CHAPTER 2
PATENT REGIME GLOBAL AND NATIONAL

2.1 INTRODUCTION

Human beings are superior from other living creatures because they possess intellect. Intellect, as a word, has its “roots in Latin word *intellectus* meaning perception”. So etymologically, “intellect is perception”. It is the “barometer of one’s understanding of persons or things, of events and concepts”. The immaterial product of a man’s brain”, says Salmond, “may be as valuable as his lands or his goods. The law, therefore, gives him a proprietary right in it. Creative genius of human being created intellectual property, which in turn, when properly exploited, can earn wealth. Since it is essentially a creation of mind, therefore, it is called, intellectual property. According to *Halsbury’s Law of England* property is that which belongs to a person exclusively of others and can be subject to bargain and sale. Felix Liebesny has quoted

*The words of founders of states, law givers, tyrant destroyers and heroes cover*  
*but narrow spaces and endure but for a little time, while the work of the inventor*  
*though of less pomp is felt everywhere and lasts forever.*

This speaks a lot about the immense services rendered to humanity by the ingenuity of the human mind. Every creation or performance takes its first shape in the mind of human being and acquires a physical status on the execution of the idea so conceived. The term intellectual, thus, implies that it is specific to the mind or talent. It is created by incorporating information in tangible objects, capable of use at different times and locations anywhere in the world. There is no intellectual property in mere ideas. Only the expression of an idea is protected. The scope of intellectual property is expanding very fast and attempts are being made by creators of new ideas to seek the protection under the umbrella of intellectual property rights. The intellectual property includes various areas such as “patents, copyrights, trademarks, designs, confidential information, integrated circuits” and new emerging areas are, also, being added such as “computer programs, plants and animal life and traditional knowledge”.

Patent systems are designed “to encourage the disclosure of information to the public by rewarding inventors for their endeavors”. The grant of patent is recognition and a reward for the human intellect and basic rationale of patent system is to “provide an incentive for creation of new technology”. The patent system, also, serves to stimulate
invention and innovation and thus strengthen the technological base of a country and paves way for rapid industrialization and improvement of economic condition of the people by raising the quality of life. The term patent usually refers to “a right granted to anyone who invents or discovers any new and useful process, machine, article of manufacture or composition of matter, or any new and useful improvement thereof”. In other words, a patent is “an exclusive right given to an inventor to exclude all others from making, using, and/or selling, offering for sale or importing the patented invention for term of patent”. The patent indicates “a statutory grant of exclusive right to a person for a limited period in consideration of disclosure of the invention”. The purpose of patent is “to promote the progress of science and useful arts”. In its original modern conception, the patent system was, in the words of the American Constitution,

To promote the progress of science and useful arts, by securing for limited times to author and inventors the exclusive right to their respective writings and discoveries.

2.2. PATENT REGIME

The term patent originated from the Latin term ‘patere’ which means “to lay open i.e. to make available for public inspection” and more directly as a shortened version of the term “letter patent, which originally denoted open for public reading, royal decree granting exclusive rights to the individuals by way of an open letter to which the Great Seal was affixed”. The concept of patent was conceived in Florence, Italy, under circumstances that Owen Lippert has likened to Blackmail. Recovering from the watery debut and failure in Italy, the concept of patents drifted to neighboring Venice, where it became anchored in what is perhaps the first substantive patent statute in the world. The Venetian Statute of 19 March 1474 was pioneering in the several respects. It offered protection for a period of ten years to all inventions that passed the examinations of the General Welfare Board. In addition, it also provided for punishment for unauthorized use or infringements of patents grants.

2.3. EVOLUTION OF PATENT LAW IN INDIA

Patents right is defined as “a statutory grant of right to an inventor in his own invention from which all others are excluded, as long as, the grant runs”. The grant is “made by the Government or the Sovereign of the country to one or more individuals”. The term
patent “acquired statutory meaning in India when ‘Patents Act, 1970’ was enacted”. Patent, under the Act, is “granted by the Controller to the inventor for a fixed term i.e. twenty years”. It is the “exclusive right to make use, exercise and sell the invention”. The Patents (Amendment) Act, 2005 defines patent as “a patent for any invention granted under this Act”. The concept of patent and its essential ingredients like novelty, inventive step, lack of obviousness and sufficiency of description have remained the same ever since it was conceived over four hundred years ago.

The concept of intellectual property was very much prevalent in ancient India, but the legal enforcement of it as a right was conspicuous by its absence in legal texts. Much of the patent law in India is derived from English law. One real distinction between the genesis of patents in India and England is that the concept of patent has statutory origin in India whereas it has roots in royal prerogatives in England. British used their own system as a drawing account while drafting Indian Patents Act.

Indian jurists and philosophers always made it clear that vidya, that is, knowledge was greatest of all gifts a man could make in favour of others. A gift of grains (food and worldly things) they felt, was a great one but that of vidya was even greater, because while the former lasted for a short time, the latter lasted throughout one’s life. All that the donor wanted from the donee, according to Gita, was due respect. This would lead one to believe that the knowledge was not a marketable thing. The scholars did relate knowledge with money as seen in a shloka by Bhatrihari, who declared it as the best of all the assets one could have vidyadhanam sarva dhanam pradhanam meaning thereby one’s property of Vidya (knowledge, wisdom, ideas etc.) cannot be stolen by a thief, confiscated by the state or partitioned by a brother. Its greatness lies in that it increases as it is spent.

In ancient India, during the Vedic civilization, the inventors, creators, authors were not eager to conceal or to keep secret their skills and inventions amongst themselves. They used to disclose everything to people at large. The inventions were considered as property of nation. The concept of Vasudheva Kutumbukum reflects the intention. Vasudheva Kutumbukum from “vasudha, the earth, and kutumbukum, the family, is a Sanskrit phrase that means whole world is one single family”. This concept has been an integral part of Hindu philosophy. This philosophy also preaches the tenets of co-existence, brotherhood and devotion for universal peace.
The rishi and sages of India had always believed in sharing their knowledge with the whole world. Ancient Indian society was duty based society in which inventors consider it their upmost duty to submit their inventions for the benefit of people at large without claiming any returns for themselves. In Gurukuls, Guru used to confer all his knowledge to the pupil with a condition that the pupil will not misuse the knowledge and would use it for whole humankind. There was no claim from the inventor to get a monopoly right against the society at large and new inventions or processes were devoted to the cause of humanity. There was neither a demand from the inventor nor an effort from the king to grant any monopolistic right in favor of the inventor. The underlying fact is that, the seers who invented new things or processes were devoted to the cause of humanity and had no idea to exploit this invention commercially. This approach was exploited by few people who earned money and fame by copying the inventions as their own inventions. There was no authority to protect the rights of original owners. Present law of patents is based on English law. The “first Act for protection of inventions in India” was passed in the year 1856. During British Empire, exclusive privileges were granted to inventors for a period of fourteen years. The objective of this legislation was “to encourage inventions of new and useful manufactures and to induce inventors to disclose secret of their inventions”. The Act was subsequently repealed by ‘Act IX of 1857’ since it had been “enacted without the approval of the British Crown”. Fresh “legislation for granting exclusive privileges was introduced in 1859 as Act XV of 1859”. This legislation contained “certain modifications” of the earlier legislation, namely, “grant of exclusive privileges to useful inventions only and extension of priority period from 6 months to 12 months”. This Act “excluded importers from the definition of inventor”. This Act was “based on the United Kingdom Act of 1852 with certain departures”. The inventor, now, could “obtain exclusive privileges of making, selling and using the invention in India for a period of fourteen years. This could be done by filing of specifications”. In 1872, the ‘Act of 1859’ was “consolidated to provide protection relating to designs”. It was renamed as “The Patterns and Designs Protection Act under Act XIII of 1872”. The Act of 1872 was “further amended in 1883 (XVI of 1883) to introduce a provision to protect novelty of the invention, which prior to making application for their protection, were disclosed in the exhibition of India”. A grace period of six months was provided for “filing such applications after the date of the opening of such exhibition”.

