Chapter Three

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I. Introduction

The factors which controlled the evolution of the international patent system came into play during the latter half of the nineteenth century. In this period the industrial revolution in Europe gave birth to a wave of ideas and inventions which in turn dramatically transformed the pace of economic development. However, it is not the case that the patent system evolved in direct correlation to these developments. In fact, towards the middle of the nineteenth century a reaction set in against the very far-reaching liberty of the individual resulting in strong opposition towards patent system itself. This opposition became widespread during 1850s as the monopolies created by it were held to be injurious to economic activity at the national level, and its protectionist effects forged obstacles to international trade. The Netherlands, for example, abolished its patent system in 1869, reintroducing it only in 1910. Moreover, European countries

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The patent controversy of the early 19th century was fundamentally to protest against the international protection granted to patentees. However, some authors argue that the factors such as increasing inventive and innovative activity coupled with the industrial revolution necessitated the creation of an international patent system. For conflicting viewpoints existing during that period see E. Penrose, *The Economics of the International Patent System* (Baltimore, John Hopkins Press, 1951), p.4; Ulf Anderfelt, *International Patent Legislation and Developing Countries* (The Hague, Martinus Nijhoff, 1971), p.65.


\[3\]Anderfelt, n. 1, p.22. Germany introduced its patent system in 1871 and Switzerland in 1887, in both cases after initial opposition.
in stark contrast to their position today, adopted patent laws which invariably protected national inventors and national industry. The majority of these laws acted like tariffs effectively barring foreign competition and were incompatible with the trends in commercial policy towards free trade.\(^4\) When viewed against the backdrop of the recently concluded Uruguay Round negotiations, and specifically the Agreement on TRIPs, it appears that the evolution of an international patent system in last one hundred years has turned a full circle. It has shown that depending upon the level of technological development countries have sought to shift their emphasis on the level of patent protection.

I. Early Patent Grants

Although the origin of the patent system dates back to 13th and 14th centuries, the system prevalent at that time did not address the issues of progress and economic development. The patent grant at that time did not \textit{per se} deal with the priorities of the society. The first known patent for an invention was issued in 1421 by the Italian City-States of Florence and Venice. The Venetian Patent Act which was purportedly in operation during 1474 incorporated in its preamble the purpose of grant of patents as "to increase the honour of the inventors".\(^5\) It, on the other hand, terms "patents" as a "means to a social end".\(^6\) The emphasis on the promotion of the social interest in the

\(^4\)Ibid., p.125.

\(^5\)Ibid., p.4. Also see Penrose, n.1, p.2.

\(^6\)Ibid.
Venetian enactment has created an impression that the object of Venetian patent grants had all the ingredients of the modern patent system. This averment is surely far fetched. Unlike the modern patent system, the Venetian Patent Act did not purport to create an exclusive monopoly right so as to facilitate increasing return to the inventors. Its idea was limited to "honour" the inventors. It was basically confined to the creation of artefacts and handicrafts. Above all, there was a marked break in the process of production, distribution and in the area of commercial handling during and after the advent of industrial revolution.

However, the most significant feature of the Venetian enactment was the working of the patented invention by the patentee within a prescribed limit. The Venetian Senate was granted the power to recall the patent grants in those instances wherein patented inventions were not exploited within the stipulated time. According to Anderfelt "this preponderant economic interest of society, together with the absence of any specific reference to an unqualified right of the inventor to protection that makes the Venetian Patent Act such an interesting precedent of modern patent law". Although "recalling' in the modern patent law is not an essential ingredient, the forms used to create such recalling situations have been formulated in such concepts as "compulsory licensing and licences of right"."

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*Ibid., p.5.

