



CHANGING INTERNATIONAL PATENT PARADIGMS AND ITS RELATION WITH INDIAN PATENT SYSTEM

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ABSTRACT

Patent protection has helped in the evolution and expansion of technology beyond domestic boundaries. This technological growth has resulted in many inventions and innovations. Such technological progress has caused States to reach a common consensus inter Sè to benefit each other in varied sectors of activities. Undoubtedly such mutual intercourse between States has been beneficial, but it has come with certain threats which could disturb the mutual equilibrium created so far. This has urged the States to develop different multilateral treaties safeguarding patent protection. The primary motive behind such treaty making has always been to facilitate official intercourse between States to derive mutual benefits. These treaties have been one of the driving forces which have further strengthened global integration and benefited the world in sectors like pharmaceuticals, agriculture, space, defence, food, etc. Further such endeavours have resulted into certain uniform patent laws and principles which has helped in both protection and facilitated technology transfer between States. In this context, the aim of this paper is to trace international development in the areas of patents and how developing country like India being member of the most influential and path-breaking TRIPS agreement has responded to these global changes and what

impact it has brought in the domestic legislation. To arrive at various conclusions, the methodology used by the author in the present work is purely doctrinal, analytical and evaluative.

Keywords: Patent protection, Technology, Invention, Patent treaties, TRIPS, India.

PATENTS IN BRIEF

The patent belongs to one of the broader areas of law known as Intellectual Property. The patent grant involves the disclosure of the invention by the patent applicant and issuance of a document enumerating certain rights and obligations by the national government. Patents are not just automatically granted on the filling of the application but each application has to undergo rigorous scrutiny whereby each application shall be tested on the touchstone of “newness”, “non-obviousness” and “utility”.

Once the application passes through every test and proves its legitimacy it becomes eligible for a patent grant. Patent guarantees certain exclusive rights to the patentee whereby patented invention can only be put to use with the prior authorization of the patent holder. Rights conferred by the patent are not perpetual but limited in time.

EARLIEST SOURCES

The manner in which we understand and recognize Patents today widely differs from the Patents which were prevalent in the early times. Though it is difficult to trace the exact day and date of the origin of Patents from the historical point of view it is usually stated patents emerged initially as grants of privilege. The privileges were granted by the



monarch or state to the inventors for protecting or rewarding their creative ingenuity but no uniform criteria for patent grants were recognized. Therefore, some of the privileges were temporary, some of the privileges were perpetual, some of the privileges were granted when something new was created others on the importation of skilled expertise from outside.¹

The breakthrough which is of great significance while discussing the origin of patents is Venetian Statute of 1474. This law is considered to be the watershed in the development of patent laws because it portrayed patents in one of its refined versions for the first time. Patent grants were subjected to certain rules which were remarkably precise and gave coherent shape to the entire patent law. Patents were only granted when the invention proved to be new and useful and patents were granted for the limited period of time.²

Granting of the patent like privileges were not just confined to Venice, but another European country which was efficacious to

have its own patent law was England. Patents like privileges were not only granted to the new invention but such privileges were also granted to an individual who introduced or imported new art or skill in the royal realm. The practice of granting patent like privilege received impetus during the reign of Elizabeth I. During her period abuse of patent privileges was also reported, which brought her at loggerheads with the parliament the dispute was finally settled when privileges granted by the Queen were made subject to the scrutiny of the jury.³

The grant of patent privileges continued during the rule of James I. Finally, in the year 1623 parliament in order to streamline and counter the abuse resulted from the royal grants enacted a Statute of Monopolies 1624. Whereby such grants were not abolished but subjected to certain standards which stated patents will be granted to the 'true and first inventor' for the period of 14 years.⁴ Soon patent system spread to other countries of the

¹ Fritz Machlup, "An Economic Review of The Patent System", 02 (June 30, 1958).

² Christopher May and Susan K. Sell, *Intellectual Property Rights Critical History* 46 (Lynne Rienner Publishers, London).