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In the year 1883, certain modifications in the patent law were made in United Kingdom and it was considered that those “modifications should also be incorporated in the Indian law”. In 1888, an Act was introduced “to consolidate and amend the law relating to invention and designs in conformity with the amendments made in the United Kingdom law”. The ‘Patents and Designs Act, 1911’, which was based on United Kingdom law of 1888, was passed “to establish a system of patent administration in India for the first time”.

After independence the national Government decided to change the colonial Patents Act and to “make the patent system more conducive to the national interest”. The process of drafting a patent law “in tune with India’s needs began immediately after independence”. The ‘Patent Enquiry Committee’ headed by Justice Bakshi Tek Chand was appointed in 1948. The committee “submitted its report in 1950”. The Patent Bill, 1953, “based largely on the United Kingdom Patents Act, 1949 and incorporating some of the recommendations of the committee was introduced in the Lok Sabha on December 7, 1953”. The Bill, however, “lapsed on dissolution of Lok Sabha. In 1957”, another Committee headed by Justice N.Rajagopal Ayyangar was appointed to “examine the patents law in India”. The report on patent law revision was submitted in September 1959. The report provided that Indian patent system is enabling the foreign patentees to protect export markets instead of serving the interest of economy. It was contended that “India was deprived of getting goods at cheaper prices from alternative sources and the patent law in existence was responsible for this”. Accordingly certain changes were recommended in the law. The Patents Bill, 1965 “based mainly on the recommendations contained in the report and incorporating a few more changes in the light of further examination” was introduced in Lok Sabha on September 21, 1965, but “could not be proceeded with for want of time and eventually lapsed with dissolution of 3rd Lok Sabha”. The Patents Act, 1970, which came into force on April 20, 1972, has put India in a better position among developing countries. The Act of 1970, based on western model of intellectual property introduced a number of safeguards to prevent abuse of patent rights. The Act reflected concerns of a developing country, balanced with the interests and needs of the inventors. The Act grants patent “to encourage and develop new technology and industry, to encourage inventions and to secure and ensure that the inventions are worked on commercial scale and to fullest extent”.
Establishment of ‘World Trade Organisation’ (WTO) in 1995 and the consequent implementation of ‘Trade Related Aspects of Intellectual Property Rights (TRIPs) Agreement’ led to a revolutionary change in intellectual property rights regime worldwide. India being founder member incurred trade obligations to bring its intellectual property rights regime in tune with obligations as envisaged in TRIPs Agreement, introduced first amendment to the Patents Act, 1970 through “Patents (Amendment) Act, 1995” which came into force in April 1999. The second major amendments in the basic Act of 1970 were made in the year 2002. The need for integrating the Indian patent law with international provisions and TRIPs Agreement mandate led to this Amendment Act of 2002. Despite the amendment in 2002, it was contended that the Indian patent law is not in accordance with the provisions of TRIPs Agreement. To make the patent law to fully comply with TRIPs Agreement substantive changes in the Patents Act, 1970 were introduced in 2005. The Patent (Amendment) Act, 2005 was India’s final move towards accomplishing TRIPs Agreement compliance.

2.3.1. PATENT (AMENDMENT) ACT, 1999

In compliance with Article 65 and Article 70 of TRIPs Agreement, an amendment was proposed to Indian patent law in 1995. This amendment introduced “exclusive marketing rights” in India. However, the notification failed to receive assent of parliament. TRIPs Agreement requires “countries, not providing product patents in respect of pharmaceuticals and chemical inventions have to put in a mechanism for accepting product patent applications w.e.f. January 1, 1995”. Such application will only “be examined for grant of patents, after suitable amendments in the national patent law have been made”. This “mechanism of accepting product patent applications is called the mail box mechanism”. In March 1999, India’s Patent (Amendment) Act, 1999, “formally implemented the mailbox procedure for patent applications claiming pharmaceutical and agro chemical products and made it retroactive to January 1, 1995”. This amendment was made in the Act in order “to be compatible with one of three stages framework provided by TRIPs Agreement to the developing nations”. Applications under mailbox mechanism were “not to be processed for the grant of a patent until the end of 2004, but exclusive marketing rights could be obtained for that application if a patent had been granted in some other World Trade Organisation
member country and the application had not been rejected in the country as not being an invention”.

2.3.2. PATENT (AMENDMENT) ACT, 2002

In the endeavor of complying with the provisions of TRIPs Agreement, India amended its patent law for second time in the year 2002 that took effect from June, 2002. The Patent (Amendment) Act, 2002 inserted number of important modifications to the provisions of Indian Patents Act, but the most noteworthy among those amendments was the “amendment to Section 53 of the Patents Act, 1970”. Under the amended section, “the term of patent was enlarged to twenty years for existing patents and patents granted on pending applications”.

The Patent (Amendment) Act, 2002, introduced “new definitions of the term invention and inventive step”. The new definitions are in compliance with TRIPs Agreement, which states that the “patent can be granted provided the invention is new, involve an inventive step and are capable of industrial application and shall be available for any invention whether products or processes”.

2.3.3. PATENT (AMENDMENT) ACT, 2005

The Patent (Amendment) Act 2005 was ratified by Indian Parliament in April 2004, and is effective from January 1, 2005. This amendment is the “third to the Indian Patents Act, 1970”. It also replaces the ‘Patents (Amendment) Ordinance, 2004’, which was hurried through passage in 2004 in order to meet January 1, 2005, deadline as provided by TRIPs Agreement. The Amending Act “introduced product patents to medicines and agro chemicals”. India developed “a world-class generic drug manufacturing industry by excluding pharmaceutical products from patent protection in 1972”. In 2005, India “reintroduced pharmaceutical patenting in order to comply with its obligations as a World Trade Organisation member”. This paradigm shift was brought in by the Patent (Amendment) Act, 2005. The Act “repealed the controversial Section 5(1) of the Patents Act, 1970, which provided for process patents in this field, and also removed the definition of food”. The Act also “amended the definition of patent”. While Section 2(1) (j) retains the old definition of invention, a new definition for new invention has been added. The new definition for inventive step aims “to raise the standard for an inventive step”.

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After the amendment, now, patents would not be available on the following grounds
1. The mere discovery of a known substance which does not result in the enhancement of the known efficacy of that substance,
2. The mere discovery of any new property or new use for a known substance,
3. The mere use of a known process, machine or apparatus unless such known process results in a new product or at least employs one new reactant.

The grounds to seek compulsory license have been expanded. The newly inserted Section 92A(1) of the Act “extended the scope of issuance of compulsory license for manufacture and export of patented pharmaceutical products to countries having insufficient manufacturing capacity in the pharmacy sector, if that country has by notification allowed such importation”.

2.3.4. PRINCIPLES UNDERLYING PATENT LAW IN INDIA

“The good monopoly is one which serves to give the public, through its incentive, something which it has not had before and would not be likely to get without the incentive at least not so soon. The bad monopoly is one which takes from the public that which it already has or could readily have without the added incentive of the patent right”

Judge Rich

The intangible right of patent is becoming increasingly valuable in the market. The utility of patents has been recognized not only in the economically developed countries but also in the developing countries. The objects of patent law were outlined by the Supreme Court of India in Bishwanath Prasad Radhey Shyam v. Hindustan Metal Industries stating “the object of the patent law is to encourage scientific research, new technology and industrial progress. The patent law provides for the monopoly rights that empower the owner to exclude others from making, using, selling or offering for sale the patented products. These monopoly rights are provided if the product to be patented fulfill certain requirements as provided in law”.

