirement that must be fulfilled in order to obtain a patent. The written description serves a different purpose than the standard of enablement. But the border line is thin. In *James Lewis Kraft v. Oliver Kenneth McAnulty*⁵⁴⁹, their Lordships of the Privy Council observed:

the patentee must define the nature of the invention and disclose a process which produced a result to be aimed at. If the patentee claims protection for a process for producing a result and that result cannot be produced by the process... consideration for the patent fails.

Compliance with the written description requirement, requires that the specifications of the patent describe the inventions claimed in the patents. Thus, an application considered as a whole must convey to one of

546. *Spectra-Physics Inc. v. Coherent Inc.*, 98 L Ed 2d 373; 484 US 954 (1987).

547. *Northern Telecom Inc. v. Datapoint Corp.*, 908 F 2d 931 (Fed Cir 1990), Cert. denied,

112 L Ed 2d 249; 498 US 920 (1990).

548. 5 L Ed 472; 20 US 356 (1822).

549. (1931) 34 LW 923; AIR 1931 PC 279, 284.

ordinary skill in the art, either explicitly or inherently, that the applicant invented the subject-matter claimed in the patent.

The written description requirement does not demand either examples or an actual reduction to practice. A constructive reduction to practice that in a definite way identifies the claimed invention can satisfy the written description requirement.⁵⁵⁰ Actual possession or reduction to practice outside of the specification is not enough. It is the specification itself that must demonstrate possession.

The Federal Circuit Court in *Carnegie Mellon University v. Hoffmann-La Roche Inc.*⁵⁵¹ had occasion to consider the form of disclosure for a patent specification. The claim is for a method of hedging risk in the field of commodities trading. The examiner rejected claims stating that the invention is not implemented on a specific apparatus and merely manipulates an abstract idea and solves a purely mathematical problem without any limitation to a practical application, therefore, the invention is not directed to the technological arts.

On appeal, the Board held that the examiner erred to the extent he relied on a "technological arts" test because the case law does not support such a test. Further, the Board held that the requirement of a specific apparatus was also erroneous because a claim that does not recite a specific apparatus may still be directed to patent-eligible subject-matter "if there is a transformation of physical subject-matter from one state to another". The description requirement does not demand any particular form of disclosure.⁵⁵² But a description that merely renders the invention obvious does not satisfy the requirement.⁵⁵³

A party alleging that a patent is invalid for failure to comply with the written description requirement has the burden of establishing by clear and convincing evidence that the requirement was not met, in light of the presumption of validity.⁵⁵⁴ Compliance with the written description requirement is a question of fact.⁵⁵⁵

The standard for determining whether the written description requirement has been met are as follows:

Although the applicant does not have to describe exactly the subject-matter claimed, the description must clearly allow persons of ordinary skill in the art to recognise that he or she invented what is claimed. The test for sufficiency of support in a patent application is whether the disclosure of the application relied upon reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject-matter.

550. *Falko-Gunter Falkner v. Inglis*, 448 F 3d 1357, 1366-67 (Fed Cir 2006).

551. 541 F 3d 1115, 1122 (Fed Cir 2008).

552. *Carnegie Mellon University v. Hoffmann-La Roche Inc.*, 541 F 3d 1115, 1122 (Fed Cir 2008).

553. *Lockwood v. American Airlines Inc.*, 107 F 3d 1565, 1571-72; 41 USPQ 2d 1961 (Fed Cir 1997).

554. *Cordis Corp. v. Medtronic Ave Inc.*, 339 F 3d 1352 (Fed Cir 2003).

555. *Lampi Corp. v. American Power Products Inc.*, 228 F 3d 1365 (Fed Cir 2000).

In *Joyce A. Cortright, re*⁵⁵⁶, Cortright's patent application, filed in 1992, concerned a method of treating baldness by applying Bag Balm, a commercially available product used to soften cow udders, to human scalp.

Cortright did not prevail because the Board found a ground for rejecting the claims that they are based on a non-enabling disclosure. The Board found that Cortright's written description does not teach those of ordinary skill in the art how to make and use the claimed invention without undue experimentation because it "fails to provide any teachings as to the administration of Bag Balm in a manner which: 1) restores hair growth (Claim 1); or 2) 'offsets the effects of lower levels of male hormone being supplied by arteries to the papilla of scalp hair follicles' (Claim 15)."

The Board explained that Example 1 does not show that applying a reaspoon of Bag Balm to the scalp daily for about one month "restored hair growth" and that Examples 2 and 3 do not disclose the amount of Bag Balm to be applied or how to restore hair growth. With respect to Claim 15, the Board found that the written description "merely surmises that the active ingredient, 8-hydroxyquinoline sulphate, even reaches the papilla", which would not enable one of ordinary skill to use the claimed method. Finally, the Board observed that the breadth of the claims and the unpredictable nature of the art of hair growth aggravated its finding that those of ordinary skill in the art would not be able to practice the invention without undue experimentation.

The Board explained that Claim 1 is not enabled because it claims "restoring hair growth", which the Board interpreted as requiring the user's hair "to return to its original state", *i.e.* a full head of hair. Thus, the Board's rejection was not based on complete non-enablement, as the original decision had implied, but on the claim not being commensurate with the scope of the disclosure. Cortright appealed.

It was held that the example illustrated the dosing instructions to enable one of ordinary skill, to practice the claimed invention without the need for any experimentation. Therefore, the Board's rejection of claim was reversed.

In *Purdue Pharma L.P. v. Faulding Inc.*⁵⁵⁷, during litigation, the patentee added to a pending patent application claims directed to methods of treating pain in patients by administering an opioid once a day. The patent was allowed after an interview in which the examiner noted that "the new claims are supported by the specification". The patentee asserted the newly-issued patent, the claims of which recited that the maximum plasma concentration is more than twice the plasma concentration 24 hours after administration of the dosage form. On appeal, the Federal Circuit Court affirmed the District Court's decision that the specification and originally filed claims did not support the claimed ratio limitation.

556. 165 F 3d 1353; 49 USPQ 2d 1464 (Fed Cir 1999).

557. 230 F 3d 1320 (Fed Cir 2000).

The Federal Circuit Court concluded that the patentee was attempting to pick an unidentified characteristic possessed by two of the many examples in the specification and claim any formulation that possessed the characteristic. The court rejected this approach finding that the characteristic was not discussed even in passing in the specification and, thus, there was nothing in the specification "that would suggest to one skilled in the art that the ratio is an important defining quality of the formulation". Because the specification did not clearly disclose the claimed C_{max}/C_{24} ratio to one of skill in the art, "it is immaterial what range for the C_{max}/C_{24} ratio can be gleaned from the examples when read in light of the claims". Thus, the written description failed to support the claims added during prosecution.

In *University of California v. Eli Lilly & Co.*⁵⁵⁸, it was held that the description of DNA of insulin in one species did not constitute a written description of the gene for all other species. A functional definition might meet the requirement of the law if in the knowledge of the art the disclosed function is sufficiently correlated to a particular known structure.⁵⁵⁹

4.13.8 *Biotechnology enablement*

There are certain characteristics associated with biotechnology that distinguish it from other forms of patentable subject-matter. Biological inventions are described more in functional terms. Patent law was intended to satisfy the requirements of industrial technology. Industrial technology is mechanistic and an applicant for biotechnology patent finds it difficult to satisfy the requirements for obtaining patent protection. With the advancement in biotechnological development, industrial property laws were to be suitably modified to match the needs of science and industry. The requirement of filing a specification has to be satisfied in the case of microorganisms as well.

Consequent to the requirements of the TRIPS Agreement, the Indian Patents Act has been amended providing that in the case of a mentioning of a biological material in the specification which may not be described in such a way as to satisfy the requirements for a specification, the application shall be completed by depositing the material in an international depository authority under the Budapest Treaty.⁵⁶⁰

558. 119 F 3d 1559; 43 USPQ 2d 1398 (Fed Cir 1997).

559. *Enzo Biochem Inc. v. Gen-Probe Inc.*, 296 F 3d 1316 (Fed Cir 2002).

560. Indian Patents Act, 1970, S. 10(4) Proviso (ii), which reads:

if the applicant mentions a biological material in the specification which may not be described in such a way as to satisfy clauses (a) and (b), and if such material is not available to the public, the application shall be completed by depositing the material to an international depository authority under the Budapest Treaty and by fulfilling the following conditions, namely:—

- (A) the deposit of the material shall be made not later than the date of filing the patent application in India and a reference thereof shall be made in the specification within the prescribed period;

Contents of specification

The Indian Patents Act says that the specification begins with a title sufficiently indicating the subject-matter of the invention. It should fully and particularly describe the invention and the method by which it is to be performed.

The specification should end with a claim or claims defining the scope of the invention for which protection is claimed, and should relate to a single invention.⁵⁶¹ The Act also requires that drawings shall be supplied if the Controller so requires. The specification shall also be accompanied by an abstract to provide technical information on the invention.⁵⁶² In the case of an international application designating India, the title, description, drawings, abstract and claims filed with the application shall be taken as the complete specification for the purpose of the Indian Patents Act.⁵⁶³

4.13.9

- (B) all the available characteristics of the material required for it to be correctly identified or indicated are included in the specification including the name, address of the depository institution and the date and number of the deposit of the material at the institution;
- (C) access to the material is available in the depository institution only after the date of the application of patent in India or if a priority is claimed after the date of the priority;
- (D) disclose the source and geographical origin of the biological material in the specification, when used in an invention....

561. *Ibid.*, S. 10(1) reads:

Every specification, whether provisional or complete, shall describe the invention and shall begin with a title sufficiently indicating the subject-matter to which the invention relates.

562. *Ibid.*, S. 10(4)(d) reads:

Be accompanied by an abstract to provide technical information on the invention:

Provided that—

(i) the Controller may amend the abstract for providing better information to third parties; and

(ii) if the applicant mentions a biological material in the specification which may not be described in such a way as to satisfy clauses (a) and (b), and if such material is not available to the public, the application shall be completed by depositing the material to an international depository authority under the Budapest Treaty and by fulfilling the following conditions, namely:—

(A) the deposit of the material shall be made not later than the date of filing the patent application in India and a reference thereof shall be made in the specification within the prescribed period;

(B) all the available characteristics of the material required for it to be correctly identified or indicated are included in the specification including the name, address of the depository institution and the date and number of the deposit of the material at the institution;

(C) access to the material is available in the depository institution only after the date of the application of patent in India or if a priority is claimed after the date of the priority;

(D) disclose the source and geographical origin of the biological material in the specification, when used in an invention....

563. *Ibid.*, S. 10(4-A) reads:

In case of an international application designating India, the title, description, drawings, abstract and claims filed with the application shall be taken as the complete specification for the purposes of this Act.

The filing date of the application and its complete specification shall be the international filing date accorded under the PCT.⁵⁶⁴

4.13.9.1 The title

The Indian Patents Act requires that a specification should begin with a title.⁵⁶⁵ It would be erroneous to rely too much on the title because the title of the specification of an invention claimed does not control the actual claim. A misleading title similarly is of little consequence.⁵⁶⁶ The preamble may or may not constitute a limitation to the scope of the claim.

In *Corning Glass Works v. Sumitomo Electric USA Inc.*⁵⁶⁷, it was laid down that the specification makes clear that the inventors were working on the particular problem of an effective optical communication system not on general improvements in conventional optical fibres. To read the claim in the light of the specification indiscriminately to cover all types of optical fibres would be divorced from reality. The invention is restricted to those fibres that work as waveguides as defined in the specification, which is not true with respect to fibres constructed with the limitations of the paragraphs only. Thus, it was concluded that the claim preamble does not merely state a purpose or intended use for the claimed structure. Rather, those words do give "life and meaning" and provide further positive limitations to the invention claimed. Thus, contrary to Sumitomo's argument, the core and cladding limitations specifically set out in the paragraphs are not the only limitations of the claim. The claim requires, in addition, the particular structural relationship defined in the specification for the core and cladding to function as an optical waveguide.⁵⁶⁸ Whether a preamble stating the purpose and context of the invention constitutes a limitation of the claimed process is determined on the facts of each case in the light of the overall form of the claim, and the invention as described in the specification and illuminated in the prosecution history.⁵⁶⁹ In general, a

564. *Ibid.*, S. 10(4-A)(ii) reads:

In case of an international application designating India,—...
(ii) the filing date of the application and its complete specification processed by the patent office as designated office or elected office, shall be the international filing date accorded under the Patent Cooperation Treaty.

Patents (Amendment) Act, 2005 has substituted S. 10(4-A) as:
In case of an international application designating India, the title, description, drawings, abstract and claims filed with the application shall be taken as the complete specification for the purposes of this Act.

565. Indian Patents Act, 1970, S. 10(1) reads:

Every specification, whether provisional or complete, shall describe the invention and shall begin with a title sufficiently indicating the subject-matter to which the invention relates.

566. *Raj Parkash v. Mangat Ram Chowdhary*, AIR 1978 Del 1.

567. 868 F 2d 1251 (Fed Cir 1989).

568. *Ibid.*

569. *Applied Materials Inc. v. Advanced Semiconductor Materials America Inc.*, 98 F 3d 1561 (Fed Cir 1996).

preamble limits the invention if it recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim. Conversely, invention in the claim body and uses the preamble only to state a purpose or intended use for the invention. Dependence on a particular disputed preamble phrase for antecedent basis may limit claim scope because it indicates a reliance on both the preamble and claim body to define the claimed invention.⁵⁷⁰ When the claim drafter chooses to use both the preamble and the claim body to define the subject-matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects. Likewise, when the preamble is essential to understand limitations or terms in the claim body, the preamble limits claim scope.⁵⁷¹

A preamble to a claim "has the import that the claim as a whole suggests for it".⁵⁷²

Background of the invention

The specification has to describe the background in which the invention came into existence.

The description

There are a variety of pressures upon the draftsman to include in his description of the invention, a fair amount of detail, going beyond the minimum that may satisfy the requirement of a complete and clear disclosure. There is the danger that if particular versions of the invention are not maintained, room may be left for a competitor to secure an improvement or selection patent at the very point where the patentee wants himself to operate; whereas specific description will put an end to this possibility from the moment that the application is filed, provided that the application or one claiming priority from it is later published. There is the need to show support in the description for the claims, particularly the broadest. A case must be developed to support the presence of an inventive step.

The description contained in the specification has to fulfil two conditions:

1. to state in clear and intelligible language what the invention is, so that others may know what the monopoly is that is granted to the proprietor of the patent; and
2. to state in clear and intelligible language in what manner the patented invention is to be performed so that others may learn from

570. *Bell Communications Research Inc. v. Vitalink Communications Corpn.*, 55 F 3d 615 (Fed Cir 1995).

571. *Pitney Bowes*, 182 F 3d 1306: 51 USPQ 2d 1166 (Fed Cir 1998).

572. *Bell Communications Research Inc. v. Vitalink Communications Corpn.*, 55 F 3d 615 (Fed Cir 1995).

the specification how practically to avail themselves of the patented invention when the patent has expired.

4.13.9.4 Drawings

Drawings forming part of an application for a patent must be on standard A-4 size sheets. A clear margin of 2.5 cm shall be left from the edges of every sheet. The Indian Patents Rules, 1972 describe the manner in which the drawings shall be prepared.⁵⁷³ Drawings included in the application may aid in the interpretation of claim language. Drawings alone may provide a written description of an invention as required by the Patents Act.⁵⁷⁴ Similarly, drawings may be used like the written specification to provide evidence relevant to claim interpretation.⁵⁷⁵

4.13.9.5 The abstract

The abstract contained in an application for a patent must contain a concise summary of the matter contained in the specification. The summary must indicate the technical field to which the invention belongs and must be drafted in a way which allows a clear understanding of the technical problem to which the invention relates, the gist of the solution to that problem through the invention and the principle use or use of the invention. The abstract must not contain statements on the alleged merits or value of the inventions or on its speculative applications.

The purpose of the abstract is to give technical information. It must be so drafted that it constitutes an efficient instrument for the purpose

⁵⁷³ Indian Patents Rules, 1972, Rule 18 reads:

Drawings shall be prepared in accordance with the following requirements, namely:—

- (a) Drawings shall be executed with indelible black ink;
- (b) Each line shall be firmly and evenly drawn, sharply defined, and shall be of the same strength throughout;
- (c) Section lines, lines for effect and shading lines, shall be as few as possible, and shall not be closely drawn;
- (d) Shading lines shall not contrast excessively in thickness with the general lines of the drawings;
- (e) Sections and shading shall not be represented by solid black or washes;
- (f) Drawing shall be on a scale sufficiently large to show the inventions clearly and only so much of the apparatus, machine or other matter shall appear to achieve this object. If the scale is given, it shall be drawn and not denoted by words. No dimensions shall be marked on the drawings;
- (g) The figures shall be drawn preferably in an upright position with regard to the top and bottom of the sheet; and
- (h) Reference letters and numerals, and index letters, symbols and numerals used in conjunction therewith, shall be bold, distinct and not less than 0.3 cm (one-eighth of an inch) in height. The same letters or numerals shall be used to indicate the same parts in different views where the reference letters or numerals shown are outside the figure, they shall be connected by fine lines with the parts to which they refer.

⁵⁷⁴ *Vas-Cath Inc. v. D. Mahurkar*, 935 F 2d 1555; 19 USPQ 2d 1111 (Fed Cir 1991).

⁵⁷⁵ *Autogiro Co. of America v. United States*, 384 F 2d 391 (Ct Cl 1967).

of searching in the particular technical field, in particular by making it possible to assess whether there is a need to consult the specification itself. The Comptroller may determine whether the abstract adequately fulfils its purpose and, if it does not, may reframe it so that it does. On publication of the application, the abstract does not form part of the state of the art.

Claims

Claims in a patent define precisely the intellectual property held by the patent holder. Thus, it is important that the claims be precise, clear, correct and unambiguous. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject-matter which the applicant regards as his invention.⁵⁷⁶ Claims must particularly point out and distinctly claim that the invention is the most significant part of the patent instrument. It is the claims that set the boundaries and determine the proprietary rights of the inventor. The claim of a complete specification shall relate to a single invention linked so as to form a single inventive concept.⁵⁷⁷

The scope of protection conferred by the patent is that specified in a claim of the specification of the patent. But every claim in every patent must be read and construed with reference to the specification, and not as if the claim was an isolated sentence having no connection with or reference to what precedes it.⁵⁷⁸

The function of claims is to define clearly and with precision the monopoly claimed, so that others may know the exact boundaries of the area within which they will be trespassers. Their primary object is to limit and not to extend the monopoly. What is not claimed is disclaimed. The claims must undoubtedly be read as part of the entire document, and not as a separate document; but the forbidden field must be found in the language of the claims and not elsewhere. It is not permissible, by reference to some language used in the earlier part of the specification, to change a claim, which by its own language is a claim for one subject-matter, into a claim for another and a different subject-matter, which is what you do when you alter the boundaries of the forbidden territory. A patentee who describes an invention in the body of a specification obtains no monopoly unless it is claimed in the claims. No special rules are applicable to the construction of a specification. It must be read as a whole and in the light

⁵⁷⁶ Indian Patents Act, 1970, S. 10(4)(c) reads:

Every complete specification shall—

- (c) end with a claim or claims defining the scope of the invention for which protection is claimed.

⁵⁷⁷ *Ibid*, S. 10(5) reads:

The claim or claims of a complete specification shall relate to a single invention, or to a group of inventions linked so as to form a single inventive concept, shall be clear and succinct and shall be fairly based on the matter disclosed in the specification.

⁵⁷⁸ *Edison Bell Phonograph Corp. Ltd. v. Smith and Young*, (1894) 11 RPC 389.

4.13.9.6

of surrounding circumstances; that it may be gathered from the specification that particular words bear an unusual meaning; and that, if possible, a specification should be construed so as not to lead to a foolish result or one which the patentee could not have contemplated. Claims have a particular function to discharge.⁵⁷⁹

The claim must be clear. It is a part of the duty of the patentee to tell the public about his claim. He must mark out with adequate distinctiveness, the boundary of the territory that he claims to be exclusively his own.⁵⁸⁰ Because the patent scope is defined by the claims, the claims must give a clear indication to others of the extent of the patentee's right of exclusion.

Whether a claim passes under the claim definiteness requirement turns on whether "those skilled in the art would understand what is claimed, or the scope or bounds of the claim, when it is read in light of the specification".⁵⁸¹

Thus, the section establishes two separate requirements:

1. the claims must set forth the subject-matter that applicants regard as their invention; and
2. the claims must particularly point out and distinctly define the metes and bounds of the subject-matter that will be protected by the patent.

The first requirement is a reflection of what the patentee regards as the invention. The second requirement is one of the definiteness of the claim, i.e. whether the scope of the claim is clear to a hypothetical person possessing the ordinary level of skill in the pertinent art. This is often called the definiteness requirement. The primary purpose of this requirement is to ensure that the scope of the claims is clear such that the public is informed of the metes and boundaries of the claims to prevent infringement of the patent. A second purpose is to provide a clear indication to the Patent Office as to what the patentee regards as the invention so that it may be determined whether the claimed invention meets all the criteria for patentability and whether the specification meets the criteria of the Act.

If the claims read in the light of the specification reasonably apprise those skilled in the art of the scope of the invention, the section demands no more.⁵⁸² The degree of precision necessary for adequate claims is a function of the nature of the subject-matter.

In *Catnic*⁵⁸³, the plaintiffs owned a patent for a type of steel lintel which specified in its wording that the rear side of the lintel should be vertical. The defendants produced a similar lintel but, in an attempt to avoiding

579. *Electric and Musical Industries Ltd. v. Lissen Ltd.*, (1939) 56 RPC 23.

580. *Clay v. Allcock & Co. Ltd.*, (1906) 23 RPC 745.

581. *Vas-Cath Inc. v. D. Mahurkar*, 935 F 2d 1555; 19 USPQ 2d 1111 (Fed Cir 1991).

582. *Miles Laboratories Inc. v. Shandon Inc.*, 997 F 2d 870; 27 USPQ 2d 1123 (Fed Cir 1993).

583. 1982 RPC 183 (HL).

infringing the patent, had constructed the rear side of their lintel at an angle of six degrees from the vertical which actually reduced its load bearing potential by 0.6 degrees. The court was asked to consider whether or not this minor variation excluded the makers of the derivative lintel from infringement liability.

Lord Diplock found that there was infringement on the facts, determining that the claims within the patent specification were aimed at other manufacturers in the same field. He said:

My Lords, a patent specification is a unilateral statement by the patentee, in words of his own choosing, addressed to those likely to have a practical interest in the subject-matter of his invention, by which he informs them of what he claims to be the essential features of the new product or process for which the letters patent grant him a monopoly. It is those novel features only that he claims to be essential that constitute the so-called 'pith and marrow' of the claim. A patent specification should be given a purposive construction rather than a purely literal one derived from applying to it the kind of meticulous verbal analysis with which lawyers are too often tempted by their training to indulge. The question in each case is: whether a person with practical knowledge and experience of the kind of work in which the invention was intended to be used, would understand that strict compliance with a particular descriptive word or phrase appearing in a claim was intended by the patentee to be an essential requirement of the invention so that any variant would fall outside the monopoly claimed, even though it could have one material effect upon the way the invention worked.⁵⁸⁴

In *Ram Narain Kher v. Ambassador Industries*⁵⁸⁵, it was held that the patent authority should not be left to an inference raised on a general review of the specification. When an invention is not itself new, the particular use of it for the purpose described in combination with the other elements of the system producing the advantageous results would be a sufficient element of novelty to support the patent. The Delhi High Court has laid down that having regard to the previous date of knowledge at the time the patent is granted to a party, it is essential that the party claiming patent should specify what particular feature of the device distinguish it from those invented before and show the nature of the improvement which is said to constitute the invention. A person claiming a patent has not only to allege the improvement in art in the form but also that the improvement effected a new and very useful addition to the existing state of knowledge. The novelty of the invention has to be succinctly stated in the claim. In the above claim pertaining to an air cooler, the applicant has not claimed before the patent authority that the design proposed by the plaintiff was an improvement on any previously existing coolers in that there would be 25 per cent additional advantage of cooled air by fixing the fan at the top

584. *Catnic Components Ltd. v. Hill & Smith Ltd.*, 1982 RPC 183 (HL).

585. AIR 1976 Del 87.

of the cooler than in the customary way hitherto known in the front of the cooler. The applicant must describe the advantage sought to be achieved by his invention in the claim.

4.13.9.6.1 Definiteness and enablement

The requirement that the claims particularly point out and distinctly claim the invention is met when a person experienced in the field of the invention would understand the scope of the subject-matter that is patented when the claim is read in conjunction with the rest of the specification.⁵⁸⁶

A claim is not "indefinite" simply because it is hard to understand when viewed without the benefit of the specification.

The aim and end purpose of the specification is to describe the invention sought to be covered by the patent, and the manner of making, constructing and using the same. The aim and the end purpose of the claim is to point out particularly, and distinctly define the invention to be secured to the individual. The claim is the measure of the patent and should impart information which it is intended to impart. A claim which refers to the specification defeats the purpose of a claim. The limited exceptions which permit incorporation by reference do not apply because the system can be described in words without reference to the specification and drawings. Omnibus claim does not satisfy the requirement of definiteness because the claim does not itself define the invention, but relies on external material.

In determining whether there has been a "real and reasonably clear disclosure", a frequently-employed test is the so-called *Mond Nickel Rules*⁵⁸⁷. These give guidance in determining questions of fair basis. They may be expressed as:

1. Is the alleged invention as claimed broadly described in the specification?
2. Is there anything in the specification which is inconsistent with the alleged invention as claimed?
3. Does the claim include as a characteristic of the invention a feature as to which the specification is wholly silent?

A claim is not necessarily subject to an objection of not being fairly based merely on the grounds that it is couched in broader terms than the description of the invention in the body of the specification.⁵⁸⁸

Claims must be clear and succinct. Accordingly, technical terms, legal terms circumscribing the monopoly sought, and the grammatical construction must be clear and precise.

586. *S3 Inc. v. Nvidia Corp.*, 259 F 3d 1364 (Fed Cir 2001).

587. *Mond Nickel Co. Ltd.'s Application, re*, 1956 RPC 189.

588. *Van Der Lely NV v. Ruston's Engg. Co. Ltd.*, 1985 RPC 461.

In *British United Shoe Machinery Co. Ltd. v. A. Fussell and Sons Ltd.*⁵⁸⁹, it was held that in the body of the specification the words used may be quite adequate to enable the invention to be performed, while the same words used in the claims may leave competitors uncertain as to what they may not do, and thus, *vis-à-vis* the quality standards for patent examination, affect the overall scope of the monopoly.

In *British Celanese Ltd.'s Application, re*⁵⁹⁰, it was said:

It is certainly dangerous for a patentee to seek to obtain a monopoly by reference to such general terms as 'known methods' or 'general methods', or equivalent phrases of that kind. I think that puts a burden on the public which should not be put upon them; it must necessarily lead to ambiguity and doubt ...

A claim is not objectionable on the basis of its length *per se*, provided the length of the claim does not obscure its meaning or create a false impression, thereby resulting in a lack of clarity and succinctness. It is customary for a claim to consist of one sentence. The necessity for one-sentence claims was tested in *Leonard's Application*⁵⁹¹. The tenor of the decision was that one-sentence claims are highly desirable, but may not be enforceable in all instances. A claim in the form of disjunctive sentences was held to be ambiguous and not allowable, but an amended claim in nine sentences was ultimately allowed. Claims consisting of more than one sentence are allowable on the basis of the decision in *Leonard's Application*⁵⁹², provided that it is clear from the wording of the claim that all the features of all the sentences of the claim must be read in combination. Single-sentence claims comprising a number of separate and distinct paragraphs, where each paragraph may be identified by a letter of the alphabet or by a numeral or by the manner in which it is set out, are not objectionable.

The position with regard to the construction of patent claims and specifications subsequent to the decision in *Catnic*⁵⁹³ was summarised by Neil LJ in *Van Der Lely NV v. Ruston's Engg. Co. Ltd.*⁵⁹⁴, where it was indicated that

1. the court should regard the specification as a statement addressed to a person with skill in the field in which the invention is to be used;
2. in doing so, the court should attempt to ascertain from the point of view of such persons, which features of the specification are intended to be the essential and novel features of the invention;
3. to do so, the court may receive evidence concerning the prior art base, any technical terms, the features of the invention intended to

589. (1908) 25 RPC 631 (CA).

590. (1934) 51 RPC 192, 195.

591. 1966 RPC 269.

592. *Ibid.*

593. 1982 RPC 183 (HL).

594. 1985 RPC 461.

be considered essential and novel, and whether or not any particular variant would fall within the specification;

4. in construing the claims, the court is entitled to consider the specification as a whole, in order to determine the ambit of the claim, unless the meaning of the claims are plain from their terms; and
5. in construing the specification and claims, the court should consider the purpose for which they have been made and not subject them to meticulous verbal analysis.

4.13.10 *Amendment of specification*

The application for patent or the complete specification can be amended before the Controller by the applicant before the acceptance or after the acceptance of the complete specification by making an application in the prescribed manner. Before the acceptance, an applicant is required to overcome objections raised by the Patent Office. Amendment of specification after the acceptance may arise in the course of opposition proceedings by directions of the Controller or by request by the applicant himself to overcome any objections raised in opposition proceedings.

The Controller may upon application by a patentee, allow the complete specification to be amended subject to certain conditions.⁵⁹⁵ The application for amendment should state the nature of the proposed amendment. In an application for amendment of patent specification, the patentee is to disclose fully all relevant facts in the evidence filed in support of the application. Failure to do so may result in refusal of the application.⁵⁹⁶ The Patents (Amendment) Act, 2002 has inserted a section whereby, where the application for amendment is filed after acceptance of the complete specification, the application will be advertised to enable any interested person to oppose it. The application will be decided after following the procedure laid down for such opposition.⁵⁹⁷ The High Court may, in any proceeding before it for revocation of a patent, allow the patentee to amend his complete specification subject to such terms as to cost of advertisement or otherwise.⁵⁹⁸

^{595.} Indian Patents Act, 1970, S. 57(1).

^{596.} *Ibid.*, S. 57(2) reads:

Every application for leave to amend an application for a patent or a complete specification or any document related thereto under this section shall state the nature of the proposed amendment, and shall give full particulars of the reason for which the application is made.

^{597.} *Ibid.*, S. 57(3) reads:

Any application for leave to amend an application for a patent or a complete specification or a document related thereto under this section made after the grant of the patent and the nature of the proposed amendment may be published.

^{598.} *Ibid.*, S. 58 reads:

(1) In any proceeding before the High Court for the revocation of a patent, the High Court may, subject to the provisions contained in Section 59, allow the patentee to amend his complete specification in such manner and subject to such terms as to costs, advertisement or otherwise, as the High Court may think fit, and if in any proceedings

Any amendment of the complete specification shall be subject to the following conditions:⁵⁹⁹

1. The amendment must be by way of disclaimer, correction or explanation. Disclaimer is intended to remove doubts as to the meaning of the specification or to limit the scope of the invention claimed. Disclaimer is ordinarily employed to limit the scope of the invention claimed or to remove doubts as to the meaning of the specification. It is introduced for the purpose of specifying what the inventor does not claim. It enables him to reduce the ambit of his monopoly by limiting a wide claim to a particular claim. Disclaimer need not be made expressly; it can be done implicitly. Correction is meant to put right the mistake that has been made in the preparation of the specification. An obvious mistake in the specification may be corrected. The mistake must be obvious to the instructed reader of the specification from reading that specification. The mistake must

for revocation, the High Court decides that the patent is invalid, it may allow the specification to be amended under this section instead of revoking the patent.

(2) Where an application for an order under this section is made to the High Court, the applicant shall give notice of the application to the Controller, and the Controller shall be entitled to appear and be heard, and shall appear if so directed by the High Court.

(3) Copies of all orders of the High Court allowing the patentee to amend the specification shall be transmitted by the High Court to the Controller who shall on receipt thereof cause an entry thereof and reference thereto to be made in the register.

For Section 58 of the principal Act, the following Section has been substituted by the Patents (Amendment) Act, 2005 as:

(1) In any proceeding before the Appellate Board or the High Court for the revocation of a patent, the Appellate Board or the High Court, as the case may be, may, subject to the provisions contained in Section 59, allow the patentee to amend his complete specification in such manner and subject to such terms as to costs, advertisement or otherwise, as the Appellate Board or the High Court may think fit, and if, in any proceedings for revocation, the Appellate Board or the High Court decides that the patent is invalid, it may allow the specification to be amended under this section instead of revoking the patent.

(2) Where an application for an order under this section is made to the Appellate Board or the High Court, the applicant shall give notice of the application to the Controller, and the Controller shall be entitled to appear and be heard, and shall appear if so directed by the Appellate Board or the High Court.

(3) Copies of all orders of the Appellate Board or the High Court allowing the patentee to amend the specification shall be transmitted by the Appellate Board or the High Court to the Controller who shall, on receipt thereof, cause an entry thereof and reference thereto to be made in the register.

^{599.} *Ibid.*, S. 59(1) reads:

No amendment of an application for a patent or a complete specification or any document related thereto shall be made except by way of disclaimer, correction or explanation, and no amendment thereof shall be allowed, except for the purpose of incorporation of actual fact, and no amendment of a complete specification shall be allowed, the effect of which would be that the specification as amended would claim or describe matter not in substance disclosed or shown in the specification before the amendment or that any claim of the specification as amended would not fall wholly within the scope of a claim of the specification before the amendment.

be apparent on the face of the specification itself to an instructed reader versed in the particular art to which the invention relates. Explanation means making plain or making clear. In general, an explanation involves the addition of words. But there may be cases where deletion of words may be considered as an explanation. The function of an "explanation" is to explain more clearly what is necessary to understand the meaning of the patent at the time of the patented invention.

2. An amendment shall be made only for the purpose of incorporation of actual fact.
3. An amendment of a complete specification shall not be allowed, the effect of which will be that the specification, before the amendment, would not fall wholly within the scope of a claim of the specification before the amendment.

The Amendment Act of the Indian Patents Act has given the Controller the discretion to amend the specification if he is satisfied that the specification does not comply with the requirements of the Act or to refuse the application.⁶⁰⁰ An amendment before acceptance may be required to overcome objections raised by the Patent Office.

4.13.11 Relationship between claims and specification

The relationship between claims and specification contained in a patent application was dealt with by the Full Federal Court (Australia) in *Decar Corpn. (P) Ltd. v. Dart Industries Invention*.⁶⁰¹ Sheppard J indicated:

1. The claims define the invention which is the subject of the patent. These must be construed according to their terms upon ordinary principles. Any purely verbal or grammatical question that can be answered according to ordinary rules for the construction of written documents is to be resolved accordingly.
2. It is not legitimate to confine the scope of the claims by reference to limitations which may be found in the body of the specification but are not expressly or by proper inference reproduced in the claims themselves. To

600. *Ibid.*, S. 15 reads:

Where the Controller is satisfied that the application or any specification or any other document filed in pursuance thereof does not comply with the requirements of this Act or of any rules made thereunder, the Controller may require the application, specification or other document, as the case may be, to be amended to his satisfaction before he proceeds with the application or refuse the application on failure to do so.

For S. 15 of the Principal Act, the following Section has been substituted by the Patents (Amendment) Act, 2005 as:

Where the Controller is satisfied that the application or any specification or any other document filed in pursuance thereof does not comply with the requirements of this Act or of any rules made thereunder, the Controller may refuse the application or may require the application, specification or the other documents, as the case may be to be amended to his satisfaction before he proceeds with the application and refuse the application on failure to do so.

601. (1988) 13 IPR 385.

put it another way, it is not legitimate to narrow or expand the boundaries of monopoly as fixed by the words of a claim by adding to those words clauses drawn from other parts of the specification.

3. Nevertheless, in approaching the task of construction, one must read the specification as a whole.
4. In some cases the meaning of the words used in the claims may be qualified or defined by what is said in the body of the specification.
5. If a claim be clear, it is not to be made obscure because obscurities can be found in particular sentences in other parts of the document. But if an expression is not clear or is ambiguous, it is permissible to resort to the body of the specification to define or clarify the meaning of words used in the claim.

A patent specification should be given a purposeful construction rather than a purely literal one.

In construing the specification, the court is not construing a written instrument operating *inter partes*, but a public instrument which must define a monopoly in such a way that it is not reasonably capable of being misunderstood.

The body, apart from the preamble, is there to instruct those skilled in the art concerned in the carrying out of the invention, provided it is comprehensible to, and does not mislead, a skilled reader. The language used is seldom of importance.

Nevertheless, the claims, since they define the monopoly, will be scrutinised with as much care as is used in construing other documents defining a legal right.

If it is impossible to ascertain what the invention is from a fair reading of the specification as a whole, it will be invalid. But the specification must be construed in the light of the common knowledge in the art before the priority date.

The requirement that the patent scope be clear and fixed was masterfully explained by the Supreme Court more than a 100 years ago in *White v. Dunbar*.⁶⁰² (*White*):

Some persons seem to suppose that a claim in a patent is like a nose of wax which may be turned and twisted in any direction, by merely referring to the specification, so as to make it include something more than, or something different from, what its words express... The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is; and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.⁶⁰³

In many ways, the *White case*⁶⁰⁴ holding captures the modern essence of patent scope.

602. 30 L Ed 303; 119 US 47 (1886).

603. *Ibid.*

604. *Ibid.*

market the drug in India for the next five years or until the product patent supersedes it.

Parliament has passed a Patents Amendment Ordinance, 2004 to meet the requirements of the TRIPS Agreement and, thereby, omitting the chapter on EMRs.

XVIII

4.22 Infringement

A patent gives its owner the right to exclude others from making, using or selling products or performing services that would infringe claims of that patent. To be valid, the claim must express exactly what the inventor of the patented invention created and should describe it in the technical disclosure part of the patent. It should not be readable on what already existed in the prior art. Unlike the US patent statute, the Indian patent statute does not address the issue of infringement directly. But any violation of the rights of the patentee will constitute infringement of the patent. The patent grants to the owner of the patent, the right to prevent third parties from making, using, offering for sale, selling, importing the product in India without the consent of the patent holder.⁷⁰¹ The statute also does not define how one should determine whether a patent has been infringed or not. The dicta of the courts are the only guiding principles in this regard.

An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly constructed claims to the device accused of infringing.

In *Vidya Prakash v. Shah Charan Singh*⁷⁰², the Lahore High Court held that the points which are to be considered in the case of an infringement of a patent are whether the invention had utility, whether it was or was not a new invention and whether the invention was properly described in the specification.

701. *Ibid.*, S. 48 reads:

Subject to the other provisions contained in this Act and the conditions specified in Section 47, a patent granted under this Act shall confer upon the patentee—

- (a) where the subject-matter of the patent is a product, the exclusive right to prevent third parties, who do not have his consent, from the act of making, using, offering for sale, selling or importing for those purposes that product in India;
- (b) where the subject-matter of the patent is a process, the exclusive right to prevent third parties, who do not have his consent, from the act of using that process, and from the act of using, offering for sale, selling or importing for those purposes the product obtained directly by that process in India;

Provided that the product obtained is not a product in respect of which no patent shall be granted under this Act.

⁷⁰² Patents (Amendment) Act, 2005 has omitted the proviso. AIR 1943 Lah 247.

The question of infringement of a patent is a mixed question of law and fact. The infringement of a patent may be done in a number of ways, one of which is by using the patent or any colourable imitation thereof in the manufacture of patented articles. Infringement may not be of the complete whole of the process but it may be only in part. Where infringement is only in part, it is necessary that the protection which is sought for, for such part, is material or is totally new.

Appropriating what has already been patented, as part of one's product and adding something thereto, does not render such device any less an infringement of the patented product. It cannot be held that anyone who makes the slightest improvement over the pre-existing state of knowledge can claim to disregard every patent then in existence in respect of the pre-existing state of knowledge.⁷⁰³

Direct patent infringement may be found in either of the two ways: by literal infringement or under the equivalents doctrine.

Literal infringement

Literal infringement is found where every limitation of the claim is found in the accused device literally. Every element of the patent claim must precisely describe the accused product.

A claim is infringed by a product that has all the elements of the claim. Infringement is avoided if any recited element in a claim does not appear in the product. The challenge to a competitor, who hopes to use technology nearly the same as what is covered by a patent, is to "design around" the patent by creating a product or service that does not use one or more elements of any claim contained in the patent.

If every element of a claim is used in a product, infringement is said to be "literal". The claims must be drafted and prosecuted with great care to minimise the possibility of competitors who will literally infringe.

Determining whether there has been an infringement of a patent involves a two-step process. *First*, the language of the claim must be interpreted. In interpreting a claim, the court is to consider three sources: the language of the claims, the specification and the prosecution history. Interpretation of a claim is generally a question of law that may be resolved by the court on a summary judgment motion. *Second*, each claim must be examined to determine whether the claim reads on the accused device or process. Every element of the claim must read on the accused device; if any element is missing, there is no infringement.