³ Ove Granstrand, *The Economics and Management of Intellectual Property* (Edward Elgar Publishing Ltd, UK)

⁴ *Ibid.*

⁵ The statute of Monopolies is the basis of the present British patent law, and become the model for the laws elsewhere for example Massachusetts was the first to enact patent law in 1614, South Carolina enacted patent law in 1691. European countries like for example France in the year 1762 through royal edict prohibit permanent privileges and provide for inventor's patents limited to fifteen years. The United States passed its first patent law in 1790. The next country to adopt patent legislation was Austria in 1794 a Hofdekret (royal decree) announced the

establishment of a patent system and in 1810 such a law was enacted. Four different legal philosophies about the nature of the inventor's right were thus expressed in the patent laws of the various countries: the French, recognizing a property right of the inventor in his invention and deriving from it his right to obtain a patent; the American silent on the property question, but stressing the inventors legal right to a patent; the English recognizing the monopoly character of the patent, and regarding it in theory as a grant of royal favour, but in practice regularly allowing the inventors claims to receive a patent on his invention, the Austrian insisting that the inventor has no right to protection, but may as a matter of policy, be granted a privilege if in the public interest. Regardless the nature of inventors rights the patent laws were enacted around world in Russia in 1812; Prussia, 1815; Belgium and the Netherlands, 1817; Spain, 1820; Bavaria, 1825; Sardinia, 1826; the Vatican State,



ORIGIN OF INTERNATIONAL PATENTS

The term international patent system is more of a misnomer⁶, the term usually refers to certain rules and obligations which countries voluntarily adhere to in order to extent extraterritorial protection to the inventions and innovations. At first tradition of protection of inventions started at the national level whereby inventions were protected against imitation within the national boundaries of the country only. During the era of industrial development which stimulated international trade, it became the need of the hour for the nations to engage in commercial and economic intercourse. The process of commercial exploitation of an invention beyond the national frontiers made inventors sceptical about the treatment they may be subjected to as compared to the nationals of that country. This scepticism became apparent with the famous incident which took place in the year 1873 in the city of Vienna wherein an international exhibition participant refused to disclose their creations in the absence of any protection given to their work against imitation.⁷ The deadlock was resolved when the concerned government passed a temporary law for providing protection to the inventors against copying.

1833; Sweden, 1834; Wurttemberg, 1836; Portugal, 1837; Saxonia, 1843.

⁶ Janice M. Mueller, *Patent Law* (Aspen Publishers, New York, 3rd edn, 2000).

⁷ Philippe Baechtold and Tomoko Miyamoto, "International Patent Harmonization- A Search for the Right Balance" 10 *JIPR* pp 177-187 (2005).

These new relations amid countries brought new challenges which have not been confronted before. One such challenge was extending protection to inventions which belonged to the nationals of other countries while that invention was commercially exploited in the host country. Since no world order afforded such protection it became imperative for the world community to deliberate on these issues and develop an international mechanism for filling up such a vacuum. This initiated a new debate where several countries pressed for the demand for the extension of patent protection outside their national borders. This demand by the countries was probably motivated for capturing the international market for the profit gains.⁸

INTERNATIONAL DEVELOPMENTS OF PATENTS

Today in the era of globalization patents have become as one of the strongest tools which have given impetus to the economic and technological growth of the nation. It provides an incentive which encourages the development of new inventions and induces investment of capital in new ventures which has proved further expansion in the area of science and technology.⁹ The patented invention has the same features as that of the private property which makes it feasible for the commercial gain.¹⁰ Patents can be

⁸ Rajeev Dhavan, Lindsay Harris and Gopal Jain, "Conquest by Patent: The Paris Convention Revisited" 32 *Journal of the Indian Law Institute* pp. 131 -178 (1990)

⁹ K S Kardam, "Patenting Activities in India: An Overview", 2 *JIPR* pp 113-123 (1997).

¹⁰ Vijay Kumar Himanshu, "Patent Monopoly and Doctrine of Exhaustion: Limits on Exclusive Right", 16 *JIPR* pp 453-462 (2011).



commercially exploited both nationally and internationally through various ways such as licensing, assignment etc.