Every invention is not worthy of grant of patent. In order to obtain patent, an invention has to pass through triple requirement of newness (novelty), non obviousness and usefulness.

2.3.4.1. NEWNESS/ NOVELTY

The concept of novelty implies that “only what is new at the time of filing of the application” for a patent is patentable. Novelty is of core value. As per the Patent (Amendment) Act, 2005, a new invention is “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 filing of the application with the complete specification”. The Bombay High Court in *Lallubhai Chakubhai Jariwala v. Chimanlal Chunnialal and Co.* held “the real test for grant of patent is the novelty of the invention. The Court observed that there must be an absence of prior publication or of prior public user, and if the user is secret or experimental, the profits made by the inventor from his invention must not be excessive”.

Similarly, in *Raj Prakash v. Mangat Ram*, it was held “invention, as is well known, is to find out something or discover something not found or discovered by anyone before. The essential thing is that inventor was the first one to adopt it. The principle, therefore, is that every simple invention that is claimed, so long as it is something which is novel or new, it would be an invention”.

The element of novelty in an invention is “dependent upon the state of prior art i.e. the existing knowledge and similar inventions already known in the particular field. There would be no novelty if there has been prior publication and prior use of same or an identical invention”. For instance, the “grant of patent in the United States of America to turmeric products was challenged” on this ground. The ‘Indian Council of Scientific and Industrial Research (CSIR)’ challenged the grant of patent on turmeric by the United States Patent and Trade Mark Office (USPTO) on the plea that “the patent could not be granted since there was no novelty in the invention”. Also, that “what was patented was already published in Indian texts and use of turmeric preparations has been made in the country since times immemorial”. The Council of Scientific and Industrial Research was “successful in getting the grant of patent to the American company revoked”.

The philosophy behind the concept of novelty is not only that “patent should not grant same monopoly right twice but also that it is against the public interest to grant patent for a subject matter that has already been publicly disclosed”. The principle was further strengthened in *Ram Narain Kher v. Ambassador Industries, New Delhi and another* when the Court held “when the invention was not itself new but the particular use of it for the purpose described in combination with the other elements of the system and producing the advantageous results would be a sufficient element of novelty to support the patent. It may be only a small step forward and that is all that is necessary so far as
subject matter is concerned. So, if the claimed invention have element of newness, even if it is a small step, patent will be granted for that invention”.

2.3.4.2. NON OBVIOUSNESS
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. In addition to novelty, potentiality 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”. In Anup Engineering Ltd. vs. Bharat Heavy Electricals Ltd., 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. The question of obviousness has to be determined on a case by case basis”.

An invention “should not be obvious to a person having ordinary skill in the art” to which it relates. If the invention is obvious and does not have any inventive step, it is not patentable. Existence of a prior publication of the invention in any Indian specification or in any document in India or elsewhere or public use of the invention would make an invention obvious. In order to be eligible for a patent, an invention should not be obvious at the time of conception of the invention and not at the time of contention of obviousness.

2.3.4.3. USEFULNESS
Utility of an invention means that the invention “must be useful for the purposes indicated by the inventor or patentee”. However, it need not mean commercial utility alone. An invention besides “being novel and non obvious, must also be useful and capable of industrial application”. An invention which is “new and non obvious but cannot be put to any beneficial use of the mankind cannot be patented”. It means that invention must be manufactured in an industry or used in manufacturing process.
Therefore, if the invention is “an art, process, method of manufacture or is a machine apparatus, other article or is substance, produced by manufacturing, then each of them must be useful”. The word useful must be construed both in practical and non practical sense.

So, a patent “rewards the investment of time, money and effort associated with research and stimulates further research as competitors invent alternatives to patented inventions. It encourages innovation and investment in patented inventions by permitting companies to recover their research and development costs during the period of exclusive rights”.

In cases of patents, courts have to find out whether there is a proper subject matter of the patent, also whether there is novelty and non obviousness and whether there is utility. The subject matter of patent is intervened with the question of what is called obviousness and novelty.

### 2.3.5. NON PATENTABLE INVENTIONS

Some inventions, in spite of “being new, non obvious and useful cannot be patented under the Act as they fall in exclusion clause”. Chapter II of the Patents Act, 1970 deals with inventions not patentable comprising in two sections, namely Section 3 and Section 4 of the 1970 Act.

As per provisions of the Act certain acts are not inventions viz:

(i) **Invention contrary to public order, morality or well established natural laws**

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 or which are contrary to well established principles of law are not patentable”. Under TRIPs Agreement, also, public order is a ground as an exception for grant of patent. Though there is no universally accepted definition of public order, a definition can be drafted as per social and cultural values of member state.

(ii) **Mere discovery of scientific principles or of any new property or new use for a known substance or admixture of substances**

“Discoveries, mere ideas or schemes, scientific principles or formulation of any living or non living thing occurring in nature or discovery of new property or new use of or mere admixture of known substances is, also, not patentable”. There is distinction
between discovery and invention. The fact that a “known material is found to have a hitherto unknown property is a discovery and not 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 article or process is patentable and hence, patent is granted only if some result can be achieved”.

The Patents Act, 1970 as amended by Amendment Act, 2005 which provides that “mere discovery of new form of a known substance or 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 patentable unless there is an enhancement in the known efficacy of the substance”. The “discovery of a new property or use of a previously known composition, even when that property and use are non obvious from the prior art, cannot impart patentability to claims to the known composition”. A mere admixture of known properties of substance is not patentable. The ingredients as well as the properties that make the ingredient useful must also be known.

(iii) Plants and animals in whole or part
Patent protection was “not considered effective for protection of plant varieties”, but with the developments in science, now, patents are issued for plants and other living organisms that meet the statutory requirements. “Plants and animals in whole or part thereof, other than micro organisms, but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals” are non patentable under Patents Act. The protection to new plant varieties is provided under “Protection of Plant Varieties and Farmer’s Rights Act, 2001. Methods of horticulture or agriculture are also non patentable matter”.

Micro organisms were not specifically excluded from patentability, still micro organisms were not granted patent protection. The Supreme Court of America in Diamond vs. Chakrabarty held “micro organisms produced by genetic engineering are not excluded from patent protection”. The Indian Patents Act has also excluded micro organisms from the list of non patentable inventions.

(iv) Traditional Knowledge
Protection of the Traditional Knowledge of the local and indigenous communities seems to be “one of the most complicated issues”. Traditional knowledge was treated “as knowledge in the public domain for free exploitation without showing any respect or
concern for the effort taken by the communities to preserve and promote the same”. The “new technological developments, particularly in biotechnology, demonstrate the significance and usefulness of traditional knowledge for the development of new product of commercial importance”. Patents Act, now, provides that “an invention which in effect is traditional knowledge or which is an aggregation or duplication of known properties of traditionally known component or components is non patentable”. In the recent past, there have been “several cases of piracy of traditional knowledge from India”, first, it was the patent on wound-healing properties of haldi (turmeric), then patents have been obtained in other countries on properties of neem, wheat, basmati rice etc.