While interpreting the claim for literal infringement, the court will first look to intrinsic evidence, patent itself and file history. The court may then look to extrinsic evidence, other literature in the field and expert testimony.

703. *Gandhimathi Appliances Ltd. v. L.G. Varadaraju*, (2001) 1 CTR 459 (Mad).

4.22.1

In *Multiform Dessiccants Inc. v. Medzam Ltd.*⁷⁰⁴, the appeal was from the holding of the US District Court stating that the US patent entitled "Liquid Absorbing and Immobilising Packet Containing a Material for Treating the Absorbed Liquid" (the '266 patent), owned by Multiform, was not infringed by the similar product sold by Medzam. The invention described and claimed in the '266 patent is a packet for use in controlling spilled liquids. In typical use, the packet is placed in an outer shipping container that encloses an inner container holding a hazardous liquid such as medical waste or body fluids.

In the '266 patent, the packet is claimed as a combination of the degradable envelope, the absorbing material, and the treating material. A second group of claims describes the envelope in terms of its function in the form authorised by 35 USC Section 112, para. 6. Medzam conceded that its packet contains all of the elements of Claims 1 and 6 except the "degradable" envelope. Medzam argued that its envelope is not degradable, when that term is correctly construed, and thus that the claims are not infringed. The disputed issue was the meaning of the term "degradable" in characterising the claimed envelope. The District Court held that the terms "degrade" and "degradable", as used in the '266 patent, mean that the envelope at least partially dissolves and thereby disintegrates in the liquid. The court held that this meaning of "degradable" does not include the mode of operation of the Medzam packet, wherein the envelope bursts open by expansion of the contents but the envelope itself does not dissolve and disintegrate by direct action of the liquid.

Multiform argued that "degradable" must first be construed based on the '266 patent documents, without reference to the accused device, and that as used in the '266 patent, "degradable" is not limited to dissolution and disintegration, but means any loss in the containment function of the envelope. Multiform cited dictionaries showing this broader meaning, and stated that a person of ordinary skill would construe "degradable", as applied to these envelopes, as meaning a loss in their containment function. Multiform stated that the definition is comprehensive of the degradation of the Medzam envelope that bursts apart and thus, loses its true function, and is not limited to an envelope that degrades by dissolving. Multiform also argued that it is not necessary for the packet to disintegrate in order to degrade. Medzam responded that the definitions are at odds with the plain reading of the specification.

The District Court concluded that the specification and the prosecution history do not support a meaning of "degradable" that would include an envelope that bursts open from inner pressure without any dissolution. The District Court defined "degradable" in light of the mode of action of the accused device. Thus, the court held that Multiform's dictionary definitions added during patent prosecution, although stating a

704. 133 F 3d 1473; 45 USPQ 2d 1429 (Fed Cir 1998).

broad definition of "degradable", could not serve to enlarge the scope of the claims in order to cover the Medzam device. The District Court did not accept Multiform's position that the dictionary definitions provided during the prosecution simply clarified the inventor's original usage of "degradable". The Federal Circuit Court agreeing with the analysis of the District Court concluded that the meaning of "degradable" in the claims is limited to the dissolution/degradation of the envelope as described in the specification. The Federal Circuit Court found that the District Court correctly excluded the meaning whereby the envelope "degrades" by bursting instead of dissolving, and correctly held that "degradable" means that there must be at least partial dissolution of the envelope. Upon this claim interpretation, it was concluded that there could not be literal infringement of the claims.

The District Court found that the Medzam envelope performs the function of releasing its contents in a substantially different way than does the envelope of the '266 patent, in that the Medzam envelope is not soluble in and does not degrade in the liquid. Although Multiform argues that the Medzam packet functions in a way that is "consistent" with the '266 invention, for the Medzam porous envelope releases its contents upon contact with the liquid, the District Court found a porous envelope that bursts with inner pressure to be substantially different from a degradable envelope that dissolves. The Federal Circuit Court concluded that the finding of the District Court has not been shown to be clearly erroneous.

During pendency of the '266 application, claims were added to describe the envelope in terms of its function in accordance with the form authorised by 35 USC Section 112(6). The District Court found that the function of containing and releasing the contents of the packet does not embrace all envelopes whose contents are released on contact with the liquid. The court stressed the description of the envelope in the '266 specification as made of "degradable starch paper", "degradable in water and other liquids", "able to dissolve", and "practically entirely disintegrated", in finding that the function of releasing the envelope contents must be performed by an envelope that disintegrates by dissolution. The court then found that since the Medzam envelope does not dissolve, it does not perform the function required by the claims of the '266 application.

Multiform argued that the function of containing and releasing the contents of the envelope is plainly performed by the Medzam envelope, and that even if the Medzam envelope's structure and material are not the same as described in the '266 specification, they are equivalent means of performing the same function. The District Court found that the structure and material of Medzam's porous envelope, which works by penetration of the liquid through the envelope fabric, are not equivalent to the starch paper described in the '266 specification, which dissolves and disintegrates. The Federal Circuit Court affirmed the District Court's ruling

that the functions stated in Claims 11-15, as performed by the structure and materials shown in the '266 specification and equivalents thereof, are not literally met in the Medzam envelope.

Literal infringement proceedings involve two steps. *First*, the claims in question must be construed for scope and meaning.⁷⁰⁵ *Second*, it must be determined whether the claims, as construed, cover the accused device or process.⁷⁰⁶ The accused products must now be compared to the claims of the patent.

It is error for a court to compare in its infringement analysis the accused product or process with the patentee's commercial embodiment or other version of the product or process; the only proper comparison is with the claims of the patent.⁷⁰⁷

In construing an asserted claim, the first and paramount precept is to look to the intrinsic evidence of record, *i.e.* the patent itself together with the prosecution history before the Patent and Trademark Office.⁷⁰⁸ Intrinsic evidence is "the most significant source of the legally operative meaning of disputed claim language".⁷⁰⁹

Plager, Circuit Judge in *Hoganas Ab v. Dresser Industries Inc.*⁷¹⁰ (*Hoganas*), found that the court should not import limitations not claimed by the patent holder.

The appellate court found that it is improper for a court to add "extraneous" limitations to a claim, *i.e.* limitations added "wholly apart from any need to interpret what the patentee meant by particular words or phrases in the claim". The court concluded that one of skill in the art would not have been put on notice that the term meant other than what it says. Such a one would be perfectly justified in giving the term its ordinary meaning and found that Dresser had not infringed on Hoganas patent.

4.22.2 Interpreting claims

A claim in a patent "provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using, or selling the protected invention".⁷¹¹ The claims of the patent provide the concise formal definition of the invention.

It is to the wording of the claims that one must look to determine whether there has been infringement. Courts can neither broaden nor

705. *Markman v. Westview Instruments Inc.*, 134 L Ed 2d 577; 517 US 370 (1996).

706. *Serrano v. Telular Corp.*, 111 F 3d 1578, 1582; 42 USPQ 2d 1538 (Fed Cir 1997).

707. *Zenith Laboratories Inc. v. Bristol-Myers Squibb Co.*, 19 F 3d 1418, 1423; 30 USPQ 2d 1285 (Fed Cir 1994).

708. *Phillips Petroleum Co. v. Huntsman Polymers Corp.*, 157 F 3d 866, 870; 48 USPQ 2d 116 (Fed Cir 1998).

709. *Vitronics Corp. v. Conceptronic Inc.*, 90 F 3d 1576; 39 USPQ 2d 1573 (Fed Cir 1996).

710. 9 F 3d 948 (Fed Cir 1993).

711. *Corning Glass Works v. Sumitomo Electric USA Inc.*, 868 F 2d 1251, 1257 (Fed Cir 1989).

narrow the claims to give the patentee something different than what he had set forth. Courts can only interpret them.

Although courts are confined by the language of the claims, they are not, however, confined to the language of the claims in interpreting their meaning. Courts occasionally have confined themselves to the language of the claims. When claims have been found clear and unambiguous, courts have not gone beyond them to determine their content.

Courts have also held that the fact that claims are free from ambiguity is no reason for limiting the material which may be inspected for the purpose of better understanding the meaning of claims. The use of the various parts of the patent to determine the meaning of the claims is only half the process of determining patent infringement. The other half is "reading the claims on the accused structures". If the claims read literally on the accused structures, an initial hurdle in the test for infringement has been cleared. The race is not over; it has only started. If the claims do not read literally on the accused structures, infringement is not necessarily ruled out. The equivalence doctrine casts around a claim a penumbra which also must be avoided if there is to be no infringement. It provides that a structure infringes, without there being literal overlap, if it performs substantially the same function in substantially the same way and for substantially the same purpose as the claims set forth.⁷¹²

A patent is uniquely suited for having its meaning and scope determined entirely by a court as a matter of law. This has been an issue in *Markman v. Westview Instruments Inc.*⁷¹³ Markman owned patent for his "Inventory Control and Reporting System for Dry Cleaning Stores". The patent described a system that could monitor and report the status, location, and movement of clothing in a dry cleaning establishment. The Markman system consists of a keyboard and data processor to generate written records for each transaction, including a bar code readable by optical detectors operated by employees, who log the progress of clothing through the dry cleaning process. The respondent, Westview's product also included a keyboard and processor, and it lists charges for the dry cleaning services on barcoded tickets that can be read by portable optical detectors.

Markman brought an infringement suit against Westview. Westview responded that Markman's patent is not infringed by its system because the latter functions merely to record an inventory of receivables by tracking invoices and transaction totals, rather than to record and track an inventory of articles of clothing. Part of the dispute hinged upon the meaning of the word "inventory", a term found in Markman's independent Claim 1, which states that Markman's product can "maintain an inventory total" and "detect and localise spurious additions to inventory". After the jury

712. *Autogiro Co. of America v. United States*, 384 F 2d 391 (Ct Cl 1967).

713. 134 L Ed 2d 577; 517 US 370 (1996).

compared the patent to Westview's device, it found an infringement of Markman's independent Claim 1 and dependent Claim 10.⁷¹⁴ The District Court, nevertheless, granted Westview's deferred motion for judgment as a matter of law, one of its reasons being that the term "inventory" in Markman's patent encompasses "both cash inventory and the actual physical inventory of articles of clothing". Under the trial court's construction of the patent, the production, sale, or use of a tracking system for dry cleaners would not infringe Markman's patent unless the product was capable of tracking articles of clothing throughout the cleaning process and generating reports about their status and location. Since Westview's system cannot do these things, the District Court directed a verdict on the ground that Westview's device does not have the "means to maintain an inventory total" and thus, cannot "detect and localise spurious additions to inventory as well as spurious deletions therefrom", as required by Claim 1.

Markman appealed, arguing it was error for the District Court to substitute its construction of the disputed claim term "inventory" for the construction the jury had given it. The US Supreme Court held that the interpretation of claim terms be the exclusive province of the court.

The role of claim construction in a suit for patent infringement is of paramount importance. While considering the role of construction of claims in a patent infringement case, the Federal Circuit Court held:

This court acknowledges that the standard requiring control or direction for a finding of joint infringement may in some circumstances allow parties to enter into arms-length agreements to avoid infringement. Nonetheless, this concern does not outweigh concerns over expanding the rules governing direct infringement.... The concerns over a party avoiding infringement by arms-length cooperation can usually be offset by proper claim drafting. A patentee can usually structure a claim to capture infringement by a single party.... Nonetheless, this court will not unilaterally restructure the claim or the standards for joint infringement to remedy these ill-conceived claims.⁷¹⁵

New terms are often used when a new technology is in its infancy or is rapidly evolving. This is especially true for biotechnology inventions. It is the policy of the Patent Office that patentees do not need to confine themselves to the terminology used in the prior art. However, patentees must make clear and precise, the terms that are used to define the invention. Thus, during patent examination, the pending claims are given the broadest reasonable interpretation consistent with the specification. Courts have recognised that it is often desirable to use new terms that are frequently more precise in describing and defining a new invention.⁷¹⁶

714. *Ibid.*

715. *BMC Resources Inc. v. Paymentech L.P.*, 498 F 3d 1373 (Fed Cir 2007).

716. *Fisher, re*, 427 F 2d 833; 166 USPQ 18 (CCPA 1970).

Although it is difficult to compare the claimed invention with the prior art when new terms are used that do not appear in the prior art, this does not make the new terms indefinite. If the claims, read in light of the specification, reasonably apprise those skilled in the art both of the utilisation and scope of the invention, and if the language is as precise as the subject-matter permits, the requirement is met.⁷¹⁷

Hybritech Inc. appealed from a decision of the US District Court in favour of the defendant, Monoclonal Antibodies Inc., holding that all claims of its patent directed to immunometric assays using monoclonal antibodies were invalid as anticipated under 35 USC Section 102(g), for obviousness under Section 103, and indefinite under Section 112, second paragraph. The Federal Circuit Court of Appeals reversed and remanded.

As to the issue of indefiniteness, the District Court had held that the claims were indefinite in that they did not disclose how infringement could be avoided because antibody affinity could not be estimated with any consistency. However, the Federal Circuit Court stated in its opinion that even if there was no standard set of experimental conditions which was used to estimate antibody affinities, if the claims, read in light of the specification, reasonably apprised those skilled in the art both of the utilisation and scope of the invention, and if the language was as precise as the subject-matter permitted, the courts could demand no more. The court held that the Hybritech Inc. patent met this standard.⁷¹⁸

To ascertain the meaning of the claims, the court considers three sources: the claims, the specification, and the prosecution history. Thus, the written description, which is a part of the specification, plays a role in interpreting the meaning of claims.

"One purpose for examining the specification is to determine if the patentee has limited the scope of the claims."⁷¹⁹ Where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question.

Although a term used in the claims may be given a special meaning in the description of the invention, generally no term may be given a meaning repugnant to the usual meaning of the term. However, a patentee is free to be his or her own lexicographer and may use terms in a manner contrary to or inconsistent with one or more of their ordinary meanings.⁷²⁰

717. *Hybritech Inc. v. Monoclonal Antibodies Inc.*, 802 F 2d 1367; 231 USPQ 81 (Fed Cir 1986).

718. *Ibid.*

719. *John D. Watts v. XL Systems Inc.*, 232 F 3d 877 (Fed Cir 2000).

720. *Hormone Research Foundation Inc. v. Genentech Inc.*, 904 F 2d 1558; 15 USPQ 2d 1039 (Fed Cir 1990).

Patent claims have to be interpreted in the light of the specification. But everything expressed in the specification must not be read into all the claims. The Federal Circuit Court has also elaborated on the scope of the preferred embodiment stating that "claims are not necessarily and not usually limited in scope simply to the preferred embodiment".⁷²¹

If the claim language is not clear on its face, the remainder of the intrinsic evidence is used to resolving the meaning of the claim terms. The specification is used only to determine the meaning of the claim term as used in the context of the patent, "not merely to limit a claim term".⁷²²

"The construction of claims is simply a way of elaborating the claim language in order to understand and explain, but not to change, the scope of the claims."⁷²³ Interpreting the asserted claims begins with a review of the intrinsic evidence, which consists of the claim language, the written description, and the prosecution history. If the intrinsic evidence resolves any ambiguity in a disputed claim, extrinsic evidence cannot be used to contradict the established meaning of the claim language.⁷²⁴ Extrinsic evidence may, however, be accepted by the court to enhance its understanding of the technology.⁷²⁵

The main function of the court is to construe the claims which are alleged to have been infringed without reference to the body of the specification and to refer to the body of the specification only if there is any ambiguity or difficulty in the construction of the claims in question. Where one of the claims in respect of which infringement is alleged is wide enough to cover all methods for achieving a particular result, the question is not as to the method actually followed by the plaintiffs but is whether the method followed by the defendants is covered by the claim in the plaintiffs' patent.⁷²⁶

The court in *Vitronics Corp. v. Conceptron Inc.*⁷²⁷ regarded the propriety of the use of the extrinsic evidence in claim interpretation. Extrinsic evidence is that evidence which is external to the patent and file history, such as expert testimony, dictionaries, and technical treatises and articles. Extrinsic evidence, in general, and expert testimony, in particular, may be used only to help the court come to the proper understanding of the claims; it may neither be used to vary or contradict the claim language nor it may contradict the import of other parts of the specification.

721. *RF Delaware Inc. v. Pacific Keystone Technologies Inc.*, 326 F 3d 1255, 1263 (Fed Cir 2003).

722. *Interactive Gift Express Inc. v. Compuserve Inc.*, 256 F 3d 1323 (Fed Cir 2001).

723. *Embrex Inc. v. Service Engg. Corp.*, 216 F 3d 1343, 1347 (Fed Cir 2000).

724. *Mantech Environmental Corp. v. Hudson Environmental Services Inc.*, 152 F 3d 1368; 47 USPQ 2d 1732 (Fed Cir 1998).

725. *EMI Group North America Inc. v. Intel Corp.*, 157 F 3d 887 (Fed Cir 1998).

726. *Farbwerke Hoechst & B. Corp. v. Unichem Laboratories*, AIR 1969 Bom 255; (1974) 76 Bom LR 130.

727. 90 F 3d 1576; 39 USPQ 2d 1573 (Fed Cir 1996).

Indeed, where the patent documents are unambiguous, expert testimony regarding the meaning of a claim is entitled to no weight.

In addition, a court in its discretion may admit and rely on prior art proffered by one of the parties, whether or not cited in the specification or the file history. This prior art can often help to demonstrate how a disputed term is used by those skilled in the art. Such art may make it unnecessary to rely on expert testimony and may save much trial time. As compared to expert testimony which often only indicates what a particular expert believes a term means, prior art reference may also be an added indication of what all those skilled in the art generally believe a certain term means. Once again, however, reliance on such evidence is unnecessary, and indeed improper, when the disputed terms can be understood from a careful reading of the public record. It may not be used to vary claim terms from how they are defined, even implicitly, in the specification or file history.

In *Dow Chemical Co. v. Sumitomo Chemical Co. Ltd.*⁷²⁸, it was held that the language of the claims defines the scope of the invention, and, as a starting point, claim terms are given their ordinary and accustomed meaning. Accordingly, a technical term used in a patent claim is interpreted as having the meaning a person of ordinary skill in the field of the invention would understand it to mean.

In *Scimed Life Systems Inc. v. Advanced Cardiovascular Systems Inc.*⁷²⁹ (*Scimed Life Systems*), the court found that in defining the meaning of terms in a claim, the words are generally given their ordinary and accustomed meaning, unless it appears from the specification or the file history that they were used differently by the inventor. Where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question.

After concluding that courts could limit an otherwise clear claim term, the *Scimed Life Systems*⁷³⁰ court used five recent cases to show how courts have limited a patentee's claims based on representations made in the written description. According to those cases, a court will limit a claim's meaning 1) when the specification describes only one feature and states that "the present invention" utilises that feature⁷³¹; 2) "when the 'preferred embodiment' is described as the invention itself..."⁷³²; 3) when patentees expressly disclaimed subject-matter in the written description⁷³³; 4) when

728. 257 F 3d 1364 (Fed Cir 2001).

729. 242 F 3d 1337 (Fed Cir 2001).

730. *Ibid.*

731. *John D. Watts v. XL Systems Inc.*, 232 F 3d 877 (Fed Cir 2000).

732. *Wang Laboratories Inc. v. America Online Inc.*, 197 F 3d 1377 (Fed Cir 1999).

733. *Cultor Corp. v. A.E. Staley Mfg. Co.*, 224 F 3d 1328 (Fed Cir 2000).

patentees expressly disclaimed subject-matter to avoid the prior art⁷³⁴; and 5) when the specification and drawings show a feature which do not illustrate or describe any other structure, and describe the advantages of the feature as important to the invention.⁷³⁵

In *John D. Watts v. XL Systems Inc.*⁷³⁶, the patent claims related to joining two threaded sections of pipe together and recited that one pipe was "sealingly connected directly with" another pipe. Although the claims did not specify how the two pipes were connected, the court determined that the claims required the pipes to be joined using misaligned taper angles because the specification stated that "the present invention utilizes the varying taper angle feature". The court found that this was the only type of connection described in the specification, and the claims were limited to this type of connection. The prosecution history also showed that the use of misaligned taper angles was the basis for distinguishing the cited prior art.

Because the claims were construed to require the use of misaligned taper angles to join the two pipes, the accused system of joining pipes did not infringe the claims literally or under the equivalents doctrine. The court affirmed summary judgment of non-infringement.

The written description can provide guidance as to the meaning of the claims, thereby dictating the manner in which the claims are to be construed, even if the guidance is not provided in explicit definitional format.

A case in which the claims were given a narrow construction in light of the written description is *Wang Laboratories Inc. v. America Online Inc.*⁷³⁷ In that case, the parties agreed that in general usage, the claim term "frame" could be applied both to "bit-mapped display systems" and to "character-based systems". The court, however, construed the claims as limited to character-based systems. The court noted that the "only system that is described and enabled" in the patent specification "uses a character-based protocol", and that references to bit-mapped protocols "did not describe them as included in the applicant's invention, and that the specification would not be so understood by a person skilled in the field of the invention". The court explained that "when the 'preferred embodiment' is described as the invention itself, the claims are not entitled to a broader scope than that embodiment".

The court in *Cultor Corp. v. A.E. Staley Mfg. Co.*⁷³⁸ followed an analytical path. Whether a claim must, in any particular case, be limited to the specific embodiment presented in the specification, depends in each case on the specificity of the description of the invention and on

734. *O.I. Corp. v. Tekmar Co. Inc.*, 115 F 3d 1576; 42 USPQ 2d 1777 (Fed Cir 1997).

735. *Toro Co. v. White Consolidated Industries Inc.*, 199 F 3d 1295; 53 USPQ 2d 1065 (Fed Cir 1999).

736. 232 F 3d 877 (Fed Cir 2000).

737. 197 F 3d 1377 (Fed Cir 1999).

738. 224 F 3d 1328 (Fed Cir 2000).

the prosecution history. These sources are evaluated as they would be understood by persons in the field of the invention. Claims are not correctly construed to cover what was expressly disclaimed.

In another similar case, *O.I. Corp. v. Tekmar Co. Inc.*⁷³⁹, the patentee argued that the claim term "passage" should be given its ordinary and accustomed meaning, and that the District Court had erred by limiting the scope of the patent to the kind of "passage" employed in the preferred embodiment. The court rejected that argument on two grounds. First, it noted that "all of the 'passage' structures contemplated by the written description were either non-smooth or conical". In addition, the written description "expressly distinguished over prior art passages by stating that those passages are generally smooth-walled". The court, therefore, concluded, "one skilled in the art reading the claims, description, and prosecution history would conclude that the term 'passage'... does not encompass a smooth-walled, completely cylindrical structure."

The analysis in *Toro Co. v. White Consolidated Industries Inc.*⁷⁴⁰ is instructive. The patent at issue described and claimed a hand-held convertible vacuum-blower for vacuuming and blowing leaves and yard debris. In the claimed device, the cover was fitted with a ring that restricted the size of the air inlet when the device was being used in blower mode. One of the questions before the court was whether the cover, which the claim characterized as "including" a restriction ring, had to be permanently attached to the restriction ring. To answer that question, the court looked to the specification. The court observed that the specification and drawings showed the ring as part of and permanently attached to the cover, and did not illustrate or describe any other structure. Indeed, the court pointed out, the specification described the advantages of the unitary structure as important to the invention. Based on the specification, the court construed the term "including" in the asserted claims as requiring that the restriction ring be attached to the cover.

In *CCS Fitness Inc. v. Brunswick Corp.*⁷⁴¹ (*CCS Fitness*), the Federal Circuit Court added momentum to *Scimed Life Systems'* express holding by articulating a concise rule. The *CCS Fitness* court held that a court may limit otherwise clear claim terms when "the intrinsic evidence shows that the patentee distinguished that term from prior art on the basis of a particular embodiment, expressly disclaimed subject-matter, or described a particular embodiment as important to the invention".

Most recently, in *Teleflex Inc. v. Ficosa North American Corp.*⁷⁴² (*Teleflex*), the Federal Circuit Court refined the rule developed in *Scimed*

739. 115 F 3d 1576; 42 USPQ 2d 1777 (Fed Cir 1997).

740. 199 F 3d 1295; 53 USPQ 2d 1065 (Fed Cir 1999).

741. 288 F 3d 1359 (Fed Cir 2002).

742. 299 F 3d 1313 (Fed Cir 2002).

*Life Systems*⁷⁴³ and *CCS Fitness*⁷⁴⁴. In *Teleflex*⁷⁴⁵, the court expressly added to the general rule that a claim term must take on its ordinary and accustomed meaning. To this end, the court expressly held:

the patentee may demonstrate an intent to deviate from the ordinary and accustomed meaning of a claim term by redefining the term or by characterising the invention in the intrinsic record using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.

Claim construction—Other than ordinary meaning.—Although claim terms are given their ordinary and accustomed meaning as a starting point, “a claim term may be clearly redefined without an explicit statement of redefinition”. Because the written description of the preferred embodiments provides guidance as to the meaning of claim terms, “the specification may define claim terms ‘by implication’ such that the meaning may be ‘found in or ascertained by a reading of the patent documents.’”

In *Bell Atlantic Network Services Inc. v. Covad Communications Group Inc.*⁷⁴⁶, the claims at issue recited a network having “modes”. While the ordinary meaning of this term was broader than the construction provided by the District Court, the Federal Circuit Court found the term “sufficiently broad and amorphous that the scope of the claim language can be reconciled only with recourse to the written description”. As the specification and prosecution history defined “mode” as limited to particular modes by implication, the Federal Circuit Court so construed the term. This narrow construction also applied to a claim that did not expressly contain the “mode” limitation because other terms in the claim were defined to have the same definition as “mode”. Summary judgment of non-infringement was affirmed.

While limitations from the specification cannot be imported into claims that do not contain those limitations, “the specification and prosecution history enlighten the bounds set by the claims and the limits of the patentee’s right to exclude”. Thus, the specification and prosecution history may show that the claims do not cover particular subject-matter.

*Abbott Laboratories v. Novopharm Ltd.*⁷⁴⁷ involved claim interpretation and the meaning to be given to a coined word “co-micronisation”. On the question of claim construction, the court found that prior to the invention, the term “co-micronisation” was unknown. However, the specification defined it as meaning “micronisation of an intimate mixture of fenofibrate and a solid surfactant”. The court noted that this was a case of the applicant acting as its own lexicographer. The case shows that when

743. 242 F 3d 1337 (Fed Cir 2001).

744. 288 F 3d 1359 (Fed Cir 2002).

745. 299 F 3d 1313 (Fed Cir 2002).

746. 262 F 3d 1258 (Fed Cir 2001).

747. 323 F 3d 1324; 66 USPQ 2d 1200 (Fed Cir 2003).

defining a newly coined term that is to be used in a patent claim, great care has to be exercised to avoid accidental incorporation of unwanted limitations into the definition.

In *Innovad Inc. v. Microsoft Corpn.*⁷⁴⁸, the claims at issue did not specifically recite whether the “dialer unit” of the claimed telephone dialer system contained a keypad, the specification repeatedly emphasised that “the dialer unit has no keypad”. The specification went so far as to characterise dialer units with keypads as “useless”. Thus, the claims were properly construed to exclude dialer units having a keypad. Summary judgment of non-infringement was affirmed because the accused dialer units contained a keypad.

In *Network LLC v. Centraal Corpn.*⁷⁴⁹, the court stated that the specification presents “a description of the technologic subject-matter of the invention”. The claims of the patent were directed to a system for locating and retrieving information on a computer network using aliases. While the claims recited a local server computer, the claims did not recite that the local server computer stored a limited set of aliases that were updated from the central registry computer. However, the Federal Circuit Court construed the claim to require this function of the local server computer based on the patent specification.

The court noted that the claims cannot “enlarge what is patented beyond what the inventor has described as the invention”. Because the specification described the function of the local server computer, the court limited the claims to include this function. While the specification described an embodiment in which the local server computer and the central registry computer were on the same computer, the court determined that the claim still required the functions of the local server computer set forth in the specification. Based on this claim construction, the accused system neither did literally infringe nor did it infringe under the equivalents doctrine because there was no structure that functioned as the claimed local server computer. The court affirmed summary judgment of non-infringement.

Claim construction—preserving validity.—Claims amenable to more than one construction should, when it is reasonably possible to do so, be construed to preserve their validity.... However, when the claim’s language embraces the prior art, the court is not unlimited in the extent to which it can interpret the claims.⁷⁵⁰

The claims cannot be rewritten by the court to avoid the impact of newly discovered prior art, for the role of “claim construction” is to describe the claim scope as it was intended when examined and obtained

748. 260 F 3d 1326 (Fed Cir 2001).

749. 242 F 3d 1347; 58 USPQ 2d 1076 (Fed Cir 2001).

750. *Karsten Mfg. Corpn. v. Cleveland Golf Co.*, 242 F 3d 1376 (Fed Cir 2001).

by the applicant, not as it might have been limited upon a different record of prosecution and prior art.

In *Amgen Inc. v. Hoechst Marion Roussel*⁷⁵¹, it was held that a claim term should be given its ordinary and customary meaning. Prosecution history may not be used to infer the intentional narrowing of a claim absent the applicant's clear disavowal of claim coverage.

Matching the claim to the alleged infringing device or process.—A patent is infringed if a single claim be infringed. The focus must be on the individual claim elements rather than on the invention as a whole. Generally, dependent claims cannot be found infringed unless the claims from which they depend have been found to be infringed. One may infringe an independent claim and not infringe a claim dependent on that claim. The court must compare an accused product or process, not with a preferred embodiment or with a commercialised embodiment of the patent, but with the properly and previously construed claims in the patent-in-suit. It is reversible error to compare the accused product to the patentee's commercial product.

The "All Limitations Rule" for infringement means that to establish infringement of a patent, every limitation set forth in a claim must be found in an accused product or process exactly or by a substantial equivalent. The patentee must show the presence of every element or its substantial equivalent in the accused device. For literal infringement, the accused device must embody every element of the claim.

4.22.2.1 *Equivalents doctrine*

In the absence of literal infringement, a product may nevertheless be found to infringe a patented product if it is found to be its substantial equivalent. Under the doctrine of equivalence, an accused device infringes a claim if it "performs substantially the same function in substantially the same way to obtain the same result". The Supreme Court first applied the idea of equivalents over a century ago in *Winans v. Denmead*⁷⁵² (*Winans*), aiming to secure the necessary protection to the inventors. In *Winans*⁷⁵³, the patent at issue involved a new mode of operation for railroad cars. The accused device employed this same mode of operation; however, the geometrical form of the cars was different than that claimed by the patentee. The court held:

because the exclusive right to the thing patented is not secured, if the public are at liberty to make substantial copies of it, varying its form or proportions,... the patentee, having described his invention, and shown its principles,

751. 314 F 3d 1313; 65 USPQ 2d 1385 (Fed Cir 2003).

752. 14 L Ed 717; 56 US 330 (1853).

753. *Ibid.*

and claimed it in that form which most perfectly embodies it, is, in contemplation of law, deemed to claim every form which his invention may be copied, unless he manifests an intention to disclaim some of those forms.

In *Incandescent Gas Light Co. Ltd. v. De Mare Incandescent Gas Light System Ltd.*⁷⁵⁴, the defendants had taken the substance of the patentee's invention. They had used a prescription that was somewhat different from that described in the specification and omitted a substance that had been specified in the specification and accordingly included in the patentee's claim. It was found that the defendants have infringed the plaintiff's invention.

In applying the doctrine of equivalency, the court has to determine and distinguish the essential from the non-essential elements of the invention. In every case, where it is sought to apply the doctrine, a particular issue arises, namely, whether the feature of the invention in respect of which an equivalent is alleged to have been used is essential to the invention. The interpretive task of the court in claims construction is to separate and distinguish the essential from the non-essential.

The identification of elements as essential or non-essential is made

1. on the basis of the common knowledge of the worker skilled in the art to which the patent relates;
2. as of the date the patent is published;
3. having regard to whether or not it was obvious to the skilled reader at the time the patent was published, that a variant of a particular element would not make a difference to the way in which the invention works; or
4. according to the intent of the inventor, expressed or inferred from the claims, that a particular element is essential irrespective of its practical effect; and
5. without, however, resort to extrinsic evidence of the inventor's intention.

The Patents Act seeks both fairness and predictability. The basic objective of promoting research and development would be undermined if competitors fear to tread in the vicinity of the patent. Predictability is achieved by the definiteness of the claims and interpreting those claims in a purposive way. Purposive construction does away with a purely literal interpretation. Some elements of a claimed invention are essential while others are non-essential. These are identified on the basis of the common knowledge of the worker skilled in the art to which the patent relates as of the date the patent is published. There is no infringement if an essential element is different or omitted in the allegedly infringing device, but there may still be infringement if non-essential elements are substituted or omitted.

754. (1896) 13 RPC 301.

For an element to be considered non-essential and thus substitutable, it must be shown either that on a purposive construction of the words of the claim it was clearly not intended to be essential, or that at the date of publication of the patent, the skilled addressee would have appreciated that a particular element could be substituted or omitted without affecting the working of the invention.

Patent claims are frequently analogised to “fences” and “boundaries”, giving the “fields” of the monopoly a comfortable pretence of bright line demarcation. In *Minerals Separation North American Corpn. v. Noranda Mines Ltd.*⁷⁵⁵, Thorson P. stated as follows:

By his claims the inventor puts fences around the fields of his monopoly and warns the public against trespassing on his property. His fences must be clearly placed in order to give the necessary warning and he must not fence in any property that is not his own. The terms of a claim must be free from avoidable ambiguity or obscurity and must not be flexible; they must be clear and precise so that the public will be able to know not only where it must not trespass but also where it may safely go.

Courts have recognised that to permit imitation of a patented invention which does not copy every literal detail would be to convert the protection of the patent grant into a hollow and useless thing. Such a limitation would leave room for the unscrupulous copyist to make unimportant and insubstantial changes and substitutions in the patent which, though adding nothing, would be enough to take the copied matter outside the claim, and hence, outside the reach of law. It would deprive him of the benefit of his invention and would foster concealment rather than disclosure of inventions, which is one of the primary purposes of the patent system.⁷⁵⁶

Because the courts have been sympathetic to the patent owner in situations where the heart of an invention is, appropriated but literal infringement is avoided by inconsequential differences between design-around and claim wording, “equivalents doctrine” has developed. This is an equitable doctrine that may apply in situations where, despite the absence of literal infringement, there still may be infringement if the product or service in question has a structure or performs a function that is an equivalent of an element recited in the claim. Equivalence means that a claim element and its counterpart in a product does substantially the same thing in substantially the same way to achieve substantially the same result. If accused device or process performs substantially the same function in substantially the same way to obtain substantially the same result as the claimed device or process, it falls under the equivalents doctrine.

The theory on which the equivalents doctrine is founded is that “if two devices do the same work in substantially the same way, and accomplish

755. 1947 Ex CR 306, 352; (1947) 12 CPR 99.

756. *Graver Tank & Mfg. Co. Inc. v. Linde Air Products Co.*, 94 L Ed 1097; 339 US 605 (1950).

substantially the same result, they are the same, even though they differ in name, form, or shape.”⁷⁵⁷

Differences between invention and accused device must be insubstantial—if differences are substantial, no equivalents is found even if function-way-result test is met.

Factors relating to substantiality are:

1. Whether persons with skill in the art actually know of the equivalence of the claimed and accused inventions?
2. Whether a person with skill could have known of the equivalence?
3. Whether he had intended to copy, or, rather, intended to design around, or inadvertently arrived at the same result?

Under the equivalents doctrine, a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is “equivalence” between the elements of the accused product or process and the claimed elements of the patented invention.

Infringement may be found under the equivalents doctrine if every limitation of the asserted claim, or its “equivalent”, is found in the accused subject-matter, where an “equivalent” differs from the claim limitation only insubstantially. Whether a component in the accused subject-matter performs substantially the same function as the claimed limitation in substantially the same way to achieve substantially the same result may be relevant to this determination.⁷⁵⁸

The doctrine is designed “to prevent a ‘fraud on the patent’, when an accused infringer is ‘stealing the benefit of the invention’ by making insubstantial changes that avoid the literal scope of the claims.”⁷⁵⁹

The triple-identity test of equivalents may be summarised as follows. The fact-finder must inquire whether the accused product performs substantially the same function, in substantially the same way, to achieve substantially the same result as to each element of the claim.⁷⁶⁰ What constitutes equivalency must be determined against the context of the patent, the prior art, and the particular circumstances of the case.

The court laid the modern contours of the doctrine in *Graver Tank & Mfg. Co. Inc. v. Linde Air Products Co.*⁷⁶¹ (*Graver Tank*). The court recognised “to permit imitation of a patented invention which does not copy every literal detail would be to convert the protection of the patent grant into a hollow and useless thing”.

757. *Union Paper-Bag Machine Co. v. Murphy*, 24 L Ed 935; 97 US 120, 125 (1877).

758. *Ethicon Endo-Surgery Inc. v. United States Surgical Corpn.*, 149 F 3d 1309, 1315 (Fed Cir 1998).

759. *EMI Group North America Inc. v. Intel Corpn.*, 157 F 3d 887, 896 (Fed Cir 1998).

760. *Dawn Equipment Co. v. Kentucky Farms Inc.*, 140 F 3d 1009, 1016 (Fed Cir 1998).

761. 94 L Ed 1097; 339 US 605 (1950).

The equivalents doctrine cannot extend or enlarge the scope of the claims. The claims remain the same and application of the doctrine expands the right to exclude equivalents of what is claimed. The equivalents doctrine is not a licence to ignore claim limitations. The equivalents doctrine does not require a one-to-one correspondence between components of the accused device and the claimed invention. An accused device may infringe under the equivalents doctrine even though a combination of its components performs a function performed by a single element in the patented invention. The accused device must, nevertheless, contain every limitation or its equivalent.

Indian courts unlike the US equivalents doctrine adopts the UK pith and marrow/immaterial variation principle.

4.22.2.2 The All Elements Rule

To emphasise the application of the equivalents doctrine, the court established an "all elements" rule in *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*⁷⁶² (*Warner-Jenkinson*), where it stated, "each element contained in a patent claim is deemed material to defining the scope of the patented invention, and thus the doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole."

In *Lemelson v. General Mills Inc.*⁷⁶³, it was held that since sufficient evidence was absent to support the conclusion that the accused device is distinguishable from the prior art, the accused device could not be found to meet all of the limitations in the patent at issue, either literally or by the equivalents doctrine. In applying the equivalents doctrine, each limitation must be viewed in the context of the entire claim.

...It is well settled that each element of claim is material and essential, and that in order for a court to find infringement, the plaintiff must show the presence of every element or its substantial equivalent in the accused device.⁷⁶⁴

To be a "substantial equivalent", the element substituted in the accused device for the element set forth in the claim must not be such as would substantially change the way in which the function of the claimed invention is performed.

The court held that the reason for an amendment during prosecution is paramount. If the reason relates to patentability by avoiding prior art, clearly the amendment works as an estoppel. If the reason is for some other purpose, an estoppel may not be appropriate. The amendment in question was made for an unknown purpose. In this instance, the court held that the burden was on the patentee to demonstrate that the amendment was not "related to patentability".

762. 137 L Ed 2d 146; 520 US 17 (1997).

763. 968 F 2d 1202, 1208; 23 USPQ 2d 1284 (Fed Cir 1992).

764. *Lemelson v. United States*, 752 F 2d 1538, 1551; 224 USPQ 526 (Fed Cir 1985).

The standard for determining whether subject-matter has been relinquished is whether one of ordinary skill in the art would objectively conclude from the prosecution history that an applicant surrendered a particular subject-matter. Either amendments or arguments made in response to an office action may be the basis for this conclusion. Thus, amendments made in response to indefiniteness and enablement rejections are generally not made in response to the prior art. On the other hand, prosecution history estoppel applies to amendments made to overcome the "regards as his invention" rejection under 35 USC Section 112.

Under the prosecution history estoppel doctrine, what is surrendered during prosecution due to prior art cannot be recaptured by the equivalents doctrine.⁷⁶⁵

Pith and marrow doctrine

To constitute infringement, the article must take each and every one of the essential integers of the claim. Non-essential integers may be omitted or replaced by mechanical equivalents. This constitutes the pith and marrow principle of infringement. A patent owner has a remedy against an alleged infringer who does not take the letter of the invention but nevertheless appropriates its substance or "pith and marrow". Lord Cairns in *William Clark v. Patrick Adie*⁷⁶⁶ has discussed the various ways in which a patent for an apparatus could be infringed. The origin of the concept of pith and marrow can be found in his discussions:

The infringer might not take the whole of the instrument here described, but he might take a certain number of parts of the instrument described; he might take an instrument which in many respects would resemble the patent instrument, but would not resemble it in all its parts. And there the question would be... whether that which was done by the alleged infringer amounted to a colourable departure from the instrument patented, and whether in what he had done he had not really taken and adopted the substance of the instrument patented. And it might well be, that if the instrument patented consisted of twelve different steps..., an infringer who took eight or nine or ten of those steps might be held by the tribunal judging of the patent to have taken in substance the pith and marrow of the invention, although there were one, two, three, four or five steps which he might not actually have taken and represented upon his machine.