The idea of gaining mutual benefits from one another has inspired States to bind themselves into various bilateral and multilateral treaties. The primary motive behind such treaty-making has always been to facilitate and make active interaction between States for deriving mutual benefits in different sectors like for example health¹¹, international trade¹², education¹³ and others. States around the globe in recent times are making progress in every field which is imaginable to the human mind. One of the important sectors which have dominated this progress is technological development. The evolution and expansion of technology have been one of the biggest achievements of mankind since the time immemorial, technological development has never been static its roots can be traced in the debris of prehistorical times¹⁴. This technological growth has resulted in numerous inventions and innovations. The recent times have shown tremendous spur in the technological growth be it on a 'micro-level' or 'macro-level'.

Such technological progress has necessitated States to reach a common understanding with one another and evolve such laws and principles which would facilitate the transfer

of such inventions and innovations from one country to another with minimum discrepancy and hindrance. For the convenience, sack author has divided multilateral treaties that have been concluded in the area of patents by the world community into two categories: -

- a) Treaties mainly dealing with the substantive law regarding patents
- b) Treaties dealing with the procedural requirements regarding patents

SUBSTANTIVE LAW TREATIES

Substantive law treaties are those treaties which in their letter mainly focus on evolving certain principles of substantive law. These principles act as a standard which is to be adhered to in the domestic law of the member countries. On the other hand, such practice helps in bringing uniformity in the law and on the other hand it creates certain obligations which are to be fulfilled by the members. Treaties which deal with the substantive law of patents includes namely: -

- a) Paris convention
- b) Trade-related aspects of intellectual property (TRIPS)

PARIS CONVENTION

Paris convention is a multilateral treaty with deals with the industrial property. Industrial property is divided into different forms which include patents, trademarks, service marks,

¹¹ The World Health Organisation, signed at New York on 22 July 1946.

¹² General Agreement on Tariffs and Trade, signed at Geneva on 30 October 1947, Havana Charter for an International Trade Organisation, signed at Havana on 24 March 1948 etc.

¹³ Agreement for Facilitating the International Circulation of Visual and Auditory Materials of an Educational, Scientific and Cultural Character with Protocol of Signature. Opened for signature at lake

Success, New York on 15 July 1949, Agreement on the Importation of Educational, scientific and Cultural Materials with annexed Protocol. Opened for signature at Lake Success, New York on 22 November 1950.

¹⁴ Pre historical period is usually divided into Paleolithic, Mesolithic, Neolithic and Chalcolithic each period has depicted gradual growth in the technological know-how of men.



layout designs, integrated circuits, industrial designs etc. Paris convention in the area of patents has evolved remarkable standards which act as a bedrock over which consensus is reached among the world community to bring uniformity in order to facilitate the interstate official communication and obtain mutual benefits from each other.

Paris convention aims at eliminating discrimination among the member countries and provides a platform whereby mutual rights and obligations are exchanged between the member countries. It provides certain benefits, rights and obligations for the member states. There are two most important benefits which are extended to the member states in terms of national treatment and right of priority.

The principle of national treatment provides that members are under obligation to extend the same treatment to the foreign applicants as they provide to their own nationals¹⁵. This principle completely prohibits any discriminatory behaviour while dealing with the patent grant in one's own territory. However, there is an exception to this principle of national treatment which makes certain reservations in terms of administrative and judicial procedures while dealing with the foreign applications, this is entirely a procedural requirement and does not intend to create or give any preferential treatment to the nationals over the foreign applications¹⁶. The Paris Convention has also in its ambit brought those countries which do not form part of its membership by extending the national treatment to them as well in case " *they are domiciled or have a real and effective industrial or commercial establishment in the territory of one of the members of the countries* "¹⁷.

¹⁵ Paris Convention for the Protection of Industrial Property, 1883, Section 2.

Another principle is called the right of priority, as the term suggests this principle create a period of priority for the patent applicant. According to this principle, the date on which first application is filed by the applicant in one of the member states shall remain the same for all the subsequent applications during the period of twelve months. This principle has relieved the patent applicant from the burden of filing patent application simultaneously in all the countries of interest, in order to protect the novelty of the invention. Simply stated this principle give the patent applicant period of twelve months after the filing of the first application to decide and conveniently apply to other countries for patent grant.