Section 5 of the Act (as it stood after the 2002 amendment) had provided that, “in the case of inventions being claimed relating to food, medicine, drugs or chemical substances, only patents relating to the methods or processes of manufacture of such substances could be obtained. Before this Amendment in the Act, product patent was not granted on the inventions related to drugs, foods and chemicals and only process patents were granted on these inventions. It means, if a company invented a medicine to cure a disease using a certain process that company can’t claim a patent on that medicine while the company can claim a patent on the process which it has used to manufacture that medicine”. In the other words, that “company can’t stop other competitors from manufacturing the end product but can stop others from producing the end product using their patented process or method”. The Patents (Amendment) Act, 2005 has omitted Section 5 of the Act thereby paving way for product patents in pharmaceuticals and other chemical inventions.

2.3.6. PROCEDURE FOR OBTAINING PATENT

The process of obtaining a patent consists of “preparing, filing the patent application, then filing responses and amendments to the objections of the patent examiner”. Patent prosecution results in either the issuance of a published patent or the rejection or abandonment of the application. Patents Act, 1970, as amended time to time, has prescribed a detailed procedure which begins with filing of application and is completed with grant and sealing of patent.

Patent application should be “filed at appropriate patent office based on residence or principal office of business of the applicant”. The Act provides that a patent application can be made by “any person claiming to be the true and first inventor of the invention or
his assignee or legal representatives of any deceased person who immediately before his
death was entitled to make such an application”. The person entitled to apply in case an
invention is made during employment would be determined by contractual relationship
between the employer and employee.
The crucial document in whole process of securing a patent is specification. Lord
Hatherley, in *Arnold v. Bradbury* stated that

> You must look at the whole instrument. You ought to read the specification
first to see what it is the man says he has invented, and what it is,
therefore, he proposes to patent.

In India, an application for a patent shall be “accompanied by a provisional or complete
specification”. Provisional specification gives initial description of an invention. It need
not be full and specific and need not contain the claims. Its object is to ascertain the
priority date of patent. A Complete specification gives full and sufficient detail of an
invention in a manner that well informed artisan or skilled workman can use the
invention. Where an “application is accompanied by a provisional specification, the
complete specification has to be filed within twelve months from the date of filing of
the application and it may include claims in respect of developments of, or addition to
the invention which was described in the provisional specification”.
The Delhi High Court in *Ram Narain Kher v. Ambassador Industries New Delhi and
Another* laid down “having regard to the previous date of knowledge at the time 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 which had gone 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 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 and must not left to
an inference raised on a general review of specification”.

**2.3.7. PUBLICATION AND EXAMINATION OF APPLICATION**

On and from the “date of application of patent and until the date of grant of patent, the
applicant shall have the like privileges and rights as if a patent for invention has been
granted on the date of publication of the application”.

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When a request for examination has been made in respect of an application, the examination or search of specification is done by the examiners in the patent office on a reference by the Controller, to determine its compliance, procedurally as well as substantively. The examination of the application includes a search to determine prior use, prior claims, prior publications and prior public display, public working. Prior use means “use of the invention described in the provisional specification or published in India or elsewhere before filing that specification”. Prior claim is where the “invention claimed is complete specification on or after the priority date of the application claim, but having priority date earlier than that of the appellant”. Prior publication means where the “invention claimed in complete specification was published before the priority date in India or elsewhere”. Prior public working is where the “invention was publicly worked in India within one year before priority date”.

2.3.8. PRIORITY DATE OF CLAIMS

The priority date is important in claiming the novelty aspect of patent. It is the date on which patentee claims his invention. Where a “complete specification is filed in pursuance of an application accompanied by a provisional specification and the claim is fairly based on matter disclosed in provisional specification, the priority date of that claim shall be the date of filing of the relevant specification”.

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 previously filed application in which the matter was first disclosed”.

2.3.9. OPPOSITION OF GRANT OF PATENT

In the ‘Patent (Amendment) Act, 2005’, provisions for both “pre grant and post grant opposition” has been made. These provisions provide ample opportunity for local companies as well as other interested parties to challenge and prevent the issuing of trivial patents. The Act provides that before the patent is granted and after the publication for patent, “any person may, in writing, represent by way of opposition to the Controller against the grant of patent on any of these grounds

(i) Publication before priority date of claim
Publication of invention before priority date can defeat the claim of patentee. Publication must be in such “clear and exact terms” that the person “skilled in the art” can without putting his own inventive skill or taking help from the patent can make or construct the claimed invention. The House of Lords in Martin and Biro Swan Ltd v. H. Hilwood Ltd. held “defendants must show that in some prior publication there is to be found information about the alleged invention equal for the purpose of practical utility to that given by the patent in suit”.

(ii) Invention as claimed in complete specification was publicly known or publicly used

If the invention was known to or used by the public, a person cannot get a patent for that. Even if a single person has knowledge about the invention which he can use freely, it will ‘be considered as public knowledge or public use’. Public use “does not mean use of invention by public, but a use in public manner”. A use of the invention for trade is prior use. The prior use may be made for experimental purposes but if it exceeds limit and is carried on for profit that use will defeat the patent. A distinction is drawn between use of an invention for profit and carrying out of experiments which turn out successful and only incidentally bring in profits to the inventor. The Patents Act states that public knowledge and public use can be a ground of opposition only where it is known or used in India. 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” for example the case of neem. Neem extracts can be “used against hundreds of pests and fungal diseases that attack food crops”. In 1994, ‘European Patent Office (EPO)’ granted a “patent (EPO patent No.436257) to the United States Corporation W.R. Grace Company and United States Department of Agriculture for a method for controlling fungi on plants by the aid of hydrophobic extracted neem oil”. In 1995, a group of international Non Government Organisations and representatives of Indian farmers filed “legal opposition against the patent. They submitted evidence that the fungicidal effect of extracts of neem seeds had been known and used for centuries in Indian agriculture to protect crops, and therefore, was non patentable”. In 1999, the European Patent Office determined that “according to the evidence all features of the present claim were disclosed to the public prior to the patent application and the patent was not considered to involve an inventive step”. The patent granted on Neem was “revoked by the European Patent Office” in May 2000”.  

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(iii) **Obviousness**

Patent is granted for an invention which is new, useful and non obvious. A mere obvious extension or modification of prior design is not granted patent rights. Patent ought not to be granted for every trivial advancement. The Act of 1970 defines inventive step. It states that “to constitute inventive step, invention should involve technical advances as compared to the existing knowledge or have economic significance or both and should, also, make the invention not obvious to a person skilled in the art”. The set of facts against which lack of novelty and obviousness is judged is called state of art. Prior art or state of art usually refers to “the complete body of knowledge which is available to the public before a patent application is filed or, if a priority date is claimed, before that priority date”.

(iv) **Knowledge of invention within any local or indigenous community**

Knowledge within any local or indigenous community that is within traditional knowledge can lead to opposition of grant of patent. Traditional knowledge is not documented so people/companies find it easy to use that knowledge and earn profits from that knowledge. Patents have been granted to inventions based on this kind of knowledge. Grant of patent in United States to turmeric, basmati rice, and neem are few examples. Similarly, “wrong mention or failure to mention the source or geographical origin of biological material used for the invention” also can be a ground for opposition of patent.

2.3.10. **INFRINGEMENT OF PATENT**

Violations of monopoly rights conferred by grant of patent would be infringement. Etymologically, infringement is “an act that interferes with one of the exclusive rights of the patent owner”. In case of a product patent, the “rights of the patentee are infringed by “anyone who makes or supplies that substance commercially”. In case of process patent, “the use of such a method or process by anyone other than the patentee amounts to infringement”.