This concept was emphasised by Romer LJ in *R.C.A. Photophone Ltd. v. Gaumont-British Picture Corpn. Ltd.*⁷⁶⁷:

The principle is, indeed, no more than a particular application of the more general principle that a person who takes what in the familiar, though oddly mixed metaphor is called the pith and marrow of the invention is an infringer.

765. *Exhibit Supply Co. v. Ace Patents Corpn.*, 86 L Ed 736; 315 US 126 (1942).

766. (1877) 2 AC 315, 320 (HL).

767. (1935) 53 RPC 167, 197 (CA).

If he takes the pith and marrow of the invention he commits an infringement even though he omits an unessential part. So, too, he commits an infringement if, instead of omitting an unessential part, he substitutes for that part a mechanical equivalent.

A person who borrows the substance of a patented invention cannot escape the consequences of infringement by making immaterial variations. The question is whether the infringing apparatus is substantially the same as the apparatus said to have been infringed.⁷⁶⁸ Everyone who produces the same results by using the essential parts of the combination or process is an infringer, even though he has, in fact, altered the combination or process by omitting some unessential part or step and substituting another part or step, which is, in fact, equivalent to the part or step he has omitted.⁷⁶⁹

In *Rodi & Wienberger AG v. Henry Showell Ltd.*⁷⁷⁰, the plaintiff company held a patent for an expandable watch strap made up of two layers of sleeves. Each sleeve was connected to two sleeves in the layer above or below by "U-shaped connecting bows", as the claim described them. These bows were inserted along each side of the strap and were themselves held in place by means of spring within each sleeve. The rotation of the bows allowed the strap to expand. The defendant's straps replaced each pair of U-shaped connecting bows, one on each side with a single C-shaped bow which ran right across the sleeve.

Lord Upjohn said:

First the question is whether the relevant claim has been infringed. This is purely a question of construction of the claim read as a matter of ordinary language, in the light of the complete specification taken as a whole, but the claim must be construed as a document without having in mind the alleged infringement. What is not claimed is disclaimed. The claim must be read through the eyes of the notional addressee, the man who is going to carry out the invention described.

Secondly, the essential integers having been ascertained the infringing article must be considered. To constitute infringement the article must take each and every one of the essential integers of the claim. Non-essential integers may be omitted or replaced by mechanical equivalents; there will still be infringement. I believe that this states the whole substance of the 'pith and marrow' theory of infringement. Furthermore, where the invention as in this case, resides in a new combination of known integers but also merely in a new arrangement and interaction of ordinary working parts it is not sufficient to show that the same result is reached; the working part must act on one another in the way claimed in the claim of this patent.

768. *Marconi v. British Radio Telegraph and Telephone Co. Ltd.*, (1911) 28 RPC 181, 217.

769. *Ibid.*

770. 1969 RPC 367 (HL).

Comparative test

When considering the ambit of a comparative test, the court should bear in mind the oft-quoted passages from the speech of Lord Shaw in *British Thomson-Houston Co. Ltd. v. Corona Lamp Works Ltd.*⁷⁷¹ In that case, the claim required the filament of tungsten used in the lamp to be "of large diameter". The Court of Appeals accepted that the word "large" was ambiguous in that it did not enable the skilled person to decide when the claim was infringed. That was rejected by the House of Lords.

Lord Shaw said:

It is easy, whenever language of generality and relativity applicable to size, measure, weight or the like have been employed, to put puzzles which might indicate that, at certain points, you are at that thin strip of mechanical territory in which, on the one side, there might be failure, and, on the other, success. But the reply to such criticism is that it is not how practical men work. They work to achieve success, and if, by adopting the broad lines laid down in a specification, they do not find any real difficulty in achieving success, this may not conclude the matter, but it goes far to show that the vagueness of the specification has not misled them, practical people who were not seeking for failure but for success—had not caused the invention to fail to reach their mind, but has, on the contrary, for all practical purposes, guided them, and that without difficulty, towards the success which prior to that no experiment nor invention had achieved.

I think there is no rule, whether of benevolent or malevolent construction, which should apply to patent specifications. A specification must take its rank among all ordinary documents which are submitted to a reader for his guidance or instruction, and a reader ordinarily intelligent and versed in the subject-matter. Such a reader must be supposed to bring his stock of intelligence and knowledge to bear upon the document, not unduly to struggle with it, but anyhow to make the best of it; if, as the result, he understands what the invention is, can produce the object and achieve the manufacture by the help of the written and drawn page, then the subject-matter of the invention cannot fail on the head of vagueness.⁷⁷²

Protocol questions

The UK courts have adopted the purposive construction of claims, derived from the decision of the House of Lords in *Catnic*⁷⁷³. The House of Lords has emphasised that the specification must be given a "purposive" construction, rather than a purely literal one. It must be asked whether the skilled addressee would understand that the patentee intended as an essential requirement of the invention that there must be strict compliance with a particular descriptive word or phrase appearing in a claim such that any

771. (1921) 39 RPC 49, 89 (HL).

772. *Ibid.*

773. 1982 RPC 183 (HL).

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variant would fall outside the monopoly claimed, even though it would have no material effect on the way the invention worked.

In *Catnic*⁷⁷⁴, the plaintiff's patented invention concerned galvanised steel lintels for doors and windows for use in cavity walls. The element chiefly in dispute in the infringement proceedings is a lintel for use over apertures in cavity walls having an inner and outer skin comprising a first horizontal plate or part adapted to support a course or a plurality of superimposed units forming part of the inner skin and a second horizontal plate or part substantially parallel to the first and spaced therefrom in a downward vertical direction and adapted to span the cavity in the cavity wall and be supported at least at each end thereof upon courses forming part of the outer and inner skins, respectively of the cavity wall adjacent to an aperture, and a first rigid inclined support member extending downwards and forwards from or near the front edge adjacent the cavity of the first horizontal plate or part and joining with the second plate or part, at an intermediate position which lies between the front and rear edge of the second plate or part and adapted to extend across the cavity, and a second rigid support member extending vertically from (or from near) the rear edge of the first horizontal plate or part to join with the second plate or part, adjacent its rear edge. The variation which the defendant introduced into its lintel with a view to avoiding infringement of this claim was to incline the rear member 6 to 8 degrees from the vertical. Functionally this was a negligible difference. A patent specification is a unilateral statement by the patentee, in words of his own choosing, addressed to those likely to have a practical interest in the subject-matter of his invention, by which he informs them what he claims to be the essential features of the new product or process for which the letters patent grant him monopoly. It is this novel feature only that he claims to be essential that constitute the so-called "pith and marrow" of the claim. A patent specification should be given a purposive construction rather than a purely literal one derived from applying to it the kind of meticulous verbal analysis in which lawyers are too often tempted, by their training, to indulge. The question in each case is whether persons with practical knowledge and experience of the kind of work in which the invention was intended to be used, would understand that strict compliance with a particular descriptive word or phrase appearing in a claim was intended by the patentee to be an essential requirement of the invention so that any variant would fall outside the monopoly claimed, even though it could have no material effect upon the way the invention worked.

The question, of course, neither does arise where the variant would in fact have a material effect upon the way the invention worked nor does it arise unless at the date of publication of the specification, it would be obvious to the informed reader that this was so. Where it is not obvious,

774. *Ibid.*

in the light of the then existing knowledge, the reader is entitled to assume that the patentee thought at the time of the specification that he had good reason for limiting his monopoly so strictly and had intended to do so, even though subsequent work by him or others in the field of the invention might show the limitation to have been unnecessary. It is to be answered in the negative only when it would be apparent to any reader skilled in the art that a particular descriptive word or phrase used in a claim cannot have been intended by a patentee, who was also skilled in the art, to exclude minor variants which, to the knowledge of both, him and the readers to whom the patent was addressed, could have no material effect upon the way in which the invention worked.

Put in a nutshell, the question to be answered is: Would the specification make it obvious to a builder familiar with ordinary building operations that the description of a lintel in the form of a weight-bearing box girder of which the backplate was referred to as "extending vertically" from one of the two horizontal plates to join the other, could not have been intended to exclude lintels in which the backplate although not positioned at precisely 90 degrees to both horizontal plates was close enough to 90 degrees to make no material difference to the way the lintel worked when used in building operations?

It may be that when used by a geometer addressing himself to fellow geometers, such expressions descriptive of relative position as "horizontal", "parallel", "vertical" and "vertically" are to be understood as word of precision only; but when used in a description of manufactured product intended to perform the practical function of a weight-bearing box girder in supporting two courses of brickwork over window and door spaces in buildings, it seems to me that the expression "extending vertically" as descriptive of the position of what in use will be the upright member of a trapezoid-shaped box girder, is perfectly capable of meaning positioned near enough to the exact geometrical vertical to enable it in actual use to perform satisfactorily all the functions that it could perform if it were precisely vertical; and having regard to those considerations to which I have just referred that is the sense in which in my opinion "extending vertically" would be understood by a builder familiar with ordinary building operation. Or, putting the same thing in another way, it would be obvious to him that the patentee did not intend to make exact verticality in the positioning of the backplate an essential feature of the invention claimed.

This was later formulated into three separate questions by the Patents Court in *Improver Corp. v. Remington Consumer Products Ltd.*⁷⁷⁵ (*Improver*). The plaintiff's European patent was for an electrical device for plucking hairs from the body. Its principal element consisted of a helical spring bent to form an arc which was rotated at a high speed. Because of the arcuate form, on the convex side, the spring would open out while

775. 1990 FSR 181.



on the concave side, it would close together. Hair would accordingly be captured and then plucked with the rotation of the spring. The result was less painful than waxing, and more long lasting than shaving. The plaintiffs' own device, "Epilady", was a great commercial success. The claims in the patent were defined by reference to a "helical spring". Because the principle of the invention could be embodied in springs in many configurations, the description ended with an "equivalents clause".

The defendant's device was designed as a less painful alternative to "Epilady". In place of a helical spring, it had a tube of synthetic rubber, partly cut through by slits. When rotated, hair was drawn into the slits and then plucked as the slits squeezed together. For this variant, a US patent had been secured. It was marketed as "Smooth & Silky", with additional tubes for replacement after some seven hours of use.

Hoffmann J introduced the issue of infringement.

The language should be given a 'purposive' and not necessarily a 'literal' construction. If the issue was whether a feature embodied in an alleged infringement which fell outside the primary, literal or a contextual meaning of a descriptive word or phrase in the claim ('a variant') was nevertheless within its language as properly interpreted, the court should ask itself the following three questions:

1. Does the variant have a material effect upon the way the invention works? If yes, the variant is outside the claim. If no—
2. Would this (*i.e.* that the variant had no material effect) have been obvious at the date of publication of the patent to a reader skilled in the art? If no, the variant is outside the claim; if yes—
3. Would the reader skilled in the art nevertheless have understood from the language of the claim that the patentee intended that strict compliance with the primary meaning was an essential requirement of the invention? If yes, the variant is outside the claim.

On the other hand, a negative answer to the last question would lead to the conclusion that the patentee was intending the word or phrase to have not a literal but a figurative meaning denoting a class of things which included the variant and the literal meaning, the latter being perhaps the most perfect, best-known or striking example of the class.

After further observations on the law, he examined the evidence of the rival experts in relation to the first and second questions, and found that the defendant's variant had no material effect on the way the invention worked, and that this would have been obvious to the skilled reader.

These "improver questions" have been adopted by the Court of Appeals as an aid to the application of the protocol. It now calls them the "protocol questions".⁷⁷⁶ The scope of protection must be based on the language of the claims. The question to be asked is whether the alleged infringement

776. *Wheatley (Davina) v. Drillsafe Ltd.*, 2001 RPC 7.

is one which the skilled man would have regarded as being "within the ambit of the language" of the claim.⁷⁷⁷

In applying the protocol, the English courts recognise that the protocol outlaws both a strict literal interpretation and a liberal interpretation using the claims merely as a guideline. The terms of a claim must be interpreted through the eyes of the skilled addressee. The court must ascertain what meaning the words were intended to convey.

The "protocol questions" have been described by the Court of Appeals as an "aid", and in a series of cases has come to be treated as decisive.

Four corners of a patent

Over the past year and a half, a number of decisions by the Court of Appeals for the Federal Circuit Court, which hears the appeals of all patent cases, have reflected an increased emphasis on the content of the "four corners" of a patent and a decreased emphasis on surrounding context in determining the scope of a patentee's rights.

The origins of the Federal Circuit Court's trend can be seen in its 1996 decision in *Vitronics Corp. v. Conceptor Inc.*⁷⁷⁸ which held that a patent claim must be interpreted in view of the "intrinsic evidence" of the claim's language, the patent specification and the file history. It further stated that the interpretation should not involve the use of expert testimony or other "extrinsic evidence" unless the intrinsic evidence is insufficient to eliminate ambiguities. In more recent cases, the Federal Circuit Court has relied on the four corners of a patent specification and de-emphasised surrounding context

1. to restrict the breadth of the equivalents doctrine;
2. to revitalise doctrines under which patent claims may be deemed invalid in view of the originally-filed disclosure; and
3. to limit the scope of "means-plus-function" claim limitations.

The Federal Circuit Court emphasised the concept of four corners of the patent in *Vehicular Technologies Corp. v. Titan Wheel International Inc.*⁷⁷⁹ (*Vehicular*). In this case, the patent at issue was directed to an automatic locking differential for use in automotive vehicles. One of the improvements resulting from the patented locking differential was to facilitate do-it-yourself backyard mechanics installing small parts of aftermarket add-ons by providing two concentric springs. Thus, all claims required the claim limitation, *i.e.* "a spring assembly consisting of two concentric springs bearing against one end of said pin". In contrast, the accused infringer replaced the concentric springs with a spring and a plug. Hence, the patentee admitted that the limitation was not literally met but

777. *Anchor Building Products Ltd. v. Redland Roof Tiles Ltd.*, 1990 RPC 283.

778. 90 F 3d 1576; 39 USPQ 2d 1573 (Fed Cir 1996).

779. 141 F 3d 1084; 46 USPQ 2d 1257 (Fed Cir 1998).

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asserted that it was met under the equivalents doctrine, arguing that the plug and spring were respectively equivalent to the inner and outer springs recited in the claims. Particularly, because the outer spring existed in conventional differentials, the court's analysis centred around the replacement between the plug and the inner spring.

Quoting the Supreme Court's statement in *Warner-Jenkinson*⁷⁸⁰, the *Vehicular*⁷⁸¹ court emphasised, "if a claim limitation must play a role in the context of the specific claim language, then an accused device which cannot play that role or which plays a substantially different role, cannot infringe under the doctrine of equivalents".

To find out the role of the inner spring, the court looked into the intrinsic evidence. The role was identified as an ability to serve as a back-up when the outer spring broke, because the patentee repeatedly emphasised the ability throughout the description in the specification. The court examined other roles for the inner spring, discussed in the specification and emphasised by the patentee, but found that the accused plug played these roles in different ways.

The majority of the judges emphasised the presence of the spring mechanism limitation in the claims and identified its function in applying the equivalents doctrine by looking at the specification to find out if the accused plug was substantially different from the inner spring limitation. *Vehicular*⁷⁸² clearly demonstrates a recent trend of limiting the application of equivalents doctrine. The majority of *Vehicular*⁷⁸³ clearly authorised courts to look for the function in the specification and the prosecution history records.

4.22.3 Acts constituting infringement

In the UK, the Patents Act defines infringement. Doing of any of the acts referred in the section constitutes infringement of the patent.⁷⁸⁴

780. 137 L Ed 2d 146; 520 US 17 (1997).

781. 141 F 3d 1084; 46 USPQ 2d 1257 (Fed Cir 1998).

782. *Ibid.*

783. *Ibid.*

784. UK Patents Act, S. 60 reads:

(1) Subject to the provisions of this section, a person infringes a patent for an invention if, but only if, while the patent is in force, he does any of the following things in the United Kingdom in relation to the invention without the consent of the proprietor of the patent, that is to say—

- (a) where the invention is a product, he makes, disposes of, offers to dispose of, uses or imports the product or keeps it whether for disposal or otherwise;
- (b) where the invention is a process, he uses the process or he offers it for use in the United Kingdom when he knows, or it is obvious to a reasonable person in the circumstances, that its use there without the consent of the proprietor would be an infringement of the patent;
- (c) where the invention is a process, he disposes of, offers to dispose of, uses or imports any product obtained directly by means of that process or keeps any such product whether for disposal or otherwise.

(2) Subject to the following provisions of this section, a person (other than the proprietor of the patent) also infringes a patent for an invention if, while the patent is in force and without the consent of the proprietor, he supplies or offers to supply in the United Kingdom a person other than a licensee or other person entitled to work the invention with any of the means, relating to an essential element of the invention, for putting the invention into effect when he knows, or it is obvious to a reasonable person in the circumstances, that those means are suitable for putting, and are intended to put, the invention into effect in the United Kingdom.

(3) Subsection (2) above shall not apply to the supply or offer of a staple commercial product unless the supply or the offer is made for the purpose of inducing the person supplied or, as the case may be, the person to whom the offer is made to do an act which constitutes an infringement of the patent by virtue of sub section (1) above.

(4) Without prejudice to Section 86 below, subsections (1) and (2) above shall not apply to any act, which, under any provision of the Community Patent Convention relating to the exhaustion of the rights of the proprietor of a patent, as that provision applies by virtue of that section, cannot be prevented by the proprietor of the patent.

(5) An act which, apart from this subsection, would constitute an infringement of a patent for an invention shall not do so if:

- (a) it is done privately and for purposes which are not commercial;
 - (b) it is done for experimental purposes relating to the subject-matter of the invention;
 - (c) it consists of the extemporaneous preparation in a pharmacy of a medicine for an individual in accordance with a prescription given by a registered medical or dental practitioner or consists of dealing with a medicine so prepared;
 - (d) it consists of the use, exclusively for the needs of a relevant ship, of a product or process in the body of such a ship or in its machinery, tackle, apparatus or other accessories, in a case where the ship has temporarily or accidentally entered the internal or territorial waters of the United Kingdom;
 - (e) it consists of the use of a product or process in the body or operation of a relevant aircraft, hovercraft or vehicle which has temporarily or accidentally entered or is crossing the United Kingdom (including the air space above it and its territorial waters) or the use of accessories for such a relevant aircraft, hovercraft or vehicle;
 - (f) it consists of the use of an exempted aircraft which has lawfully entered or is lawfully crossing the United Kingdom as aforesaid or of the importation into the United Kingdom, or the use or storage there, of any part or accessory for such an aircraft.
 - (g) it consists of the use by a farmer of the product of his harvest for propagation or multiplication by him on his own holding, where there has been a sale of plant propagating material to the farmer by the proprietor of the patent or with his consent for agricultural use;
 - (h) it consists of the use of an animal or animal reproductive material by a farmer for an agricultural purpose following a sale to the farmer, by the proprietor of the patent or with his consent, of breeding stock or other animal reproductive material which constitutes or contains the patented invention.
- (6) For the purposes of subsection (2) above a person who does an act in relation to an invention which is prevented only by virtue of paragraph (a), (b) or (c) of subsection (5) above from constituting an infringement of a patent for the invention shall not be treated as a person entitled to work the invention, but—
- (a) the reference in that subsection to a person entitled to work an invention includes a reference to a person so entitled by virtue of Section 55 above, and
 - (b) a person who by virtue of Section 28A(4) or (5) above or section 64 below is entitled to do an act in relation to the invention without it constituting such an infringement shall, so far as concerns that act, be treated as a person entitled to work the invention.
- (6A) Schedule A1 contains—
- (a) provisions restricting the circumstances in which subsection (5)(g) applies; and

This principle was applied in *Smith Kline and French Laboratories Ltd. v. RD Harbottle (Mercantile) Ltd.*⁷⁸⁵ (*Smith Kline*). The meaning of the term "keeping for disposal or otherwise" was considered by Oliver J in *Smith Kline*⁷⁸⁶. The first defendant ordered a drug, patented by the plaintiff in the UK, from Italy for importation into UK with the intention of re-exporting it. It was carried to Heathrow by the British Airways and stored there in their bonded warehouse to the order of the first defendant. The plaintiff alleged that under Section 60(1), UK Patents Act, 1977, the British Airways thereby infringed the patent, *i.e.* they kept the product "whether for disposal or otherwise". The court concluded that there was nothing that the British Airways have done in relation to the goods in carrying them or warehousing them in this case so as to constitute an infringement within the meaning of Section 60.

In the UK, the common law of contract does not limit the meaning of "offer for sale" in the context of patent infringement. In *Gerber Garment Technology Inc. v. Lectra Systems Ltd.*⁷⁸⁷, the infringer argued that offers are defined by contract law and that "pre-contract negotiations or an advertisement" do not infringe. The court disagreed, reasoning that the patent law did not merely codify the "English Law of contract" but rather acted to prevent others from "disturbing the patentee's monopoly". It then held that mere advertising activities could infringe, even if the activities do not meet the common-law definition of offer. The court reasoned that a patentee is harmed by an advertisement for a sale set to take place during the term of the patent. Conversely, a defendant may not be held liable for advertisements of sales outside the patent term, because the offer exhibited an express intent to avoid interfering with the patentee's conferred rights.

The leading case on the meaning of "directly" in Section 60(c) is *Pioneer Electronics Capital Inc. v. Warner Music Mfg. Europe GmbH*⁷⁸⁸.

(b) provisions which apply where an act would constitute an infringement of a patent but for subsection (5)(g).

(6B) For the purposes of subsection (5)(b), use for an agricultural purpose—

(a) includes making an animal or animal reproductive material available for the purposes of pursuing the farmer's agricultural activity; but

(b) does not include sale within the framework, or for the purposes, of a commercial reproduction activity.

(6C) In paragraphs (g) and (h) of subsection (5) "sale" includes any other form of commercialisation.

(7) In this section "relevant ship" and "relevant aircraft, hovercraft or vehicle" mean respectively a ship and an aircraft, hovercraft or vehicle registered in, or belonging to, any country, other than the United Kingdom, which is a party to the Convention for the Protection of Industrial Property signed at Paris on 20th March 1883 or which is a member of the World Trade Organisation; and "exempted aircraft" means an aircraft to which Section 89 of the Civil Aviation Act, 1982, Section 53 of the Civil Aviation Act, 1949 (aircraft exempted from seizure in respect of patent claims) applies.

785. 1980 RPC 363.

786. *Ibid.*

787. 1995 RPC 383.

788. 1995 RPC 487.

The case related to processes patented in the UK by Pioneer relating to the manufacture of master discs, which were used for the mass production of compact discs (CDs). The patent covered the process of producing master discs but not the process of producing CDs from the master discs. Pioneer commenced infringement proceedings against Warner after Warner began importing CDs into the UK which had been made outside the UK from the master discs. Pioneer claimed that the CDs were products obtained "directly" from the patented process. It was held that none of the discs was a direct product of the patented process. There were some intermediate steps and hence, it was found that the finished disc was not an identical copy of the master disc and was different in a material way from it.

The Acts constituting infringement of the patent in the US is found in 35 USC Section 271.⁷⁸⁹ The statutory history of Section 271(a) may be

789. 35 USC S. 271 reads:

(a) Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.

(b) Whoever actively induces infringement of a patent shall be liable as an infringer.

(c) Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

(d) No patent owner otherwise entitled to relief for infringement or contributory infringement of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having done one or more of the following:

(1) derived revenue from acts which if performed by another without his consent would constitute contributory infringement of the patent;

(2) licensed or authorized another to perform acts which if performed without his consent would constitute contributory infringement of the patent;

(3) sought to enforce his patent rights against infringement or contributory infringement;

(4) refused to license or use any rights to the patent; or

(5) conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the licence or sale is conditioned.

(e) (1) It shall not be an act of infringement to make, use, offer to sell, or sell within the United States or import into the United States a patented invention (other than a new animal drug or veterinary biological product (as those terms are used in the Federal Food, Drug, and Cosmetic Act and the Act of March 4, 1913) which is primarily manufactured using recombinant DNA, recombinant RNA, hybridoma technology, or other processes involving site specific genetic manipulation techniques) solely for uses reasonably related to the development and submission of information under a Federal law which regulates the manufacture, use, or sale of drugs or veterinary biological products.

(2) It shall be an act of infringement to submit—

(A) an application under Section 505(j) of the Federal Food, Drug, and Cosmetic Act or described in section 505(b)(2) of such Act for a drug

- claimed in a patent or the use of which is claimed in a patent;
- (B) an application under section 512 of such Act or under the Act of March 4, 1913 (21 USC 151-158) for a drug or veterinary biological product which is not primarily manufactured using recombinant DNA, recombinant RNA, hybridoma technology, or other processes involving site specific genetic manipulation techniques and which is claimed in a patent or the use of which is claimed in a patent, or
- (C) (i) with respect to a patent that is identified in the list of patents described in Section 351(l)(3) of the Public Health Service Act (including as provided under Section 351(l)(7) of such Act), an application seeking approval of a biological product, or
- (ii) if the applicant for the application fails to provide the application and information required under Section 351(l)(2)(A) of such Act, an application seeking approval of a biological product for a patent that could be identified pursuant to Section 351(l)(3)(A)(i) of such Act, if the purpose of such submission is to obtain approval under such Act to engage in the commercial manufacture, use, or sale of a drug or veterinary biological product claimed in a patent or the use of which is claimed in a patent before the expiration of such patent.
- (3) In any action for patent infringement brought under this section, no injunctive or other relief may be granted which would prohibit the making, using, offering to sell, or selling within the United States or importing into the United States of a patented invention under paragraph (1).
- (4) For an act of infringement described in paragraph (2)—
- (A) the court shall order the effective date of any approval of the drug or veterinary biological product involved in the infringement to be a date which is not earlier than the date of the expiration of the patent which has been infringed,
- (B) injunctive relief may be granted against an infringer to prevent the commercial manufacture, use, offer to sell, or sale within the United States or importation into the United States of an approved drug, veterinary biological product, or biological product,
- (C) damages or other monetary relief may be awarded against an infringer only if there has been commercial manufacture, use, offer to sell, or sale within the United States or importation into the United States of an approved drug or veterinary biological product, or biological product, and
- (D) the court shall order a permanent injunction prohibiting any infringement of the patent by the biological product involved in the infringement until a date which is not earlier than the date of the expiration of the patent that has been infringed under paragraph (2)(C), provided the patent is the subject of a final court decision, as defined in Section 351(k)(6) of the Public Health Service Act, in an action for infringement of the patent under Section 351(l)(6) of such Act, and the biological product has not yet been approved because of Section 351(k)(7) of such Act.

The remedies prescribed by sub-paragraphs (A), (B), and (C) are the only remedies which may be granted by a court for an act of infringement described in paragraph (2), except that a court may award attorney fees under Section 285.

(5) Where a person has filed an application described in paragraph (2) that includes a certification under subsection (b)(2)(A)(iv) or (j)(2)(A)(vii)(IV) of Section 505 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 355), and neither the owner of the patent that is the subject of the certification nor the holder of the approved application under subsection (b) of such section for the drug that is claimed by the patent or a use of which is claimed by the patent brought an action for infringement of such patent before the expiration of 45 days after the date on which the notice given under subsection (b)(3) or (j)(2)(B) of such section was received, the courts of the United States shall, to the extent consistent with the Constitution, have

- subject matter jurisdiction in any action brought by such person under section 2201 of title 28 for a declaratory judgment that such patent is invalid or not infringed.
- (6) (A) Subparagraph (B) applies, in lieu of paragraph (4), in the case of a patent—
- (i) that is identified, as applicable, in the list of patents described in Section 351(l)(4) of the Public Health Service Act or the lists of patents described in Section 351(l)(5)(B) of such Act with respect to a biological product; and
- (ii) for which an action for infringement of the patent with respect to the biological product—
- (I) was brought after the expiration of the 30-day period described in subparagraph (A) or (B), as applicable, of Section 351(l)(6) of such Act; or
- (II) was brought before the expiration of the 30-day period described in subclause (I), but which was dismissed without prejudice or was not prosecuted to judgment in good faith.
- (B) In an action for infringement of a patent described in subparagraph (A), the sole and exclusive remedy that may be granted by a court, upon a finding that the making, using, offering to sell, selling, or importation into the United States of the biological product that is the subject of the action infringed the patent, shall be a reasonable royalty.
- (C) The owner of a patent that should have been included in the list described in Section 351(l)(3)(A) of the Public Health Service Act, including as provided under Section 351(l)(7) of such Act for a biological product, but was not timely included in such list, may not bring an action under this section for infringement of the patent with respect to the biological product.
- (f) (1) Whoever without authority supplies or causes to be supplied in or from the United States all or a substantial portion of the components of a patented invention, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.
- (2) Whoever without authority supplies or causes to be supplied in or from the United States any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.
- (g) Whoever without authority imports into the United States or offers to sell, sells, or uses within the United States a product which is made by a process patented in the United States shall be liable as an infringer, if the importation, offer to sell, sale, or use of the product occurs during the term of such process patent. In an action for infringement of a process patent, no remedy may be granted for infringement on account of the noncommercial use or retail sale of a product unless there is no adequate remedy under this title for infringement on account of the importation or other use, offer to sell, or sale of that product. A product which is made by a patented process will, for purposes of this title, not be considered to be so made after—
- (1) it is materially changed by subsequent processes; or
- (2) it becomes a trivial and nonessential component of another product.
- (b) As used in this section, the term "whoever" includes any State, any instrumentality of a State, and any officer or employee of a State or instrumentality of a State acting in his official capacity. Any State, and any such instrumentality, officer, or employee, shall be subject to the provisions of this title in the same manner and to the same extent as any nongovernmental entity.
- (i) As used in this section, an "offer for sale" or an "offer to sell" by a person other than the patentee, or any designee of the patentee, is that in which the sale will occur

divided into two distinct periods: before the TRIPS Agreement, and after. Before the TRIPS Agreement, Section 271(a) granted the patent holder the right to exclude others only from "making, using or selling" the patented invention throughout the US. In 1993, however, the US completed negotiations on the TRIPS Agreement. As a result of these negotiations, the US amended its patent law to impose additional infringement liability for "offers to sell". The enactment of Section 271(i) resolved any uncertainty in the interpretation of Section 271(a) for implementation of the TRIPS provision in the US.

In order to be liable for direct patent infringement pursuant to 35 USC Section 271(a), an alleged infringer must "make, use, offer to sell or sell any patented invention within the US or import into the US any patented invention during the term of the patent...".

Before the 1994 Amendments to Section 271, the law in the US was that liability for infringement was not incurred by offering to sell a patented invention, but only by its actual manufacture, use, or sale. Prior to the amendment of the patent law, "neither intent nor preparation to sell constituted infringement".⁷⁹⁰ A party could not be held liable for threatening infringement, contracting to make infringing devices, or even beginning construction of infringing devices. Section 271(a) did not cover acts other than an actual making, using or selling of the patented invention in its completed form.⁷⁹¹

The Indian Patents Act, 1970 gives an exclusive right to the patent holder to prevent third parties from making, using, offering for sale, selling, importing the product in India without the consent of the patent holder.⁷⁹² Any violation of the provisions of this section constitutes infringement of the patent.

No presumption of validity would attract to a patent granted by the Controller. In a suit for permanent injunction restraining the defendants from infringing in any manner certain patent of which the plaintiff claimed to be a proprietor and patentee, the plaintiff had to make out a *prima facie* case about the existence of his monopoly right and its infringement by the defendant independently of the grant of the patent as such.⁷⁹³

A precedent regarding the principles to be considered while deciding an infringement suit has been laid down in *TVS Motor Co. Ltd. v. Bajaj Auto Ltd.*⁷⁹⁴ The following has been laid down by the Madras High Court:

before the expiration of the term of the patent.

790. *Laitram Corpn. v. Cambridge Wire Cloth Co.*, 919 F 2d 1579; 16 USPQ 2d 1929 (Fed Cir 1990).

791. *Eli Lilly & Co. v. Medtronic Inc.*, 915 F 2d 670 (Fed Cir 1990).

792. Indian Patents Act, 1970, S. 48.

793. *Giridhari Balaram Radhakrishnani v. Mahisa Electronics*, ILR 1995 KAR 2010.

794. (2009) 3 CTC 178 (Mad).

- (i) The validity of a patent can be challenged in a suit on various grounds of revocation as set out under Sections 64 and 107 of the Patents Act.
- (ii) For the grant of interim injunction in a patent matter, the *prima facie* validity of the patent should be shown and also the *prima facie* infringement should be proved apart from the availability of balance of convenience and irreparable loss.
- (iii) If the patent is a new one, mere challenge at the Bar would be quite sufficient for the refusal of an interim injunction as compared to a fairly old patent.
- (iv) Even in IPR cases, apart from *prima facie* case, balance of convenience and irreparable injury, the mere registration of the patent alone would not be sufficient and the court must look at the whole case, i.e. the strength of the case of the plaintiff and the strength of the defendant.
- (v) Irrespective of the examination and investigation made under Sections 12 and 13 of the Patents Act, no presumption can be drawn as to the validity of the patent and whether the application for revocation of patent is pending and when serious controversy exist as regards the existence of an invention based on prior art, the court should be slow in granting the injunction...
- (x) While analysing a claimed invention, it is relevant to examine as to whether the invention requires independent thought, ingenuity and skill, producing in a distinctive form a more efficient result and thereby converting a comparatively defective apparatus into an efficient and useful one which, taken as a whole, is novel.

Though the Indian Patents Act, 1970 does not define the concept of infringement, the case laws of the Indian courts and other jurisdictions can be effectively used in finding infringement.

XIX

Defences

4.23

A person sued for an alleged infringement of a patent has varied defences. He might challenge the validity of the patent, claiming that it should be revoked because it has been anticipated or that it is obvious. Every ground on which a patent may be revoked under Section 64 shall be available as a ground for defence. Pleas sufficient for the revocation of a patent can be taken as a defence in a suit for infringement of a patent.⁷⁹⁵ Section 64, Indian Patents Act, 1970 permits the defendant to put the validity of the patent in issue.⁷⁹⁶

795. *Bombay Agarwal Co. v. Ramchand Diwan Chand*, AIR 1955 Nag 154.

796. Indian Patents Act, 1970, S. 64 reads:

(1) Subject to the provisions contained in this Act, a patent, whether granted before or after the commencement of this Act, may, be revoked on a petition of any person interested or of the Central Government by the Appellate Board or on a counter-claim in a suit for infringement of the patent by the High Court on any of the following grounds that is to say,—

- (a) that the invention, so far as claimed in any claim of the complete specification, was claimed in a valid claim of earlier priority date contained in the complete specification of another patent granted in India;
- (b) that the patent was granted on the application of a person not entitled under the provisions of this Act to apply therefor;
- (c) that the patent was obtained wrongfully in contravention of the rights of the petitioner or any person under or through whom he claims;
- (d) that the subject of any claim of the complete specification is not an invention within the meaning of this Act;
- (e) that the invention so far as claimed in any claim of the complete specification is not new, having regard to what was publicly known or publicly used in India before the priority date of the claim or to what was published in India or elsewhere in any of the documents referred to in Section 13;
- (f) that the invention so far as claimed in any claim of the complete specification is obvious or does not involve any inventive step, having regard to what was publicly known or publicly used in India or what was published in India or elsewhere before the priority date of the claim;
- (g) that the invention, so far as claimed in any claim of the complete specification, is not useful;
- (h) that the complete specification does not sufficiently and fairly describe the invention and the method by which it is to be performed, that is to say, that the description of the method or the instructions for the working of the invention as contained in the complete specification are not by themselves sufficient to enable a person in India possessing average skill in, and average knowledge of, the art to which the invention relates, to work the invention, or that it does not disclose the best method of performing it which was known to the applicant for the patent and for which he entitled to claim protection;
- (i) that the scope of any claim of the complete specification is not sufficiently and clearly defined or that any claim of the complete specification is not fairly based on the matter disclosed in the specification;
- (j) that the patent was obtained on a false suggestion or representation;
- (k) that the subject of any claim of the complete specification is not patentable under this Act;
- (l) that the invention so far as claimed in any claim of the complete specification was secretly used in India, otherwise than as mentioned in sub-section (3), before the priority date of the claim;
- (m) that the applicant for the patent had failed to disclose to the Controller the information required by Section 8 or has furnished information which in any material particular was false to his knowledge;
- (n) that the applicant contravened any direction for secrecy passed under Section 35 for made or caused to be made on application for the grant of a patent outside India in contravention of Section 39;
- (o) that leave to amend the complete specification under Section 57 or Section 58 was obtained by fraud;
- (p) that the complete specification does not disclose or wrongly mentions the source or geographical origin of biological material used for the invention;
- (q) that the invention so far as claimed in any claim of the complete specification was anticipated having regard to the knowledge, oral or otherwise, available within any local or indigenous community in India or elsewhere.
- (2) For the purpose of clauses (e) and (f) of sub-section (1),—
- (a) no account shall be taken of (personal document or secret trial or secret use); and
- (b) where the patent is for a process or for a product as made by a process described or claimed, the importation into India of the product made abroad by that process shall constitute knowledge or use in India of the invention on the date of the importation, except where such importation has been for the purpose of

In *Cadila Pharmaceuticals v. Instacare Laboratories (P) Ltd.*⁷⁹⁷, it was held that even though the defendant chooses not to give notice of opposition under Section 25 or to apply for revocation under Section 64 of the Act, he has the right to defend the action for infringement.

A mere useless appendage intended to serve as a screen to or a mere device to hide an actual infringement cannot protect the defendant in a claim for damages.⁷⁹⁸ The High Court of Oudh laid emphasis on the wording of the specification in determining whether the defence that the defendant had not infringed on the patent is valid.

Once the validity of patent has been put in issue and evidence has been given in court, the court must revoke the patent even if the parties are no longer interested. The reason is that third parties may be affected.⁷⁹⁹

In cases where the infringement of the patent is alleged by the patent holder by the making, using or importation of any machine, apparatus or other article or by the using of any process or by the importation, use or distribution of any medicine or drug, it shall be a ground for defence that such making, using, importation or distribution is in accordance with the condition specified in Section 47.⁸⁰⁰

reasonable trial or experiment only.

(3) For the purpose of clause (l) of sub-section (1), no account shall be taken of any use of the invention—

- (a) for the purpose of reasonable trial or experiment only; or
- (b) by the Government or by any person authorised by the Government or by a Government undertaking, in consequence of the applicant for the patent or any person from whom he derives title having communicated or disclosed the invention directly or indirectly to the Government or person authorised as aforesaid or to the Government undertaking; or
- (c) by any other person, in consequence of the applicant for the patent or any person from whom he derives title having communicated or disclosed the invention, and without the consent or acquiescence of the applicant or of any person from whom he derives title.

797. 2001 PTC 472 (Guj).

798. *Sheo Ratan Singh v. Rajendra Singh*, AIR 1925 Oudh 652.

799. *Ocular Sciences Ltd. v. Aspect Vision Care Ltd.*, (1997) 114 RPC 289.

800. Indian Patents Act, 1970, S. 47 reads:

Grant of patents to be subject to certain conditions—The grant of patents under this Act shall be subject to the condition that—

- (1) any machine, apparatus or other article in respect of which the patent is granted or any article made by using a process in respect of which the patent is granted, may be imported or made by or on behalf of the Government for the purpose merely of its own use;
- (2) any process in respect of which the patent is granted may be used by or on behalf of the Government for the purpose merely of its own use;
- (3) any machine, apparatus or other article in respect of which the patent is granted, or any article made by the use of the process in respect of which the patent is granted, may be made or used, and any process in respect of which the patent is granted may be used by any person, for the purpose merely of experiment or research including the imparting of instructions of pupils; and
- (4) in the case of a patent in respect of any medicine or drug, the medicine or drug may be imported by the Government for the purpose merely of its own use or for distribution in any dispensary, hospital or other medical institution which the Central

Acts done for experimental or research purposes including imparting of instructions to pupils is a defence to infringement.⁸⁰¹ The making or experimenting with a patented product for the purpose of obtaining official approval from the Ministry of Agriculture, Fisheries and Food was held not to be within this exception.⁸⁰²

Other defence to an infringement action are:

1. Use in relation to certain ships, aircraft or vehicles temporarily or accidentally in India.⁸⁰³
2. Any act of making, constructing, using, selling or importing a patented invention solely for uses, reasonably related to the development and submission of information required under any law for the time being in force, in India, or in a country other than India, that regulates the manufacture, construction, use, sale or import of any product.⁸⁰⁴

This provision is also known as the early working exception or the "Bolar provision". This relates to a situation where a potential competitor uses an invention without the authorisation of the patent holder to undertake acts necessary for obtaining the regulatory approval and registration of the generic produce before the expiry of the patent term. The exception is intended to ensure that generic versions of the product are available in the market immediately or within a reasonable time from the expiry of the patent. The actual implementation of the exception differs from country to country.