*These aspects will be discussed in detail in Chapter Eight.
The origin of the modern patent institution is usually traced to the provisions of the Statute of Monopolies of 1623 in England. This finding, however, has not been uniformly accepted. According to Penrose this Statute "has been called the Magna Carta of the rights of inventors, not because it originated patent protection of inventors, but because it was the first general law of a modern state to lay down the principle that only the "first and true" inventor of a new manufacture should be granted a monopoly patent". Anderfelt, on the other hand, notes "it was not a patent law in the sense that it did not represent a new regulatory system. It did, however, abolish the royal prerogative to grant monopoly privileges, excepting only the privileges granted for a term of fourteen years for the sole working or making of any manner of new manufacture." Some writers have attempted to justify the monopoly privilege incorporated in this Statute on the basis of an undertaking implicitly given while acquiring the monopoly to work the patent grant. With the increasing inventive activity there arose a necessity to protect the inventions. Hence the emphasis accorded by the patent institution shifted from the inventor to the invention in the Statute of Monopolies. In other words, the right of the inventor was merely the result of the

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9Anderfelt, n.1, p.7.


Patent protection that was granted in the interest of society. Accordingly, these developments in England before the commencement of the industrial revolution led to the assumption that patent institution was not only consistent with a liberal economy, but also a means of stimulating the process of industrialization. The same argument, of course torn from its historical content, was employed to convince the developing countries during the Uruguay Round negotiations to adhere to principles of a strict patent regime so as to achieve rapid economic and industrial development. But as is argued below, the evolution of principles relating to patent institution during eighteenth and nineteenth centuries strengthens the arguments currently advanced by the developing countries.

III. Patents in Eighteenth and Nineteenth Centuries

From England the system of conferment of monopoly privilege spread to the continent of Europe and to the United States of America. It is not clear whether this development took place out of necessity or out of mere imitation in order to accommodate quickly the fruits of the then emerging industrial revolution. Probably, the economic growth and prosperity through the commercialization of new inventions

Anderfelt, n.1, p.9. The enactment of the Statute of Monopolies was viewed as a reaction against the privilege system, and the exception of patent grants from the general prohibition to accord privileges may have been seen as a recognition of the inventor's right to claim protection.

Anderfelt, n.1, p.10.

The historical development of the patent institution during this period is summarized as "a transition from complete equivalence between inventors and introducers to a distinction between patents of invention and patents of importation. See Historical Trends in Protection of Technology in Developed Countries and Their Relevance for Developing Countries, UNCTAD/IIP/ TEC/18, 26 December 1990, p.2.
provided the necessary justification for adopting a patent system. At the same time, patenting became a tool to import new inventions into the country which in turn was employed in a such a manner as to produce goods in large scale. For this purpose raw materials were shipped from the colonies of Western countries. So, it is rightly asserted, "the history of the West in the East has largely been the history of repeated attempts to capture world markets as areas of exclusive domain. In its expansion, the West has used many techniques." Patenting also served this purpose.

For instance, it has been pointed out, in the 18th century numerous patent privileges were granted by several colonies, some for inventions and some for establishing new industries according to processes known elsewhere. Accordingly, the national patent legislations were devised to meet the peculiar needs of each individual country. Thus, the American Patent Act emphasized both local working and importation of foreign inventions. In Europe, similar attempts were made. The French enactment, for example, required the patentee to exploit his inventions locally for the following reasons: (a) the backwardness of French industry; (b) the English penetration of the French economy; and (c) the desire to ameliorate the situation of the French industrial worker. The primary purpose for devising national laws relating to patenting during this period has been underlined in the following statement: "The most numerous

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"Penrose, n.1, p.11.

"Anderfelt, n.1, p.15: Unlike the US Patent Law, the French Law did not require examination of patent applications as to their merits (novelty, inventiveness etc.)."
monopolies were those designed to protect the local market for an intending manufacturer, without regard to inventions or imported methods; but as the projected industry was usually a new one or one fallen into abeyance, the grantee in most cases might claim credit for introducing his art from another country or province.\textsuperscript{19}

The historical roots of the development of the patent systems, independently, could be traced in the Latin American continent. The first formal edict in Brazil recognizing inventors' protection was promulgated in 1899. As noted by Penrose as early as in 1752 Brazil had granted a privilege for ten years for the establishment of a rice decorticating \textit{[sic]} factory (to remove the husk) in which machinery invented by the patentee would be used and other producers were prohibited from using these machines.\textsuperscript{20} In 1817 the Argentine Constitution had authorised the Executive with the approval of the Congress to give privileges to inventors of public useful arts.\textsuperscript{21}

The "patent controversy of the 19th century", despite widespread acceptance of patent system, needs to be considered briefly. This controversy posed certain conflicting questions concerning the operation of an international patent system. The increasing industrial activity, on the one hand, led to increasing demands from inventors and


\textsuperscript{20}Ibid., p.12.