Patented inventions involve complicated scientific principles and mechanisms so there can be no generalized formula as to acts that would constitute infringement. It depends upon the facts of each case. The rights granted by patent are enforced by an action for infringement. The patent law provide for stringent and effective enforcement of the
rights through various remedies. These remedies constitute civil as well as criminal prosecution of person alleged with the infringement. Determining the appropriate remedy for patent infringement has always been a complicated task. The reliefs which a court can grant in any suit for infringement include “an injunction, subject to such terms, if any, as the court thinks fit and at the option of plaintiff either damages or account of profits. An order for delivery up or destruction of infringer’s articles may also be passed”.

2.3.11. NEW DEVELOPMENTS AND LAW OF PATENTS IN INDIA

The new millennium has carried several challenges for Indian Patent Law. New technological sectors have emerged, each one with its own features with regard to innovation process and pace. Changes to Indian patent law were made for “compliance with India’s obligations under the TRIPs Agreement. Pharmaceutical products are now patentable subject matter while computer software is not patentable subject matter”. Anyone “resident in India is prohibited from filing for a patent outside of India unless they first file for the same invention in India or obtains permission to do so six weeks in advance”. Traditional Knowledge Digital Library “documents centuries-old healing remedies and medical treatments in order to prevent patenting of ancient indigenous practices so that the traditional knowledge of the country can be protected”. Indian law has not been static. With the new areas emerging in the field of patents, Indian law has kept pace with the changes and this has led to new developing areas in patent law.

2.3.11.1. PATENTS IN PLANT VARIETIES

Plant breeding in recent years has been on the threshold of major change, firstly, due to prospects provided by biotechnological approaches and secondly, due to recent emphasis on participatory plant breeding. Section 27(3) (b) of TRIPs Agreement has provided for “protection of plant varieties either by patent or by an effective sui generis system or by any combination thereof”. Accordingly, India has enacted “Protection of Plant Varieties and Farmer’s Rights Act, 2001”. The Act provides for the “establishment of effective system for protection of plant varieties, the rights of the farmer’s and plant breeders and to encourage new varieties of plants”. Patents Act, 1970 has also been amended as per TRIPs Agreement and also to adopt a “uniform system for protection of rights of plant breeders and farmers”.

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2.3.11.2. PATENT CLAIM AND TRADITIONAL KNOWLEDGE

Traditional knowledge is a collectively owned property and is integral to the cultural or spiritual identity of the social group. There are “no uniform norms regarding the protection of different types of traditional knowledge owned by local communities”. In recent years, concern has been expressed in relation to the “recognition of traditional knowledge related inventions, which did not fulfill the requirements of novelty and inventive step, when compared with the relevant prior art”. The missing legal protection for traditional knowledge has created problems for traditional knowledge holders and for the countries where traditional knowledge is found. There are situations when rights are granted in the developed countries on process or products derived from the traditional knowledge of developing countries. Major corporations, especially pharmaceutical, chemical and biomedical “organizations, are rapidly attempting to establish ownership of over traditional knowledge preserved by indigenous people”. Many native people in all parts of the world are “being tricked into teaching outsiders about specific native plants, which then are registered by a non-indigenous corporation”.

Indigenous people and local communities have sought to “prevent the patenting of traditional knowledge and resources where they have not given express consent”. They have sought for “greater protection and control over traditional knowledge and resources”. Certain communities have also sought to ensure that their “traditional knowledge is used equitably, according to restrictions set by their traditions, or requiring benefit sharing for its use according to benefits which they define”.

2.4. GLOBAL PATENT REGIME

The role of intellectual property being of utmost importance in the economic development of a country it has become inevitably necessary to protect the same. There has been a “dramatic change in the patent law system across the world since its origin and embodiment” in law centuries ago. Not only has the “form of patent become more refined but also that the entire process of registration of patents has witnessed a commendable change”. As a result of the recent move towards globalisation, “the procedure for obtaining patents has also shifted towards centralised systems which aim
at saving time and costs”. Globalization has tremendously “accelerated the evolution and growth of patent law” internationally and has led to “international initiatives towards conducting international patent conventions which supports centralized application for all nations in the world”. The patents, which were earlier simple documents, have now become “sophisticated, complex and detailed instruments”.

2.4.1. PATENT LAW IN UNITED STATES OF AMERICA

In United States of America (USA), the desire to stimulate manufacture led to adoption of laws to encourage inventions. The first patent in America was granted to Samuel Winslow for his invention of a method of manufacturing salt. In the colonial period (1778-1789), patents were issued by various individual states. In United States of America, earlier patents were granted only to machinery. The Patents Act, 1793 brought within its preview “any new and useful art, machine, manufacture or composition of matter, or any new or useful improvement theory”.

It was in 20th century that patent law was streamlined. The Congress in 1952 “modified the patent laws and substituted the word art with process”. The modified patent law came into effect on January 1, 1953. It is codified in “Title 35, United States Code”. Additionally, on November 29, 1999, Congress enacted “the American Inventors Protection Act of 1999”, which further revised the patent laws.

The Patent law “specifies the subject matter for which a patent may be obtained and the conditions for patentability”. A patent for an invention is the “grant of property right to the inventor”. The rights conferred by the patent grant is, in the language of the statute and of the grant itself, “the right to exclude others from making, using, offering for sale, or selling the invention in the United States or importing the invention into the United States”. Patent is issued by the United States Patent and Trademark Office (USPTO). The Office “examines applications and grants patents on inventions when applicants are entitled to them”. Generally, the term of new patent is “twenty years from the date on which the application for the patent was filed in the United States”. United States Patents grants are “effective only within the United States, United States territories, and United States Possessions”.

There are three types of patents

1. Utility patents that may be granted to anyone who invents or discovers any new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof.
2. Design patent that may be granted to anyone who invents a new, original and ornamental design for an article of manufacture, and
3. Plant patents that may be granted to anyone who invents or discovers and asexually reproduces any distinct and new variety of plant.

2.4.1.1. GRANT OF PATENT IN UNITED STATES
The United States patent law specifies that “any person who invents or discovers any new and useful process, machine, manufacture or composition of matter, or any new and useful improvement thereof, may obtain a patent subject to the conditions and requirements of the law”. The law states that for grant of patent, an “invention must be new as defined in the patent law, which provides that an invention cannot be patented if 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”. The subject matter sought to be patented must be “sufficiently different from what has been used or described before, that it may be said to be non obvious to a person having ordinary skill in the area of technology related to the invention”. The patent law specifies that the “subject matter must be useful. The term useful in this connection refers to the condition that the subject matter has a useful purpose and includes operativeness, that is, a machine which will not operate to perform the intended purpose would not be called useful, and therefore would not be granted a patent”.
According to the law, “only the inventor may apply for a patent, with certain exceptions”. If the “inventor is dead, the application may be made by legal representatives, that is, the administrator or executor of the estate”.

2.4.1.2. FILING OF APPLICATION FOR PATENT
Since June 8, 1995, the United States Patent and Trademark “Office has offered inventors the option of filing a provisional application for patent. Provisional application provides the means to establish an early effective filing date in a patent application. Provisional applications may not be filed for design inventions”. The “filing date of a provisional application is the date on which a written description of the invention, and drawings, if necessary, are received in the United States Patent and Trademark Office”. Provisional applications are not examined on their merits.
The specification must “include a written description of the invention and of the manner and process of making and using it, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the technological area to which the invention pertains, or with which it is mostly connected, to make and use the same”. The specification must “set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other invention and from what is old”. It must “describe completely, a specific embodiment of the process, machine, manufacture, composition of matter, or improvement invented, and must explain the mode of operation or principle whenever applicable”. The “best mode contemplated by the inventor” for carrying out the invention must be set forth.