3. Importation of patented products by any person from a person who is duly authorised under the law to produce and sell or distribute the product.⁸⁰⁵

Intellectual property rights are territorial and hence, patents have to be obtained in each country. Due to the differences in the national laws a patent may be granted in one State, but not in another State. When drugs are priced differently in two countries, it is possible that drugs will be imported from the country in which they are priced cheaper. Parallel importation refers to a situation where a third party, without the authorisation of the patent holder, imports a foreign manufactured product put on the market abroad by the patent holder, his licensee or in any legitimate manner, in competition with imports or locally-manufactured products by the patent holder or his licensee. Parallel importation is used as a measure to

Government may, having regard to the public service that such dispensary, hospital or medical institution renders, specify in this behalf by notification in the Official Gazette.

801. *Ibid.*, S. 47(3).

802. *Auchincloss v. Agricultural & Veterinary Supplies Ltd.*, 1997 RPC 649.

803. Indian Patents Act, 1970, S. 49.

804. *Ibid.*, S. 107-A(a).

805. *Ibid.*, S. 107-A(b).

prevent market division and price discrimination on a regional or international scale. Since pharmaceutical companies set prices for the same products at different levels in different countries, parallel importation enables consumers to gain access to the product without affecting the right of the patent holder to receive remuneration in the country where the product is first sold.

4. In a suit for infringement of a patent, damages or an account of profit shall not be granted against the defendant who proves that at the date of the infringement, he was not aware of and had no reasonable grounds for believing that the patent existed.⁸⁰⁶

The court will also not grant damages or an account of profit where the infringement was committed after a failure to pay any renewal fee within the prescribed period.⁸⁰⁷

In UK, it is a valid defence that at the time of the infringement, there was in force a contract or licence containing a condition or term void by virtue of Section 44. This covers terms requiring the other party to purchase anything other than the patented product, or prohibiting the acquisition of anything other than the patented product from a specified third party.⁸⁰⁸ Section 44 makes void conditions or terms requiring the other party to acquire other products, or prohibiting him from acquiring or using other products from third parties or using a patented process belonging to a third party. Almost akin to this provision, the Indian Patents Act states that the patent right is not to be abused by the patentee and the patentee does not resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology.⁸⁰⁹

Gillette defence

The defence that the alleged infringement was not novel at the date of the plaintiff's letters patent was a good defence in law, and it would sometimes obviate the great length and expense of patent cases if the defendant could and would put forth his case in this form, and thus spare himself the trouble of demonstrating on which horn of the well-known dilemma the plaintiff had impaled himself, invalidity or non-infringement.⁸¹⁰

The case, as may be judged from its title, was a case in which the Gillette Safety Razor Co. were alleging against the Anglo-American Trading Co. Ltd. that the latter had infringed the former's letters patent for a razor. One of the matters discussed during the hearing was that there had previously been a razor handle, invented by a person called Butler; and as Lord Moulton points out, if you put a blade into Butler's handle, the article was

806. *Ibid.*, S. 111(1).

807. *Ibid.*, S. 111(2).

808. UK Patents Act, S. 44.

809. *Ibid.*, S. 83(f).

810. *Gillette Safety Razor Co. v. Anglo American Trading Co. Ltd.*, (1913) 30 RPC 465 (HL).

indistinguishable for all practical purposes from the defendant's allegedly infringing article. The court further stated:

It follows, therefore, that no patent of date subsequent to the publication of Butler's specification could possibly interfere with the right of the public to make the defendant's razor. If the claims of such a patent were so wide as to include in it, the patent would be bad, because it would include something which differed by no patentable difference from that which was already in possession of the public. Such a patent would be bad for want of novelty. If the claims were not so sufficiently wide to include the defendant's razor, the patentee could not complain of the public making it. In other words, the defendants must succeed either on invalidity or on non-infringement.

In *Hindusthan Lever Ltd. v. Godrej Soaps Ltd.*⁸¹¹ (*Hindusthan Lever*), the petitioner/company was engaged in the manufacture of various kinds of soaps, detergents, cleaning preparations, chemicals, fertilisers, etc., and is a leading manufacturer in this country of soaps and detergents and their products are sold under different brands and enjoys considerable goodwill and reputation. The respondent also carried on the business of manufacture of various brands of soaps and detergents.

Upon acceptance of the application for patent by the petitioner/company, the specification and other documents relating to the patent applications were laid open to public and thus, all the information relating to the inventions was made open to the public. The contention of the petitioner was that the respondents had access to the specification of the patent of the petitioner since the notification after acceptance, and they have wrongfully and illegally copied and materially utilised and reproduced the composition of the said patent and have, thus, wrongfully and illegally infringed the said patent of the petitioner. According to the respondent, the alleged invention under the patent of the plaintiff is a mere admixture and is not an invention as claimed by them.

In support of their objections, the respondents filed affidavit sworn by an expert in the field of chemical technology. In his opinion, making detergent bars containing varying amounts of percentages of soap including non-soap detergent and water insoluble fillers, including starch and varying ranges of moisture (water) by plodding, is not new, but is a state-of-art technology, so also use of additives like water-soluble polymers to improve the quality of detergent bars which fall under the category of "Combo Bars" is known and is not new.

The respondents argued that the petitioner's soap was mentioned in the claims of the US patent. The court found that the basic composition of the two patents is the same, though the percentages are not identical. It was held that the invention was only a mere arrangement or re-arrangement

811. AIR 1996 Cal 367; (1996) 100 CWN 562.

of known devices, each functioning independently of one another in a known way. The plea of the Gillette defence was accepted by the court.

The Delhi High Court in *Ravi Raj Gupta v. Acme Glass Mosaic Industries*⁸¹² found that where it is shown that the act complained of is what was disclosed in a prior publication, which can be relied on against the validity of the patent, and no substantial alteration has been made in respect thereof, there is a good defence.

The defendants in *J. Mitra and Co. (P) Ltd. v. Kesar Medicaments*⁸¹³ took up the Gillette defence as a strategy to safeguard their interest in a patent infringement suit. The case related to a claim of infringement of the patent of the plaintiff in respect of "a device for detection of antibodies to Hepatitis C Virus in human serum and plasma". The device is usually referred as a diagnostic kit for testing Hepatitis C Virus.

The defendant submitted that even if its product or the diagnostic kit falls within the four corners of the plaintiff's patent, it would not amount to infringement as the impugned product is based on a prior US patent. The court held, as per the Gillette defence, if the defendant could prove that the act complained of is what was disclosed in a prior publication, which can be relied on against the validity of the patent, and no patentable or substantial alteration has been made in respect thereof, then that will be a good defence in an action for alleged patent infringement. In the present case, perusal of the features of the defendant's product exhibited that almost all the components of the said product were identical with the plaintiff's product. And the plaintiff's product did not appear to be based on the US patents or the products of any third parties. Hence, the court held that the Gillette defence was not acceptable.

Presumption of validity

In *Smith v. Grigg Ltd.*⁸¹⁴ (*Smith*), Scrutton J concluded that if a patent was new, a mere challenge at the Bar would be sufficient for refusal of a temporary injunction; but if the patent was sufficiently old and well established and worked out, then the court would for the purpose of temporary injunction presume the patent to be a valid one. The ratio of the decision in *Smith*⁸¹⁵ is a presumption of validity in case of the grant of a patent.

In the leading case of *American Cyanamid Co. v. Ethicon Ltd.*⁸¹⁶ (*Cyanamid Co.*), it was laid down by the House of Lords that the grant of a patent *prima facie* constitutes a good ground for supposing that the patent is valid.

812. (1994) 56 DLT 673.

813. (2008) 36 PTC 568; (2008) 148 DLT 198 (Del).

814. (1924) 41 RPC 149 (CA).

815. *Ibid.*

816. 1975 AC 396; (1975) 2 WLR 316; (1975) 1 All ER 504; 1975 RPC 513 (HL).

In *Boots Pure Drug Co. (India) Ltd. v. May & Baker Ltd.*⁸¹⁷, the rule that there should be proof of actual user of the patent for more than six years, was applied in India.

But the Supreme Court of India has clearly laid down that the validity of a patent is not guaranteed by the grant.⁸¹⁸ The grant and sealing of the patent, or the decision rendered by the Controller in the case of opposition, does not guarantee the validity of the patent which can be challenged before the High Court on various grounds in revocation or infringement proceedings. No presumption of validity should attach to a patent granted by the Controller under the Act.⁸¹⁹

The factual patterns in patent infringement cases and the patent statutes all over the world create particular nuances which requires a case-by-case analysis.

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4.24 Remedies

Determining the appropriate monetary remedy for patent infringement has always been a complicated and confusing task. Patent damages and injunctive relief represent the bottom line in the practice of patent law. Damages and injunctive relief comprise the integrated totality of the patentee's remedies. The assertion of patent infringement with a claim for damages carries with it a number of requirements, considerations and proofs, peculiar to this form of intellectual property.

Under the Indian Patents Act, the relief which a court may grant in any suit for infringement includes an injunction and, at the option of the plaintiff, either damages or an account of profits.⁸²⁰ Patent infringement remedies are meted out in the District Courts. Where a counterclaim for revocation of the patent is made by the defendant, the suit, along with the counterclaim, shall be transferred to the High Court.⁸²¹

817. (1948) 52 CWN 253.

818. *Bishwanath Prasad Radhey Shyam v. Hindustan Metal Industries*, (1979) 2 SCC 511; AIR 1982 SC 1444.

819. *Surendra Lal Mahendra v. Jain Glaziers*, (1981) 1 PTC 112 (Del).

820. Indian Patents Act, 1970, S. 108 reads:

(1) The reliefs which a court may grant in any suit for infringement includes an injunction (subject to such terms, if any, as the court thinks fit) and, at the option of the plaintiff, either damages or an account of profits.

(2) The court may also order that the goods which are found to be infringing and materials and implements, the predominant use of which is in the creation of infringing goods shall be seized, forfeited or destroyed, as the court deems fit under the circumstances of the case without payment of any compensation.

821. *Ibid.*, S. 104 reads:

No suit for a declaration under Section 105 or for any relief under Section 106 or for infringement of a patent shall be instituted in any court inferior to a District Court having jurisdiction to try the suit:

Injunction

Injunctions are an important part of the scheme of remedies available to a successful patentee in a patent litigation. Preliminary and permanent injunctions are provided for under the Indian Patents Act.⁸²² The US courts also grant injunction to prevent the violation of any right secured by patent.⁸²³

The nature of the patent right is the right to exclude others which, inter alia, depends on the injunctive relief that may be granted. The infringer should not be allowed to continue his infringement in the face of a holding of infringement. The court should not be reluctant to use its equity powers once a party has clearly established its patent rights.⁸²⁴

Injunctions that may be granted by the court in a patent infringement case includes:

1. interlocutory or interim injunction;
2. permanent or final injunction; and
3. injunction against threats.

Whether a preliminary injunction will issue in a case of patent infringement depends upon four factors, namely:

1. the moving party's reasonable likelihood of success on the merits;
2. the harm the moving party will suffer if preliminary relief is not granted;
3. the balance of the hardships between the moving party and the party to be enjoined; and
4. the impact, if any, on public interest.

In *Bilcare Ltd. v. Supreme Industries Ltd.*⁸²⁵, the issue was whether there was any presumption in favour of the validity of the patent for grant of temporary injunction in favour of patentee. The court found that if a patent is a new one, a mere challenge at the Bar would be quite sufficient for the refusal of a temporary injunction; but if the patent is sufficiently old and has been worked, the court would, for the purpose of a temporary injunction, presume the patent to be a valid one. The conclusion worked on the issue that if the patent is more than six years old and there has been actual user, it would be safe for the court to proceed upon this presumption.

Provided that where a counter-claim for revocation of the patent is made by the defendant, the suit, along with the counter-claim, shall be transferred to the High Court for decision.

822. *Ibid.*, S. 108.

823. 35 USC S. 283.

824. *Smith International Inc. v. Hughes Tool Co.*, 718 F 2d 1573; 219 USPQ 686 (Fed Cir 1983).

825. (2007) 34 PTC 444 (Del).

The factors that weigh while granting an interim injunction in a patent claim was considered by the Delhi High Court in *B. Braun Melsungen AG v. Rishi Baid*⁸²⁶. The plaintiffs' patent was on a safety IV catheter in which the needle tip is automatically covered after needle withdrawal to prevent the healthcare worker from making accidental contact with the needle tip. The plaintiffs were the manufacturers of two types of safety IV catheter: low cost catheter and improved safety catheter. The defendants were the manufacturers under an exclusive agreement with the plaintiffs for manufacture of a basic IV catheter. The defendants, with the help of information provided by the plaintiffs for manufacture of the basic IV catheter and other confidential information, started manufacturing the safety catheter. The plaintiffs in the infringement proceedings claimed that minor additions are immaterial. The essential features, which collectively amount to an invention, must only be seen. The defendants argued that the invention of the plaintiffs was not novel in view of the prior art in the field. They also contended that their invention is different from the plaintiffs' patent.

The court found that the plaintiffs are not entitled to an ad interim injunction as prayed for by them. The consistent view of the courts was that registration of the patent *per se* does not entitle the plaintiffs to an injunction, was reiterated by the court while coming to the conclusion. The defendants case is also to be examined and it is only after the entire case as a whole is considered that the court can come to a decision as to whether the plaintiffs are entitled to an injunction or not. The court was also influenced by the fact that the patent was a recent one and there was a serious challenge to the validity of the patent, namely, existence of prior art.

The grant or denial of a preliminary injunction is within the discretion of the District Court. Accordingly, a trial court's decision denying a preliminary injunction will not be overturned on appeal unless there is a showing that the court "abused its discretion, committed an error of law, or seriously misjudged the evidence"⁸²⁷.

In *Hindusthan Lever*⁸²⁸, it has been submitted on behalf of the petitioner company that the respondents, the manufacturer of a bathing soap named "Vigil", on chemical analysis was found coming within the range of all or some of the claims of the patent of the petitioner. As a result of the wrongful and illegal acts of the respondents, the petitioner company has suffered irreparable loss, damage, injury and prejudice. There exists no standard for ascertaining the actual damage caused or likely to be caused to the petitioner and if the respondents are permitted to carry on or to continue with the wrongful and illegal acts, compensation in money

826. (2009) 40 PTC 193 (Del).

827. *Smith International Inc. v. Hughes Tool Co.*, 718 F 2d 1573; 219 USPQ 686 (Fed Cir 1983).

828. AIR 1996 Cal 367; (1996) 100 CWN 562.

would not afford adequate relief to the petitioner. Therefore, it was held that the damage is irreparable and the issue of balance of convenience or inconvenience was decided in favour of the petitioner.

The court is competent to grant injunction even in case of non-user of a patent. In *Continental Paper Bag Co. v. Eastern Paper Bag Co.*⁸²⁹, the US Supreme Court held, non-user of a patent, if such non-use is not unreasonable and does not involve its rights of the public, will not justify the court of equity in withholding injunctive relief against infringement.

On the question of balancing of the public interest and the interest of a successful patentee, the equity courts have denied permanent injunctions to successful patentees. The most famous case is *City of Milwaukee v. Activated Sludge Inc.*⁸³⁰ The Seventh Circuit Court of Appeals vacated a permanent injunction granted by the trial court because it believed that enjoining the infringing system of sewerage disposal would have caused the city of Milwaukee to dump its sewage into Lake Michigan. The patentee was not using its patent. Therefore, an injunction would have caused great harm to the public health and welfare without any substantial benefit to the patentee. This case illustrates that a court may refuse to grant permanent injunctive relief against continuing patent infringement.

In the leading case of *Cyanamid Co.*⁸³¹, the House of Lords has stated the principles governing the grant of injunction in patent litigation.

The test indicated in *Cyanamid Co.*⁸³² asks:

1. Whether there is a "serious question to be tried"?
2. Whether the "balance of convenience" favours the grant of the remedy?

An applicant for a preliminary injunction against patent infringement must show:

1. a reasonable probability of eventual success in the litigation;
2. that the movant will be irreparably injured pendente lite if relief is not granted;
3. the possibility of harm to other interested persons from the grant or denial of the injunction; and
4. the public interest.⁸³³

The grant of a preliminary injunction does not require that infringement be proved beyond all question, or that there be no evidence supporting the viewpoint of the alleged infringer. The movant for preliminary injunction must show not only a reasonable likelihood of success on the merits, but also lack of adequate remedy at law or other irreparable harm. Irreparable

829. 52 L Ed 1122; 210 US 405 (1908).

830. 69 F 2d 577 (7th Cir 1934).

831. 1975 AC 396; (1975) 2 WLR 316; (1975) 1 All ER 504; 1975 RPC 513 (HL).

832. *Ibid.*

833. *Roper Corp. v. Litton Systems Inc.*, 757 F 2d 1266; 225 USPQ 13 (Fed Cir 1985).

harm is usually presumed when a clear showing has been made of patent validity and infringement. Apart from the irreparable injury, the court should also consider the concept of balance of hardship. Where validity and continuing infringement have been clearly established, immediate irreparable harm is presumed.⁸³⁴ When the movant has shown the likelihood that the acts complained of are unlawful, preliminary injunction preserves the status quo.⁸³⁵

In a landmark judgment of the Delhi High Court, the Single Judge ruled that a preliminary injunction can be denied on the ground of public interest.⁸³⁶ The appellate court also ruled in favour of not granting an interim injunction. The final trial in the case is underway in the Delhi High Court.

4.24.1.1 Permanent injunctions

Courts routinely grant permanent injunctions against adjudicated patent infringers. An injunction is proper only to the extent that it is granted to prevent violation of any right secured by patent and may not be punitive.⁸³⁷

It is the general rule that an injunction will issue when infringement has been found, absent a sound reason for denying it.⁸³⁸ The fact that an infringer stopped infringing, is generally not a reason to deny an injunction against future infringement unless there is persuasive evidence that further infringement will not take place. Discontinuation of making or selling the infringed product is not a sufficient reason for denying injunction.⁸³⁹

In *Boots Pure Drug Co. (India) Ltd. v. May & Baker Ltd.*⁸⁴⁰, the Division Bench of the High Court laid down that the plaintiffs should prove the following principles in order to get an interim injunction:

1. they have a *prima facie* right, that is to say, lead such evidence as would lead that court to come to the conclusion that the patent is *prima facie* a valid patent;
2. they must prove by *prima facie* evidence that there is infringement on the part of the defendants; and
3. that the balance of convenience is in favour of the plaintiffs.

Their Lordships in *Hindusthan Lever*⁸⁴¹ took the view:

834. *Smith International Inc. v. Hughes Tool Co.*, 718 F 2d 1573; 219 USPQ 686 (Fed Cir 1983).

835. *Atlas Powder Co. v. Ireco Chemicals*, 773 F 2d 1230 (Fed Cir 1985).

836. *F. Hoffmann-La Roche Ltd. v. Cipla Ltd.*, (2009) 40 PTC 125 (Del).

837. *Joy Technologies Inc. v. Flakt Inc.*, 6 F 3d 770; 28 USPQ 2d 1378 (Fed Cir 1993).

838. *Donald G. Richardson v. Suzuki Motor Co. Ltd.*, 868 F 2d 1226 (Fed Cir 1989).

839. *W.L. Gore & Associates Inc. v. Garlock Inc.*, 842 F 2d 1275; 6 USPQ 2d 1277 (Fed Cir 1988).

840. (1948) 52 CWN 253.

841. AIR 1996 Cal 367, 381; (1996) 100 CWN 562.

I take it to be well settled, both in India and England, that an interlocutory injunction will not normally be granted where damages will provide an adequate remedy, should the claim succeed. Furthermore, I have always understood the rule to be that the court will not grant an interlocutory injunction unless satisfied that there is a real probability of the plaintiff succeeding on the trial of the suit. Where the design is of recent date, as in this case, no injunction should be granted. More so when there is a serious question as to the validity of the design to be tried in that suit and an application for cancellation has been made.

Injunction against groundless threats

The Patents Act makes extensive provision regarding protection from unjustified threats of infringement proceedings. Any threat of court proceedings made within the context of a dispute over intellectual property rights must only be made on the basis that the rights being asserted are indeed in the ownership of the claimant and that there is an infringement of the rights being asserted.

The peril lies in provisions contained within the Indian Patents Act, 1970.⁸⁴² For, in this section, any recipient of a threat of court proceedings, whether the threat is made in an advertisement, letter or circular or by any other means, can turn the tables on the maker of that threat if it is made without foundation and is groundless.

Thus, the maker of the threat can find himself in court as a defendant to an application to the court for a number of remedies: principally a declaration that the threat is groundless, an injunction to prevent continued threats and damages for loss arising from the making of the threat. The claimant will then have to prove that the threats were indeed justified in that the rights asserted, do belong to him and that there is an infringement.

A threat's action may arise where a person sends a letter that makes a groundless threat of intellectual property infringement. The rationale behind a threat's action is to stop someone from damaging a competitor's business by making groundless threats to sue which might frighten off the competitor's customers.

842. Indian Patents Act, 1970, S. 106 reads:

(1) Where any person (whether entitled to or interested in a patent or an application for patent or not) threatens any other person by circulars or advertisements or by communications, oral or in writing addressed to that or any other person, with proceedings for infringement of a patent, any person aggrieved thereby may bring a suit against him praying for the following reliefs, that is to say—

(a) a declaration to the effect that the threats are unjustifiable;

(b) an injunction against the continuance of the threats; and

(c) such damages, if any, as he has sustained thereby.

(2) Unless in such suit the defendant proves that the acts in respect of which the proceedings were threatened constitute or, if done, would constitute, an infringement of a patent or of rights arising from the publication of a complete specification in respect of a claim of the specification not shown by the plaintiff to be invalid, the court may grant to the plaintiff all or any of the reliefs prayed for.

A threat's action will only succeed where

1. a threat has been made;
2. the person threatened is "a person aggrieved";
3. the person threatened does not come within one of the exceptions; and
4. the threat is unjustified.

The claimant must prove the first three factors. The defendant must prove the fourth, *i.e.* the threat was in fact justified. What amounts to a threat is a matter of fact. The court looks to the wording of the alleged threat and determines whether a reasonable person would construe it as a threat to bring court proceedings against a specific person or entity. The context in which the threat is made is relevant, but the opinion of the recipient of the threat is irrelevant.

Notification of the existence of the patent, *per se*, does not constitute a threat of proceedings. A timely letter pointing out that a certain invention is subject to a patent is not a threat.

A general warning to the public or trade that a patentee has patent rights and means to enforce them, as in *Crowther v. United Flexible Metallic Tubing Co. Ltd.*⁸⁴³, will not suffice.

However, if the letter is ambiguous, the benefit of the doubt will not be given to the author. A threatening letter should be read through the eyes of a reasonable and normal person and any vagueness should be construed against the threatener. Claims must be brought by a "person aggrieved" by a threat who may be the person threatened or his supplier.

It is not necessary to suffer loss or damage in order to bring proceedings.⁸⁴⁴

The reliefs available are:⁸⁴⁵

1. declarations that the threats are unjustifiable;
2. injunctions against a continuance of the threats; and
3. damages sustained by the threats.

Merely notifying a party that a patent right subsists is not actionable, provided such notification is all that is said.⁸⁴⁶ The defence does not apply if anything else is added to the notification, such as an indication that the patent or other intellectual property right will be enforced.⁸⁴⁷ The section provides that it is a defence to the action to show that the act in respect of which proceedings were threatened constitute, or would if done constitute, an infringement of the patent.⁸⁴⁸

843. (1905) 22 RPC 549.

844. *Patrick John Bran v. Ingledeu Brown Bennison and Garrett (No. 3)*, 1997 FSR 511.

845. Indian Patents Act, 1970, S. 106(1).

846. *Ibid.*, S. 106.

847. *Rosedale Associated Manufacturers Ltd. v. Airfix Products Ltd.*, (1956) 73 RPC 360.

848. Indian Patents Act, 1970, S. 106(2).

Damages

The law concerning patent infringement damages differs from damages available in other types of intellectual property infringements. The US Supreme Court in *Yale Lock Mfg. Co. v. Sargent*⁸⁴⁹ came to the conclusion that patent damages constitute the difference between the patent owner's pecuniary condition after the infringement, and what his condition would have been if the infringement had not occurred.

Two cases that are usually cited as foreshadowing the adoption of a but for causation standard are the US Supreme Court's decisions in *Aro Mfg. Co. Inc. v. Convertible Top Replacement Co.*⁸⁵⁰ (*Aro*) and *General Motors Corp. v. Devex Corp.*⁸⁵¹

The court discussed the statutory standard for measuring patent infringement damages, explaining:

The question to be asked in determining damages is—how much had the Patent Holder and Licensee suffered by the infringement? And that question is primarily—had the Infringer not infringed, what would the Patent Holder-Licensee have made?

This states a "but for" test.⁸⁵² Despite this undisturbed precedent, the Federal Circuit Court has, in certain cases, allowed the infringer's profits to serve as a measure of the patentee's lost profits.⁸⁵³

The patentee's lost profits is a recognised form of damages for patent infringement. The other recognised measure of a patentee's damages for patent infringement is a reasonable royalty.

Courts have come to recognise that infringement can reduce the patent owner's profits in a number of ways. First and most obviously, the infringer may divert sales from the patent owner. Damages may include lost profits due to diverted sales, price erosion, and increased expenditures caused by the infringement.⁸⁵⁴ Second, competition from the infringer may cause the patent owner to reduce her own price, and thus, earn lower profits on those goods she continues to sell.⁸⁵⁵

A third possible effect is that the infringement causes the patentee to suffer additional costs, such as increased advertising and marketing expenditures. In *Scripto-Tokai Corp. v. Gillette Co.*⁸⁵⁶, it was held that increased expenses for advertising and promotion are acceptable components of a lost profits recovery.

849. 29 L Ed 950; 117 US 536 (1885).

850. 12 L Ed 2d 457; 377 US 476 (1964).

851. 76 L Ed 2d 211; 461 US 648 (1983).

852. *Aro Mfg. Co. Inc. v. Convertible Top Replacement Co.*, 12 L Ed 2d 457; 377 US 476, 478 (1964).

853. *Beatrice Foods Co. v. New England Printing and Lithographing Co.*, 930 F 2d 1572 (Fed Cir 1991).

854. *Hebert v. Lisle Corp.*, 99 F 3d 1109; 40 USPQ 2d 1611 (Fed Cir 1996).

855. *Brooktree Corp. v. Advanced Micro Devices Inc.*, 977 F 2d 1555 (Fed Cir 1992).

856. 788 F Supp 439 (CD Cal 1992).

4.24.2

4.24.3 *Lost profits*

The patent owner's actual losses, measured as the loss of profits, is one possible measure of damages adequate to compensate for the infringement. Proof of lost profits must include two elements: 1) that the patent owner would have made additional sales "but for" the infringement; and 2) evidence for the computation of the loss of profits.⁸⁵⁷

Lost profits damages may be measured based upon the causation factors set forth in *Panduit Corp'n. v. Stablin Bros. Fibre Works Inc.*,⁸⁵⁸ (*Panduit*). Under the *Panduit*⁸⁵⁹ test, the patentee must prove four factors to establish lost profits. The four factors are: 1) a demand for the products covered by the patent; 2) an absence of acceptable non-infringing substitutes to the patented product or process; 3) that the patentee possessed the manufacturing and marketing capabilities to exploit the demand; and 4) the amount of profit the patentee would have made had the infringement not occurred.

To recover lost profits as opposed to royalties, a patent owner must prove a causal relation between the infringement and the lost profits. The patent owner must show that "but for" the infringement, it would have made profits in the sales. An award of lost profits may not be speculative. A showing under *Panduit*⁸⁶⁰ permits a court to reasonably infer that the lost profits claimed were in fact caused by the infringing sales, thus establishing a patentee's *prima facie* case with respect to "but for" causation. A patentee need not negate every possibility that the purchaser might not have purchased a product other than its own, absent the infringement. The patentee need only show that there was a reasonable probability that the sales would have been made "but for" the infringement. When the patentee establishes the reasonableness of this inference, it has sustained the burden of proving entitlement to lost profits due to the infringing sales. The burden then shifts to the infringer to show that the inference is unreasonable for some or all of the lost sales.

The courts have turned on the application of the factor requiring the patentee to prove an absence of acceptable non-infringing substitutes to the patented product or process.

4.24.4 *Anton Piller orders*

Anton Piller orders represent a response to the sophistication of methods for copyright infringement, but are applicable for suspected infringement of all intellectual property rights, including patents. Their purpose is to enable the recovery of infringing articles and other evidence of

857. *Standard Havens Products Inc. v. Gencor Industries Inc.*, 897 F 2d 511; 13 USPQ 2d 2029 (Fed Cir 1990).

858. 575 F 2d 1152; 197 USPQ 726 (6th Cir 1978).

859. *Ibid.*

860. *Ibid.*

infringement before this can be destroyed or concealed. The order is made *ex parte*. However, the plaintiff will only succeed if the conditions set out in the Anton Piller orders are met.

Firstly, there must be an extremely strong *prima facie* case. *Secondly*, the damage, potential or actual, must be very serious for the applicant. *Thirdly*, there must be clear evidence that the defendants have in their possession incriminating documents, or things, and that there is a real possibility that they may destroy such material before any applications *inter partes* may be made.

Anton Piller orders do not allow the patentee to confiscate infringing article, but is a form of discovery allowing the patentee to establish the origin and extent of the infringement.

Constructive notice/markings

Notice of patent right is a mandatory requirement for obtaining damages in a patent infringement suit. The patentee can give notice to the public by fixing on the article thereon, the word "patent" or "pat." together with the number of the patent. In case of a failure to mark the patented articles, no damages shall be recovered by the patentee. Patentee shall still be entitled to recover damages on proof that the infringer was notified of the infringement and continued to infringe thereafter. Damages are available only from a point in time at which an alleged infringer is on notice of the patent and of the allegedly infringing activity.⁸⁶¹ The notice may be actual or constructive, and the burden of pleading and proving notice lies with the patentee or owner of the patent.⁸⁶²

The patent owner can satisfy the notice requirement either by 1) labelling or marking its patented product, 2) filing an action for infringement, or 3) providing specific notice to the accused infringer. The purpose behind the marking statute is to encourage the patentee to give notice to the public of the patent. Marking can be accomplished by either marking the article covered by the patent or listing the patents which cover the article in the accompanying product literature. Absent marking the patent holder can send a notice to the infringer to obtain damages.

The Indian Patents Act, 1970 also has provisions that does not grant damages where the infringer is not aware of the existence of the patent. Hence, under the Indian Patents Act, innocence is a defence both to damages and to an account of profits.⁸⁶³

861. *American Medical Systems Inc. v. Medical Engg. Corpn.*, 6 F 3d 1523; 28 USPQ 2d 1321 (Fed Cir 1993).

862. *Maxwell v. J. Baker Inc.*, 86 F 3d 1098; 39 USPQ 2d 1001 (Fed Cir 1996).

863. Indian Patents Act, 1970, S. 111(1) reads:

In a suit for infringement of a patent, damages or an account of profits shall not be granted against the defendant who proves that at the date of the infringement he was not aware and had no reasonable grounds for believing that the patent existed.

Explanation.—A person shall not be deemed to have been aware or to have had

Remedies in a patent infringement suit helps a patent holder to recoup his loss.

XXI

4.25 Appellate Board

The Patents (Amendment) Act, 2002 has inserted a new chapter which deals with the appeals to the Appellate Board. The Appellate Board established under Section 83, Trade Marks Act, 1999 (47 of 1999) shall be the Appellate Board for the purposes of the Indian Patents Act.⁸⁶⁴

A person shall not be qualified for appointment as a technical member unless he

- (a) has, for at least five years, held the post of Controller under this Act or has exercised the functions of the Controller under this Act for at least five years; or
- (b) has, for at least ten years, functioned as a Registered Patent Agent and possesses a degree in engineering or technology or a masters degree in science from any University established under law for the time being in force or equivalent.⁸⁶⁵

4.25.1 Appeals to Appellate Board

Section 117-A(1) deals with the decisions which are not appealable. In other words, Section 117-A(1) is an exclusion clause specifying certain actions from the purview of the Appellate Board. Section 117-A(2) speaks about the appeal to the Appellate Board from any decision, order or direction of the Controller or Central Government. An appeal shall lie to the Appellate Board from any decision, order or direction of the Controller or Central Government under Sections 15, 16, 17, 18, 19, 20, 25, 27, 28, 51, 54, 57, 60, 61, 63, 66, 69(3), 78, 84(1)-(5), 85, 88, 91, 92 and 94.⁸⁶⁶ Therefore, it is seen under Section 117-A(2), an appeal would lie not only against the decision but also an order or direction of the Controller. Every appeal under Section 117 shall be in the prescribed form and shall be verified in such manner as may be prescribed and shall be accompanied by a copy of the decision, order or direction appealed against and by such fees as may be prescribed. Every appeal shall be made within three months from the date of the decision, order or direction, as the case may be, of the

reasonable grounds for believing that a patent exists by reason only of the application to an article of the word "patent", "patented" or any word or words expressing or implying that a patent has been obtained for the article, unless the number of the patent accompanies the word or words in question.

864. *Ibid.*, S. 116(1).

865. *Ibid.*, S. 116(2).

866. *Ibid.*, S. 117-A(2).

Controller or the Central Government or within such further time as the Appellate Board may, in accordance with the rules made by it, allow.⁸⁶⁷

Procedure and powers of Appellate Board

The provisions of the Trade Marks Act, 1999 (47 of 1999) shall apply to the procedure and powers of the Appellate Board. The provisions of sub-sections (2) to (6) of Sections 84, 87, 92, 95 and 96, Trade Marks Act, 1999 (47 of 1999) shall apply to the Appellate Board in the discharge of its functions under this Act as they apply to it in the discharge of its functions under the Trade Marks Act, 1999 (47 of 1999). The Trade Marks Act, 1999 (47 of 1999) states that the Appellate Bench shall consist of one judicial member and one technical member and shall sit at such place as the Central Government may, by notification in the Official Gazette, specify.⁸⁶⁸ If any question arises as to whether any matter falls within the purview of the business allocated to a Bench, the decision of the Chairman shall be final.⁸⁶⁹ If the members of a Bench differ in opinion on any point, they shall state the point or points on which they differ, and make a reference to the Chairman who shall either hear the point or points himself or refer the case for hearing on such point or points by one or more of the other members and such point or points shall be decided according to the opinion of the majority of the members who have heard the case, including those who first heard it.⁸⁷⁰

The Appellate Board shall not be bound by the procedure laid down in the CPC, 1908 (5 of 1908) but shall be guided by principles of natural justice. The Appellate Board shall have powers to regulate its own procedure including the fixing of places and time of its hearings.⁸⁷¹

The Appellate Board shall have, for the purpose of discharging its functions under this Act, the same powers as are vested in a civil court under the CPC while trying a suit in respect of the following matters, namely:

1. receiving evidence;
2. issuing commissions for examination of witnesses;
3. requisitioning any public record; and
4. any other matter which may be prescribed.⁸⁷²

Any proceeding before the Appellate Board shall be deemed to be a judicial proceeding within the meaning of Sections 193 and 228, and for the purpose of Section 196, Penal Code (45 of 1860), and the Appellate Board

867. *Ibid.*, S. 117-A(4).

868. Trade Marks Act, 1999, S. 84(2).

869. *Ibid.*, S. 84(5).

870. *Ibid.*, S. 84(6).

871. *Ibid.*, S. 92(1).

872. *Ibid.*, S. 92(2).

shall be deemed to be a civil court for all the purposes of Section 195 and Chapter XXVI, Criminal Procedure Code, 1973 (2 of 1974).⁸⁷³

Notwithstanding anything contained in any other provisions of this Act or in any other law for the time being in force, no interim order (whether by way of injunction or stay or any other manner) shall be made on, or in any proceedings relating to, an appeal unless

1. copies of such appeal and of all documents in support of the plea for such interim order are furnished to the party against whom such appeal is made or proposed to be made; and
2. opportunity is given to such party to be heard in the matter.⁸⁷⁴

The Chairman has the power to transfer cases from one Bench to another. On the application of any of the parties and after notice to the parties and after hearing some of them, as he may desire to be heard, or on his own motion without such notice, the Chairman may transfer any case pending before one Bench, for disposal, to any other Bench.⁸⁷⁵

No court or other authority shall have or, be entitled to exercise, any jurisdiction, powers or authority in relation to the matters referred to in sub-section (2) of Section 117-A or Section 117-D.⁸⁷⁶

The Controller shall have the right to appear and be heard

- (a) in any legal proceedings before the Appellate Board in which the relief sought includes alteration or rectification of the register or in which any question relating to the practice of the Patent Office is raised; and
- (b) in any appeal to the Appellate Board from an order of the Controller on an application for grant of a patent
 - (i) which is not opposed, and the application is either refused by the Controller or is accepted by him subject to any amendments, modifications, conditions or limitations, or
 - (ii) which has been opposed and the Controller considers that his appearance is necessary in the public interest, and the Controller shall appear in any case if so directed by the Appellate Board.⁸⁷⁷

Unless the Appellate Board otherwise directs, the Controller may, in lieu of appearing, submit a statement in writing signed by him, giving such particulars as he thinks proper of the proceedings before him relating to the matter in issue or of the grounds of any decision given by him or of the practice of the Patent Office in like cases, or of other matters relevant to the issues and within his knowledge as the Controller may deem it

873. *Ibid.*, S. 92(3).

874. *Ibid.*, S. 95.

875. *Ibid.*, S. 96.

876. Indian Patents Act, 1970, S. 117-C.

877. *Ibid.*, S. 117-E(1).

necessary, and such statement shall be evidence in the proceeding.⁸⁷⁸ All cases of appeals against any order or decision of the Controller and all cases pertaining to revocation of patent other than on a counterclaim in a suit for infringement and rectification of register pending before any High Court, shall be transferred to the Appellate Board from such date as may be notified by the Central Government in the Official Gazette and the Appellate Board may proceed with the matter either de novo or from the stage it was so transferred.⁸⁷⁹ The Appellate Board may make rules consistent with this Act as to the conduct and procedure in respect of all proceedings before it under this Act.⁸⁸⁰

XXII

Powers of Controller

The Controller in any proceedings before him under this Act shall have the powers of a civil court while trying a suit under the CPC in respect of the following matters, namely:

4.26

- (a) summoning and enforcing the attendance of any person and examining him on oath;
- (b) requiring the discovery and production of any document;
- (c) receiving evidence on affidavits;
- (d) issuing commissions for the examination of witnesses or documents;
- (e) awarding costs;
- (f) reviewing his own decision on application made within the prescribed time and in the prescribed manner;
- (g) setting aside an order passed ex parte on application made within the prescribed time and in the prescribed manner; and
- (h) any other matter which may be prescribed.⁸⁸¹

Any order for costs awarded by the Controller in exercise of the powers conferred upon him under sub-section (1) shall be executable as a decree of a civil court.⁸⁸²

The Controller is vested with the power to correct clerical errors in any patent or in any specification or other document filed in pursuance of such application or in any application for a patent, or any clerical error in any matter which is entered in the register. A correction may be made in pursuance of this section either upon a request in writing made by any person interested and accompanied by the prescribed fee, or without such a request.⁸⁸³ Where the Controller proposes to make any such correction

878. *Ibid.*, S. 117-E(2).

879. *Ibid.*, S. 117-G.

880. *Ibid.*, S. 117-H.

881. *Ibid.*, S. 77(1).

882. *Ibid.*, S. 77(2).

883. *Ibid.*, S. 78 (2).

as aforesaid otherwise than in pursuance of a request made under this section, he shall give notice of the proposal to the patentee or the applicant for the patent and to any other person who appears to him to be concerned, and shall give them an opportunity to be heard before making the correction.⁸⁸⁴ Where a request is made under this section for the correction of any error in a patent or application for a patent or any document filed in pursuance of such an application, and it appears to the Controller that the correction would materially alter the meaning or scope of the document to which the request relates and ought not to be made without notice to persons affected thereby, he shall require notice of the nature of the proposed correction to be advertised in the prescribed manner.⁸⁸⁵ Within the prescribed time after any such advertisement as aforesaid any person interested may give notice to the Controller of opposition to the request and, where such notice of opposition is given, the Controller shall give notice thereof to the person by whom the request was made and shall give to him and to the opponent an opportunity to be heard before he decides the case.⁸⁸⁶

In any proceeding before the Controller, evidence shall be given by affidavit in the absence of directions by the Controller to the contrary; but in any case in which the Controller thinks it right so to do, he may take oral evidence in lieu of, or in addition to, evidence by an affidavit, or may allow any party to be cross-examined on the contents of his affidavit.⁸⁸⁷ It has been held in *Guest Keen Williams Ltd. v. Controller of Patents and Designs*⁸⁸⁸, "once the Controller has exercised his discretion, the Court will not sit over appeal from the decision of the Controller. By way of interlocutory application, this Court should not interfere and exercise its writ jurisdiction".

The Controller is neither required to give notice to or hear the party interested in opposing the extension, nor shall any appeal lie from any order of the Controller granting such applications for extension of time.⁸⁸⁹

XXIII

4.27 Jurisdiction

A suit for infringement of a patent shall be instituted in the District Court.⁸⁹⁰ The territorial jurisdiction for filing a suit for patent infringement is governed by the CPC. For the purpose of jurisdiction, a District

884. *Ibid.*, S. 78 (3).