In order to maintain the independence of member states, the Paris Convention provides that every country is free to grant or refuse the patents which should be decided by the countries keeping in view their requirement. Also, in terms of compulsory licenses Paris convention explicitly provides that while issuing a compulsory license, members should keep in consideration various factors such as only after giving the patentee opportunity to defend his failure to work the patent, the request for a compulsory license should proceed.

In the changing world dynamics, the relationship between the states is constantly evolving. In order to keep in tune with the ever-growing world order every agreement, convention, memorandum of understanding or treaty has to be revised. Similarly, the Paris Convention for the protection of the industrial property was revised six times to bring a requisite amount of changes in order

¹⁶ Ibid. Section 2 (b).

¹⁷ Ibid. Section 3.



to suit the changing requirements in the field of intellectual creativity. The primary aim behind the Paris Convention rested on the idea that states should practice equality while dealing with each other and to create certain uniform standards in the area of industrial property.

TRADE RELATED INTELLECTUAL PROPERTY RIGHTS (TRIPS)

The changing practices in the world of trade and commerce including the increasing importance of intellectual property influenced the adoption of TRIPS Agreement during the “Uruguay Round of the General agreement by Tariffs and Trade (GATT)” TRIPS agreement is a multilateral agreement which deals with patents including other forms of intellectual property. The term intellectual property was used much later in time before that industrial property was used to refer to creations which were the direct outcome of the human mind. Industrial property is the part of a much wider body of law which is known as intellectual property. The term intellectual property was used first time in the latter part of the nineteenth century by an American librarian “Lysander Spooner” in 1855 emphasizing¹⁸ “*property rights in ideas*”.

There are two branches of intellectual property i.e. copyrights and industrial property. The term intellectual property does not have any uniform definition although the WIPO Convention has recognized various types of Intellectual Property¹⁹

TRIPS agreement with regard to patents creates an international framework which tries to bring uniformity by fixing certain parameters within which patents will be granted in the foreign countries and it also establishes certain universal standards which member countries are under obligation to comply with. The agreement for the first time defines the subject matter of patents in a precise manner²⁰ and also provides an exhaustive list of subject matter which is not patentable.²¹ Another significant feature of the agreement lies in the fact it provides enforcement of standard in case any member country fails to show compliance.²² One of the significant features of the TRIPS agreement is the recognition of national treatment and most favoured nation treatment as its core principles. The principle of national treatment has the same meaning and significance as it has under the Paris Convention. The principle of most favoured nation treatment stipulates that when a member country extends any immunity or advantage to the nationals of any other member the same treatment shall be accorded to nationals of all the member countries.

PROCEDURAL PATENT LAW TREATY

These treaties establish certain fundamental procedural norms which makes the entire process of filing the patents effective and much less cumbersome. These treaties include: -

- a) Patent cooperation treaty

¹⁸ Christopher May and Susan K. Sell, *Intellectual property Rights A Critical History* 49 (Lynne Rienner, London,) 2000.

¹⁹ Vishnu S Warriar, *Understanding Patent Law*, 01 (Lexis Nexis, Gurgaon,) 2015.

²⁰ Trade Related Intellectual Property Rights, 1994, Section 27

²¹ Ibid.

²² Ivan Stepanov, *Eli Lilly and Beyond*, 18 (Nomos Verlagsgesellschaft) 2018



- b) Patent law treaty
- c) Budapest treaty
- d) Strasbourg treaty

PATENT COOPERATION TREATY

Traditionally in order to get patent protection in more than one country, an individual patent application was required to be filed in each country where patent protection was sought. This anomaly was rectified to a large extent by the Paris Convention which provided priority period of twelve months on the basis of the first patent application, during this period patent applicant could file a patent application in all the desired countries without destroying novelty of the invention. This again involved filling of many applications which proved cumbersome as well as expensive because the applicant had to bear the charges which were involved in filling application in patent offices of different countries including miscellaneous charges.