A “brief abstract of the technical disclosure in the specification including that which is new in the art to which the invention pertains, must be set forth on a separate page”. The specification must “conclude with a claim or claims particularly pointing out and distinctly claiming the subject matter that the applicant regards as the invention”. The portion of the application in which the applicant sets forth the claim or claims is an important part of the application, as it is the “claims that define the scope of the protection afforded by the patent and by which questions of infringement are judged by the courts”. The application for patent is “not forwarded for examination until all required parts, complying with the rules related thereto, are received”.

Publication of patent application is required by “the American Inventors Protection Act, 1999”, for most plant and utility patent applications filed on or after November 29, 2000. As a result of publication, an “applicant may assert provisional rights”. The “inventor must make an oath or declaration that he/she believes himself/herself to be the original and first inventor of the subject matter of the application, and he/she must make various other statements required by law and various statements required by the United States Patents and Trade Marks Office rules”.

Under Section 102 of the United States Patents Act, “prior knowledge, usage, and/or invention in the United States can be used as evidence to invalidate an American patent for lacking novelty”. Novelty is “measured against the prior art”. It is generally met unless the invention is patented or described in a publication in the United States or a foreign country. If the purported “invention is identical to any references establishing prior art, it lacks novelty and no patent will be granted”. The examination of the application consist of “a study of the application for compliance with the legal
requirements and a search through United States patents, publications of patent applications, foreign patent documents and available literature, to see if the claimed invention is new, useful and non obvious and if the application meets the requirements of the patent statute and rules of practice”. If the examiner’s decision on patentability is favourable, a patent is granted. If the claimed invention is not directed to patentable subject matter, “the examiner finds that the claimed invention lacks novelty or differs only in an obvious manner from what is found in the prior art, the claims will be rejected”.

The major criticism of American patent law is its “state-centric nature”. The United States “operates under a system of specific notions of printed publications to determine prior art”. American patent law, thus, “waters down the novelty requirement by patenting inventions known or used in foreign countries as long as they have not been patented in a printed publication”.

### 2.4.2. PATENT LAW OF UNITED KINGDOM

Patents are generally “intended to cover products or processes that possess or contain new functional or technical aspects”. Patents are concerned with “how things work, what they do, how they do it, what they are made of or how they are made”. Most patents are for improvements in known technology.

Britain does not have the longest continuous patent tradition in the world. In 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. King Henry VI, in 1449, granted “the first patent with the license of twenty years to John of Utynam for introducing the making of color glass to England”. The practice was influenced by legislations from other places elsewhere in Europe, for example, the Statute of Venice, 1474. Queen Elizabeth considered her power to dispense monopoly grants through letters patent to be an unfettered prerogative of the crown. The Queen rejected the petitions of numerous subjects, who had created real inventions under their own initiative. The case of *Darcy vs. Allin* 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 Allin 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 twelve years, and renewed for an additional twelve years to the plaintiff, evidently an assignee of Bowes. The “playing card monopoly granted to Edward Darcy in 1598 provided for Darcy’s ‘complete monopolization’ 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”. It also denounces the patent as “contrary to common right, destroying trade and labor, 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._

Although the case 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. Despite King James verbal commitment to limitations on the royal power to grant monopolies, the _de facto_ abuse of the royal prerogative continued unabated. In 1623, Statute of Monopolies was passed under King James I, who declared that “patents could only be granted for projects of new invention”. Temporary legislation of year 1851 led to the passing of the ‘Patent Law Amendment Act, 1852’. This established United Kingdom Intellectual Property Office (UKIPO), under the then name of the ‘Commissioners for Patents’. The effect of the Act of 1852 was that “inventors were to be protected from the date of application, rather than the date of grant”. There was to be a “single patent for the United Kingdom’ and an ‘index of patents was to be set up and available for public consultation”. The role of the then Patent Office was limited to “receiving and publishing patent applications”.

Further, significant changes occurred through “the Patents, Designs and Marks Act, 1883” which provided for the “patent office to examine applications and for the patent office seal to replace the Great Seal on the formal document of grant”. Patentees were obliged to include in their specifications at least one claim delineating the scope of their monopoly.
The Patents Act, 1977 replaced the old system of British patent law. The Act provides for “patents to be granted either by the United Kingdom Intellectual Property Office (UKIPO) as a result of a patent application filed appropriately or by the European Patent Office as a result of a patent application filed under the European Patent Convention”. When “the Patents Act, 1977” was introduced, it was described as a ‘culture shock to United Kingdom patent lawyers’. Previous legislative reforms were procedural only. The Act of 1977 dealt with the “substantive law of patents into domestic law for the first time”. The Act also introduced, as a “purely domestic measure, rules on the ownership of inventions made in the course of employment and a scheme of compensation for employee inventors”. Its provisions are influenced by three major international documents, “the Patent Co-operation Treaty, 1970, the European Patent Convention, 1973 and the Draft Community Patent Convention, 1975”. The Act was intended to “give effect to the United Kingdom’s obligations under each of these”. The United Kingdom's criterion for patentability is adopted from “the European Patent Convention”. For an invention to be patentable, certain criteria must be met. The “invention must not form part of the state of the art, that is to say, the human knowledge which has at any time been made available to the public anywhere in the world in any way. If, the invention does not appear to be already part of the state of the art, or if, it is not possible to infer that it was implicitly part of the state of the art, the invention is new”. Novelty is often an area in which applications fail as inventors may accidentally divulge the details of the invention when seeking assistance with the manufacture of a prototype. One of the tasks a “court has to undertake is to decide, what the patent is all about. This is usually referred to as identifying the inventive concept. The invention must not simply be something which has not previously existed, but it must also owe its existence to the exercise by the human intellect of a creative thought-process”. According to the Patents Act, 1977, “an invention shall be taken to involve an innovative step, if it is not obvious to a person skilled in that area”. The invention must “manifest a real advance over what has previously been done, and must generally be of a technical nature”. Identifying the inventive concept is done by construing the claims in the light of the description of the invention. Patents are about “functional and technical aspects of products and processes”, therefore, an “invention must be capable of being made or used in some kind of industry, including agriculture”. However, good an idea
is, it “cannot be patented unless it is a thing which can be made i.e. a product or a means of making a thing or of achieving a concrete end result i.e. a process”.

The Patents Act, 1977 provides that “any person may apply for a patent, but this is qualified by the condition that the patent may only be granted to the inventor or their successor”. The word inventor is defined as the “actual deviser of the invention”. Thus, in Re Smith’s Patent, an application to revoke the patent succeeded, the evidence being that the “patentee had not been the inventor but one merely employed to prepare engineering drawings on behalf of the real creator. The inventor is the natural person who thinks up the inventive concept”. Similarly, in IDA Ltd v Southampton University, an article had appeared in The Times where “one of the defendant’s professors had set out his ideas about how to build a better cockroach trap. He was then contacted by one of the claimant’s staff who had suggested how to improve the invention by using magnetic powder. It was held that it was the claimant’s employee who had provided the inventive concept, the bright idea, and so they were entitled to the patent”. In Yeda Research & Development Co Ltd v Rhone- Poulenc Rorer the Court said that “the only question is who came up with the inventive concept?”

2.4.2.1. GRANT OF PATENTS UNDER UNITED KINGDOM LAW

In essence, there are “few key stages” in the United Kingdom procedure to obtain a domestic patent. The “documents necessary to support a patent application” are set out in the Patents Act, 1977, namely, “the request for a grant, appropriate fee, a specification containing a description of the invention, a claim or claims and any drawings, referred to in the description or claims, and an abstract”. The abstract is a key component in the patent information system. The term “specification” is the name for the “patent document as a whole, but basically comprises two parts, the description of the invention and the claims”.