885. *Ibid.*, S. 78(4).

886. *Ibid.*, S. 78(5).

887. *Ibid.*, S. 79.

888. AIR 1985 Cal 334: (1950-2000) Supp (2) PTC 405.

889. Indian Patents Act, 1970, S. 81.

890. *Ibid.*, S. 104 reads:

No suit for a declaration under Section 105 or for any relief under Section 106 or for infringement of a patent shall be instituted in any court inferior to a District Court having jurisdiction to try the suit:

Court shall mean a District Court within the local limits of whose jurisdiction the defendant actually and voluntarily resides, or carries on business, or personally works for gain, or where the cause of action wholly or in part arises.⁸⁹¹ Section 20 CPC permits suits to be filed only at places where the defendant actually and voluntarily resided or carried on business or personally worked for gain. The expression "carries on business" and the expression "personally works for gain" connote two different meanings. For the purpose of carrying on business, presence of a man at a place is not necessary. Such business may be carried at a place through an agent or a manager or through a servant. The owner may not even visit that place. The phrase "carries on business" at a certain place would, therefore, mean having an interest in a business at that place, a voice in what is done, a share in the gain or loss and some control thereover.

A corporation would be deemed to be situated at its registered office.⁸⁹² Ordinarily, the residence of a company would be where the registered office is.⁸⁹³ A corporation would be deemed to carry on business at a subordinate office or a branch office only in respect of any cause of action arising at the place where the branch office or the subordinate office is situated. A corporation in view of explanation appended to Section 20 of the Code would be deemed to be carrying on business, inter alia, at a place where it has a subordinate office.

Cause of action is a bundle of facts which are necessary to be proved in a given case. Cause of action, it is trite, if arises within the jurisdiction of the court concerned empowers the court to entertain the matter. Determination of territorial jurisdiction of a civil court is governed by the provisions of the CPC.⁸⁹⁴

Provided that where a counter-claim for revocation of the patent is made by the defendant, the suit along with the counter-claim, shall be transferred to the High Court for decision.

891. CPC, S. 20 reads:

Other suits to be instituted where defendants reside or cause of action arises.— Subject to the limitations aforesaid, every suit shall be instituted in a Court within the local limits of whose jurisdiction—

(a) the defendant, or each of the defendants where there are more than one, at the time of the commencement of the suit, actually and voluntarily resides, or carries on business, or personally works for gain; or

(b) any of the defendants, where there are more than one, at the time of the commencement of the suit, actually and voluntarily resides, or carries on business or personally works for gain, provided that in such case either the leave of the Court is given, or the defendants who do not reside, or carry on business, or personally work for gain, as aforesaid, acquiesce in such institution; or

(c) the cause of action, wholly or in part, arises.

Explanation—A corporation shall be deemed to carry on business at its sole or principal office in India or, in respect of any cause of action arising at any place where it has also a subordinate office, at such place.

892. *Morgan Stanley Mutual Fund v. Kartick Das*, (1994) 4 SCC 225; (1994) 14 CLA 161.

893. *Ibid.*

894. *Dhodha House v. S.K. Maingi*, (2006) 9 SCC 41; AIR 2006 SC 730; (2006) 32 PTC 1.

The defendant in *Neyveli Ceramics & Refractories Ltd. v. Hindustan Sanitary Ware & Industries Ltd.*⁸⁹⁵ argued that it permanently carried on business in Haryana and that the registered office of the defendant was at Calcutta and hence, the High Court at Madras did not have jurisdiction to entertain the infringement suit. They also contended that neither the cause of action nor any part thereof had arisen within the jurisdiction of the Madras High Court. The plaintiff argued that Joshi & Co who were dealing in sanitary ware were carrying on business in Madras and were distributing the defendant's product. The argument of the defendant that Joshi & Co did not have any connection with the business of the defendant did not find favour with the court, which found that the sale of the product in Madras through the distributor in Madras was sufficient for finding jurisdiction in Madras.

Validity of the patent can always be challenged in the High Court on various grounds for revocation as provided under Section 64, or the ground on which the allegation of infringement is to be established as provided under Section 104 and/or could be defended under Section 107, Patents Act, 1970. Where a counterclaim for revocation of the patent is made by the defendant, the suit along with the counterclaim shall be transferred to the High Court for decision.⁸⁹⁶ The proviso to Section 104 clearly and unmistakably suggests that the moment the counterclaim for revocation of the patent is filed, the suit along with the counterclaim shall be transferred to the High Court for decision. The legislative intent is more discernible from Section 64 of the Act which states that the revocation of a patent upon a counterclaim can be done by a High Court only and not by any court inferior to the High Court.⁸⁹⁷ Where revocation of a patent is sought by way of a counterclaim, the High Court within the territorial jurisdiction in which a suit for infringement is filed will be the appropriate forum. Pleading by the defendant that the patent set up by the plaintiff is invalid amounts only to the defendant raising ground for the relief sought by the plaintiff being declined, and it does not follow necessarily that the defendant also seeks by way of a counterclaim that the patent be revoked.⁸⁹⁸

The Kerala High Court in *Low Heat Driers (P) Ltd. v. Biju George*⁸⁹⁹ held that once challenge is made with regard to the patent claimed by the plaintiff and its revocation is sought for by the defendants, all further things should be done only by the High Court. It is not necessary that revocation of a patent is sought only as a counterclaim. Section 64 confers an independent right on any person interested in a patent or on the Central Government to seek such a revocation. Such an application

895. (1950-2000) PTC Supp (2) 341 (Mad).

896. Indian Patents Act, 1970, S. 104.

897. *Lambda Eastern Telecommunication v. Acme Tele-Power (P) Ltd.*, AIR 2008 Utt 38.

898. *Fabson Corpn. v. Industrial Engg. Corpn.*, 1987 PTC 312 (All).

899. (2001) 21 PTC 775 (Ker).

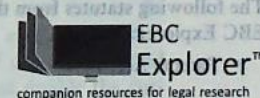
can be made even when no suit for infringement is pending. There is also no statutory requirement that in a case where a suit for infringement is pending, revocation can be sought only by way of a counterclaim and not by way of a separate and independent application.⁹⁰⁰ It was held that the provisions of the Act show that the remedy of seeking the revocation of a patent from a High Court is not correlated to the pendency of an action for infringement but is made available to any person who finds that his commercial interests are likely to be jeopardised or affected by the claims of the owner of the patent.⁹⁰¹ Where an independent right is exercised for revocation of a patent, the jurisdiction will not be confined to the High Court having ordinary original or appellate jurisdiction where a suit for infringement may have been filed. The Delhi High Court gave a broad outline of the jurisdiction where an application for revocation of a patent could be filed. Relying much on the provisions of the CPC, it was held that applications could be filed at a place where the patent holder resides or carries on business or at a place where a cause of action arises, viz. where the patent is registered or the place or places where the applicant has been sought to be made liable for patent infringement. It was also held that sale of the goods in Delhi can be also considered as giving jurisdiction in the Delhi High Court.⁹⁰²

900. *Ajay Industrial Corpn. v. Shiro Kanao of Ibaraki City*, AIR 1983 Del 496: (1983) 3 PTC 245.

901. *Ibid.*

902. *Ibid.*

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The following cases from this chapter are available through EBC Explorer:

- *Assn. of Molecular Pathology v. US Patent and Trademark Office*, 702 F Supp 2d 181 (SDNY 2010)
- *Bilcare Ltd. v. Amartara (P) Ltd.*, (2007) 34 PTC 419 (Del)
- *Bilski v. Kappos*, 130 S Ct 3218: 177 L Ed 2d 792: 561 US (2010)
- *Catnic Components Ltd. v. Hill & Smith Ltd.*, 1982 RPC 183 (HL)
- *Diamond v. M. Chakrabarty*, 65 L Ed 2d 144: 447 US 303 (1980)



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- *Egbert v. Lippman*, 26 L Ed 755: 104 US 333 (1881)
- *Elizabeth v. Pavement Co.*, 24 L Ed 1000: 97 US 126 (1877)
- *Fomento Industrial SA Biro Swan Ltd. v. Mentmore Mfg. Co. Ltd.*, 1956 RPC 87
- *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 92 L Ed 588: 333 US 127 (1948)
- *Gayler v. Wilder*, 13 L Ed 504: 51 US 477 (1850)
- *General Electric Co. v. Jewel Incandescent Lamp Co.*, 90 L Ed 43: 326 US 242 (1945)
- *General Tire & Rubber Co. v. Firestone Tyre & Rubber Co. Ltd.*, 1972 RPC 457 (CA)
- *Gottschalk v. Benson*, 34 L Ed 2d 273: 409 US 63 (1972)
- *Harvard Onco-Mouse*, 1991 EPOR 525: 1990 OJ EPO 476 (Tech Bd App)
- *Hotchkiss v. Greenwood*, 13 L Ed 683: 52 US 248 (1850)
- *Improver Corpn. v. Remington Consumer Products Ltd.*, 1990 FSR 181
- *K. Ramu v. Adyar Ananda Bhavan and Muthulakshmi Bhavan*, (2007) 2 MLJ 907: (2007) 34 PTC 689
- *Lux Traffic Controls Ltd. v. Pike Signals Ltd.*, 1993 RPC 107
- *Merrell Dow Pharmaceuticals Inc. v. H.N. Norton & Co. Ltd.*, 1996 RPC 76 (HL)
- *Moleculon Research Corpn. v. CBS Inc.*, 793 F 2d 1261: 229 USPQ 805 (Fed Cir 1986)
- *Novartis Ag v. Union of India*, (2013) 6 SCC 1

The following statutes from this chapter are available through EBC Explorer:

- Patents Act, 1970



STATUTE PILOT

Chapter 5

Plant Variety Protection

I

Importance of plant breeding

Major changes in agriculture have for the first time led to the grant of intellectual property protection to plants. Biotechnology has paved the way for new vistas in engineering improved varieties of plants. Development of varieties with better resistance to pests, insects and drought has been possible with the advent of biotechnology. Large amount of investment is required for the development of plant molecular biology.

5.1

Need for protection

One of the most important challenges that mankind must face in the coming years is to feed the world population. Land area available for agriculture will decrease in many regions because of urbanisation and industrialisation. Hence it will be necessary to at least double the current level of agricultural production. It will be very difficult to achieve this level of production through an increase of land area in cultivation. The only solution, therefore, is to increase productivity per unit area. The utilisation of improved varieties is one of the most important factors for increased productivity. The methods of classical breeding have been replaced to a certain extent by genetic engineering.

5.1.1

With the advancement in science and technology, a stage has been reached where there is replacement of agriculture with industrial processes. Plant breeding has always benefited from the use of novel technologies in the development of advanced plant varieties.

Considerable technological means that incur substantial costs and long term commitment are the essentials for research in plant biotechnology. The creation of new varieties requires a long development time. Plant

5.1.2

breeding requires large human resource and financial investments to support the lengthy and risky processes of research and product development.

As governments in many countries are not willing to bear the burden of that activity any longer, the involvement of private industry in plant breeding is becoming more and more important. There is considerable high risk investment in the development of a new variety and, hence, adequate legal protection is necessary to ensure that the results can be commercially exploited. Once developed it can be easily reproduced. Sustainable breeding programmes require a return of the investment through the commercialisation of the resulting varieties. Hence special protection for the intellectual property rights for plant breeding is essential. The private enterprise then must be able to recover the cost of their investments and return a profit to investors. It is necessary that the results of researchers' efforts be protected, as is the case with innovations developed in all technical and artistic domains. Protection is afforded to new varieties of plants both as an incentive to the development of agriculture and to safeguard the interest of plant breeders.

Research organisations have now taken the role of the traditional farmers. Intellectual property rights in new plant varieties is essential to encourage innovation and dissemination of knowledge. The development of private sector breeding call for a strong intellectual property protection for plant varieties. The introduction of a legal framework is a suitable approach to encourage the breeding of new varieties of plants for the benefit of society.

Plant breeders' rights prevent others from multiplying the breeder's seed or other propagating material and selling the variety on a commercial scale, without recognising in any way the work of the breeder. In order to develop a variety, a breeder requires access to the largest possible variability.

The structure of plant kingdom is such that it is not capable of being protected like other inventions. The process of breeding is rarely reproducible and mostly depends on chance events. Many new varieties are *prima facie* obvious. To overcome these difficulties it was essential to formulate a special system of protection for plant varieties that need not meet with the stringent requirements of the patent system like, novelty, non-obviousness and industrial applicability.

5.1.2 Patents versus plant variety protection

Patent system seeks to protect novel inventions. Inventions to be patentable must be new, non-obvious and capable of industrial application. The inventor in order to obtain protection has to disclose the invention and also describe the method of performing it. Patent protection will be granted only if the disclosure is enabling.¹

1. European Patent Convention, Art. 83; Patents Act, 1970, S. 10.

Patents to DNA sequences may now be used to claim control over an entire plant. In *Monsanto Canada Inc. v. Schmeiser*², the Canadian Supreme Court held that even though plants may not be patented in Canada, a patent relating to a plant cell gives its holder the right to decide what others may do with the plant in question, since each plant cell contains the modified gene. Thus it will be possible to obtain patent protection for transgenic or genetically modified varieties. In such situations, the farmer will be at a disadvantage as farmer's privilege could not apply under these circumstances.

There are various difficulties in applying the patent system to plant varieties. The patent system was evolved to deal with mechanical inventions. Patent system is designed and is suitable for inventions. It is not well adapted to the protection of living material, such as new plant varieties. The structure of plant kingdom is such that it is not capable of being protected like other inventions. Plants were thought not to precisely reproduce themselves and their appearance can vary depending upon the environment in which they are grown. The application of industrial property system to the biological products has stimulated great debate as the patent system designed for machines may not work with plant species and other life forms. Requirement of reproducibility is intrinsic to patent law.

The more specific objections to the patenting of plant varieties are that patent rights require an invention, which the public can be taught to carry out by means of a written description. Plant varieties were originally excluded from patentable subject-matter because, as "products of nature", they did not meet the requirement of new, non-obvious subject-matter. They could not be described with enough specificity to meet the patent statute, written description requirement. The common argument raised against plant patents was that plant varieties bred by traditional methods were not beyond the grasp of the ordinary artisan and, hence, was obvious. Breeders' products were also considered as lacking in industrial applicability or utility. Patents cover inventions in all fields of technology, whereas the system of plant variety protection has been specifically developed to cover plant varieties. There is a close correspondence between the rights conferred by a patent and a plant variety protection system, but there is a fundamental difference in the scope of the exceptions and also in the rights conferred, including farmers' right. Plant variety protection laws have been developed in almost all countries providing *sui generis* protection for agricultural and horticultural innovation.

There are arguments against patenting of plant varieties on the basis that patents cannot be extended to cover life and that life cannot be invented. Patenting living organisms is intrinsically immoral, or will have unacceptable results.

2. 2004 SCC 34; (2004) 1 SCR 902 (Can SC).

Most of the courts had in the past taken the view that inventions related to plant breeding were not patentable *per se*. But this approach found a radical change with the *Red Dove*³ decision of the German court and the decision of the US Supreme Court in *Diamond v. M. Chakrabarty*⁴.

II

5.2 International legal framework

Globalisation of trade and commerce has now given an international character to intellectual property. Before the existence of any international convention, it was difficult to obtain protection in many countries due to the diversity in the national laws. Globalisation necessitated harmonisation of industrial laws. The international character of intellectual property is recognised in the various international conventions.

5.2.1 UPOV Convention

The International Union for Protection of New Varieties of Plants (UPOV) Convention provides the international legal framework for the granting of plant breeders' rights which are a key element in encouraging breeders to pursue and enhance their search for improved varieties with benefits such as higher yield, quality and better resistance to pests and diseases. Enhancing international harmonisation is an indispensable tool for the protection of new plant varieties, for international trade and for the transfer of technology. Most of the plant variety legislations around the world are based on the UPOV legislation.

Protection of intellectual property rights on new plant varieties according to the UPOV Convention facilitates a return by providing a legal basis to prevent under well-defined conditions, unauthorised exploitation of plant varieties by others. The UPOV Convention provides a legal basis for the protection of new plant varieties. Breeders in all members of the UPOV Convention enjoy the same level of protection.

The UPOV Convention is a *sui generis* system for plant variety protection reflecting the specific feature of the subject of protection, which is a new plant variety and the circumstance under which this plant variety is used. A key feature of the UPOV system is that protected varieties, as a most important plant genetic resource, may be freely used by the worldwide community of breeders for further breeding. Plant breeders' rights thereby help to enhance sustainable agriculture, productivity, income, international trade and economic development in general.⁵

3. *Rote Taube case*, 1969 GRUR 672.

4. 65 L Ed 2d 144: 447 US 303 (1980).

5. UPOV Press Release No. 65, Geneva, 29-6-2005.

The contracting parties to the convention are the members of the Union⁶ and the Union has legal personality.⁷ By becoming a member of UPOV, a State offers its own plant breeders the possibility of obtaining protection in the other Member States and provides an incentive to foreign breeders to invest in plant breeding and seed production on its own territory.⁸

Members of the UPOV Convention, enjoy many benefits like an internationally accepted *sui generis* system, benefit of priority, cooperation in examination, technical guidance, etc. The Convention provides the benefit of priority from the date of the first application for protection of the same plant variety previously filed in one of the UPOV Convention member countries.⁹ The breeder shall enjoy a right of priority of 12 months. In order to benefit from the right of priority, the breeder shall, in the subsequent application, claim the priority of the first application.

International treaty on plant genetic resources for food and agriculture

5.2.2

Traditionally plant genetic resources were freely exchanged on the reasoning that they constituted the common heritage of mankind. As a result of this, right over plant genetic resources could not be exploited by private entities. These principles were embodied in the international undertaking adopted by the FAO Conference in 1983.¹⁰

The negotiations for the revision of the undertaking culminated in the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) is a landmark international agreement designed to deal with the rapid loss of agricultural biodiversity. It is the first legally binding agreement exclusively pertaining to the management of crop genetic resources. India has also ratified the ITPGRFA. The treaty reflects the objectives of the Biodiversity Convention and emphasises the conservation of biodiversity, their sustainable use and benefit sharing. Though the treaty does not directly focus on patents or plant breeders' rights, it delineates a regime for benefit sharing and access to biological diversity which links intellectual property with the treaty. The notion of "common heritage" found in the undertaking was translated to the concept that the conservation of biological diversity is a common concern of all countries.

The treaty ensures the sustainable use of plant genetic resources by requiring the contracting parties to develop and maintain appropriate policy and legal measures that promote the sustainable use of plant genetic resources for food and agriculture.¹¹

The treaty gives broad guidelines to the States regarding the protection of traditional knowledge, benefit sharing arrangement and the right of the farmer to participate in the decision-making regarding the management

6. UPOV, 1991, Art. 23.

7. UPOV, 1991, Art. 11.

8. UPOV, 1961, Art. 3.

9. UPOV, 1991, Art. 11.

10. FAO Resolution No. 8/83.

11. ITPGRFA, Art. 6.2.

of plant genetic resources. Different kinds of benefit sharing mechanisms are provided under the treaty like exchange of information, access to and transfer of technology, capacity building and sharing of benefits arising from commercialisation.

The treaty promotes farmers' rights at both national and international levels. Realisation of farmer's rights is left to the respective national governments of the contracting States.¹² The right to save, use, exchange and sell farm-saved seed and other propagating material, and to participate in decision-making and in the fair and equitable sharing of the benefits arising from the use of plant genetic resources for food and agriculture, is recognised in the treaty and is considered as fundamental to the realisation of farmers' rights.¹³

Apart from these, the treaty also recognises the need to protect traditional knowledge relevant to plant genetic resources for food and agriculture. The concept of benefit sharing is enshrined in the articles of the treaty.¹⁴ The treaty provides different mechanisms of benefit sharing like exchange of information, access to and transfer of technology, capacity building, and the sharing of the benefits arising from commercialisation.¹⁵ The benefits arising from the use of the plant genetic resources for food and agriculture that are shared under the multilateral system should flow primarily, directly and indirectly, to farmers in all countries, especially in developing countries, and countries with economies in transition, who conserve and sustainably utilise plant genetic resources for food and agriculture.¹⁶ Respecting the concept of intellectual property rights, the treaty requires that access and transfer shall be provided on terms which recognise and are consistent with the adequate and effective protection of intellectual property rights. The treaty works in harmony with the Convention on Biological Diversity.¹⁷

5.2.3 Trade Related Intellectual Property Rights Agreement

Trade Related Aspects of Intellectual Property Rights (TRIPS) is an international agreement that requires member countries to provide strong intellectual property protection in their domestic law. The recent developments in the field of biotechnology and plant breeding has led to widespread piracy of resources from the developing countries. Intellectual property protection provided by countries varied and this disparity was an occasion for the developing countries to pirate the technological developments of the developed countries. The developed countries under the leadership of the US wanted to have a strong system for the protection of the new technologies. Hence the issue of intellectual property protection and also protection for plant varieties was addressed in the Uruguay Round of

12. *Ibid.*, Art. 9.1.

15. *Ibid.*, Art. 13.

13. *Ibid.*, Art. 9.

16. *Ibid.*, Art. 13.2(d)(ii).

14. *Ibid.*, Art. 10.

17. *Ibid.*, Art. 1.

General Agreement on Tariffs and Trade. TRIPS Agreement provides that members may exclude essentially biological processes for the production of plants or animals other than non-biological and microbiological processes.¹⁸ However, the agreement states that members shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof. Considerable flexibility is left to the members of the agreement to adopt the system of protection suited to them. At the time of adoption of the TRIPS Agreement, most of the developed countries had systems for protection of plant varieties and most of them had adhered to the UPOV Convention.

But most of the developing countries have an agricultural economy and so protecting the interests of the breeders in preference to farmers can have a detrimental effect on the economy of the country. Taking UPOV as an international platform can also have consequences as the 1991 version of UPOV is more suited to the interests of the breeders rather than the farmers. Traditional and improved varieties of plants are bred by farmers under local farm conditions. Farmer identifies and improves seeds and also adds to the general pool of resources. UPOV system has been tested in the Western countries that already have a developed plant breeding system.

Convention on Biological Diversity

The Convention on Biological Diversity (CBD) of 1992 was adopted at Rio-de-Janeiro on 5 June 1992 under the auspices of the UN Conference on Environment and Development for conservation of biological diversity at international level. The contracting parties to the convention had recognised the importance of biological diversity. The Rio Declaration on Environment and Development, 1992 has accepted the principle that the States have sovereign rights to exploit their own resources.¹⁹ The declaration also recognised the role of indigenous people and their communities in the environmental development and management. The declaration requires that the States should recognise and duly support their identity, culture and interests.²⁰ Biological resources are the raw materials for the various needs of human beings. Exploitation of the natural genetic resources will alter the ecosystem and has also led to concerns for conserving these natural resources. Exploitation by the North into the biodiversity of the developing countries like India has led to the extinction of many medicinal herbs that are effective for the treatment of many diseases. The indigenous community which has conserved the biodiversity is not granted any benefits, while the biodiversity conserved by the community is being exploited by the developed countries to reap the benefits of

18. TRIPS Agreement, Art. 27(b).

19. Rio Declaration on Environment and Development 1992, Principle 2.

20. *Ibid.*, Principle 22.

commercialisation. Compensation to the indigenous community can act as an incentive to the community to conserve the genetic resources.

The convention recognised the importance of traditional men and women in the conservation and preservation of biodiversity.²¹ CBD has affirmed that the States have sovereign rights over their own biological resources.²² One of the objectives of the convention is the fair and equitable sharing of the benefits arising out of the utilisation of the genetic resources.²³ CBD provides access to genetic resources subject to the requirement of the national legislation and international law. The Contracting States recognised the need for *ex-situ* and *in-situ* conservation.²⁴ The convention gives emphasis on the conservation of biological diversity. Provision is made for *ex-situ* and *in-situ* conservation.²⁵ The convention specifies that access to genetic resources has to be determined by the national governments subject to their national legislation.²⁶ Each contracting party shall develop and carry out scientific research based on genetic resources with the cooperation of other contracting parties. The benefits arising from the commercial utilisation of genetic resources shall be shared upon mutually agreed terms between contracting parties.²⁷

The convention recognises the sovereign rights of the nations over their natural resources. Access to genetic resources requires the consent of the contracting parties that are countries of origin and the access is to be granted on mutually agreed terms.²⁸

CBD requires signatories to protect and promote the rights of communities, farmers and indigenous peoples with respect to their biological resources and knowledge systems as well as benefit sharing, and asserted that intellectual property rights should not conflict with the objectives of the CBD. Intellectual property laws of most countries are inadequate for benefit sharing and defending the rights of the indigenous community. One of the key features of the CBD is the embodiment of the equitable sharing of benefits.

III

5.3 Plant varieties protection and farmers' rights in India

5.3.1 Tracing history

For decades, India did not allow patents on seeds or plants and had no system of protection for plant varieties. Indian policy was based on the concept that plant varieties and seeds were the common heritage of mankind. Though there was an increase in the rate of growth in agriculture, the State could not meet the rising demand for the food. The need for

21. CBD, Preamble.

24. *Ibid.*, Preamble.

27. *Ibid.*

22. *Ibid.*, Art. 3.

25. *Ibid.*, Art. 8.

28. *Ibid.*

23. *Ibid.*, Art. 1.

26. *Ibid.*, Art. 15.

attaining self-sufficiency in food led to the pursuit of the green revolution. During the colonial period, food production was on the decline. Alleviation of poverty could be done only by attaining self-sufficiency in food production which could be obtained only by excluding plant varieties from protection.

The foremost legislation in India for the protection of seeds was the Seeds Act, 1966 which provided for regulating the quality of certain seeds for sale.²⁹ The Act exempts from its purview the sale from own holding of notified kinds of seeds.³⁰ Seed breeding in India was largely in the public sector. India did not want monopolies to develop in crucial areas like agriculture and, hence, the government made seeds and distributed it cheaply to the public.

The Patents Act, 1970 specifically excludes plants and animals in whole or any part thereof including seeds, varieties and species and essentially biological processes for production of plants and animals from the ambit of patent protection.³¹

Being a signatory to the TRIPS Agreement, India had to shift from its age old principle of common heritage and was obliged to provide either a patent protection or a *sui generis* system of protection or a combination thereof to plant varieties.³² Breeders' rights provide incentive only to the seed industry without taking into consideration the interests of the farmers. The seed sector wanted a plant breeders protection system modelled on the lines of the UPOV Convention to be adopted in India without considering the farming community. They proposed this system as an alternative to the patent system. Being an agrarian economy, patent protection for plant varieties was not considered to be in the interest of the country and India opted for a *sui generis* legislation. The Indian situation demanded a balancing of the rights of the farming community and the breeders. The enactment of the Protection of Plant Varieties and Farmers' Rights Act, 2001 saw an end to the heated debates of protecting the interests of the farmers alongside that of the breeders.

IV

Varieties covered by protection

The Act makes clear that an application for registration can be made only in respect of three kinds of varieties—

- (a) a variety whose genera or species is specified in the Official Gazette under Section 29(2);

29. Seeds Act, 1966, Preamble.

30. *Ibid.*, S. 24.

31. Patents Act, 1970, S. 3(1).

32. TRIPS Agreement, Art. 27(3)(b).

- (b) an extant variety;
- (c) a farmers' variety.³³

A "plant variety" is in essence, a strain of a plant or a crop which is pure-bred. The variety is entitled for registration if the applicant complies with the formalities provided by the law and also that the applicant pays the required fees.

While granting protection the variety is tested to determine whether the new variety is distinctive in its characteristics and is sufficiently homogeneous and stable. The section has defined the term "variety" broadly by including the propagating material of such variety, extant variety, transgenic variety, farmer's variety and essentially derived variety.³⁴ The definition of the term "variety" in the Indian Act is almost akin to the provisions of the UPOV Convention.³⁵ The inclusion of extant variety and farmer's variety helps to protect varieties that do not fully meet the requirement of novelty.

The Plant Protection Act of India has defined an extant variety as:

- (i) a variety which is available in India and includes a variety notified under Section 5, Seeds Act, 1966;
- (ii) a farmers' variety;
- (iii) a variety about which there is common knowledge, or any other variety in the public domain.³⁶

The Registrar shall register every extant variety within three years from the date of its notification under the Act subject to the criteria of distinctiveness, uniformity and stability.³⁷

Farmers' varieties are cultivated and evolved by the farmers using traditional methods in their fields, about which they have knowledge. Traditionally cultivated and evolved varieties of farmers or the wild relative or landrace of a variety of which the farmers have common knowledge is considered as a farmer's variety.³⁸

A farmer as defined in the Act includes a person—

- (i) who cultivates the land himself; or
- (ii) cultivates crops by directly supervising the cultivation of land through any other person; or
- (iii) conserves and preserves any wild species or traditional varieties or adds value to such wild species or traditional varieties through selection and identification of their useful properties.³⁹

Landraces are varieties that are developed over many plant generations, sometimes encompassing thousands of years, by farmers, selecting plants with desired characteristics. Extant varieties and farmer's varieties,

33. Protection of Plant Varieties and Farmers' Rights Act (PPVFR Act), S. 14.

34. *Ibid.*, S. 2(zd).

35. UPOV 1991, Art. 1(vi).

36. PPVFR Act, S. 2(f).

37. PPVFR Rules, R. 24.

38. PPVFR Act, S. 2(1).

39. *Ibid.*, S. 2(k).

though not satisfying the requirement of novelty, are important to agriculture and, hence, need to be granted protection.

Varieties have been generally considered to be the result of the breeding process. They are the result of the processes of selection and crossing, including modern techniques such as cell fusion which do not occur under natural conditions. This seemed self-evident so long as breeding was the only way to obtain new plants.⁴⁰

The definition of the term "variety" can be illustrated by the decisions of the various courts. In *Yoder Bros. Inc. v. California-Florida Plant Corpn.*⁴¹, several definitions of the term "variety" were offered. Mr Duffett, Yoder's head breeder, defined a "variety" as, "a group of individual plants which, on the basis of observation by skilled floriculturists and according to reasonable commercial tolerances, display identical characteristics under similar environments."

The meaning of the term plant varieties was held by the Technical Board of Appeal of the European Patent Office (EPO) to mean a multiplicity of plants that were largely the same in their characteristics and remained the same within specific tolerances after every propagation cycle. The Board added that plant varieties in this sense were all cultivated varieties, clones, lines, strains and hybrids which could be grown in such a way that they were clearly distinguishable from other varieties, sufficiently homogeneous and stable in their essential characteristics.⁴²

In *Lubrizol/Hybrid Plants*⁴³, the Board of Appeal concluded that hybrid seeds and plants, lacking stability in some trait of the whole generation population, could not be classified as plant varieties within the meaning of Article 53(b), EPC.

The UPOV Convention defines plant variety in terms of a plant grouping within a single biological taxon of the lowest known rank, which satisfies certain conditions.⁴⁴

The invention in *Plant Genetic Systems/Glutamine Synthetase Inhibitors*⁴⁵ related to the genetic engineering of plants. According to this invention, the genes of a plant are modified in a particular way so as to make the plant resistant to a herbicide. When considering a broad claim to transgenic plants *per se*, the EPO Technical Board of Appeal decided that, because the claimed plants possessed at least one single characteristic which distinguished them from other plants and which was uniformly and stably transmitted to their progeny, the claim embraced within its subject-matter "plant varieties" and was, therefore, not patentable.

40. *Transgenic Plant/Novartis*, 2000 OJ EPO 111.

41. 537 F 2d 1347; 193 USPQ 264 (5th Cir 1976); *Imazio Nursery Inc. v. Dania Greenhouses*, 69 F 3d 1560; 36 USPQ 2d 1673 (Fed Cir 1995); *Pan-American Plant Co. v. Matsui*, 433 F Supp 693 (ND Cal 1977).

42. *Ciba Geigy's Propagating Material Application*, 1984 OJ EPO 112.

43. T 320/87, 1990 OJ EPO 71.

44. UPOV Convention 1991, Art. 1(vi).

45. 1995 EPOR 173.

The determination of the Enlarged Board of Appeal in *Novartis II case*⁴⁶ gives guidance on the definition of plant varieties.

The application was related to the control of plant pathogens in agricultural crops. Concurring with the referring Board, the Enlarged Board of Appeal concluded that the mere fact of being obtained by means of genetic engineering does not give the producers of such plant varieties a privileged position relative to breeders of plant varieties resulting from traditional breeding only.

5.4.1 Essentially derived variety

The concept of essentially derived varieties emerged with the UPOV Convention, 1991. The definition of essentially derived variety in the Indian Act is similar to that found in the UPOV Convention. For a variety to be considered as essentially derived, it must fulfil three requirements in relation to the initial variety while retaining the expression of the essential characteristics of the initial variety, namely:

1. predominant derivation from the initial variety while retaining the essential characteristics that result from the genotype or combination of genotypes of such initial variety;
2. clear distinctiveness from the initial variety; and
3. conformity to the initial variety in the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety.⁴⁷

Conformity has to be judged on a species by species basis. The methods of derivation may be used as a tool to help to establish an essentially derived variety. Where a plant variety has been developed without using the initial variety, there cannot be essential derivation. If the genetic engineer uses a protected variety as the carrier for his innovation, he may not be able to use it without the authority of the owner of the protected variety, if the engineered variety is an essentially derived variety of the protected variety.⁴⁸ Article 14(5)(c) of the UPOV Convention deals with the concept of essentially derived varieties and reads as:

Essentially derived varieties may be obtained for example by the selection of a natural or induced mutant, or of a somaclonal variant, the selection of a variant individual from plants of the initial variety, backcrossing, or transformations by genetic engineering.

Classical breeding techniques such as the crossing and selecting from the progeny cannot be considered as within the ambit of essentially derived variety. The only decision on the consideration of the term essentially derived varieties is by the Hague court.

46. 2000 OJ EPO III: 2000 EPOR 303.

47. PPVFR Act, S. 2(i).

48. *Ibid.*, S. 23(6).

The Hague court⁴⁹ considered the issue as to how to determine objectively whether a new variety is essentially derived or whether it is sufficiently distinct to be a new variety in its own right. The key question for the court was whether or not the two new varieties developed and protected by Astee Flowers were essentially derived from the Danziger protected variety Dangypmini.

Danziger was the holder of a European plant breeders rights over a variety Dangypmini of the species *Gypsophila*. Astee Flowers was marketing two other varieties of the same species, Blananieves and Summer Snow. Danziger claimed that the other two varieties were essentially derived from Dangypmini. Danziger claimed that its DNA fingerprinting showed such a strong genetic similarity between Dangypmini and Blananieves that the latter must be considered to be essentially derived. Astee Flowers, the owner of the European rights to Blananieves, challenged the DNA methodology as well as the conclusion that it showed the second variety must be essentially derived.

The court interpreted that the derived variety must have its genetic origin in the initial variety. The court found that it is not necessary for an essentially derived variety to have all the essential characteristics of the initial variety, but changes in the characteristics that have resulted from the act of derivation should be disregarded.

For a variety to be considered essentially derived, it must not deviate considerably from the initial variety. A variety is not necessarily essentially derived just because the initial variety has been used at some point during the development of the new variety. The word "essentially" implies that the difference between the new variety and the existing variety should not be "too substantial". The court also found that the extension of protection of initial varieties to cover essentially derived varieties (EDVs) should be considered as an exception provision to the main rule of independence of distinguishable varieties and, therefore, should be interpreted in a limited manner. In reaching its decision that the varieties were not essentially derived, the court noted that Blananieves differed from the initial variety in a large number of the characteristics relevant to *Gypsophila*.

V

Conditions for protection

According to the provisions of the Protection of Plant Varieties and Farmers' Rights Act, 2001, a new variety shall be registered subject to satisfying the requirements of novelty, distinctiveness, uniformity and stability.⁵⁰ For new varieties, the genera and species which can be registered

49. *Astée Flowers B.V. v. Danziger Flower Farm (Netherlands Essential Derivation case)*, UPOV Gazette No. 99, September 2005, p. 9 (Netherlands).

50. PPVFR Act, S. 15(1).

under the Act, except farmer's variety and extant variety will be notified by the Central Government.⁵¹

5.5.1 Novelty

The concept of novelty in patent law is different from that in plant variety protection. The condition of novelty is met under patent law if there has been no disclosure to the public of the invention prior to the filing of the application. But under the plant variety protection, condition of novelty is used in a commercial sense. The requirement of novelty is satisfied if at the date of filing of the application for registration for protection, the propagating or harvested material of such variety has not been sold or disposed of with the consent of the breeder for the purpose of exploitation of such variety, in India earlier than one year.⁵² Sale or disposal outside India, in the case of trees and vines, shall be considered as not novel if the sale is made earlier than six years and in other cases, earlier than four years. Propagating material has been defined in the Act as any plant or its component or part thereof including an intended seed or seed which is capable of, or suitable for, regeneration into a plant.⁵³ Thus, propagating material in relation to a plant of a particular plant variety relevantly means any part or product from which another plant with the same essential characteristics as that variety can be produced.

The distinction between propagating material and harvested material has been clearly brought out in a decision of the Australian Court.⁵⁴ In certain cases, propagating material and harvested material can be different like the case of grapes, apricots, etc. But the making available of such variety in India within a period of one year will not render the variety not novel. A distinction has been made in the case of making available the variety outside India. The period of one year has been extended to a period of six years in the case of trees or vines and in all other cases, the limitation is four years.⁵⁵ Trial of a new variety which has not been sold or disposed of cannot be considered as affecting the right of protection. The fact that the propagating or harvested material of such variety has become a matter of common knowledge other than through sale or disposal with the consent of the breeder as required by Section 15(3) shall not be considered as making the variety not novel.

The requirement of novelty is not required in the case of an extant variety.⁵⁶ The requirement of novelty in our Act is a near to exact reproduction of the provisions of the UPOV Convention.⁵⁷

51. *Ibid.*, S. 29(2).

54. *Cultivaust Pty. Ltd. v. Grain Pool Pty. Ltd.*, 2005 FCAFC 223.

55. PPVFR Act, S. 15(3)(a).

57. UPOV 1991, Art. 6 reads:

(1) The variety shall be deemed to be new if, at the date of filing of the application for a breeder's right, propagating or harvested material of the variety has not been sold

52. *Ibid.*, S. 15(3)(a).

53. *Ibid.*, S. 2(r).

56. *Ibid.*, S. 15(2).

The "conditions required for protection" were set out in Article 6 of the UPOV Convention. The variety had to be distinct, uniform and stable.

Commercial novelty rule

The no prior commercialisation rule imported a limited novelty requirement into plant breeders' rights law. Article 6(1)(b) of the UPOV Convention after the 1978 revision gives rise to a limited "commercial novelty" requirement. It may only be destroyed where reproductive material is marketed by or with the consent of the applicant.

The sale of a plant variety prior to the application for protection in Australia was considered as prior commercialisation by the Federal Court of Australia.⁵⁸ The question was whether the sale of a whole business which has as part of its assets a plant variety capable of being the subject of a grant of plant variety rights under the Act, and which includes the transfer of plants of the particular variety, constitute a "sale" as prescribed under Section 14 of the Act. The court was of the opinion that there were sales of the grapevine variety "Sugraone" which fell within the scope of Section 14, Plant Variety Rights Act. Those sales meant that the qualifying requirement of no prior commercialisation of the variety was not able to be satisfied. The application was, therefore, dismissed.

The Appeal Board of the South African Plant Breeders Rights also interpreted the term commercial sales with regard to the protection for the variety Sugraone.⁵⁹ A seedless sultana grape known as "Berenda White" was marketed as Sugraone. The application for registration was opposed on the ground that it was not a new variety at the time of filing as it was sold in South Africa for more than one year and sold for longer than six years in a convention country. Giving a narrow interpretation to the word "sold", the Board found that there was no commercial sale and the propagating material was new. Regarding common general knowledge, the Appeal Board found that the variety was not a matter of common general knowledge at the date of filing and so this ground also failed. The third ground of appeal was that the Sugraone variety was described in a publication accessible to the public and thus was common knowledge. While it was clear that Sugraone is genetically identical to varieties of US Plant Patent, it was not common knowledge.

In a landmark decision, the UK Patent Office has considered the issue of sale before application.⁶⁰ It was held that an agreement in the nature of a joint venture entered into for the supply of budding eyes of a new rose,

or otherwise disposed of to others, by or with the consent of the breeder, for purposes of exploitation of the variety...

58. *Sun World International Inc. v. Plant Breeder's Rights*, (1998) 42 IPR 321.

59. *Deciduous Fruit Board, South African Plant Improvement Assn. & Unifruco v. Registrar of Plant Breeders Rights and Sunworld Inc.*, 1997 EIPR D-103.

60. *Elizabeth of Glamis v. Rose*, 1966 FSR 265.

called Elizabeth of Glamis, in the exploitation of the variety cannot be considered as sale of budding eyes by the applicants to the objectors.