Patent cooperation treaty is a multilateral treaty which establishes a system of international patent filing whereby on the basis of the single patent application patent protection is sought in multiple countries. The patent application filing does not guarantee him patent grant which is absolutely left to the discretion of the patent office of the member countries. The whole process just makes the filing process easier and saves the applicant from incurring multiple charges involved in filing the patent application in each of the member states separately.²³

PATENT LAW TREATY

The primary aim with which patent law treaty was signed by the world countries was to make whole of patent filing process less technical and more convenient. It aims to eliminate various procedural requirement which is imposed by the individual patent office around the world and bring uniformity in the official proceedings.²⁴

STRASBOURG TREATY

Strasbourg Agreement which came into being on 24th March 1971 provides for the international patent classification. The convention divides technology approximately into “eight sections” with more than sixty thousand subdivisions. It provides a systematic arrangement whereby information contained in patent documents are made easily accessible. The primary goal of the convention is to provide an international search device where patent documents are retrievable in order to determine the technical details of an invention.²⁵

BUDAPEST TREATY

The Budapest treaty is known as ‘Budapest treaty on the international recognition of the deposit of microorganism for the purposes of patent procedure, 1977’. This treaty provides for the international depository unit whereby the sample of microorganisms is preserved for determining the patentability of the invention. Every patent has a subject matter which is subjected to the routine scrutiny before the patent is granted, the specifications of every invention are made available to the patent office of the country where the patent is sought. This procedure goes well with those inventions which have technical details

²³ Alan L Durham, “*Patent Law Essential*” 206 (Praeger Publishers, London, 3rd edn., 2010).

²⁴ *Ibid.*

²⁵ WIPO, “Summaries of Conventions, Treaties and Agreements Administered by WIPO” 26 (2013)



embedded in a series of documents which can be easily transported and stored. On the other hand, fields like biotechnology where the subject matter of inventions is very fragile and easily damageable like for microorganisms, it becomes very difficult for both patent applicant as well as patent office to fulfil the formalities associated with the patent grant given the nature of subject matter. It is to counter this difficulty; the Budapest treaty was enacted which preserves and make available samples to the patent offices for requisite procedural formalities.²⁶

INTERNATIONAL IMPACT ON INDIAN PATENT LAW

History of intellectual property law in India dates back to the time of British rule. The sway of British remained over India for more than a hundred years. The impact of British rule was felt in every aspect of the functioning of India be it social, political, economic or legal. The laws enacted during the period of colonial domination was mainly to benefit the Britishers without ever paying any notice to the aspiration of the Indian. The same intent was behind the passing of law related to intellectual property.

During this time the field of intellectual property was in its nascent stage of development i.e. it was not fully transformed into the kind of law we have in present times. Intellectual law that time protected any creativity which had some utility and could prove beneficial for the state. The laws protecting creative endeavours during that period was mainly enacted to benefit British industries and to extend protection to those who already enjoyed patent protection in

Britain and wanted to enjoy the same privileges in India²⁷.

These laws were draconian and did not take into considerations the then prevailing conditions and merely imposed such conditions which helped foreign rulers to have tight rope over the Indian market. During this period many legislations were enacted like for example “Patents and Designs Protection Act” of 1872, “Protection of inventions” of 1883, “Inventions and Designs Act” of 1888, “Indian Patents and Designs Act” of 1911.

Among these enactments “Indian Patents and Designs Act” 1911 remained in force for a long period of time, even after independence it was operational for a huge time frame. Indian independence brought a massive change in the entire functioning of the country. Finally, a new era began where State responded to the aspiration and well-being of its people. Changing time brought new insights and vision which was felt in every nook and corner of the country.

It took a while but finally, the government understood the importance of laws which protect the intellectual creations and their significance in the fast-changing world milieu. The direct consequence of this understanding was seen in the appointment of committees such as Bakshi Tek Chand committee in the year 1949 and N Rajagopalan Ayyanger committee in the year 1957.