The description is deemed to be “addressed to the hypothetical creature through whose eyes issues of validity and infringement are judged in patent law, the skilled addressee or notional skilled technician”. Patents Act, 1977, requires the “specification to disclose the invention in a manner which is clear enough and complete enough for the invention to be performed by a person skilled in the art. This is known as sufficiency”. In Conor Medsystems v Angiotech Pharmaceuticals Inc., it was held “disclosing what the
invention works, and how to perform it, is different from explaining why it works. The latter is not required”.

The claim or claims are required to “define the matter for which the applicant seeks protection”. It should be “clear and concise, be supported by the description, and relate to one invention or a group of inventions so linked as to form a single inventive concept”. A patent may have “all product claims or all process claims or have a mixture of claims”, e.g. a pharmaceutical patent may have claims both for a new compound and how to make it. The claims of a patent fulfil a vital role and are the patentee’s attempt to demarcate the scope of the monopoly. The claims “determine what is the invention in respect of which the patent has been granted and the scope of protection to be accorded to that invention”.

The filing date is to be treated as the “priority date”. The priority date of a patent is of crucial importance, as it is the “date on which the validity of the patent is assessed”. Matter made “available to the public before the priority date is known as the prior art and the claims of the patent are compared with the prior art in order to determine whether the invention as set out in the claim meets the requirements of novelty and inventive step”.

The patent examiner is required to make such “investigation as is reasonably practicable and necessary to identify the documents needed for substantive examination to determine whether the invention is new and contains an inventive step”. Once the search and preliminary examination have been completed, the patent “application is examined as to whether it complies with the substantive requirements of novelty and inventive step in the light of the search report produced by United Kingdom Intellectual Property Office”.

If the application is successful, then upon payment of the appropriate fee the patent will be granted. The grant must “be made within a maximum period of four and a half years (54 months) from the priority date”. It will last for a “maximum of twenty years, calculated from the filing date of the application”.

The Patents Act, 1977 was amended and supplemented by “the Copyright, Designs and Patents Act, 1988” and “the Patents Act, 2004” and “the Patents (Compulsory Licensing and Supplementary Protection Certificates) Regulations, 2007”. The principal effect of the Patents Act, 1977, has been that it has “drawn United Kingdom patent law closer to its major European trading partners, in accordance with the provisions of the European
Patent Convention (EPC)”. ‘The Patents Act, 1977’, is highly technical. Despite its complexity, however, the new system, in practice, fosters invention. Since the system has made it ‘easier for the patentee to obtain international protection, the inventor receives an increased benefit from his invention and thus, experiences a greater stimulus to invent’.

2.5. INTERNATIONAL CONVENTIONS

Globalization of trade and commerce has now given an international character to patents. Before the existence of any international convention, it was difficult to obtain protection in many countries due to diversity in national laws, as in the past, no system existed that could be termed as an “international patent system”. Over the years, nations realized that “internationalizing the patent system would increase efficiency and reduce costs”. This realization led to “efforts at international level and formation of treaties and conventions relating to patents”. The global character of patents is, now, recognized in the various international conventions. There is a trend towards “global harmonization of patent laws as securing international patent protection no longer means that a patent application must be filed in each individual country where patent protection is sought”. The foundation for “international patent protection” was created in the late nineteenth century at various Congresses in Vienna, culminating in “the Paris Convention, 1883” that provided inventors with a rational “base for international patent protection”. There are a “variety of paths or routes available to the applicant for multi-jurisdictional patent protection”.

2.5.1. PARIS CONVENTION

‘The Paris Convention for the Protection of Industrial Property, 1883’, was the first step in “internationalization of patent system”. ‘The Paris Convention for the Protection of Industrial Property’ is the “centrepiece of the international patent grading system”. It represents the “first effort of several countries to pursue a common approach to industrial property”. The convention was drafted at a ‘Diplomatic Conference in Paris’ in 1880 and was ratified by eleven states in 1884. It was entered into force one month after the deposit of the instruments of ratification, on July 7, 1884. The Paris Convention “tackles basic and substantive problems faced by the international community in relation to industrial property”. The convention “introduced the principles
of national treatment and right of priority and common rules in the administration and enforcement of intellectual property rights creating regime of equality in all member states”. It, also, reflects the growing concern of developed and developing nations of the world to ensure that their industrial property is properly protected not only at the national, but also at the international level.

The Paris Convention talks of what has been termed as “national treatment principle”. According to it, “the member countries of this Union shall provide protection to industrial property of nationals of other member countries in the same way as they do to that of their own nationals”. For giving such protection, the country where the application has been made, “shall not impose any precondition for eligibility of the applicant”. However, the member country in question “reserves the right to apply its own laws on the applicant, who is from any other member country as regards judicial and administrative procedure, jurisdiction, and designation of an address for service or the appointment of an agent”. A “fixed priority period of twelve months is provided for a person who has duly filed an application for a patent in one of the countries of the Union for the purpose of filing applications for the protection of the same patent in other countries”.

One of the other most important provisions of the Paris Convention relates to “convention priority”. An “applicant’s priority date is the date, on which an application is first filed in the applicant’s home country”. The convention “allows the applicant to claim this date as the effective date on which an application for the same patent was filed in any other member country, provided that the application is filed within twelve months from the claimed priority date”. The foreign filing date is the convention date. This removes the need and cost to file all the separate country applications at the same time to obtain effective protection.

The Paris Convention has provided the framework for “the Patent Cooperation Treaty”, “the European Patent Convention” 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.

2.5.2. 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. “The Strasbourg Convention, 1963 on the Unification of certain points of Substantive Law on Patents for Inventions” set forth certain common substantive patent law principles, and formed the cornerstones of “the European Patent Convention” (EPC). “The European Patent Convention” was ‘signed in Munich in 1973 and came into operation on June 1, 1978’. The Convention was creation of “European Patent Office (EPO)”. The Convention is an “inter governmental treaty, a regional convention for the grant of patent in Europe”. The membership extends beyond members of European Community.

The Convention provides for “single application in English, German or French which is converted into a bundle of individual national patents on completion of procedure”. Once the “patent is accepted for grant, the appropriate fees and translations are to be submitted”. The system also “allows an opposition to the grant to be lodged at the European Patent Office within nine months from the patent grant”.

The Europatents granted by the ‘European Patent Office’ 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 Convention 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 twenty years from the date of filing of the application for it”. Europatents and applications for them must be treated as giving rise to rights specified in the Convention. Thus, the convention requires the law for national patents to be brought into line with that for Europatents.

The European Patent Convention “considers an invention to be new if it does not form part of the state of the art, which is 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”. This indicates that articles which are publicly available may form the state of the art whether they have been described in writing or even orally.

### 2.5.3. COMMUNITY PATENT CONVENTION

With a view to establish a “European patent system” in 1960s and 1970s, it was decided that a “dual system of protection” is required to be introduced. The first success came with the formation of “European Patent Convention” that aimed to “establish a centralized granting authority”. Thereafter, “a single community patent was
conceptualized that was to be obtained by one central procedure and be binding in all the member states”. This came to be known as “Community Patent Convention” which was signed in Luxemburg in 1975. The Community Patent Convention (CPC) provides for a true European patent, where, one administrative agency would issue a “single patent effective in every signatory nation”. 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, moreover, “subject to the legal regime established by the Community Patent Convention itself”. However, unlike European Patent Convention, the Community Patent Convention never came into force.