5.5.2 Distinctness

The distinctness condition in the UPOV Convention required the variety to be "clearly distinguishable from any other variety whose existence is a matter of common knowledge at the time when protection is applied for". Common knowledge could be established, inter alia, by "marketing already in process".

The logic behind the requirement of distinctness was clearly elucidated by the Board of Appeals of the Community Plant Variety Office in various decisions.

Plant variety rights are special rights. The grant of such a right to a plant breeder is only justified if the plant breeder has produced or discovered or developed a variety eligible for protection. However, this is only the case if the expert world and the business circles addressed are enriched with a new variety, the genotypical distinctions of which are clearly able to be seen. Because third parties are excluded from freely using the protected variety, for reasons of legal certainty the protective scope of the right needs to be precisely determined, and it is not clearly definable if the different expressions are not clearly identifiable. In order for competitors to be able to assess whether they are violating any variety protection right, they must be able to clearly identify at least one crucial distinctive characteristic. Minor differences are insufficient to meet these requirements.⁶¹

According to the Plant Variety Act of India, the distinctiveness of a variety is judged by reference to the common knowledge of the variety. If a variety is distinguishable by at least one essential characteristic from any other variety which is in common knowledge, the variety is considered as distinct.⁶²

The difference between the Indian Act and the UK legislation is that the Indian Act requires only distinction by at least one essential characteristic, while the UK Act requires the variety to be distinguishable by one or more important morphological, physiological or other characteristics from any other variety.⁶³

*L. Daehnfeldt Ltd. v. Controller of Plant Varieties*⁶⁴ was an appeal to add Italian Ryegrass variety, PREGO to the UK national list of grass varieties, and against the refusal of Controller of Plant Variety Rights to grant plant breeders rights in respect of that variety. In the technical questionnaire accompanying the application for the grant of the rights, it was stated that the variety PREGO is bred from a mass selection of single plants of various origin. The refusal to grant the application was that

61. *Hubert Brandkamp*, Case A 018 of 2002, decided on 14-5-2003 (CPOV).

62. PPVFR Act, S. 15(3)(b).

63. UK Plant Varieties Act, 1997, Sch. 2, Part I, para 1.

64. 1976 FSR 95.

the variety PREGO could not be distinguished from two other varieties, TIARA and VEJRUP MB. In order to be distinct, the variety must be clearly distinguishable by one or more important morphological, physiological or other characteristics from any other variety whose existence is a matter of common knowledge at the time of the application.

It was held that the mere presence of PREGO on the Danish and West German lists as qualified for grant of plant breeders' rights cannot by itself be a valid reason for regarding PREGO as satisfying the requirements of UK legislation.

Essential characteristics are those heritable traits of a plant variety determined by the expression of genes or other heritable determinants that contributes to the principal features, performance or value of the plant variety.⁶⁵ Akin to the UPOV Convention⁶⁶, the plant protection system of our country also makes the filing of an application for the granting of a breeder's right or for the entering of another variety in the official register of varieties in any country, as to be deemed to render that variety a matter of common general knowledge from the date of application, provided that the application leads to the granting of a breeder's right or to the entering of the said other variety in the official register of varieties.⁶⁷

On 22 November 1999, the appellant filed an application for a community plant variety right to the species "*Begonia L. rex. Putz*". The variety has been marketed since January 1999 in the Netherlands, but not outside the territory of the European Union.

The technical examination was carried out by the Bundessortenamt in Hanover, Germany. The report of the technical examination concluded that the candidate variety was not distinct from the reference variety. Bundessortenamt had obtained the variety "*Comtesse Louise Erdody*" in October 1998 from Dr Kramer at the botanical garden in Heidelberg. It was concluded that "*Comtesse Louise Erdody*" was a variety in common knowledge on the date of the application for a grant of plant breeder's rights and was not distinct. The variety "*Comtesse Louise Erdody*" was disposed of both by offering for sale by Nothelfer's nursery between 1994 and 2000, and also by its supply to and maintenance in the botanical garden to which there was public access. Therefore, the criteria for common knowledge are met.⁶⁸

The issue of common knowledge was again considered by the Board of Appeal in *Syngenta Seeds*⁶⁹. On 5 November 1999, Novartis Seed, predecessor-in-title of the appellant, filed an application for a community

65. PPVFR Act, S. 2(h).

66. UPOV, 1991, Art. 7.

67. PPVFR Act, S. 15(3)(b), Explanation.

68. *Genplant B.V. v. Board of Appeal of Dutch Plant Variety Office*, AWB 04 of 1952 BESLU, dated 22-3-2005.

69. *Syngenta Seeds B.V.*, Case No. A 005/2002, decided on 2-4-2003 (Board of Appeal of Community Plant Variety Office).

plant variety right for the denomination SANTIS 99, which belongs to the species *Sanvitalia* Lam. The appeal filed by the applicant was dismissed on the ground that the fact of the disposal of the reference variety in Grünewald's 1996/1997 catalogue, coupled with the statement by Mr Schraeder, was sufficient evidence that Grünewald's "Aztekengold" was a matter of common knowledge on the date of the application of the candidate.⁷⁰

The term distinctness requires comparing a variety with another while novelty considers whether the material has been marketed before the date of the application for the plant variety right.

The question whether colour can be considered as a distinctive character arose in the famous *Enola case*⁷¹. Larry Proctor, President of Pod-Ners Seed Company and the owner of the US Patent on a yellow-coloured bean variety, filed a lawsuit claiming that farmers and small bean companies were infringing the patent by illegally growing and selling his yellow Enola bean.

The main question that arose for consideration was the difficulty of novelty which was argued to be solely based on its colour and on its previously never having been grown in the US. The key question for consideration was whether the supposed difference in colour between the original Mexican beans and Enola make Proctor's bean a new variety.

Proctor relied on the decision in *Jessel v. Newland*⁷² and argued that colour was a distinguishing characteristic.

In *Jessel v. Newland*⁷³, it was held:

With respect to plant patents, especially where the major distinguishing characteristic is color, a mere color distinction may be sufficient to distinguish over a related variety of plant. As previously noted, the plant patent claim does not have to delineate the principal distinguishing characteristic so long as it recites a new and distinct variety of the specified plant.

It was argued by the opponent that Proctor "simply grew pure homozygous seed of yellow beans from a seed mixture which self-pollinated to reproduce itself. Nothing unique was invented, and this is a routine procedure used by bean breeders to maintain purity of genetic stocks and varieties".

In response to the request of the International Centre for Tropical Agriculture for re-examination of the Enola bean patent, US Patent and Trademark office has issued a decision to cancel or reject all of the patent's 64 claims.

70. *Ibid.*

71. United States Patent No. 5,894,079, Application No. 08/749,449 dated 13-4-1999 (USPTO).

See for a detailed discussion, "The Enola Bean Patent Controversy: Biopiracy, Novelty and Fish-and-Chips, 2002 Duke 2 Tech. Rev. 0008."

72. 195 USPQ 678, 685 (Dep Comm'r Pat 1977).

73. *Ibid.*

Uniformity

The variety shall be deemed to be uniform if, subject to the variation that may be expected from the particular features of its propagation, it is sufficiently uniform in its relevant characteristics.⁷⁴ Uniformity of a variety is determined after allowing variations that might be expected from the particular features of its propagation. Expected variations of the variety will not be a bar to the requirement of uniformity. Thus, if the variety is sufficiently uniform in the expression of characteristics which come within the ambit of distinctness, the variety will be considered as uniform.

An extant variety can be registered under the Act if it fulfils the requirement of distinctness, uniformity and stability as specified in the regulations.⁷⁵

The degree of uniformity implied by the phrase should be that which a capable breeder skilled in the art could reasonably be expected to achieve without excessive effort, having regard to the particular features of the variety. The rule does not require complete uniformity and the wording is less precise and less demanding than that in the rules for distinctness and stability. Experience shows that the uniformity of plant material comprising a variety differs according to the plant's mode of reproduction or propagation. The words in the schedule "having regard to the particular features of its sexual reproduction or vegetative propagation" clearly recognise this and requires such features to be taken into account in assessing the uniformity of a variety and particularly whether it is sufficiently uniform for the purposes of a grant of rights.⁷⁶

The concept of uniformity was considered in *Moulin Winter Wheat*⁷⁷ by the Plant Varieties and Seeds Tribunal of the UK. Plant Breeding Institute applied for the grant of plant breeders' rights in addition to the UK national list in respect of the winter wheat variety Moulin. The application was refused on the ground that the variety lacked uniformity. In appeal it was held that sufficiently uniform meant the degree of uniformity a capable breeder skilled in the art could reasonably be expected to achieve having regard generally to the nature of plant material and particularly to the biological possibilities of the species in question, including its mode of reproduction, and to any special features of the variety in consideration. While deciding that the variety is entitled to plant breeders' rights, the tribunal observed:

1. A variety which is sufficiently uniform within the meaning of the law achieves a grant of rights and admission to the national list; and
2. Uniformity issue should rightly be determined with the benefit of all available technology, and that if this enables varieties to be properly

74. UPOV 1991, Art. 8.

75. PPVER Act, S. 15(2).

76. *Zephyr case*, 1967 FSR 576.

77. 1985 FSR 283.

identified in accordance with the categories to which appropriate weighting can be attached, then this must be taken into account in the testing process.

5.5.4 Stability

Assessing stability requires that the variety is stable. Plants have a tendency to degenerate. Stability requires that the variety remains unchanged after repeated propagation or in the case of a particular cycle of propagation, at the end of each such cycle.⁷⁸ Although stability is a requirement for variety protection, it is not a characteristic that is included in the examination for distinctness of plant varieties.⁷⁹ Stability is, alongside distinctness and uniformity, an independent, necessary characteristic that makes a plant grouping a variety.

A genotype characteristic of a plant is expressed only if it manifests itself in a different way compared with another plant. No statement can be made about stability until after propagation, once several generations have been compared with each other.

In *Emergent Genetics India (P) Ltd. v. Shailendra Shivam*⁸⁰, the plaintiff's cotton hybrids, sold under the brands BRAHMA, KRISHNA and LAKSHMI, were commercially successful and were developed by a local seed organiser called Bharati Seeds. BRAHMA was brought from Bharati Seeds for sale by HLL, and Bharati Seeds developed cotton hybrids for HLL under an exclusive sourcing agreement dated 18 April 1996. The plaintiff alleged that the defendant's products and those of the plaintiffs are genotypically identical, and so the defendants have misappropriated the seeds of the plaintiff and are selling them as their own. Since the Plant Variety Protection Act was not in force at the time of filing the suit, the plaintiff alleged copyright infringement. The defendant countered the argument and contended that a claim for right in respect of a hybrid variety is a right based on improvements purportedly made to the plant. The accepted test for recognition of rights with respect to improvements must have resulted in new plant variety that must be distinct, uniform and stable. The defendant also argued that the plaintiff has not shown that the variety is not in public domain and that the variety satisfied DUS. The court found that

apart from asserting the originality in the gene compilation, the plaintiff has not shown what exactly is novel or distinct about the seeds it markets, or to what extent they are more efficient or what kind of improved efficacy they

78. Council Regulation (EC) No. 2100/94 on Community Plant Variety Rights, Art. 9.

79. *Joseph en Luc Pieters BVBA, Schierveldestraat, Staden-Oostnieuwkerke, Belgium*, Case A 001/2002, A 002/2002, A 003/2002, decision on 1-4-2003 of the Board of Appeal of the Community Plant Variety Office, relating to Community Plant Variety Rights Applications No. 1997/0392/0393/0394.

80. (2011) 125 DRJ 173.

possess, such as the improvement in terms of pest resistance, greater yield, or claims towards sturdier strain (or variety), etc. The suit does not rely on any supporting document to establish the claim that the seeds are pest resistant or about the uniqueness which sets it apart from other seeds. Nor does the plaintiff show, by any comparison or study, how and to what extent, its assertions are substantiated. It is not even shown whether the claim is distinct, in the sense that there is no other product containing similar qualities or characteristics.

VI

Plant varieties and Farmers' Rights Authority

The Central Government shall by notification in the Official Gazette establish an Authority to be known as the Protection of Plant Varieties and Farmers' Rights Authority.⁸¹ The Authority shall consist of a Chairperson and 15 members. The Chairperson shall appoint a Standing Committee consisting of five members one of whom shall be a member who is a representative from a farmers' organisation, to advise the Authority on all issues including farmers' rights. The Chairperson shall preside at the meetings of the Authority. All questions coming before the Authority shall be decided by a majority of the votes of the members of the Authority. The Authority has the power to appoint committees, officers and other employees for the efficient discharge of its duties and functions. The Authority shall function to promote the encouragement for the development of new varieties of plants and to protect the rights of the farmers and breeders.⁸² The Authority shall advise the Central Government for specifying and notifying the genera and species for registration of new plant varieties other than extant varieties and farmers' varieties.⁸³ The Authority is also vested with the function of developing DUS test and other test criteria and conduct such tests for characterisation of each variety of crop species notified by the Central Government.⁸⁴ Orders and decisions of the Authority shall be authenticated by the signature of the Chairperson or any other member authorised in that behalf. The Authority or Registrar shall have all the powers of a civil court for the purpose of receiving evidence, administering oaths, enforcing the attendance of witnesses, compelling the discovery and production of documents and issuing commissions for the examination of witnesses.⁸⁵ The Authority shall also have the power to order reasonable cost. The order of the Authority shall be executable as a decree of the civil court. For the purposes of this Act, Protection of Plant Varieties and Farmers' Rights Authority has been established.

81. PPVFR Act, S. 3.

82. *Ibid.*, S. 8(2).

83. PPVFR Rules, R. 22(1).

84. *Ibid.*, R. 22(3).

85. PPVFR Act, S. 11.

VII

5.7 Plant Varieties Registry

The Central Government shall establish a Registry known as the Plant Varieties Registry for the purpose of the Act. The head office of the Registry shall be located at the head office of the Authority. The Authority shall appoint a Registrar General of Plant Varieties. The Authority shall also appoint such number of Registrars for registration of plant varieties who shall be under the superintendence and direction of the Registrar General. A register called the National Register of Plant Varieties shall be kept in the head office of the Registry. The names of all the registered plant varieties with the names and addresses of the respective breeders, the rights of the breeders in respect of the registered varieties, the particulars of the denomination of each registered variety, its seed or other propagating material along with the specification of the salient features shall be entered in the register. The rules also mention the particulars to be maintained in the National Register of Plant Varieties of each registered variety.⁸⁶

All proceedings before the Authority or Registrar relating to registration of variety, compulsory licensing, registration of agent shall be deemed to be judicial proceedings. The Authority or Registrar shall be considered as a civil court for the purposes of the provisions of the CrPC.⁸⁷ Legal proceedings shall not lie against the Chairperson, or members, or the Registrar or any person acting in good faith.⁸⁸ Civil courts shall not have jurisdiction in respect of any matter which the Authority or the Registrar or the tribunal is empowered under the Act to determine.⁸⁹ Members and other employees of the Authority shall be deemed to be public servants. The provisions of the legislation shall have overriding effect on all other laws for the time being in force.

VIII

5.8 Registration of plant varieties

A variety is protected under the Act, only when it is registered.⁹⁰ The benefits of the Act are extended only to the persons who register the variety. Applications for registration of varieties can be made by the breeder of the variety, his successor, or assignee, any farmer or group of farmers.⁹¹ Every application shall be made in writing and signed by the applicant and delivered to the Registrar or the Authority at its office.⁹² There must also be a statement describing all the details of the variety that brings out its characteristics of registering the variety. The applicant shall also

86. PPVFR Rules, R. 2.

89. *Ibid.*, S. 89.

92. PPVFR Rules, R. 6(1).

87. PPVFR Act, S. 87.

90. *Ibid.*, S. 14.88. *Ibid.*, S. 88.91. *Ibid.*, S. 16(1)(d).

make available such quantity of seed as is required for testing to evaluate whether it satisfies the standards specified.⁹³ The Authority shall conduct DUS testing which shall be field and multi-location based for at least two crop seasons.⁹⁴ Essentially derived varieties may be tested on a case-to-case basis. The samples of seeds or propagules and the parental lines submitted for testing shall be deposited at the National Gene Bank.

The applicant must also declare that the parental materials acquired for breeding the variety has been lawfully acquired.⁹⁵ He must also provide a complete passport data of the parental lines along with the geographical location in India from where the genetic material has been taken including contribution made by the local communities, if any, in the evolution of that variety.⁹⁶ Farmers' varieties can be registered without stating any of these conditions in his application.⁹⁷ An applicant for protection has to assign a single and distinct denomination to the variety.⁹⁸ Denomination of a variety or its propagating material means the denomination expressed by means of letters or a combination of letters and figures written in any language.⁹⁹ A denomination assigned to a variety shall not be registered as a trade mark under the Trade Marks Act, 1999.

The Registrar on receipt of the application can either accept it, require it to be amended or rejected.¹⁰⁰ On acceptance of the application for registration, the Registrar shall advertise such application calling for objections from the persons interested in the matter.¹⁰¹ The advertisement shall mention the place where a specimen of the variety may be inspected.

An application shall not be rejected by the Registrar without giving a reasonable opportunity to the applicant to present his case. Any person can, within three months from the date of the advertisement, give in writing a notice of opposition to the registration. Opposition to the registration can be made on the grounds:

1. that the person opposing the application is entitled to the breeders right as against the applicant; or
2. that the variety is not registrable under this Act; or
3. that the grant of certificate of registration may not be in public interest; or
4. that the variety may have adverse effect on the environment.¹⁰²

The notice of opposition shall be sent to the applicant within three months from the last date of filing of the opposition.¹⁰³ The applicant is required to file his counter-statement which shall be served on the person giving notice of opposition.¹⁰⁴ All evidence upon which the opponent relies shall be submitted to the Registrar.¹⁰⁵ Any evidence on which the applicant

93. PPVFR Act, S. 19.

95. PPVFR Act, S. 18(1)(e).

97. *Ibid.*, S. 18(1) proviso.100. *Ibid.*, S. 20.

103. PPVFR Rules, R. 31(3).

94. PPVFR Rules, R. 29(1)(c).

96. *Ibid.*, S. 18(1)(e).98. *Ibid.*, S. 17.101. *Ibid.*, S. 21.104. *Ibid.*, R. 31(6).99. *Ibid.*, S. 2(g).102. *Ibid.*, S. 21(3).105. *Ibid.*, R. 33(1).

relies shall be submitted in with a copy to the opponent.¹⁰⁶ The Registrar shall decide whether registration is to be permitted after giving an opportunity of being heard.¹⁰⁷ The time schedule provided shall not be extended and failure to comply in time shall result in forfeiture of the opportunity granted.

The question that arose for consideration in *Maharashtra Hybrid Seeds Co. Ltd. v. Union of India*¹⁰⁸ was whether the Registrar was right in extending the period of time granted for filing opposition.

The petitioner had filed an application to register its novel variety of cotton, for which application was published in the Plant Variety Journal. The notice of opposition was filed after a delay of 86 days. The said delay having been condoned, the petitioner approached the High Court on the ground that there was no provision conferring power on the Registrar to extend the time for filing of notice of opposition. According to Rule 32 of the Protection of Plant Varieties and Farmers' Rights Rules, 2003 the time schedule for advertisement, opposition, defence, hearing and amendment of specification under the rules shall not be extended and the failure to comply would result in forfeiture of the opportunity granted. The court after considering the Act as a whole found that the word "shall" has to be read only as "may" and cannot be considered as a mandatory provision. Thus the court found in favour of the counsel for Union of India and held that the extension of time was proper.

When an application for registration of a variety other than an essentially derived variety has been accepted and on registration of the variety, the Registrar shall issue to the applicant a certificate of registration.¹⁰⁹ Where registration of a variety is not completed within 12 months from the date of application due to default on the part of the applicant, the application will be considered as abandoned after giving notice to the applicant.

The Act has provisions for registration of essentially derived varieties and also gives rights similar to the breeder of a variety as provided in Section 28 of the Act.¹¹⁰ An application for registration of an essentially derived variety shall be accompanied by

1. an affidavit sworn by the applicant stating that such a variety does not contain any gene or gene sequence involving terminator technology;
2. a statement giving details of the brief description of the characteristics of the variety to substantiate novelty, distinctiveness, uniformity and stability; and
3. the details of parental material used.¹¹¹

106. *Ibid.*, R. 33(2).

108. WP (C) No. 4527 of 2010, decided on 22-3-2013 (Del).

109. *Ibid.*, S. 24.

111. PPVFR Rules, R. 34(1).

107. PPVFR Act, S. 21(7).

110. *Ibid.*, S. 23.

Where an essentially derived variety is derived from a farmer's variety, the authorisation shall be given only after obtaining consent from the farmers or the group of farmers or community who have made contribution in the preservation and development of the variety.¹¹² The authorisation by the breeder of the initial variety to the variety of the essentially derived variety shall be subject to the terms and conditions mutually agreed by them. The Protection of Plant Varieties and Farmers Rights Authority shall on receipt of an application for registration of a variety as an essentially derived variety determine by conducting such tests and procedures as to whether the variety is a variety derived from the initial variety.¹¹³ The Authority when satisfied that the variety is an essentially derived variety shall direct the Registrar to register the variety as an essentially derived variety.

The Central Government shall declare a country which accords the citizens of India similar privileges as that granted to its own citizens as a convention country by notification in the Official Gazette. A person who has applied for obtaining a breeder's right in a convention country shall be entitled to the date of priority as that of the application in the convention country provided he makes the application in India within 12 months of applying in the convention country.¹¹⁴ Provision of reciprocity is applicable only where the country declared by the Central Government in the Official Gazette accords to the citizens of India the same rights in respect of the protected variety.¹¹⁵

IX

Rights on registration

5.9

A certificate of registration confers on the breeder or his assignee an exclusive right to produce, sell, market, distribute, import or export the variety.¹¹⁶ On sale of a registered variety, there is an implied warranty that the denomination is a genuine denomination and is not falsely applied.¹¹⁷ The owner of an extant variety shall be the Central Government unless the breeder establishes his right or in case of an extant variety notified under Section 5 of the Act, the State Government will be the owner of the right. The Act also confers on the breeder to authorise any person to produce, sell, market, distribute or deal with the variety registered under the Act. But the registered agent is not entitled to transfer such right. The agent or licensee is also entitled to call upon the breeder or his successor to take proceedings to prevent infringement. If the breeder or his successor refuses to take action, the licensee or his agent shall institute proceedings making the breeder or his successor as a defendant.¹¹⁸ The certificate of

112. PPVFR Act, S. 43.

115. *Ibid.*, S. 32.

118. *Ibid.*, S. 28(6).

113. *Ibid.*, S. 23 (3).

116. *Ibid.*, S. 28.

114. *Ibid.*, S. 31.

117. *Ibid.*, S. 79.

registration confers on the breeder rights valid for a period of nine years in the case of trees and vines and six years in the case of other crops. After this period, the certificate can be renewed for a further period till 18 years in the case of trees and vines from the date of registration of the variety and in the case of extant variety for a period of 15 years from the date of notification and in all other cases for 15 years from the date of registration.¹¹⁹

The Registrar can vary any condition or restriction on receipt of an application by the registered breeder of the variety or his successor. The certificate can also be cancelled by the Registrar on application by the registered breeder.

The breeder of a variety registered under the Act may, after giving notice, surrender his certificate of registration.¹²⁰ On receipt of the notice, the Registrar shall notify every registered agent or licensee relating to such certificate. The agents or licensees are entitled to file their opposition and the Registrar shall, on receipt of the opposition, intimate the breeder of the opposition. The Registrar shall after hearing the parties if satisfied that the certificate of registration may be surrendered, revoke the certificate of registration. The protection granted to a breeder in respect of a variety shall be revoked by the Authority on the following grounds:

1. that the grant of the certificate of registration has been based on incorrect information furnished by the applicant;
2. that the certificate of registration has been granted to a person who is not eligible for protection;
3. that the breeder did not provide the Registrar with such information, documents or material as required for registration under the Act;
4. that the breeder has failed to provide an alternative denomination of the variety which is the subject-matter of the registration to the Registrar in case where the earlier denomination of such variety provided to the Registrar is not permissible for registration under the Act;
5. that the breeder did not provide the necessary seeds or propagating material to the person to whom compulsory licence has been issued in respect of which registration certificate has been issued to the breeder;
6. that the breeder has not complied with the provisions of the Act or rules or regulations;
7. that the breeder has failed to comply with the directions of the Authority;
8. that the grant of the certificate of registration is not in the public interest.¹²¹

119. *Ibid.*, S. 24(6).

120. *Ibid.*, S. 33.

121. *Ibid.*, S. 34.

Protection shall not be revoked unless the breeder is given a reasonable opportunity to file objection and of being heard. The Authority shall issue notice if a breeder fails to deposit the fee imposed for two consecutive years and on failure to comply with the directions in the notice, the Authority shall forfeit the registration certificate issued to such authority.¹²² The arrears of fee shall be deemed to be arrears of land revenue. The Registrar shall cancel or change the certificate of registration for failure to observe a condition of registration or for contravention of any provisions of the Act.

X

Exclusions to registration

5.10

The Indian Act also adopts the method of exclusion by excluding a new variety from registration if the denomination given to such variety falls within the ambit of the exclusions.¹²³ The Act precludes grant of patents to protect public order or public morality, or to protect the human, animal or plant life or health or to avoid serious prejudice to the environment.¹²⁴ There is a clear distinction between the concept of public order and public morality. Morality is the totality of norms that are deeply rooted in the culture of a particular place. It depends greatly on the particular culture of a country or region. Effect of a variety on the environment is a valid ground to deny protection. This provision was invoked by the Indian Government while revoking the patent granted to transgenic cotton.

Agracetus Inc. obtained an Indian patent on cotton that provided it monopoly control over all kinds of transgenic cotton. The patent was granted in contravention of the Patents Act, 1970 which prohibits patenting of seeds. The Indian Council of Agricultural Research challenged the patent claims. The Indian Government revoked the sweeping patent on all genetically engineered varieties of cotton granted to the Agracetus company, a subsidiary of W.R. Grace. The Indian Government based its decision on Section 66, Patents Act, 1970 in public interest.

The UPOV Convention also controls the grant of protection in public interest.¹²⁵ Article 27(2) of the TRIPS Agreement permits members to disallow the exploitation of inventions, "which is necessary to protect *ordre public* or morality, including to protect human or plant life or health or to avoid serious prejudice to the environment...".

Fiat G.A. Smith J of the Queens Bench of Saskatoon in *Hoffman v. Monsanto Canada Inc.*¹²⁶ did not decide on the short question whether genetically modified canola is environmentally unsafe. The plaintiffs were certified organic farmers in Saskatchewan. The claim alleged that

122. *Ibid.*, S. 35.

123. *Ibid.*, S. 15(4).

124. *Ibid.*, S. 29(1).

125. UPOV 1991, Art. 17(1).

126. 2005 SKQB 225; 15 CELR 3d 42; (2005) 7 WWR 665 (Can LII).

these organic farmers have lost the ability to market organic canola due to the contamination of organic canola crops caused by adventitious cross-pollination from open-pollinated varieties of genetically modified canola marketed and/or licensed and/or sold by Monsanto Canada Inc. and Aventis in Saskatchewan.

The plaintiffs also stated that the defendants' genetic modifications are "pollutant", within the meaning of the Environmental Management and Protection Act, 2002, that has caused loss or damage to certified organic grain farmers because of its discharge into the Saskatchewan environment. The court came to the conclusion that it was not at issue in that motion and, hence, did not consider it.

The Act excludes from its ambit registration of a variety containing any gene or gene sequence involving any technology, including genetically used restriction technology and terminator technology which is injurious to the life of living beings.¹²⁷

5.10.1 Terminator and verminator technologies

Though protections are being envisaged, multinationals are trying to make inbuilt protection by terminator and verminator technologies. Farmers often save the seeds from the crops and may not go back to the seed company for years. The multinationals through terminator, verminator and other like technologies build plant variety protection biologically into the plants.

Development of terminator technology will force farmers to surrender control of their seed supply to gene giants. Such technologies have an adverse effect on the poor farmers who rely on farm saved seeds. Another serious concern is the effects of toxin on the uses of the seed. Such seeds can pose risk to the health of the people as well as the birds and other insects. It can also cause a threat to the ecology of the soil organisms. An application for protection under the Indian Act shall be accompanied by an affidavit stating that the variety does not contain any gene sequence involving terminator technology.¹²⁸

XI

5.11 Farmers' rights

The concept of farmers' rights is basically contradictory to the principles of intellectual property. Intellectual property rights are intended to provide incentive for a limited period as a reward for the innovation. Farmers' right is a retrospective reward of unlimited duration for the conservation of plant genetic resources. The rights provide in addition

127. PPVFR Act, S. 29.

128. *Ibid.*, S. 18(1).

for the innovations done on the farms, reward for the past innovations. Farmers' rights are the countervailing force to breeders' right and patents on seeds and plants. The knowledge and rights of local community has to be strengthened in order to conserve our biodiversity. The concept of farmers right had its origin in the FAO International Undertaking on Plant Genetic Resources.¹²⁹ These rights are vested in the international community as trustees for present and future generations. Innovation by farmers began from the time of settled agriculture. Though the process of innovation by the farmer may not conform to the strict terms of the distinctness, stability and uniformity requirement; they also have definite criteria to identify improved varieties they develop. But these innovations are rarely recognised, primarily because of the nature of the farmers' process of innovation. Farmers do not breed in ideal laboratory conditions, but on actual knowledge of the environmental conditions through natural selection and continuous evolving process. Indian farmers have evolved many varieties that are resistant to salt, flood, drought, etc. If the breeders who develop a new variety from the existing genetic resources have a right of ownership and control by virtue of labouring to develop the new variety, the farmers also has a right for identifying, conserving and developing the traditional variety. It is the farmer who has safeguarded the tremendous biodiversity that breeders and seed industry use as raw material. There have been various efforts at the international level for recognising the contribution of the farmers. The UNCED in Chapter 14, Agenda 21 provides for the establishment of a global trust fund for genetic resources primarily intended to support programmes relating to capacity building for germplasm conservation by rural community.

The Full Court of Australia while rendering its decision in *Cultivaust Pty. Ltd. v. Grain Pool Pty. Ltd.*¹³⁰ observed with regard to farmers' rights as:

a person engaged in farming activities, who legitimately obtains propagating material by purchase, may harvest further propagating material from plants grown from the propagating material so purchased and may condition that further propagating material for the farmer's use for reproductive purposes and may reproduce that further propagating material. The farmer may do those same acts in relation to a third generation of propagating material harvested from that second generation of propagating material. The farmer will not infringe plant breeders right by doing so.

India is the first country which has included farmers' rights in its protection of plant varieties. The Act provides that a farmer who has bred a new variety is entitled for registration and protection as a breeder of a new variety.¹³¹ The definition of breeder also clarifies this position by including within the fold of breeder, farmer or group of farmers.¹³² Apart from the

129. 25th Session of the FAO Conference—Rome, 1989, Resolution 5/89.

130. 2005 FCAFC 223.

131. PPVFR Act, S. 39(1).

132. *Ibid.*, S. 2(c).

right of registration of a new variety, the farmer has the right to register a farmers' variety.¹³³ This allows ownership rights to the farmers apart from the privileges.

The concept of farmers' right is more elaborated in the Act by allowing the farmer to save, use, sow, re-sow, exchange, share or sell his farm produce including seeds of a variety protected under the Act. The only condition imposed is that the farmer shall not be entitled to sell branded seed of a variety protected under the Act.¹³⁴

In *Asgrow Seed Co. v. Winterboer*¹³⁵, the petitioner, Asgrow Seed Company, was the holder of PVPA certificates protecting two novel varieties of soybean seed. The respondents, Winterboers planted 265 acres with the protected variety and sold the entire saleable crop to others for use as seed enough to plant 10,000 acres. Asgrow brought suit against the Winterboers seeking damages and a permanent injunction against sale of seed harvested from crops grown from the protected variety. The defence rested upon the contention that their sales fell within the statutory exemption from infringement liability entitled "Right to save seed crop exemption".

It was held by the Supreme Court that a farmer who meets the requirements may sell for reproductive purposes only such seed as he has saved for the purpose of replanting his own acreage. If a farmer saves seeds to replant his acreage, but for some reason changes his plans, he may instead sell those seeds for replanting under the terms set forth in the proviso, or of course sell them for non-reproductive purposes under the crop exemption.

Branded seed means any seed put in a package or any other container and labelled in such a manner indicating that such seed is of a variety protected under the Act. Protection against bad seed is a safeguard to the farmer. According to this provision, the breeder has to disclose to the farmer the expected performance of the variety under given conditions and if the variety fails to give the expected performance when it was sold to him, he is entitled to compensation.¹³⁶ On receipt of a compensation claim from the farmer under Section 39(2) of the Act, the Authority is required to give notice to the registered breeder about the compensation claim.¹³⁷ On receipt of the notice from the Authority, the breeder has to file his notice of opposition within three months from the date of receipt of the notice. The Authority shall, after giving an opportunity of being heard, direct the breeder to pay such amount as compensation as it deems fit.

The breeder or applicant is also required to provide information regarding use of genetic material conserved by any tribal or rural families in the

133. *Ibid.*, S. 39(1)(ii).

135. 130 L Ed 2d 682; 513 US 179 (1995).

136. PPVFR Act, S. 39(2).

134. *Ibid.*, S. 39 (1)(iv).

137. PPVFR Rules, R. 67.

breeding or development of the variety.¹³⁸ Any person or group of persons or any governmental or non-governmental organisation may on behalf of any village or local community in India file in any centre notified any claim attributable to be the contribution of the people of that village or local community.¹³⁹ The Authority after enquiry notified by the centre and after giving an opportunity to the breeder to file his objection within a period of three months¹⁴⁰ and after hearing him, if satisfied, grant such compensation to be paid to a person or group of persons or governmental or non-governmental organisation which has made the claim.¹⁴¹

XII

Gene Fund

The compensation given by the breeder is to be deposited in the Gene Fund. The Gene Fund is constituted by the Central Government. Amounts received as benefit sharing from the breeder, annual fee payable to the Authority as royalty, contribution received from national and international organisation and other sources shall be deposited in the Gene Fund. The Gene Fund shall be utilised for meeting any amount to be paid by way of benefit sharing determined under Section 26 of the Act and also for settling the compensation to be paid to the claim from any community. The fund shall also be used for supporting the conservation and sustainable use of genetic resources including the *in-situ* and *ex-situ* collections and also for strengthening the capability of the Panchayat in carrying out such conservation and sustainable use.¹⁴² The compensation, if not paid, can be recovered as an arrear of land revenue. A farmer shall not be considered as infringing the right established under the Act where he was not aware of the existence of the right.¹⁴³

The Government of India has notified the Protection of Plant Varieties and Farmers Rights (Recognition and Reward from the Gene Fund) Rules, 2012 whereby a farmer who is engaged in the conservation of genetic resources of landraces and wild relatives of economic plants and their improvement through selection and preservation shall be entitled to Plant Genome Saviour Farmer Reward.¹⁴⁴ The rules envisages a maximum of 10 rewards in a year comprising of citation, memento and cash of ₹ 1,00,000 each.

The issue raised in *Delta and Pine Land Co. v. Sinkers Corpn.*¹⁴⁵ is whether a passive third party to a sales transaction, such as a ginner or

138. PPVFR Act, S. 40(1).

140. PPVFR Rules, R. 67.

142. *Ibid.*, S. 45.

144. Protection of Plant Varieties and Farmers Rights (Recognition and Reward from the Gene Fund) Rules, 2012, R. 2.

145. 177 F 3d 1343; 50 USPQ 2d 1749 (Fed Cir 1999).

139. *Ibid.*, S. 41.

141. PPVFR Act, S. 41.

143. *Ibid.*, S. 42.

a delinquent, can be held liable for infringement, as a participant in unauthorised possession transfers, if they fall outside the farmer-to-farmer exemption. The Court of Appeal held that the delinquent should be liable for all illegal transfers of possession, when not brokered by them, only if it has *scienter*. That is, when transferring possession of protected seed under instructions from its customer, the delinquent is liable only if it knows the transfer is not within the exemption for farmer-to-farmer transfers. Absent *scienter*, however, involvement in farmer-to-farmer transfers outside the express exemption, should not subject delinquents and ginners to liability for infringement.

XIII

5.13 Research exemption: Breeders' privilege

Borrowing from the US Constitution, the intention of all legislations is to promote the progress of science and other useful arts.¹⁴⁶ For this reason, most patent laws have a "research exemption" to allow further development. This is particularly important for breeders, who traditionally work by incrementing improvement of existing materials. If they do not have access to new materials to make further improvements, their work is severely hindered. They need freedom to continue with their research. It follows from the concept of breeder's exemption that it is never an infringement of a plant variety right to use the variety for further breeding.¹⁴⁷ This does not include use in commercial production. According to the Act, use of any variety registered under the Act for the purpose of conducting experiment or research shall be entitled to researcher's rights.¹⁴⁸ Use of a variety as an initial source of variety for the purpose of creating other varieties also is considered as in the ambit of researchers' rights. But repeated use of the variety as a parental line for commercial production requires the authorisation of the breeder of the registered variety.

The ambit of the experimental research exception in patents law in the UK was examined in *Monsanto Co. v. Stauffer Chemical Co.*¹⁴⁹

In that case, Stauffer had developed a market variant "Touchdown" of Monsanto's successful patented weed-killer "Roundup". In order to obtain final clearances, Stauffer had established tests at their own research farm and also organised a series of tests outside their research farm where interested parties could observe the results. Monsanto moved for an interlocutory injunction on the grounds of patent infringement, which was granted by the Patents Court, negating the ground that tests done outside the research farm to check their product in different soil and climatic conditions amounts to an experimental use. The Court of Appeal, although it agreed that tests done outside could not qualify for an experimental

146. US Constitution, Art. 1, S. 6.

147. UPOV 1991, Art 15(1).

148. PPVFR Act, S. 30.

149. 1985 RPC 515 (CA).

use exception, exempted all trials carried out at Stauffer's research farm and at laboratories and greenhouses in the UK. The court limited the interpretation of the word "experimental" in accordance to its size, scale, recipient and methodology. This case has raised an uncertainty as to how far university researchers could apply the experimental use exception to field trials.

XIV

Benefit sharing

The Plant Variety Act of India has benefit sharing mechanisms which requires to share the benefits arising from commercialisation of traditional knowledge. The Indian legislation takes care of the interests of the traditional community by providing various mechanisms like benefit sharing and Gene Fund. The present day plant breeding techniques could be achieved only because of the efforts of the third world in preserving and improving the genetic diversity. The breeder of a variety has to disclose in the application information regarding the genetic material used. The contribution made by the farmer, village community, institution or organisation in breeding has to be stated in the application for registration.¹⁵⁰ It is essential that the genetic material is lawfully acquired. In case of wilful concealment of the information, the application will be rejected. On receipt of a copy of certificate of registration, the Authority shall publish the contents of the certificate and can also invite claims of benefit sharing to the variety registered.¹⁵¹ The Authority shall, for the purpose of inviting claims for benefit sharing, advertise details of the registration certificate.¹⁵²

On invitation of the claims any person or group of persons shall submit its claims to benefit sharing. The person making the application for benefit sharing shall provide the following information namely:

- (a) the contribution made by the person or the group of persons or firm or community of the non-governmental organisation to the genetic development of the plant variety;
- (b) the capacity in which the person or the group of persons or the non-governmental organisation is making the claim for benefit sharing;
- (c) in case of "essentially derived varieties", the terms and conditions in which authorisation has been given;
- (d) the commercial viability or the actual market performance of the variety so registered.¹⁵³

150. PPVFR Act, S. 18(e).

152. PPVFR Rules, R. 40.

151. *Ibid.*, S. 26(1).

153. *Ibid.*, R. 41(2).

On receipt of the claim, the Authority shall send a copy of the claim to the breeder of the variety registered under the certificate and the breeder has the opportunity to submit his opposition to the claim.¹⁵⁴ In case the breeder has any opposition to the claim, he has to submit the opposition within a period of three months. The Authority shall dispose of the claim after hearing the parties and can also order the amount of benefit sharing to be paid. The Authority while determining the amount of compensation to be paid shall take into consideration, the extent and nature of the use of the genetic material of the claimant to the development of the variety, the commercial utility and demand in the market of the variety relating to which the benefit sharing has been claimed.¹⁵⁵ The compensation is to be deposited in the Gene Fund. The compensation if not paid can be recovered as an arrear of land revenue.

Lack of an effective legislation to protect the interests of the community who have preserved the genetic diversity has paved way to the granting of protection to many plant varieties without sharing of benefits. A patent was granted to Monsanto by the EPO based in Munich for developing a wheat variety called Galahad¹⁵⁶ by crossing the Indian variety Nap Hal with another naturally existing plant that was conventionally bred without any measures at benefit sharing. These patents were granted without any benefits to the traditional community due to the lack of adequate legislations protecting the interests of the indigenous community.

5.14.1 *Benefit sharing and Biological Diversity Act, 2002*

The law relating to benefit sharing in cases of utilisation of genetic resources is further clarified by the Biological Diversity Act, 2002 legislated in compliance with the requirements of the CBD to which India is a signatory.