On the recommendation of Bakshi Tek Chand committee, certain changes were brought to the then Patent and Designs Act,

²⁶ *Ibid*, page no 28

²⁷ D. N. Choudhary, *Patent Laws Developing Countries Perspective*, 25 (Capital law House, New Delhi).



1911 which again could not suffice and survive the constant pressure which country felt due to new developments brought in the field of creative and inventive realm worldwide. Under these circumstances, the concerned government-appointed N Rajagopalan Ayyangar committee on whose recommendation Patent Act 1970 found its place in the statute books.

India after independence pledged to be sovereign in its internal and external matters. This principle was also affirmed by the constitution in its preamble. The natural corollary of which implies that India will not succumb to any foreign interference or influence. Today every country is free and independent but not equal in terms of development status and for a country to grow it cannot remain in isolation. This is where the practice of concluding international agreements and conventions come into play. Thus, international agreement or treaties became an instrument where parties are brought together and certain mutual advantages and obligations are negotiated without compromising the sovereignty of any of the state parties.

India for a very long period of time stayed away from signing any international patent treaty may be due to the fact India being an underdeveloped country which was still trying to repair from the colonial damage was not ready to have additional obligation to fulfil at any international forum and India lagged behind in terms of development in the field of technology. India was not in the position to compete internationally because it was yet in the stage of building its technical base.

As it is stated earlier a country cannot develop in isolation, with changing times India's tremendous growth in term of

science, technology, trade etc has given a lot of impetus to its developmental status. These changed circumstances and quest for further growth encouraged India to open up its boundaries and start international collaboration in different sectors including copyright and industrial property.

India's international collaborations in terms of patents started in the year 1994 when India became a signatory to one of the biggest multinational treaty related to the intellectual property known TRIPS. During this period India also joined the membership of one of the earliest treaties in the field of the patents i.e. Paris Convention and Patent Convention Treaty in the year 1998.

TRIPS is the outcome of GATT'S last round of negotiations which is known as Uruguay Round. The negotiations of this round began in 1986 and concluded in 1994. This round of negotiations has historical importance in terms of intellectual property law due to the adoption of one of the most prominent multilateral Treaty i.e. TRIPS.

During the pre-trips period treaties like the Paris Convention and Patent Cooperating treaty though formulated many rules and principles concerning patents but were narrower in scope and failed in establishing a uniform standard in the field of patents. Further signing of these treaties did not bring any change in the prevailing Indian Patent Law. These efforts tried to facilitate the mechanism of patent grant and removing impediments which could cause conflict



while member states engage in interstate technology transfer.²⁸

TRIPS was ahead of all these prior efforts its aim was to establish a standard model in terms of intellectual property and in order to bring mandatory compliance by its member states it also provided a proper redressal mechanism for any violation under WTO a feature which was absent in the previous conventions and treaties. TRIPS being a multilateral treaty includes not only patents but other forms of intellectual property as well like for example trademarks, geographical indications, copyright etc.

TRIPS deal with each category in a proper and subtle way according to nature and subject matter involved. In terms of patents, TRIPS broadly deliberate on matters such as (I) extending patent protection in all areas of technical advancement (II) having a uniform period of patent grant i.e. twenty years (III) granting patent protection to such invention whose subject matter included microorganism (IV) it also aimed to protect new plant varieties (V) it introduced the concept of “exclusive marketing right” to include products patents which are related in the field of agriculture and medicine (VI) TRIPS Agreement also argued that every case of compulsory license should be decided on the basis of merit.²⁹

TRIPS Agreement also provided three different time frameworks for the member states to show compliance to the provisions laid down in the agreement like for example developed nations were not provided much time relaxations they were supposed to be the first to incorporate trips principles in their

respective Intellectual property laws on the other hand developing nations were given four years grace period to make necessary changes while as those developing nations like India who did not previously provide product patent was given five more additional years to bring necessary changes but during that period they have to make certain tentative arrangements in terms of providing “exclusive marketing rights” for patents concerning products especially related to agriculture and medicines. Therefore, India after signing of TRIPS agreement received an additional ten years in order to bring its Patent Act 1970 in conformation with the said agreement.