2.5.4. PATENT CO-OPERATION TREATY

On the request of “Executive Committee of the Paris Union for the Protection of Industrial Property, Bureau Internationaux Reunis pour la protection de la Propriete Intellectuelle (BIRPI) prepared in 1967 the draft of an international treaty and the same having been revised by a Committee of Experts”, was signed at Washington in 1970. This treaty known as ‘Patent Cooperation Treaty (PCT)’ was entered into force on January 24, 1978 and became operational on June 1, 1978 with an initial eighteen contracting States. Patent Co-operation Treaty, 1970 represents the first major step, after Paris Convention, towards a truly procedural internationalized patent system. The treaty facilitates granting of national and regional patents. It gives the foreign applicant the much needed time to protect the invention internationally. The treaty provides for “single application designating the member countries from which patents are desired”. After the examination of application, “payment of fees and filing of translations, the application is converted into a bundle of individual national applications, which are then subject to examination by individual national patent offices”. This international treaty on the subject of patents “stands for rationalization and cooperation with regard to the filing, searching and examination of patent applications and dissemination of the technical information contained therein”. The Patent Cooperation Treaty plays the role of a facilitator and helps an applicant get a patent granted in his favour in any of the countries of the Paris Union termed as designated offices. The principle objectives of the Patent Cooperation Treaty are:

1. To simplify and to make more effective and economical, the methods for applying for patent protection for inventions in several countries,
2. To get rid of the system which required filing of several applications for patent of the same invention in several countries and for this end
   a) To establish an international system which enables the filing with a single office through a single application in one language for the purpose of getting patent granted in those member countries which are mentioned therein by the applicant,
   b) To provide for the formal examination of the international application by a single patent office,
   c) To subject each international application to an international search resulting in a report, the copy of which is provided to applicant before the same being published,
   d) To provide for centralized international publication of the international applications with search reports therein,
   e) To provide a chance to the designated office to consider whether the patent can be granted and an opportunity to the applicant to know whether and if yes, up to what extent his invention meets the international criteria for patentability.
3. To help these member countries cope with increased work load, since an application by the time it reaches a designated office has already been examined and
4. To facilitate and accelerate access by industries and other interested sectors to technical information related to inventions and to assist developing countries in gaining excess to technologies.

The Patent Co-operation Treaty is an “agreement for international co-operation in the field of patents”. The treaty is a procedural treaty and the actual grant is by the national patent offices. India has also acceded to the Patent Co-operation Treaty. Although the Patent Co-Operation Treaty “simplifies the patent application process, it does not centralize the patent granting phase, which remains the responsibility of the national patent authorities in the designated states”.

2.5.5. TRADE RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS AGREEMENT

The TRIPs Agreement is one of the most important commercial treaties in modern history. It revolutionized the treatment of intellectual property in the signatory countries. The agreement was negotiated in order to “reduce distortions and impediments to international trade and to promote adequate protective measures for intellectual property”.

The subject matter of patents earlier to Trade Related Aspects of Intellectual Property Rights Agreement was determined by the national governments according to its suitability keeping in view its social and economic development. But, TRIPs Agreement was purposely intersected in ‘General Agreement on Trade and Tariff (GATT)’/World
Trade Organisation (WTO)” to enhance the level of protection to patents and also, the subject matter to be covered by the member countries in compliance, thereof and to harmonize the standard at international level. While Article 3 of TRIPs Agreement, requires “each member to accord to the nationals of other members a national treatment with regard to protection of intellectual property”, Article 4 states that “with regard to the protection of intellectual property, any advantage, favour, privilege or immunity granted by a member to the nationals of any other country shall be accorded unconditionally to the nationals of other members”. It has been provided that “a member shall be under no such obligation if it accords any advantage, favour, privilege or immunity deriving from international agreements on judicial assistance or law enforcement of a general nature and not particularly confined to the protection of intellectual property or from international agreements related to the protection of intellectual property which entered into force prior to the entry into force of the World Trade Organisation Agreement, provided that such agreements are notified to the Council for TRIPs Agreement and do not constitute an arbitrary or unjustifiable discrimination against nationals of other members”.

Articles 27 to 34 of the TRIPs Agreement deal “exclusively with the matter of patents”. The agreement provides that “patents shall be available for any invention, whether product or process, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application”. This subsection states that “subject to the provisions of paragraphs 2 and 3, patents shall be available for any invention, whether products or process, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application”. According to paragraphs 2 and 3, members may exclude from patentability

- Inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect public order 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.
- Diagnostic, therapeutic and surgical methods for the treatment of humans, plants and animals other than micro-organisms, 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.
Recently, when a “multinational company Novartis challenged the Section 3 (d) of Patents Act, 1970 of India (as amended in 2005) as a violation of Section 27 of TRIPs Agreement”. The Madras High Court declined to entertain the matter observing that “Dispute Settlement Mechanism provided for under TRIPs Agreement and the World Trade Organisation (WTO) was the only forum to raise such issues”.

Article 28 gives following “exclusive rights to the owner of a patent”
1. In case of product patent, to prevent others from making, using, offering for sale, selling or importing for these purposes unless with prior permission of the owner;
2. In case of process patent, to prevent others from using the process, or from using, offering for sale, selling or importing for these purposes at least the product obtained directly by that process, unless with prior permission of the owner; and
3. To assign or transfer by succession, the patent and to conclude license contracts.

Article 29 requires that “an applicant for patent disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art; and indicate the best mode known by that date to the inventor to carry out the invention”.

TRIPs Agreement is the “most important international instrument” in the field of patent law. It is the first step taken towards the establishment of *sui generis* system of patents. The agreement has led to amendment in the patent laws of all the member countries. India has also amended the Patents Act, 1970 in accordance with the provisions of TRIPs Agreement.

**2.6. CONCLUSION**

Intellectual property issues in respect of certain industries, in the context of new technologies and growing international competition, are pinpointing to the need of a constant review of national and international regulatory systems. Traditional legal frameworks have had to undergo changes. The high costs of research and development, comparative ease of piracy, and the global market pressures of the emerging technologies, have increased the importance of national and international protection of intellectual property.

Patent laws are one of the instruments of national policy. The utility of patents has been recognized not only in the economically “developed countries but also in developing countries” like India. The TRIPs Agreement has set “new international norms” for the
protection and enforcement of patents rights. It envisages a uniform regime of intellectual property rights for all the countries. In India, necessary steps have been taken to amend the patent laws according to the provisions of TRIPs Agreement. India has attempted to answer all the emerging issues concerning the patents through amendments and new legislations. But, even with the amendment of 2005, as final step towards compliance with TRIPs Agreement, still a lot needs to be done for protection of rights of the owners, who are victims of loopholes in the law.

Globalization has “tremendously accelerated the evolution and growth of patent law both nationally and internationally and has led to international initiatives towards forming a global patent regime”. In today’s globalized economy, “many inventors, investors and businesses want their inventions to be protected. Despite the attempts in international treaties to simplify patenting, the process remains complicated, lengthy and expensive”. Poor countries are at a distinct disadvantage when fighting for their rights.

The new millennium poses serious challenge to the international legal community to set “new international legal standard for tackling the problem of intellectual property protection thrown open by the technology developments”. The international instruments have contributed in some way to the trend towards ‘global harmonization of patent law throughout the world’. The harmonization process initiated by “the Paris Industrial Property Convention” culminated with the adoption of “the Trade-Related Aspects of Intellectual Property Rights (TRIPs) Agreement” in the framework of “the World Trade Organisation (WTO)”.