The Act ensures that there is no piracy of the biodiversity of the country. Previous approval of the National Biodiversity Authority should be obtained for obtaining any biological resource occurring in India or knowledge associated thereto for research or for commercial utilisation or for bio survey and bio utilisation.¹⁵⁷ Approval shall also be obtained for transferring the results of any research relating to biological resources occurring in, or obtained from, India.¹⁵⁸

A person obtaining approval shall not transfer any biological resource or knowledge associated thereto which is the subject-matter of the said approval except with the permission of the National Biodiversity Authority.¹⁵⁹ Application for intellectual property protection can be made for any invention based on any research or information on a biological

154. PPVFR Act, S. 26(3).

157. Biological Diversity Act, 2002, S. 3.

158. *Ibid.*, S. 19.

155. *Ibid.*, S. 26(5).

159. *Ibid.*, S. 20(1).

156. EP 445929.

resource obtained from India only after obtaining the previous approval of the National Biodiversity Authority.¹⁶⁰ But the provision is not applicable to any person making an application for any right under any law relating to protection of plant varieties enacted by Parliament. Approval of the Authority can be obtained by making an application in the prescribed form.¹⁶¹

While granting approval the Authority may impose benefit sharing fee or royalty or both, or impose conditions including the sharing of financial benefits arising out of the commercial utilisation of such rights.¹⁶² Indian citizens, body corporate, association or organisation registered in India should obtain prior intimation from the State Biodiversity Board concerned.¹⁶³

The Authority shall ensure that there is equitable sharing of benefits arising out of the use of accessed biological resources, their by products, innovations and practices associated with their use and applications and knowledge relating thereto.¹⁶⁴

XV

Compulsory licence

Intellectual property right is granted to an inventor as a bargain for disclosing the invention. The ultimate beneficiary apart from the owner of the right is the public and, hence, it is essential that the variety should be available to the public. There has always been a danger that the owner of the right will abuse the monopoly granted to him. Abuse of the right can be by refusing to grant licenses, imposing unreasonable terms on the licensee or restrictive conditions on the use of the patented articles. The provision of compulsory licensing in the Act prevents this situation. A compulsory licence is an authorisation given by an Authority allowed by law to grant a license, without or against the consent of the title holder for the exploitation of a subject-matter protected by a patent.

After the expiry of a period of three years from the date of issue of a certificate of registration of a variety, any person interested may make an application to the Authority for obtaining a compulsory licence. The application can be made on the grounds that the reasonable requirements of the public for seed or other propagating materials of the variety have not been satisfied or that the seed or other propagating material of the variety is not available to the public at a reasonable price.¹⁶⁵

The Authority shall grant a compulsory licence after consultation with the Central Government and after giving an opportunity to the breeder of such variety to file an opposition¹⁶⁶ and after hearing the parties may

160. *Ibid.*, S. 6(1).

163. *Ibid.*, S. 7.

166. PPVFR Rules, R. 71(4).

161. *Ibid.*, S. 19(2).

164. *Ibid.*, S. 21(1).

162. *Ibid.*, S. 6(2).

165. PPVFR Act, S. 47.

Corporation, which holds patent privileges on the strain. Schmeiser never purchased Roundup Ready Canola nor did he obtain a licence to plant it. But when he noticed the presence of Roundup Ready (glyphosate-resistant) canola seeds on his land, although he had not purchased the seed due to its beneficial property, the farmer saved and reused the seed without paying a licence fee to Monsanto.

The Supreme Court held that the appellants saved, planted, harvested and sold the crop from plants containing the gene and plant cell patented by Monsanto. The issue was whether this conduct amounted to "use" of Monsanto's invention—the glyphosate-resistant gene and cell.

The words "use" or "exploiter" connote utilisation with a view to production or advantage. It was concluded that Monsanto was deprived of the full enjoyment of the monopoly that the patent confers and the use by the appellant was for commercial interest. The court upheld the validity of the Monsanto patent and found that the appellants infringed Monsanto's patent.

A person shall be deemed to apply the denomination of a variety registered under this Act when he—

- (a) applies it to the variety itself; or
- (b) applies it to any package in or with which the variety is sold, or exposed for sale, or had in possession such package for sale or for any purpose of trade or production; or
- (c) places, encloses or annexes the variety which is sold, or exposed for sale, or had in possession for sale or for any purpose of trade or production, in or with any package or other thing to which the denomination of such variety registered under this Act has been applied; or
- (d) uses the denomination of such variety registered under this Act in any manner reasonably likely to lead to the belief that the variety or its propagating material in connection with which it is used is designated or described by the denomination; or
- (e) in relation to the variety uses such denomination in any advertisement, invoice ... and such variety is delivered to a person in pursuance of a request or order made by reference to the denomination as so used.¹⁷⁷

Where a person without the consent of the breeder of a variety applies such denomination or deceptively similar denomination to any variety or any package containing such variety or uses a package bearing a denomination which is identical with or deceptively similar to the denomination of such variety for the purpose of packing or filling any variety other than the variety registered under the Act, shall be considered as falsely

177. PPVFR Act, S. 68.

applying the denomination.¹⁷⁸ The burden of proving that the assent of the breeder of the variety has been obtained is on the accused. Penalty for applying false denomination or indicating false name of a country or place or false name and address of the breeder is imprisonment for a term which shall not be less than three months and shall extend to two years or with fine which shall not be less than ₹ 50,000 and may extend to ₹ 5,00,000 or with both. The accused can escape penalty if he is able to prove that there was no intention to defraud. A person selling varieties to which false denomination is applied is also punishable under the Act with imprisonment for a term which shall not be less than six months and may extend to two years or with fine which shall not be less than ₹ 50,000 and which may extend to 5,00,000 or with both.

The defence available to such a person is that

1. he had taken all reasonable precautions against committing an offence and that at the time of commission of the alleged offence, he had no reason to suspect the genuineness of the denomination of such variety;
2. he had given all the information with respect to the person from whom he obtained such variety; or
3. he had acted innocently.

Making a representation with respect to the denomination of a variety or its propagating material or essentially derived variety or its propagating material not being a variety registered under the Act to the effect that it is registered under the Act is also punishable with imprisonment for a term which shall not be less than six months but which may extend to three years or with fine which shall not be less than 1,00,000 and extending to 5,00,000 or both.¹⁷⁹ A person who in the ordinary course of his employment acts without any intention to commit the offence and who has taken all reasonable precautions against committing the offence charged and had no reason to suspect the genuineness of the act so charged as an offence shall be acquitted provided he has given all the information regarding the person on whose behalf he has committed the offence.¹⁸⁰

The Act also makes provision for penalty for subsequent offence. Suit for infringement shall be instituted in the District Court having jurisdiction to try the suit. While deciding issues of infringement, the court appoints independent scientific advisers to suggest, enquire and report on matters to help the court to arrive at a decision.¹⁸¹

In *Buchanan Turf Supplies Pty. Ltd. v. Premier Turf Supplies Pty. Ltd.*¹⁸², Buchanan Turf Supplies (P) Limited had developed a new variety of soft leaf buffalo grass called "Sir Walter" and applied for plant breeders rights. Many of the older breeds of buffalo grass such as "Shademaster"

178. *Ibid.*, S. 69.
181. *Ibid.*, S. 67.

179. *Ibid.*, S. 72.
182. 2003 FCA 230.

180. *Ibid.*, S. 75.

and "Sydney Common" turn to a purple or brownish colour in winter. Shademaster develops a purple stalk in winter.

The form of application disclosed that the most similar variety of grass is Shademaster.

On 27 March 1998, the Registrar of Plant Breeders' Rights (PBR) certified that PBR have been granted to the applicant for the variety Sir Walter. The applicant's complaint was that on various occasions Premier Turf has supplied or offered to supply customers with turf represented to be Sir Walter when it was another variety of buffalo grass. This conduct constituted an infringement of the PBR. After detailed evidence, Hely J came to the conclusion that until the institution of these proceedings she had no knowledge of the matters of which the applicant complains and that evidence fell short of establishing that Premier Turf had used the name "Sir Walter" in relation to the grass which he proposed to supply.

In *Cropmark Seeds Ltd. v. Winchester International (NZ) Ltd.*¹⁸³, Cropmark sued the defendant for infringement of its plant variety right in a barley called "Optic" used in brewing beer.

Cropmark alleged that the defendants arranged for the sale of Optic barley seed. Cropmark was the exclusive licensee in New Zealand of Optic barley which was developed in New Zealand. The defendants had only arranged for sales of uncertified Optic seeds and did not sell it himself. The sales were also made in different name and some were purported to be for feed to avoid paying royalty. The defendant's main argument centred on the reasoning that there were no sales and, hence, no infringement as infringement required producing for sale, and to sell, reproductive material. But the High Court of New Zealand gave a wider interpretation to the rights conferred and came to the conclusion that the words "produce for sale, and to sell, reproductive material" include arranging sales.

XVIII

5.18 Remedies for infringement

Damages and injunctive relief comprise the integrated totality of the remedies.¹⁸⁴

In *Zee Sweet (Pty.) Ltd. v. Magnum Orchards (Pty.) Ltd.*¹⁸⁵, a decision of the Supreme Court of Victoria highlights the need for growers to be aware of penalty clauses in technology user agreements.

The Australian firm Zee Sweet acquired an exclusive Australian licence to produce and sell peaches and nectarines from the holder of PBR, Zaiger Genetics. Zee Sweet granted to Magnum Orchards, a growers' licence to use the plant material to grow and sell fruit. Zee Sweet alleged

183. CIV 2003-476-8, decided on 28-9-2004; UPOV Gazette No. 99, September 2005, p.11 (New Zealand).

184. PPVFR Act, S. 66.

185. 2003 VSC 486.

that from about 2001, Magnum committed a number of breaches of its Growers Agreement. It argued that Magnum permitted Zee Sweet fruit to be packed, sold and exported through an unauthorised agent, without using the Zee Sweet trade mark. Byrne J, relying on the provisions of the Growers Agreement, concluded that Magnum had committed a number of breaches of its Growers Agreement and also ordered costs and damages for breach of contract and also enforced the penalty clause of the contract which provided for the destruction of the trees.

Another method of protecting the plaintiff is to grant to the plaintiff a share of the profits.¹⁸⁶ The patent owner's actual losses, measured as the loss of profits, is one possible measure of damages to adequately compensate for the infringement. Proof of lost profits must include two elements: 1) that the patent owner would have made additional sales "but-for" the infringement; and 2) evidence for the computation of the loss of profits.¹⁸⁷

Injunctive relief shall be an ex parte injunction or an interlocutory relief for discovery of documents, preserving of infringing variety or documents or other evidence which are related to the subject-matter of the suit. An injunction is proper only to the extent that it is granted to prevent violation of any right secured by patent and may not be punitive.¹⁸⁸ It is the general rule that an injunction will be issued when infringement has been found, in absence of a sound reason for denying it.¹⁸⁹ The fact that infringer stopped infringing is generally not a reason to deny an injunction against future infringement unless there is persuasive evidence that further infringement will not take place. Discontinuation of making or selling the infringed product is not a sufficient reason for denying injunction.¹⁹⁰

Attachment of the property of the defendant to recover the damages, costs and other remedies that may be awarded to the plaintiffs is another possible remedy.¹⁹¹

Intellectual property theft threatens the very foundation of a dynamic, competitive and stable economy and, hence, infringement proceedings are of vital importance.

186. PPVFR Act, S. 66.

187. *Standard Havens Products Inc. v. Gencor Industries Inc.*, 897 F 2d 511: 13 USPQ 2d 2029 (Fed Cir 1990).

188. *Joy Technologies Inc. v. Flakt Inc.*, 6 F 3d 770: 28 USPQ 2d 1378 (Fed Cir 1993).

189. *Donald G. Richardson v. Suzuki Motor Co. Ltd.*, 868 F 2d 1226 (Fed Cir 1989).

190. *W.L. Gore & Associates Inc. v. Garlock Inc.*, 842 F 2d 1275: 6 USPQ 2d 1277 (Fed Cir 1988).

191. PPVFR Act, S. 66(c).

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The following statutes from this chapter are available through EBC Explorer:

- Biological Diversity Act, 2002
- Protection of Plant Varieties and Farmers' Rights Act, 2001
- Protection of Plant Varieties and Farmers' Rights Rules, 2003
- Seeds Act, 1966



STATUTE PILOT

Chapter 6

Geographical Indications

—Jithin Saji Isaac

I

History of geographical indication

In the ancient days, guild marks were used to identify the geographical origin of goods, as well as the identity of their manufacturer. These developed into geographical indications, on the one hand, and trade marks, on the other.

The earliest of the treaties touching on geographical indication can be traced to the Paris Convention which states one of its object as protection of appellations of origin.¹ One of the objects of industrial property is the protection of indications of source or appellations of origin.² The term industrial property has been given a wide meaning encompassing agricultural and extractive industries and to all manufactured or natural products, wines, grain, tobacco leaf, fruit, cattle, minerals, mineral waters, beer, flowers, and flour.³

Paris Convention⁴ and the Madrid Agreement for the Repression of False or Deceptive Indications of Source on Goods, 1891 has used the term indication of source. Though there is no definition of the term in these two treaties, as can be gathered from the Madrid Agreement⁵, an

1. Paris Convention, 1883, Art. 1.

2. *Ibid*, Art. 1(2).

3. *Ibid*, Art. 1(3).

4. *Ibid*, Arts. 1(2) and 10.

5. Madrid Agreement for the Repression of False or Deceptive Indications of Source on Goods, 1891, Art. 1(1) reads:

All goods bearing a false or deceptive indication by which one of the countries to which

indication of source can be defined as an indication referring to a country, or to a place in that country, as being the country or place of origin of a product.

6.1.1 Lisbon Agreement

The Lisbon Agreement establishes an international system of protection for appellations of origin which are already protected under the national law of one of the States party to that agreement. The Agreement helps to protect appellations of origin in countries other than the country of origin. Protection is subject to the international registration of that appellation of origin. The Agreement is administered by the International Bureau of the World Intellectual Property Organisation. The Lisbon Agreement is a special Agreement under Article 19 of the Paris Convention. Any country party to the Convention may accede to the Agreement.⁶

Article 2(1) of the Lisbon Agreement, 1958 defines the term "appellation of origin" as follows:

'Appellation of origin' means the geographical name of a country, region, or locality, which serves to designate a product originating therein, the quality and characteristics of which are due exclusively or essentially to the geographical environment, including natural and human factors.

In order to qualify for registration in the International Bureau of the World Intellectual Property Organisation, the appellation of origin must be recognised and protected in the country of origin.

Country of origin is "the country whose name, or the country in which is situated the region or locality whose name, constitutes the appellation of origin that has given the product its reputation".⁷

The World Intellectual Property Organisation has pointed out three elements to be satisfied for registration under the Agreement as derived from the definition of appellation of origin and country of origin.

First, the requirement that the appellation of origin should be the geographical denomination of a country, region or locality means that the appellation is to consist of a denomination that identifies a geographical entity in the country of origin.

Second, the requirement that the appellation of origin must serve to designate a product originating in the country, region or locality concerned means that, in addition to identifying a place, the geographical denomination in question must be known as the designation of a product originating in that place—requirement of reputation.

⁶ this Agreement applies, or a place situated therein, is directly or indirectly indicated as being the country or place of origin shall be seized on importation into any of the said countries.

⁷ <http://www.wipo.int/lisbon/en/general/>.

⁸ Lisbon Agreement, Art. 2(2).

The *third* requirement concerns the quality or characteristics of the product to which the appellation of origin relates, which must be due exclusively or essentially to the geographical environment of the place where the product originates. The reference to the geographical environment means that there is to be a qualitative connection between the product and the place in which the product originates. The geographical environment is determined on the one hand by a set of natural factors (such as soil and climate), and on the other hand by a set of human factors—for instance, the traditional knowledge or know-how used in the place where the product originates.⁸

Member States under the Agreement are required to ensure protection against any usurpation or imitation, even if the true origin of the product is indicated or if the appellation is used in translated form or accompanied by terms such as "kind", "type", "make", "imitation", or the like.⁹ Registration of appellation of origin can be in the name of any natural persons or legal entities, public or private, having, according to their national legislation, the right to use such appellations. Request of the Authorities of the countries of the Special Union is a requirement.¹⁰ On receiving request from Authorities, the member countries will be notified of the request. The member countries which have received notice of registration has a right of refusal. The right of refusal has to be notified to the International Bureau within a period of one year from the date of receipt by that country of the notice of registration and should also specify the ground for refusal.¹¹ An appellation which has been granted protection in one of the countries of the Special Union cannot, in that country, be deemed to have become generic, as long as it is protected as an appellation of origin in the country of origin.¹² Registration effected with the International Bureau shall be for so long as the appellation of origin is protected in the country of origin.¹³

TRIPS Agreement and geographical indication

The Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement has been considered as a milestone in the international development of intellectual property protection at the end of the 20th century. One type of intellectual property which has benefited exceptionally from the TRIPS Agreement is geographical indications.

Under the WTO TRIPS Agreement, protection is provided for geographical indications in terms of Article 22. The definition of geographical indication in the TRIPS Agreement draws from the definition of appellation of origin in the Lisbon Agreement.

⁸ <http://www.wipo.int/lisbon/en/general/>.

⁹ Lisbon Agreement, Art. 3.

¹⁰ *Ibid.*, Art. 5.

¹¹ *Ibid.*, Art. 7.

¹² *Ibid.*, Art. 6.

¹³ *Ibid.*, Art. 6.

Geographical indications are indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.¹⁴

Members shall provide the legal means for interested parties to prevent:

- (a) the use of any means in the designation or presentation of a good that indicates or suggests that the good in question originates in a geographical area other than the true place of origin in a manner which misleads the public as to the geographical origin of the goods;
- (b) any use which constitutes an act of unfair competition within the meaning of Article 10bis of the Paris Convention (1967).¹⁵

The essential distinction between the provisions of the TRIPS Agreement and the Lisbon Agreement is that, signs other than geographical names, would not be covered by Article 2 of the Lisbon Agreement. However, they would fall into the category of signs that could constitute geographical indications under the TRIPS Agreement.

The Lisbon Agreement requires that the quality and the characteristics of the product in question be due exclusively, or essentially, to the geographical environment, including natural and human factors. But the TRIPS Agreement covers goods which have a given quality, reputation or other characteristic that is essentially attributable to their geographical origin.

Indication of source takes within its sweep both geographical indication as well as appellation of origin. Indications of source only require that the product on which the indications of source is used originate in a certain geographical area. Geographical indications are more broadly defined than appellations of origin. In other words, all appellations of origin are geographical indications, but some geographical indications are not appellations of origin.

With regard to wines and spirits, Article 23 provides for an additional protection. Each member shall provide the legal means for interested parties to prevent use of a geographical indication identifying wines for wines not originating in the place indicated by the geographical indication in question or identifying spirits for spirits not originating in the place indicated by the geographical indication in question, even where the true origin of the goods is indicated or the geographical indication is used in translation or accompanied by expressions such as "kind", "type", "style", "imitation" or the like.¹⁶ Geographical indications for wines and spirits are not only protected against misleading use but also against any use for products not originating in the place indicated by the geographical

14. TRIPS Agreement, 1994, Art. 22.1.

15. *Ibid.*, Art. 22.2.

16. *Ibid.*, Art. 22.3.

indication in question. This protection applies even where the true origin of the goods is indicated or the geographical indication is used in translation or accompanied by expressions such as "kind", "type", "style", "imitation", or the like.¹⁷

The TRIPS Agreement has laid down an adequate solution to the possible conflict between a trade mark and a geographical indication by providing the exclusivity of a valid prior good faith trade mark registration pursuant to Article 16(1) of the TRIPS Agreement.

II

Meaning of geographical indication

Geographical indication is a limb of industrial property which derives its importance due to the geographical advantage of the product. The advantage will be necessarily in the quality of the product and would be associated with the geographical origin like soil, climate or any other features of geographical location.

Indications of geographic origin fall into three broad categories:

1. Indications of source (indications de provenance) indicating the geographical origin of the product;
2. Appellations of origin (*appellations d'origine*) imputing a characteristic quality that relates to geographic factors; and
3. Geographical indications (*indications géographique*) encompassing both indications of source and appellations of origin.

III

GI Act of India

The Geographical Indications of Goods (Registration and Protection) Act, 1999 (GI Act) was promulgated in order to comply with India's international obligations under the TRIPS Agreement to provide legal means for the protection of geographical indications. The Act provides for the registration and better protection of geographical indications relating to goods. In its statement of objects and reasons, the bill that preceded the Act proclaimed that unless a geographical indication was protected in the country of its origin, there would be no obligation under the Agreement on TRIPS for other countries to extend reciprocal protection and that would be to the detriment of goods bearing Indian geographical indications in the international market.

Section 2(1)(f), GI Act, 1999 defines "goods" to mean any agricultural, natural or manufactured goods or any goods of handicraft or of industry

17. *Ibid.*, Art. 23(1).

6.2

6.3

including foodstuff. The term indication has been given an inclusive definition to imply any name, geographical or figurative representation or any combination of them conveying or suggesting the geographical origin of the goods.¹⁸ The Act defines “geographical indication”¹⁹, in relation to goods, as an indication which identifies such goods as agricultural goods, natural goods or manufactured goods as originating, or manufactured in the territory of country, or a region or locality in that territory, where a given quality, reputation or other characteristic of such goods is essentially attributable to its geographical origin and in case where such goods are manufactured goods, one of the activities of either the production or of processing or preparation of the goods concerned takes place in such territory, region or locality. A geographical indication is a sign used on goods that have a specific geographical origin and possess qualities, a reputation or characteristics that are essentially attributable to that place of origin.²⁰ Tequila, Scotch, Cognac, Roquefort cheese are some examples of geographical indications.

The explanation to the section states that any name which is not the name of a country, region or locality of that country shall also be considered as the geographical indication if it relates to a specific geographical area and is used upon or in relation to particular goods originating from that country, region or locality.

Roquefort village is situated in the south of the Parc Naturel Régional des Grands Causses, at the foot of the Rocher de Combalou, Roquefort cheese is matured in the cellars in the heart of the rock. In 1411, King Charles VI gave rights to the ageing of Roquefort to only one village: Roquefort-sur-Soulzon. Nowadays, Roquefort cheeses still mature naturally in the same caves of this village for a minimum of four months. Roquefort quality comes from the ewe’s milk, the processing of the curd, the “*Penicillium roqueforti*” and then the maturation in natural caves. The mold *Penicillium roqueforti* was found in the same caves where the cheeses aged.²¹

Roquefort is noted for its sharp, tangy, salty flavour and its rich, creamy texture. Though some Roqueforts are made in Corsica, the final aging is in the limestone caves of Roquefort near Toulouse in Southern France, where the cool and humid atmosphere promotes growth of the mold *Penicillium roqueforti*. Only cheese that is processed at Roquefort, France, may be labeled “Roquefort cheese.”²²

The characteristics of the cheese is derived from the aging in the caves and also the milk from the particular sheep.

18. GI Act, 1999, S. 2(1)(g).

19. *Ibid.*, S. 2(1)(e).

20. <http://www.wipo.int/geo_indications/en/>, last accessed 21-5-2014.

21. <<http://www.cheese-france.com/cheese/roquefort.htm>>, last accessed 21-5-2014.

22. <<http://www.britannica.com/EBchecked/topic/509557/Roquefort>>, last accessed 21-5-2014.

Protection against misleading use means that it needs to be assessed as to whether consumers are misled by the use of a designation similar or identical to the geographical indication at issue. It may well be that the designation which is a geographical indication in its country of origin can be a trade mark in another country or a generic term in still another country. Examples of designations which may serve as a geographical indication as a trade mark and as a generic term at the same time can easily be found. SWISS may serve as a geographical indication for watches, a trade mark for an airline as well as a generic term for a type of cheese in most, if not all countries.

IV

Prohibition of registration

The Act prohibits the registration of the following geographical indication:

6.4

- (a) the use of which would be likely to deceive or cause confusion; or
- (b) the use of which would be contrary to any law for the time being in force; or
- (c) which comprises or contains scandalous or obscene matter; or
- (d) which comprises or contains any matter likely to hurt the religious susceptibilities of any class or section of the citizens of India; or
- (e) which would otherwise be disentitled to protection in a court; or
- (f) which are determined to be generic names or indications of goods and are not protected in their country of origin, or which have fallen into disuse in that country; or
- (g) which, although literally true as to the territory, region or locality in which the goods originate, but falsely represent to the persons that the goods originate in another territory, region or locality.²³

Generic names or indications in relation to goods means the name of a goods which, although relates to the place or the region where the goods was originally produced or manufactured, has lost its original meaning and has become the common name of such goods and serves as a designation for or indication of the kind, nature, type or other property or characteristic of the goods.

The question that arose in *Federal Republic of Germany v. Commission of European Communities*²⁴ (*Feta case*) was whether Feta could be registered as a designation of origin being used for a considerable time in certain Member States other than the Hellenic Republic. According to the commission, none of the criteria required to show that a name is generic have been met and consequently the name “Feta” has not become generic. According to the various intervening governments, the word “feta” comes from Italian and means slice. The name “Feta” is used not only in Greece

23. *Ibid.*, S. 9.

24. 2006 ETMR 16.

but also in other countries in the Balkans and the Middle East to refer to a cheese in brine. Feta does not owe its quality and characteristics essentially or exclusively to a geographical environment. It was also the contention that Feta is not the name of a geographical area. The term "Feta" was registered as a traditional non-geographical name.

The court relied on a convention between the Republic of Austria and the Kingdom of Greece, relating to the protection of indications of provenance, designations of origin and names of agricultural, craft and industrial products, wherein the use of the name in Austria has been reserved exclusively for Greek products. It was found that the relevant national legislation tends to indicate that the name "Feta" is not generic.

Relying on the evidence adduced, the court concluded that the consumers in Greece consider that the name "Feta" carries a geographical and not a generic connotation. In Member States other than Greece, feta is commonly marketed with labels referring to Greek cultural traditions and civilization. This also led the court to infer that consumers in those Member States perceive feta as a cheese associated with the Hellenic Republic, even if in reality it has been produced in another Member State. Hence the court concluded that the term Feta is not generic.

In *Carl Kühne GmbH & Co. KG v. Jütro Konservenfabrik*²⁵, proceedings was brought against Jütro concerning the use of the designation "Spreewälder Art" for its pickled gherkins. The Spreewald is an area to the south of Berlin, through which flows the river Spree. Between the towns of Lubben and Cottbus the river branches into numerous streams to create an inland delta criss-crossed by waterways. The former dense forest has been partly cleared for cultivation, to which the alluvial soil of the former glacial valley is well suited. The pickling of vegetables, such as gherkins, has long been an industry in the area.

Spreewald eG, requested the German authorities to submit an application to the commission for registration of the designation "Spreewälder Gurken" as a PDO and the government ultimately granted registration.

Jütro has its registered office and production facility in Jüterbog, a town outside the geographical area of the PGI "Spreewälder Gurken". It produced pickled gherkins called "Jütro Gurkenfäßchen", which are distributed throughout Germany under the description "Spreewälder Art".

Kühne was the producer of pickled gherkins competing with Jütro, who did not meet the conditions for being able to use the designation "Spreewälder Gurken". They brought an action seeking an order prohibiting Jütro from using the designation "Spreewälder Art" for its pickled gherkins since the registration of the designation's GI. It was held that a foodstuff may be treated as originating from the geographical area concerned if it is processed or produced in that area, even if the raw materials are produced in another region.

25. Case C-269/99, decided on 6-12-2001.

In *Subhash Jewellery v. Payyannur Pavithra Ring Artisans & Development Society*²⁶, the product for which geographical indication was granted is a finger ring made of gold and silver which is totally hand made. The application was made by Payyannur Pavithra Ring Artisans and Development Society and it was signed by the President for Payyannur Pavithra Ring Artisans and Development Society. The appellant filed a writ petition before the Madras High Court to restrain the Registrar from proceeding with the registration.

The history of this ring is broadly accepted by all. A specific link exists between the product and the place of origin. The Pavithram is a ring made of Durba grass. This pavithra ring is made of gold and is unique for its "pavithra knot" at the centre of the ring. There are three lines on the ring which represent the three "Nadis", viz. Ida, Pingala and Sushumna. There are three lines on each side of the pavithra knot and seven buds on each line. Historically, only persons belonging to the Brahmin community while performing obsequies are said to have worn the Pavithra Mothiram made of Durba grass.

In Payyannur, there was a Sree Subrahmanya Swami Temple which was destroyed during the reign of Tipu Sultan. Thereafter, it was renovated in the Malayalam year 1011. In the same year, it was consecrated under the guidance of Sri Tharananalloor Namboodiripad of Irinjalakuda. The Thanthri was a young boy of the TharananalloorIllom, since there was no adult male member then available in their family. It was he who entrusted the task of making a ring in gold to late Kelappan Perumthattan who belonged to the Chovatta Valappil family in Payyannur, since the Thanthri had practical difficulties in making a ring of Durba grass. Ever since then this ring has been produced by the artisans of Payyannur under the guidance of the Chovatta Valappil family. The rings are made of specific sizes with corresponding weights. This delicate balance between the specified size and weight and the unique craftsmanship in the making of the ring require great expertise and dedication and the artisan is totally isolated for a minimum period of three days to complete the ring.

The name of the territory Payyanur comes from the words the Oor of the Payyanie, the land of Lord Subrahmanya. It is believed that the pavithra knot helps to activate the Kundalini sakthi. The three lines represent the Trinity of Brahma, Vishnu and Shiva. The seven buds stand for the seven rishis, the flattened part adjacent to the pavithra knot is the planet Sun and a similar one at the end of same line is planet Moon. The whole knots at the end are four Vedas. These are the special features of this pavithra ring.

The court send back the application to the Geographical Indications Registry as it was not properly filed and also as even the members of the

26. Order No. 255 of 2012 of Intellectual Property Appellate Board in OA/2/2010/GI/CH, order dt. 14-11-2012 (IPAB).

family, which was entrusted with the technique of making the ring, had no notice of the application. It was held that such an application will defeat the purpose of the Act.

It was held in *Bloomfield Co. Ltd. v. Bagaria Business (P) Ltd.*²⁷ that Bloomfield tea indicates the tea of a geographical place and plaintiff cannot claim any exclusive right to the same. It was held that Bloomfield being a place in the district of Darjeeling and the defendant being owner of a tea estate at Bloomfield in Darjeeling is entitled to use the trade name Bloomfield for the purpose of selling tea and the plaintiff has no right to resist the defendant particularly when plaintiff has no tea estate in the said area.

In *Bisleri International (P) Ltd. v. Dadi Balsara*²⁸, it was held that the words "Himalayan" and "Himalaya" designate the geographical origin and so there is no distinctive character and are incapable of even acquiring secondary meaning.

The trade mark Simla is neither an invented word nor a word having a dictionary meaning. It is a well known hill station in India. The subject-matter of the dispute was a wrapper of cigarette bearing the device of snow clad hills in outline with the word "Simla" written prominently. Distinctiveness of the trade mark in respect of a geographical name is a vital and essential element for the purpose of making it capable of distinguishing the applicant's goods. Such distinctiveness is not possible for any geographical name in its ordinary significance. Simla was a prominent city, capital of Himachal Pradesh, well known in the country and abroad in its ordinary or geographical significance and it was inherently neither distinctive nor adapted to distinguish or capable of distinguishing the goods of the appellant as a particular trader from those of others. It was held that no trade mark should be allowed to be registered which may hamper or embarrass the trader or trade now or in future in respect of the place or country which is proposed to be registered.²⁹

V

6.5 Procedure for registration

Any association of persons or producers or any organisation or authority representing the interest of the producers of the goods concerned, who are desirous of registering a geographical indication in relation to such goods shall apply in writing to the Registrar for the registration of the geographical indication.³⁰

27. (2002) 25 PTC 40 (Cal).

28. 2011 IPAB 11.

29. *Imperial Tobacco Co. of India Ltd. v. Registrar of Trade Marks*, AIR 1968 Cal 582: 73 CWN 169.

30. GI Act, 1999, S. 11.

The application shall contain—

- (a) a statement as to how the geographical indication serves to designate the goods as originating from the territory concerned of the country or region or locality in the country in respect of specific quality, reputation or other characteristics of which are due exclusively or essentially to the geographical environment, with its inherent natural and human factors, and the production, processing or preparation of which takes place in such territory, region or locality;³¹
- (b) the class of goods to which the geographical indication shall apply;³²
- (c) the geographical map of the territory of the country or region or locality in the country in which the goods originate or are being manufactured;³³
- (d) the particulars regarding the appearance of the geographical indication as to whether it is comprised of the words or figurative elements or both;³⁴
- (e) a statement containing such particulars of the producers of the concerned goods, if any, proposed to be initially registered with the registration of the geographical indication.³⁵

Every application shall be filed in the office of the Geographical Indications Registry within whose territorial limits, the territory of the country or the region or locality in the country to which the geographical indication relates is situated. Where such territory, region or locality is not situated in India, the application shall be filed in the office of the Geographical Indications Registry within whose territorial limits the place mentioned in the address for services in India as disclosed in the application, is situated.

Every application shall be examined by the Registrar. The Registrar may refuse the application or may accept it absolutely or subject to such amendments, modification, conditions or limitations. In the case of refusal or conditional acceptance of application, the Registrar shall record in writing the grounds for such refusal or conditional acceptance and the materials used by him in arriving at his decision.

Where, after the acceptance of an application for registration of a geographical indication but before its registration, the Registrar is satisfied

- (a) that the application has been accepted in error; or
- (b) that in the circumstances of the case the geographical indication should not be registered or should be registered subject to conditions or limitations or to conditions additional to or different from the conditions or limitations subject to which the application has been accepted, the Registrar may, after hearing the applicant if he so desires, withdraw the acceptance and proceed as if the application had not been accepted.³⁶

31. *Ibid.*, S. 11(2)(a).

34. *Ibid.*, S. 11(2)(d).

32. *Ibid.*, S. 11(2)(b).

35. *Ibid.*, S. 11(2)(e).

33. *Ibid.*, S. 11(2)(c).

36. *Ibid.*, S. 12.

family, which was entrusted with the technique of making the ring, had no notice of the application. It was held that such an application will defeat the purpose of the Act.

It was held in *Bloomfield Co. Ltd. v. Bagaria Business (P) Ltd.*²⁷ that Bloomfield tea indicates the tea of a geographical place and plaintiff cannot claim any exclusive right to the same. It was held that Bloomfield being a place in the district of Darjeeling and the defendant being owner of a tea estate at Bloomfield in Darjeeling is entitled to use the trade name Bloomfield for the purpose of selling tea and the plaintiff has no right to resist the defendant particularly when plaintiff has no tea estate in the said area.

In *Bisleri International (P) Ltd. v. Dadi Balsara*²⁸, it was held that the words "Himalayan" and "Himalaya" designate the geographical origin and so there is no distinctive character and are incapable of even acquiring secondary meaning.

The trade mark Simla is neither an invented word nor a word having a dictionary meaning. It is a well known hill station in India. The subject-matter of the dispute was a wrapper of packet of cigarette bearing the device of snow clad hills in outline with the word "Simla" written prominently. Distinctiveness of the trade mark in respect of a geographical name is a vital and essential element for the purpose of making it capable of distinguishing the applicant's goods. Such distinctiveness is not possible for any geographical name in its ordinary significance. Simla was a prominent city, capital of Himachal Pradesh, well known in the country and abroad in its ordinary or geographical significance and it was inherently neither distinctive nor adapted to distinguish or capable of distinguishing the goods of the appellant as a particular trader from those of others. It was held that no trade mark should be allowed to be registered which may hamper or embarrass the trader or trade now or in future in respect of the place or country which is proposed to be registered.²⁹

V

6.5 Procedure for registration

Any association of persons or producers or any organisation or authority representing the interest of the producers of the goods concerned, who are desirous of registering a geographical indication in relation to such goods shall apply in writing to the Registrar for the registration of the geographical indication.³⁰

27. (2002) 25 PTC 40 (Cal).

28. 2011 IPAB 11.

29. *Imperial Tobacco Co. of India Ltd. v. Registrar of Trade Marks*, AIR 1968 Cal 582: 73 CWN 169.

30. GI Act, 1999, S. 11.

The application shall contain—

- (a) a statement as to how the geographical indication serves to designate the goods as originating from the territory concerned of the country or region or locality in the country in respect of specific quality, reputation or other characteristics of which are due exclusively or essentially to the geographical environment, with its inherent natural and human factors, and the production, processing or preparation of which takes place in such territory, region or locality;³¹
- (b) the class of goods to which the geographical indication shall apply;³²
- (c) the geographical map of the territory of the country or region or locality in the country in which the goods originate or are being manufactured;³³
- (d) the particulars regarding the appearance of the geographical indication as to whether it is comprised of the words or figurative elements or both;³⁴
- (e) a statement containing such particulars of the producers of the concerned goods, if any, proposed to be initially registered with the registration of the geographical indication.³⁵

Every application shall be filed in the office of the Geographical Indications Registry within whose territorial limits, the territory of the country or the region or locality in the country to which the geographical indication relates is situated. Where such territory, region or locality is not situated in India, the application shall be filed in the office of the Geographical Indications Registry within whose territorial limits the place mentioned in the address for services in India as disclosed in the application, is situated.

Every application shall be examined by the Registrar. The Registrar may refuse the application or may accept it absolutely or subject to such amendments, modification, conditions or limitations. In the case of refusal or conditional acceptance of application, the Registrar shall record in writing the grounds for such refusal or conditional acceptance and the materials used by him in arriving at his decision.

Where, after the acceptance of an application for registration of a geographical indication but before its registration, the Registrar is satisfied

- (a) that the application has been accepted in error; or
- (b) that in the circumstances of the case the geographical indication should not be registered or should be registered subject to conditions or limitations or to conditions additional to or different from the conditions or limitations subject to which the application has been accepted, the Registrar may, after hearing the applicant if he so desires, withdraw the acceptance and proceed as if the application had not been accepted.³⁶

31. *Ibid.*, S. 11(2)(a).

32. *Ibid.*, S. 11(2)(b).

33. *Ibid.*, S. 11(2)(c).

34. *Ibid.*, S. 11(2)(d).

35. *Ibid.*, S. 11(2)(e).

36. *Ibid.*, S. 12.

When an application for registration of a geographical indication has been accepted, whether absolutely or subject to conditions or limitations, the Registrar shall cause the application as accepted together with the conditions or limitations, if any, subject to which it has been accepted, to be advertised in such manner as may be prescribed.³⁷

6.5.1 Opposition to registration

Any person may, within three months from the date of advertisement or re-advertisement of an application for registration or within a further extended period of one month give notice in writing in the prescribed manner to the Registrar, of opposition to the registration.³⁸ The Registrar shall serve a copy of the notice on the applicant for registration and, within two months from the receipt by the applicant of such copy of the notice of opposition, the applicant shall send to the Registrar in the prescribed manner a counter-statement of the grounds on which he relies for his application. Failure to do so, shall be deemed to be abandonment of the application.

If the applicant sends such counter-statement, the Registrar shall serve a copy thereof on the person giving notice of opposition. Any evidence upon which the opponent and the applicant may rely shall be submitted to the Registrar, and the Registrar shall give an opportunity to them to be heard, if they so desire. The Registrar shall, after hearing the parties, if so required, and considering the evidence, decide whether and subject to what conditions or limitations, if any, the registration is to be permitted, and may take into account a ground of objection whether relied upon by the opponent or not. Where a person giving notice of opposition or an applicant sending a counter-statement after receipt of a copy of such notice neither resides nor carries on business in India, the Registrar may require him to give security for the costs of proceeding before him, and in default of such security being duly given, may treat the opposition or application, as the case may be, as abandoned. The Registrar may, on request, permit correction of any error in, or any amendment of, a notice of opposition or a counter-statement on such terms as he thinks just.

When an application for registration of a geographical indication has been accepted and the time for opposition has expired or the opposition has been decided in favour of the applicant, the Registrar shall, register the said geographical indication. The application when registered shall be as of the date of the making of the said application.³⁹

The registration of a geographical indication shall be for a period of ten years, but may be renewed from time to time.⁴⁰

The French *Bureau National Interprofessionnel du Cognac v. Arne Burmeister*, OHIM brought opposition proceedings before the Office

37. *Ibid.*, S. 13.

40. *Ibid.*, S. 18.

38. *Ibid.*, S. 14.

39. *Ibid.*, S. 16.

of Harmonization of the Internal Market (OHIM), contesting the trade mark application "KONYAGI". The OHIM noted that "the notoriety or reputation of the geographical indication COGNAC is a notorious fact. The appellation of origin COGNAC clearly enjoys a very high level of reputation all over the world".

Consequently, the OHIM came to the conclusion that "the opponent successfully proved that his appellation of origin enjoys reputation in France and that, therefore, French national law and Community law vest him an exclusive right in the appellation of origin 'COGNAC' that would prevent the use of the applicant's trade mark for the goods included in the application".⁴¹

In *AbadíaRetuerta, SA v. Office for Harmonisation in Internal Market (Trade Marks and Designs) (OHIM)*⁴², the owner of the Pago Palomar estate, applied to register as a community trade mark the words "CUVÉE PALOMAR" for wines. The application was refused by the examiner.