India before TRIPS did not recognise product patents in any field of technology. The general term of process patent was recognized as fourteenth years and in case of medicine and chemical process, it was only granted up to seven years. After the ratification of the TRIPS Agreement, many efforts were made by the government of India in order to fulfil its pledge and bring required reforms to the present-day patent law.

These reforms took shape of different amendments which were brought to the Indian Patent Act, 1970 within the grace period provided by the TRIPS Agreement. These amendments included (I) Patent (Amendment) Act 1999 (II) Patent (Amendment) Act 2002 (III) Patent (Amendment) Act 2005. These changes brought a paradigm shift in the Indian Patent law and started a new era which overhauled the technological industry of India. India which only recognised process patent before

²⁸ Nagesh Kumar, “India Paris Convention and TRIPS”, 33 *Economic and Political Weekly* pp. 2334-2335 (1998).

²⁹ Samnad Baseer, “India’s tryst with TRIPS: the patents (amendment) Act 2005” 01 *The Indian Journal of Law and technology* 15 (2005)



TRIPS agreement accepted product patents in all sectors of technology which included product patent for substances such as 'food, pharmaceuticals, drugs'. The definition of patents provided by Indian Patent Act 1970 before complying to TRIPS agreement produced as verbatim: -

"Inventions where only methods or processes of manufacture patentable³⁰.

In the case of inventions –

(a) claiming substances intended for use, or capable of being used, as food or as medicine or drug, or

(b) relating to substances prepared or produced by chemical processes (including alloys, optical glass, semi-conductors and intermetallic compounds),

no patent shall be granted in respect of claims for the substances themselves, but claims for the methods or processes of manufacture shall be patentable".

And at present the definition of patents provided by the Act 1970 states as: -

"Invention means a new product or process involving an inventive step and capable of industrial application"³¹

This whole period of transition from process to product patents took a substantial amount of time and was brought into the statute book after the Patent (Amendment) Act 2005. Meanwhile, tentative arrangements such as a 'mailbox'³² and 'exclusive marketing rights'³³ were provided under which applications for product patent could be accepted but only to be processed after the

product patents are recognised by the Indian law and during this period patent applicant can enjoy some exclusive marketing rights regarding product patents. These both arrangements were repealed after the requisite amendments were brought to the Indian Patent Act 1970. Apart from this major development changes such as granting of uniform patent protection of twenty years for both product as well as process patent and also microorganism were made eligible subject matter for the patent grant this was to boast the biotechnological industry to increase the pace of inventions and innovations

CONCLUSION

Undoubtedly India for a very long remained aloof from international arrangements governing patents and now being a signatory to such international instruments require India to pace up its technological industry because it has opened new channels of competition not only at the national level but at international level. India has to gear up its pharmaceutical and other allied industry where earlier it was hesitant to accept product patent now after 2005 amendment it has to make tremendous progress in research and development in order to be at par with the international progress. The new approach is required in order to boost the research and development and give impetus to the technological growth of India. From the very onset international community have made numerous efforts to bring uniformity and harmonization in the sphere of intellectual property including patents. This has resulted in the formulation of many conventions and

³⁰ The Indian Patent Act, 1970 (Act 39 of 1970), s, 5. (Rep, by the Patents (Amendment) Act, 2005

³¹ The Indian Patent Act, 1970 (Act 39 of 1970), s, 2 (1) (j).

³² Srividhya Ragavan, "Patent Amendments in India in the Wake of TRIPS", 06 *JIPR* pp 459-471 (2001).

³³ *Ibid*.



treaties. These conventions on the one side have enumerated many advantageous principles and rules but at the same time they demanded all the nations to exercise equality while dealing with each other, but one thing is to understood herein that all the nations of the world do not stand in equal position some of the countries in the world is still developing some of the countries are very poor. Equality can be exercised only among equal the principle which is supported by the Constitution of India. These are the conditions and practical considerations which needs to be taken care of in order to make sure benefits are not only enjoyed by the developed nations but all nations should be able to accrue profits from such arrangements.