The appeal it lodged was further dismissed by the Board of Appeal, which stated that "el Palomar" was the name of a local administrative area in Spain and that it constituted, under applicable community and national law, an area of production protected by the registered designation of origin "Valencia".

The Board of Appeal added that there was a high degree of similarity between the applied for trade mark and the local administrative area name "el Palomar" and that the use of the word "palomar" being included in the mark applied for, was prohibited since the applied for community trade mark had not been sought to designate wines from that area of origin. The Board of Appeal concluded that the registration of the community trade mark applied for to designate wines should be refused. The decision was confirmed on similar grounds by the General Court.

In *Walker (John) and Sons Ltd. v. Henry Ost and Co. Ltd.*⁴³ (*Scotch whisky case*), the product with which the case was primarily concerned was blended whisky and the class entitled to the goodwill in the descriptive term "Scotch whisky" was not restricted to traders who dealt in whisky that had been blended in Scotland but extended to suppliers of blended whisky wherever the blending process took place provided that the ingredients of their product consisted exclusively of whiskies that had been distilled in Scotland. The court found that the descriptive name under which goods of a particular type or composition were marketed by the plaintiffs among others happened to have geographical connotations is significant. If a product of a particular character or composition has been marketed under a descriptive name and under that name has gained

41. *Bureau National Interprofessionnel du Cognac v. Arne Burmeister*, OHIM, decision No. 2320 of 2004 of 15-7-2004.

42. 2010 ETMR 43.

43. (1970) 1 WLR 917; (1970) 2 All ER 106.

a public reputation which distinguishes it from competing products of different composition, the goodwill in the name of those entitled to make use of it should be protected by the law against deceptive use of the name by competitors, if it denotes a product of which the ingredients come from a particular locality, but should lose that protection if the ingredients of the product, however narrowly identified, are not restricted as to their geographical provenance.

The trade mark application for "Champagne and Rose" applied for games was dismissed by OHIM.⁴⁴ The OHIM held that the senior right "Champagne", which is a protected geographical indication pursuant to French Law, was similar to the trade mark application applied for. Furthermore, the judges considered that the senior trade mark had a high degree of prominence, which appears rarely. They held that "Champagne" takes such top position that it embodies exclusiveness. Consequently, a dilution and weakening of the distinctiveness of the protected indication of origin must be feared.

VI

6.6 Rights conferred by registration

Sections 21 and 22 detail the rights conferred by registration under the Act and what would amount to infringement.

The registration of a geographical indication shall give—

- (a) to the registered proprietor of the geographical indication the right to obtain relief in respect of infringement of the geographical indication;
- (b) to the authorised user thereof the exclusive right to the use of the geographical indication in relation to the goods in respect of which the geographical indication is registered.⁴⁵

44. OHIM decision No. 949/984 of 27-1-2010.

45. GI Act, 1999, S. 21 reads:

Rights conferred by registration.—

(1) Subject to the other provisions of this Act, the registration of a geographical indication shall, if valid, give,—

- (a) to the registered proprietor of the geographical indication and the authorised user or users thereof the right to obtain relief in respect of infringement of the geographical indication in the manner provided by this Act;
- (b) to the authorised user thereof the exclusive right to the use of the geographical indication in relation to the goods in respect of which the geographical indication is registered.

(2) The exclusive right to the use of a geographical indication given under clause (b) of sub-section (1) shall be subject to any condition and limitation to which the registration is subject.

(3) Where two or more persons are authorised users of geographical indications, which are identical with or nearly resemble each other, the exclusive right to the use of any of those geographical indications shall not (except so far as their respective rights are subject to any conditions or limitations entered on

Assignment and transmission

Section 24, GI Act, 1999 prohibits assignment, transmission, licensing, pledge, mortgage and the like of the rights in respect of the registered geographical indication. Such provision is a departure from the general right of assignment and transmission of a registered mark under the trade mark law.

6.6.1

VII

Prohibition of registration of geographical indication as trade mark

6.7

The Registrar of Trade Marks shall refuse or invalidate the registration of a trade mark which—

- (a) contains or consists of a geographical indication with respect to the goods or class or classes of goods not originating in the territory of a country, or a region or locality in that territory which such geographical indication indicates, if use of such geographical indications in the trade mark for such goods, is of such a nature as to confuse or mislead the persons as to the true place of origin of such goods or class or classes of goods;
- (b) contains or consists of a geographical indication identifying goods or class or classes of goods notified under sub-section (2) of Section 22.⁴⁶

The judgment of the House of Lords in *A. Bailey & Co. Ltd. v. Clark, Son & Morland Ltd.*⁴⁷ stresses on the importance of geographical indications. The controversy related to the registration of trade mark "Glastonburys" in respect of slippers, slipper-shoes and motor over shoes.

Lord Russel of Killowen observed as under:

The word 'Glastonburys' is an obviously geographical name indicating a locality, namely, the town of Glastonbury. In the town of Glastonbury there are (and were at the date of the registration) two manufacturers of these sheepskin slippers, namely, the appellants and the respondents. The town of Glastonbury enjoys a reputation connected with sheepskin slippers, arising from the fact that it is famous for its efficient tanning of the sheepskins with the wool which are used in their manufacture. The buyer for the shoe department of Frederick Gorrings, Limited, testified as follows: It is customary for manufacturers of slippers whose factories are not situated in Glastonbury to

the register) be deemed to have been acquired by anyone of those persons as against any other of those persons merely by registration of the geographical indications, but each of those persons has otherwise the same rights as against other persons as he would have if he were the sole authorised user.

46. GI Act, 1999, S. 25.

47. (1938) 55 RPC 253.

1.3.8

make a big selling point of the fact that the skins from which their slippers are made were either tanned or finished in Glastonbury, and they therefore expect to obtain better prices solely for the reason that their skins had been treated in Glastonbury. I have always been prepared to pay more for a slipper which had been produced from a skin treated in Glastonbury than one treated elsewhere, as there is something in the Glastonbury tanning which does not appear in one produced elsewhere.

It was held that the word "Glastonburys" ought not to have been registered as a trade mark.

6.7.1 Protection of certain trade marks

The GI Act saves the right of a person who had used the mark or who had applied for or registered in good faith under the law relating to trade marks either before the commencement of the GI Act or before the date of filing of the application for registration from registering the mark under the Trade Marks Act or from using it as a trade mark on the ground that such trade mark is identical with or similar to a geographical indication.⁴⁸ The Act shall also not apply to a geographical indication in respect of goods for which such geographical indication is identical with the term customary in common language as the common name of such goods in any part of India on or before the 1st day of January, 1995.⁴⁹ To the extent use of a person's name or the name of that person's predecessor in business does not confuse or mislead the people, the Act does not prejudice the right of a person to use it in the course of trade.⁵⁰ The limitation period for taking action for infringement of a geographical indication by use or registration of a trade mark is five years from the date on which such use or registration infringes any geographical indication registered under this Act has become known to the registered proprietor or authorised user registered in respect of such geographical indication under this Act or after the date of registration of the trade mark under the Trade Marks Act.⁵¹

VIII

6.8 Rectification and correction of the register

On application by an aggrieved person, the tribunal can cancel or vary the registration of a geographical indication or authorised user on the ground of any contravention, or failure to observe the condition entered on the register.⁵² The tribunal may also make expunge or vary an entry on an application by an aggrieved person to the Appellate Board or the Registrar.⁵³ Apart from acting on application of an aggrieved person, the tribunal can also exercise *suo motu* power.

48. GI Act, S. 26(1).
51. *Ibid.*, S. 26(4).

49. *Ibid.*, S. 26(2).
52. *Ibid.*, S. 27(1).

50. *Ibid.*, S. 26(3).
53. *Ibid.*, S. 27(2).

Section 28 of the Act empowers the Registrar to correct entry or to cancel the entry of a geographical indication in the register. The Act also makes provision for addition or alteration of geographical indication.⁵⁴

IX

Appeals to the Appellate Board

Any person aggrieved by an order or decision of the Registrar may prefer an appeal to the Appellate Board within three months from the date on which the order or decision sought to be appealed against, is communicated to such person preferring the appeal.⁵⁵ No appeal shall be admitted if it is preferred after the expiry of the period of three months. An appeal may be admitted after the expiry of the period specified thereof, if the appellant satisfies the Appellate Board that he had sufficient cause for not preferring the appeal within the specified period. An appeal to the Appellate Board shall be in the prescribed form and shall be verified in the prescribed manner and shall be accompanied by a copy of the order or decision appealed against and such fees as may be prescribed. No court or other authority shall be entitled to, exercise any jurisdiction, powers or authority in relation to the appellate provisions of the Appellate Board.⁵⁶ The Registrar shall have the right to appear and be heard—

- (a) in any legal proceedings before the Appellate Board in which the relief sought includes alteration or rectification of the register or in which any question relating to the practice of the Geographical Indications Registry is raised;
- (b) in any appeal to the Board from an order of the Registrar on an application for registration of a geographical indication or authorised user—
 - (i) which is not opposed, and the application is either refused by the Registrar or is accepted by him subject to any amendments, modifications, conditions or limitations, or
 - (ii) which has been opposed and the Registrar considers that his appearance is necessary in the public interest, and the Registrar shall appear in any case if so directed by the Board.

The Registrar may, in lieu of appearing, submit a statement in writing signed by him, giving such particulars as he thinks proper of the proceedings before him relating to the matter in issue or of the grounds of any decision given by him and such statement shall be evidence in the proceeding.⁵⁷

54. *Ibid.*, S. 29.
57. *Ibid.*, S. 35.

55. *Ibid.*, S. 31.

56. *Ibid.*, S. 32.

In proceedings for rectification and correction of the register and also in appeals before the appellate Board, the authorised user has to be impleaded.⁵⁸

X

6.10 Infringement of unregistered geographical indication

Section 20(1) of the Act prohibits any person from instituting any proceedings to prevent or to recover damages for the infringement of an unregistered geographical indication. However, this does not affect the rights of action against any person for passing off goods as the goods of another person or the remedies in respect thereof.⁵⁹

In *Braham v. Beachim*⁶⁰, the plaintiff was the owner of and worked all the collieries in the parish of R. in Somersetshire and owned all the coal in that parish with a small exception. She carried on business of working the collieries and selling the coal in her own name adding to it on her wagons and bill-heads the words "R. collieries". The defendants from 1868 carried on at R. the business of coal merchant as the "R. Coal Co" having depots at various railway stations in the south and west of England at which they sold different kinds of coal. They became in 1876 the lessees of and worked a colliery outside the parish of R. but in a district or basin in which coal was raised similar to that raised within the parish, coal raised in the district, but outside the parish being known in the market as R. Coal. In 1873, the defendants began to sell coal at G. in Surrey by means of a local agent and in 1875 they bought the goodwill of a retail coal dealer named C. at G. who had become bankrupt. They then advertised themselves in the Surrey newspapers and otherwise in the neighbourhood as "The R. Colliery Proprietors and Factors, Coal and Coke Merchants (late C. & Co.)" and offered to supply coal of every description direct from the collieries. In such a fact, it was held that the defendants were not entitled to use the name "R. Colliery Proprietors" unless and until they should acquire a colliery within the parish of R. or to use any style implying that their coal came from the parish of R. or unless and until they should become authorised to sell coals raised from a colliery within that parish.

In *Scotch Whisky Assn. v. Golden Bottling Ltd.*⁶¹, the plaintiffs filed suit for restraining the defendant from dealing with whisky under the name "Red Scot" or any other name containing the word "Scot".

The Scotch Whisky Act, 1988 enacted in the UK defined Scotch whisky as such whisky (distilled and matured in Scotland) as conforms to a definition of Scotch whisky contained in an order made by the Ministers.

58. *Ibid.*, S. 68.

61. (2006) 32 PTC 656; (2006) 129 DLT 423.

59. *Ibid.*, S. 20(2).

60. 7 Ch D 848.

The Scotch Whisky Act and the Scotch Whisky Order showed that even in Scotland all whisky that are produced need not necessarily fall within the definition of Scotch whisky. Scotch whisky is known worldwide as a whisky produced in Scotland and is advertised as such.

The defendant was manufacturing and selling "Red Scot" whisky which gave an impression that it is Scotch whisky. It was argued that the word "Scot" or "Scotch" is a geographical indication within the meaning of Article 22.1, TRIPS Agreement inasmuch as it identifies whisky produced in Scotland. The plaintiff being the holder of unregistered geographical indication, the court enjoined the defendants from passing off its "Red Scot" whisky as a produce of Scotland.

Uncorking viniculture of Champagne

The centrality of geographical influences for products such as wine is rooted in the idea of terroir. This elusive expression can be described as a much discussed term for the total natural environment of any viticultural site.⁶² It encompasses an original, and sometimes unique, combination of natural factors such as the quality and nature of the soils, climate, and location and orientation factors such as the slope and sunshine exposure of the vineyards. To these terroir quality attributes are added others that pertain to traditional winemaking processes.⁶³ So while the physical geography components — climate (temperature, rainfall); sunlight per unit of surface area; relief or topography; geology and pedology (a soil's physical and chemical characteristics); hydrology (soil-water relations) are important,⁶⁴ the human skill and traditional know-how is a significant component as well.⁶⁵

The vineyards of Champagne straddle the 49th parallel. The subsoil of the region is mainly chalk, which is highly porous and acts as a reservoir of water during summer months. Outcrops of limestone mixed with chalk and marl are naturally fissured, providing excellent drainage.⁶⁶ Three grape varieties are predominantly used to make Champagne; pinot noir, chardonnay and pinot meunier.⁶⁷ Champagne made exclusively from chardonnay grapes is known as *blanc de blancs*; if made exclusively from

62. Jancis Robinson (Ed.), *The Oxford Companion to Wine* (2nd Edn., OUP, Oxford 1999) 700.

63. E. Auriol et al, "France" in K. Anderson (Ed.), *The World's Wine Markets: Globalization at Work* (Edward Elgar, Cheltenham, UK 2004) 64.

64. See, James E. Wilson, *Terroir: The Role of Geology, Climate, and Culture in the Making of French Wines* (Mitchell Beazley, London 1998).

65. Elizabeth Barham, "Translating Terroir: The Global Challenge of French AOC Labeling" (2003) 19 *Journal of Rural Studies* 127.

66. Michael Edwards, *The Finest Wines of Champagne: A Guide to the Best Cuvées, Houses, and Growers* (University of California Press 2009) 23.

67. Grape Escapes, Champagne the grapes (2012) Grape Escapes, <<http://www.champagneescapes.com/grapes.shtml>>.

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65. Elizabeth Barham, "Translating Terroir: The Global Challenge of French AOC Labeling" (2003) 19 *Journal of Rural Studies* 127.

66. Michael Edwards, *The Finest Wines of Champagne: A Guide to the Best Cuvées, Houses, and Growers* (University of California Press 2009) 23.

67. Grape Escapes, Champagne the grapes (2012) Grape Escapes, <<http://www.champagneescapes.com/grapes.shtml>>.

the red-skinned varieties, it is known as *blanc de noirs*.⁶⁸ The concept of *terroir*⁶⁹ is highly relevant to the production of Champagne wines.

Champagne vineyards are classified according to a system known as the *Echelle des Crus* (ladder of growth), whereby certain villages command a higher value for their grapes than other villages.

The traditional method of producing champagne is known as *méthode champenoise* within the Champagne region. Primary fermentation takes place in vats or barrels, as for other wines. The wine resulting from primary fermentation of champagne grapes is acidic. The next step in the manufacture of champagne involves blending of several different wines to achieve the distinctive house style. The key to champagne production lies in a process of secondary fermentation, which takes place in the bottle. The blended wine is put into bottles, and a small amount of *liqueur de tirage*, a mixture of sugar and yeast dissolved in still wine is added. The bottles are then sealed with a crown cap (or crown cork), similar to a beer bottle cap.⁷⁰ At the end of the designated riddling period, the crown cap is removed and the lees are disgorged, with minimal loss of wine. The lost volume is replaced with a fluid known as *liqueur d'expédition*; this practice is called dosage.

The final stage of production is the insertion of the cork that will stopper the bottle until consumption of its contents. The newly installed cork is secured by the addition of the muselet, the familiar wire cage, together with the tinplate cap that usually bears the logo or distinctive mark of the maison.

The complexity and the evolutionary development in the steps of production to achieve fine Champagne are two of the main reasons why the French are concerned to guard the reputation of the appellation and to secure the geographical indication to the Champagne region alone.

The complex and labour-intensive nature of the *méthode champenoise*, all contribute to the sense of identity and connection between the land, the produce and the people of Champagne. This fuels the passion and the desire of the Champenois to protect the product and the appellation.

6.10.2 Infringement of registered geographical indications

Section 22 of the Act deals with the infringement of registered geographical indications.

A registered geographical indication is infringed by a person who, not being an authorised user thereof,—

68. Wine and Spirits magazine, *The New Rose* (2012) Wine and Spirits Magazine <http://www.wineandspiritsmagazine.com/pages/F&F/1209_new_rose.html>.

69. *Terroir*, a French word meaning sense of place, embodies the characteristics of geography, geology and climate that contribute to the qualities of the produce of the region.

70. Jancis Robinson, *The Oxford Companion to Wine* (4th Edn., OUP 2006) 150–53.

- (a) uses such geographical indication by any means in the designations or presentation of goods that indicates or suggests that such goods originate in a geographical area other than the true place of origin of such goods in a manner which misleads the persons as to the geographical origin of such goods; or
- (b) uses any geographical indication in such manner which constitutes an act of unfair competition including passing off in respect of registered geographical indication.
- (c) uses another geographical indication to the goods which, although literally true as to the territory, region or locality in which the goods originate, falsely represents to the persons that the goods originate in the territory, region or locality in respect of which such registered geographical indication relates.

Act of unfair competition means any act of competition contrary to honest practices in industrial or commercial matters.

The following acts shall be deemed to be acts of unfair competition, namely:—

- (i) all acts of such a nature as to create confusion by any means whatsoever with the establishment, the goods or the industrial or commercial activities, of a competitor;
- (ii) false allegations in the course of trade of such a nature as to discredit the establishment, the goods or the industrial or commercial activities, of a competitor;
- (iii) geographical indications, the use of which in the course of trade is liable to mislead the persons as to the nature, the manufacturing process, the characteristics, the suitability for their purpose, or the quantity, of the goods;

Section 23, GI Act, 1999 like Section 31, Trade Marks Act, 1999 recognises registration of a geographical indication to be *prima facie* evidence of its validity.

The appellees in *Black Hills Jewellery Mfg. Co. v. Gold Rush Inc.*⁷¹ are in the business of manufacturing a certain design of gold jewelry which they market under the name “Black Hills Gold Jewelry”. The action was brought against the use by defendants of the words “Black Hills Gold Jewelry” to describe jewelry of a style similar to that of appellees, but not manufactured in the Black Hills of South Dakota.

The appellees trace their beginnings back to one of the earliest manufacturers of “Black Hills Gold Jewelry”, Mr F.L. Thorpe. The appellees were the only manufacturers of this design of jewelry who marketed it as “Black Hills Gold Jewelry”, and their only place of manufacture was and is the Black Hills of South Dakota. Beginning sometime in 1977, other

71. 633 F 2d 746 (8th Cir 1980).



manufacturers and retailers began to market jewelry of this or a similar design as "Black Hills Gold Jewelry", although none of the jewelry was manufactured in the Black Hills. The consuming public generally considers the terms Black Hills Gold or Black Hills Gold Jewelry to refer to jewelry products manufactured in the Black Hills of South Dakota.

The actions of the defendants in promoting and selling jewelry not manufactured in the Black Hills as Black Hills Gold or Black Hills Gold Jewelry has created the likelihood of consumer confusion as to the origin of products.

Use of the terms Black Hills Gold or Black Hills Gold Jewelry will cause consumers to purchase products of the defendants when they in fact wished to purchase a product manufactured in the Black Hills of South Dakota. This will enable the defendants to wrongfully trade upon and profit from plaintiff's reputation and goodwill and will result in business losses to plaintiffs.

The Lanham Act, 11 U.S.C. § 1125(a) under which plaintiffs brought this action appears to continue this tradition of providing protection against outsiders for those using a geographical name. The statute prohibits a "false designation of origin", which would appear to prohibit a producer from labelling his product so as to make consumers believe it came from somewhere it did not.

The court also held, "Another section of the Lanham Act (15 U.S.C. § 1127) deals with what is known as a certification mark. This section also appears to provide protection for a group of producers using a geographical name to designate their product".

Evidence supporting the District Court's finding that the term "Black Hills Gold Jewelry" is merely geographically descriptive included the fact that appellees had advertised their product in a manner which utilised the history and folklore of the Black Hills of South Dakota. All gold jewelry sold as "Black Hills Gold" had been manufactured in the Black Hills for over 100 years. Thus an association with the geographical area was established. That appellants had in mind using this favourable association is apparent from their advertisements prominently displaying Mount Rushmore, as well as using historical folklore of the Black Hills in their advertising. The appellate court concurred with the District Court and found that the phrase "Black Hills Gold Jewelry" is merely geographically descriptive of origin.

The District Court found that there was a likelihood of confusion to consumers as to the origin of the products labelled as "Black Hills Gold" or "Black Hills Gold Jewelry". It found that appellees and their predecessors had made this high quality jewelry for over 100 years and sold it as "Black Hills Gold Jewelry". It also found that appellants' use of the term would cause consumers who wished to purchase a product produced in the Black Hills to purchase appellants' product instead. It stated this

would allow appellants to wrongfully profit from appellees' reputation and goodwill and result in business losses to appellees.

Canning companies in California, who put up and sell fruits grown in that State, have the right to use thereon the name "California" as a trade designation, and, when their products have become well and favourably known by such name, are entitled to protection by injunction against the fraudulent use on can of the same kind of fruit, grown and put up elsewhere, of labels designating it as California fruit, and falsely stating that it is put up in that state.⁷²

In *J. Bollinger v. Costa Brava Wine Co. Ltd.*⁷³, the champagne houses sued importers of "Spanish Champagne" which was a sparkling wine produced in Spain. The plaintiffs were Champagne Houses of France and contended that only the wine produced in the Champagne District of France by the Champagne Houses was known as "Champagne", and that as such the wine had acquired a high reputation and that the use of the term "Spanish Champagne" would deceive by causing persons to believe that the wine so described was really Champagne. The assumptions of fact on which the legal argument was based were:

1. The plaintiffs carry on business in a geographical area in France known as Champagne;
2. the plaintiffs' wine is produced in Champagne and from grapes grown in Champagne;
3. the plaintiffs' wine has been known in the trade for a long time as "Champagne" with a high reputation;
4. members of the public or in the trade ordering or seeing wine advertised as "Champagne" would expect to get wine produced in Champagne from grapes grown there; and
5. the defendants are producing a wine not produced in that geographical area and are selling it under the name of "Spanish Champagne".

The court held that "Champagne" had come to denote in the public's mind wine produced from grapes grown in the Champagne district of France which had acquired a high reputation. The judge also considered that not everyone, however, would realise that Champagne came from France, but those people would still recognise Champagne as defining a product with certain qualities and attributes. The point was that Champagne had created the necessary goodwill by reason of its qualities.

*Pillsbury-Washburn Flour Mills Co. v. Eagle*⁷⁴ was a case in which the successful complainants in the number of seven established their several proprietary rights in the goodwill attaching to the use of a particular geographical description to distinguish their wares from those of other manufacturers.

72. *California Fruit Canner Assn. v. Myer*, 104 Fed R 82.

73. 1960 Ch 262; (1959) 3 WLR 966; (1959) 3 All ER 800.

74. (1898) 86 Fed R 608.

In *Vine Products Ltd. v. Mackenzie & Co. Ltd.*⁷⁵ Cross J held that “sherry” meant fortified wine produced in the Jerez district of Spain and that the sherry producers and shippers were entitled to an injunction restraining the use of that word to describe wine not made in that area.

The word “sherry” as descriptive of a type of wine unless it was accompanied by some qualifying geographical adjective was held to denote wine produced by the solera method in the province of *Jerez de la Frontera* in Spain and the class entitled to the goodwill in the word was restricted to suppliers on the English market of wine produced in that province.

In *Tea Board, India v. ITC Ltd.*⁷⁶, the Calcutta High Court considered whether the use of the words Darjeeling Lounge by the defendant to one of their lounges which served high end customers infringes the registered geographical indication of the plaintiff with regard to the word Darjeeling. The contention of the defendant was that GI Act, 1999 is intended only for goods and the defendant rendering a service will not fall within the vice of infringement under the GI Act. The court came to the conclusion that though the focus of the GI Act is on goods; so much so that in the chapter relating to offences, there does not appear to be a direct recourse against any service wrongfully appropriating a registered geographical indication. Yet, both in the deeming provision of Section 22(1)(b), GI Act and in recognising other forms of passing off in Section 20(2) thereof, the GI Act may not altogether preclude a cross-category complaint.

The court came to the conclusion that the defendant’s use of “Darjeeling” is not in connection with the designation or presentation of any goods. The first limb of Section 22(1), GI Act, 1999 is not available to the plaintiff. The second limb conceives of the use of any geographical indication which would constitute an act of unfair competition including passing off. The expression “unfair competition including passing off” would not, by reason of the explanations in the relevant sub-section, imply that every kind of passing off would amount to unfair competition. The phrase used is “unfair competition” and not “unfair practice” or “unfair trade practice”. If every kind of passing off amounted to unfair competition, Section 20(2), GI Act, 1999 would be otiose.

Passing off as in Section 20(2), GI Act, 1999 has to be seen in the light of what it implies in trade mark law. As to whether any goods or services are passed off as some other goods or services would depend on a variety of factors ranging from the nature of the marks, their resemblance, the nature of the goods and services, the similarity of the character of the goods and services, the mode of accessing the goods or services and other surrounding circumstances.

The word “Darjeeling”—as precious to tea as may be Champagne to sparkling wines of that province in France—cannot be exclusively claimed

75. (1969) RPC 1; 1968 FSR 625.

76. (2011) 48 PTC 169 (Cal).

by the plaintiff by virtue of its registration as a geographical indication or as a certification trade mark. Even for a case of passing off, the use of “Darjeeling” by a person other than the plaintiff can be complained of if the word or the geographical indication has any nexus with the product with which it is exclusively associated upon the registration.

The defendant’s “Darjeeling Lounge” is an exclusive area within the confines of its hotel which is accessible only to its high-end customers. The lounge is a place where such customers and accompanying visitors may frequent, and even sip Darjeeling tea or any other beverage or drink, but there is scarcely any likelihood of deception or confusion in the lounge being named “Darjeeling” for the plaintiff to be granted to any order that it seeks.

As to the case of dilution, the name “Darjeeling” has been extensively used in trading and commercial circles for decades before the GI Act, 1999 was enacted. In a case of dilution by blurring, it is the uniqueness of a mark which is protected even in a case where there is no likelihood of confusion. But the word “Darjeeling” has been and continues to be so widely used as a business name or for like purpose for so long that the plaintiff’s recent registration would, *prima facie*, not entitle it to enjoy the kind of exclusivity that it asserts.

XI

Jurisdiction

Suit for infringement of a registered geographical indication or relating to any right in a registered geographical indication; or for passing off arising out of the use by the defendant of any geographical indication which is identical with or deceptively similar to the geographical indication relating to the plaintiff, whether registered or unregistered, shall be instituted in any court inferior to a District Court having jurisdiction to try the suit.⁷⁷ District Court having jurisdiction shall include a District Court within the local limits of whose jurisdiction, at the time of the institution of the suit or other proceeding, the person instituting the suit or proceeding, or, where there are more than one such persons any of them, actually and voluntarily resides or carries on business or personally works for gain. Person includes the registered proprietor and the authorised user.

6.11

Production of documents

A certified copy of any entry in the register or of any document referred to in sub-section (1) of Section 78 and sealed with the seal of the Geographical Indications Registry shall be admitted in evidence in all courts and in all proceedings. Production of the original is not necessary in such cases.⁷⁸ A

6.11.1

77. GI Act, 1999, S. 66.

78. *Ibid.*, S. 69(1).

certificate issued by the Registrar as to any matter or entry for which he is authorised to make, shall be *prima facie* evidence of the entry having been made, and of the contents.⁷⁹

6.11.2 Limitation of prosecution

No prosecution for an offence under this Act shall be commenced after the expiration of three years after the commission of the offence charged or two years after the discovery thereof by the prosecutor, whichever expires first.⁸⁰

XII

6.12 Defences

It shall be a defence for a person accused of an offence under Section 39 to prove that,—

- (a) he was employed on behalf of other persons to apply geographical indications;
- (b) he was not interested in the goods or other thing by way of profit or commission;
- (c) he had taken all reasonable precautions against committing the offence and that he had no reason to suspect the genuineness of the geographical indication;
- (d) on demand made by or on behalf of the prosecutor, he gave all the information in his power with respect to the persons on whose behalf the geographical indication was applied.⁸¹

A person charged of the offence under Sections 39, 40 or 41 can plead that the registration of the geographical indication is invalid.⁸² In such cases, if the court is satisfied of the defence, it shall adjourn the proceeding for three months from the date on which the plea of the accused is recorded to enable the accused to file an application before the Appellate Board for the rectification of the register on the ground that the registration is invalid. If application for rectification is made, the further proceedings in the prosecution shall stand stayed till the disposal of the application for rectification.

Where in a suit for infringement of a registered geographical indication the validity of the registration of the geographical indication is questioned either by the plaintiff or the defendant, the issue as to the validity of the registration of the geographical indication concerned shall be determined only on an application for the rectification of the register. The application shall be made to the Appellate Board and not to the Registrar.⁸³

79. *Ibid.*, S. 69(2).
82. *Ibid.*, S. 48.

80. *Ibid.*, S. 52.
83. *Ibid.*, S. 58.

81. *Ibid.*, S. 47.

XIII

Offences and penalties

Applying a geographical indication to goods is considered as an offence. Section 37 of the Act provides that the following categories of persons shall be deemed to apply a geographical indication to goods, namely one who:

- (a) applies it to the goods themselves; or
- (b) applies it to any package in which the goods are sold, or exposed for sale, or had in possession for sale or for any purpose of trade or manufacture; or
- (c) places, encloses or annexes any goods which are sold, or exposed for sale, or had in possession for sale or for any purpose of trade or manufacture, in or with any package or other thing to which a geographical indication has been applied; or
- (d) uses a geographical indication in any manner reasonably likely to lead to the belief that the goods in connection with which it is used are designated or described by that geographical indication; or
- (e) in relation to the goods uses a geographical indication in any sign, advertisement, invoice, catalogue, business letter, business paper, price list or other commercial documents and goods are delivered to a person in pursuance of a request or order made by reference to the geographical indication as so used.⁸⁴

Falsification of a geographical indication occurs when:

- (a) without the assent of the authorised user of the geographical indication a person makes that geographical indication or deceptively similar geographical indication; or
- (b) falsifies any genuine geographical indication, whether by alteration, addition, effacement or otherwise.⁸⁵

Applying a geographical indication by a person without the assent of the authorised user of the geographical indication or using any package bearing a geographical indication which is identical with or deceptively similar to the geographical indication of such authorised user, for the purpose of packing, filling or wrapping therein any goods other than the genuine goods of the authorised user of the geographical indication by a person is considered as falsely applying a geographical indication.⁸⁶

In any prosecution for falsifying a geographical indication or falsely applying a geographical indication to goods, the burden of proving the assent of proprietor shall lie on the accused.⁸⁷

84. *Ibid.*, S. 37.

87. *Ibid.*, S. 38(4).

85. *Ibid.*, S. 38(1).

86. *Ibid.*, S. 38(2).

Penalty for applying false geographical indication is imprisonment for a term which shall not be less than six months but which may extend to three years and with fine which shall not be less than fifty thousand rupees but which may extend to two lakh rupees.⁸⁸

A person who sells goods to which false geographical indication is applied shall be punishable with imprisonment for a term which shall not be less than six months but which may extend to three years and with fine which shall not be less than fifty thousand rupees but which may extend to two lakh rupees.⁸⁹

The Act prescribes enhanced penalty on second or subsequent conviction to a person who is again convicted of the offences under Section 39 and Section 40. Any such offence shall be punishable for the second and for every subsequent offence, with imprisonment for a term which shall not be less than one year but which may extend to three years and with fine which shall not be less than one lakh rupees but which may extend to two lakh rupees.⁹⁰

No person shall make any representation—

- (a) with respect to a geographical indication, not being a registered geographical indication, to the effect that it is a registered geographical indication; or
- (b) to the effect that a registered geographical indication is registered in respect of any goods in respect of which it is not in fact registered; or
- (c) to the effect that registration of a geographical indication gives an exclusive right to the use thereof in any circumstances in which having regard to limitation entered on the register, the registration does not in fact give that right.⁹¹

88. *Ibid.*, S. 39 reads:

Penalty for applying false geographical indications.—Any person who,—

- (a) falsifies any geographical indication; or
- (b) falsely applies to goods any geographical indication; or
- (c) makes, disposes of, or has in his possession, any die, block, machine, plate or other instrument for the purpose of falsifying or of being used for falsifying, a geographical indication; or
- (d) applies to any goods to which an indication of the country or place in which they were made or produced or the name and the address of the manufacturer or person for whom the goods are manufactured is required to be applied under Section 71, a false indication of such country, place, name or address; or
- (e) tampers with, alters or effaces an indication of origin which has been applied to any goods to which it is required to be applied under Section 71; or
- (f) causes any of the things abovementioned in this section to be done, shall, unless he proves that he acted, without intent to defraud, be punishable with imprisonment for a term which shall not be less than six months but which may extend to three years and with fine which shall not be less than fifty thousand rupees but which may extend to two lakh rupees:

Provided that the court may, for adequate and special reasons to be mentioned in the judgment, impose a sentence of imprisonment for a term of less than six months or a fine of less than fifty thousand rupees.

89. *Ibid.*, S. 40.

90. *Ibid.*, S. 41.

91. *Ibid.*, S. 42.

If any person contravenes and makes such a representation, he shall be punishable with imprisonment for a term which may extend to three years, or with fine, or with both.

The court convicting a person or acquitting him on the ground that there was no intent to defraud under Section 39 or 40 may direct the Government to forfeiture all goods and things. When a forfeiture is directed on a conviction and an appeal lies against the conviction, an appeal shall lie against the forfeiture also.

When, a forfeiture is directed on acquittal and the goods or things to which the direction relates are of value exceeding fifty rupees, an appeal against the forfeiture may be preferred, within thirty days from the date of the direction, to the court to which in appealable cases appeal lie from sentences of the court which directed the forfeiture. When a forfeiture is directed on a conviction, the court, before whom the person is convicted, may order any forfeited articles to be destroyed or otherwise disposed of as the court thinks fit.⁹²

Search and seizure

Court shall take cognizance of the offence under Sections 42, 43 or 44 on complaint in writing made by the Registrar.⁹³ The offence shall not be tried by a court inferior to that of a Metropolitan Magistrate or Judicial Magistrate of the first class.⁹⁴ The offences under Sections 39, 40 or 41 shall be cognizable. Any police officer not below the rank of Deputy Superintendent of police or equivalent, may search and seize without warrant, the goods, die, block, machine, plate, other instruments or things involved in committing the offence. Such articles shall be produced before the Judicial Magistrate of the first class or Metropolitan Magistrate, as the case may be.⁹⁵

Any person having an interest in any article seized may, within fifteen days of such seizure, make an application to the Judicial Magistrate, for such article being restored to him and the Magistrate, after hearing the application and the prosecution, shall make such order on the application as he may deem fit.⁹⁶

XIV

Relief in suit for infringement

Section 67, GI Act of India provides relief in suits for infringement and for passing off. The court may grant the following reliefs:⁹⁷

92. *Ibid.*, S. 46.

95. *Ibid.*, S. 50(4).

93. *Ibid.*, S. 50(1).

96. *Ibid.*, S. 50(5).

94. *Ibid.*, S. 50(2).

97. *Ibid.*, S. 67.

6.13.1

6.14

1. Damages or account of profits.
2. Order for the delivery— up of the infringing labels and indications for destruction or erasure.
3. An order of injunction

The court can grant interlocutory order for:

- (a) discovery of documents;
- (b) preserving of infringing goods, documents or other evidence which are related to the subject-matter of the suit;
- (c) restraining the defendant from disposing his assets so that the plaintiff is not adversely affected to recover damages, costs or other pecuniary remedies which may be finally awarded to the plaintiff.

Relief by way of damages on account of profits shall not be awarded where in a suit for infringement the defendant satisfies the court—

- (i) that at the time he commenced to use the geographical indication complained of he was not aware that the geographical indication of the plaintiff was on the register; and
- (ii) that when he became aware of the plaintiff's right in the geographical indication, he forthwith ceased to use the geographical indication in relation to goods in respect of which it was registered.⁹⁸

Damages on account of profit shall not be awarded in a suit for passing off, if the defendant satisfies the court—

- (i) that at the time he commenced to use the geographical indication complained of he was unaware that the geographical indication relating to the plaintiff was in use; and
- (ii) that when he became aware of the existence of the geographical indication relating to the plaintiff he forthwith ceased to use the geographical indication complained of.⁹⁹

6.14.1 *Groundless threats of legal proceedings*

Where a person, by means of circulars, advertisements or otherwise, threatens a person with an action or proceeding for infringement of a geographical indication which is registered, a person aggrieved may, bring a suit against the first-mentioned person and may obtain a declaration to the effect that the threats are unjustifiable, and an injunction against the continuance of the threats and may recover such damages as he has sustained, unless the first-mentioned person satisfies the court that the geographical indication is registered and that the acts in respect of which the proceedings were threatened, if done, would constitute, an infringement of the geographical indication.¹⁰⁰ But this shall not apply if the

98. *Ibid.*, S. 67(3)(a).

99. *Ibid.*, S. 67(3)(b).

100. *Ibid.*, S. 73.

registered proprietor of the geographical indication or an authorised user thereof with due diligence commences and prosecutes an action against the person threatened for infringement of the geographical indication. A suit for groundless threat of legal proceedings shall not be instituted in any court inferior to a District Court.

XV

Procedure in the Registry

An address for service stated in an application or notice of opposition shall be deemed to be the address of the applicant or opponent. All documents in relation to the application or notice of opposition may be served in that address.¹⁰¹ The tribunal shall admit evidence of the usages of the trade concerned and of any relevant geographical indication legitimately used by other persons.¹⁰² The following class of persons can act as the agents for doing any act other than the making of an affidavit before the Registrar:

- (a) a legal practitioner, or
- (b) a person registered in the prescribed manner as a geographical indications agent, or
- (c) a person in the sole and regular employment of the principal.¹⁰³

The Act also prescribes that an index shall be maintained of registered geographical indication, names of the proprietors of the registered geographical indications and names of authorised users and also the index of all geographical indication for which applications are pending. The index shall be kept under the supervision of the Registrar.¹⁰⁴

The Registry shall keep the following documents open to public inspection namely:

- (a) the register and any document upon which any entry in the register is based;
- (b) every notice of opposition to the registration of a geographical indication, application for rectification before the Registrar, counter-statement thereto, and any affidavit or document filed by the parties in any proceedings before the Registrar;
- (c) the indexes.¹⁰⁵

The Registrar is also obliged to issue certified copy of any entry in the register or any document open for inspection.

101. *Ibid.*, S. 74.

104. *Ibid.*, S. 77.

102. *Ibid.*, S. 75.

105. *Ibid.*, S. 78.

103. *Ibid.*, S. 76.

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The following cases from this chapter are available through EBC Explorer:

- *Black Hills Jewellery Mfg. Co. v. Gold Rush Inc.*, 633 F 2d 746 (8th Cir 1980)



CASE PILOT

The following statutes from this chapter are available through EBC Explorer:

- Geographical Indications of Goods (Registration and Protection) Act, 1999



STATUTE PILOT

Chapter 7

Designs

—Jithin Saji Isaac

In India, there are special legislations governing the protection of different nature of rights. Insofar as the industrial designs are concerned, the protection is provided under the Designs Act, 2000. The objects and reasons of the Designs Act clearly show that the legislature intended by virtue of Designs Act to promote design activity, competition and lessen the monopoly period. The Designs Act confers rights in negative, i.e. a right to exclude rival activity.

The purpose of the Designs Act is that any aesthetic “not classical” value as applied to an article and appealing to eye is protected. The protection is afforded to aesthetic and ornamental aspects of two dimensional and three dimensional products as well as the idea of applying such aesthetic and ornamental aspects to the product. The design registration giving protection of 15 years encourages commerce.

Meaning of design

“Design” means only the features of shape, configuration, pattern, ornament or composition of lines or colours applied to any article whether in two dimensional or three dimensional or in both forms, by any industrial process or means, whether manual, mechanical or chemical, separate or combined, which in the finished article appeal to and are judged solely