\textsuperscript{21}The first enactment in India was passed by the legislature in India as an "Act for Granting Exclusive Privileges to Inventors" (ACT VI of 1856). For a brief discussion on this enactment see H.N. Ghosh, "Law for the Protection of Inventions in India (1856-1956) in the \textit{Souvenir-Indian Patents Centenary 1856-1956}, n.12, p.17.
innovators for more and better protection. On the other hand, the widening of markets, the extension of the scope and volume of international trade and the accompanying possibilities of economic advance through the international division of labour led to increased awareness of the monopolistic and restrictive aspects of the patent system. These conflicting questions brought forth opposition to the patent system itself. As mentioned already, The Netherlands, repealed its patent law in 1869. The controversy engulfed both Germany and Switzerland. However, it suddenly disappeared as it had started. Some attribute the reasons for such a disappearance to the depression of 1873 and with the increasing nationalism and protectionism.

IV. The Development of an International Patent System

During the latter part of the nineteenth century few Western countries, mainly the Great Britain, United States of America, France, Belgium and Austria-Hungary took an initiative to evolve an international patent system. It was essentially for pursuing their own developmental priorities that they undertook this exercise. More than anything else, these countries had realized that this was one way of attracting foreign inventions on their

\[\text{\cite{Penrose1}* Penrose, n.1, p.13.}\]


\[\text{\cite{Anderfelt1}* For a brief discussion on these initiatives refer to: Anderfelt, n.1,p.66; Dhavan, n.16, p.134.}\]
soil. The deliberations conducted preceding the birth of the Paris Convention generally reflected the desires of these few countries to accumulate in their country as many fruits of industrial revolution as possible. The economic interests of developing countries which were subjugated as colonies did not figure on the agenda of these deliberations.

Significantly, during this period patent laws were in operation in a majority of European countries. But, there were crucial differences in the content of the patent legislations, especially relating to working requirements. The dictates of domestic necessity were considered as a major reason for putting forward stringent principles relating to the effective utilization of the patent. Reasons for this were not far to seek. The industrial productivity of many European countries during the peak of industrial revolution was not on an even keel. In order to realize the much needed competitive edge in foreign trade, countries of Europe initiated every possible move to bring into their country as many new inventions as possible. Understandably, the rights of the patentee acquired much significance. Compulsory licensing and revocation of patents for non-working did not evoke much interest from the participants of Vienna Exhibition. In other words, it could be said that the foundations for the evolution of principles of an international patent system were laid at this non-official exhibition. The Paris Exhibition of 1878 also did not take serious cognisance of public interest. Non-revocability of a patented invention on the grounds of importation of articles was introduced for the first time in the form of a resolution.

*3A leading American Science Journal, Scientific American was forthright in its criticism in this regard. See, S.P. Ladas, Patents, Trademarks and Related Rights (1975). p.59.*
These conferences succeeded in laying down the broad principles for the evolution of an international patent system with certain essential features favouring mainly European countries. But this had little impact on the general trend towards emphasising the rights of the patentee. The Paris Convention for the international protection of industrial property was finally concluded in 1883. The original members of the Paris Union were: Belgium, Brazil, Ecuador, France, Great Britain, Guatemala, Italy, the Netherlands, Portugal, El Salvador, Serbia, Spain, Switzerland, and Tunisia.

The substantive provisions of the Paris Convention were, mainly (a) the principle of national treatment; (b) the right of priority; and (c) working requirements. The principle of national treatment conferred the same protection to nationals of the other member countries as it granted to its own nationals (Article 2). This principle did not take into consideration the unequal nature of development which existed even between its original members. It is stated that the few original members from Latin America were

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26Ibid., p.64. The notable feature of the Paris Conference of 1880 from the point of view of developing countries was the participation of few non-European countries, mainly Latin American countries in the deliberations. The Paris Conference of 1880 took up the task of outlining the major principles to be incorporated in a Convention relating to industrial property. The dissenting opinions expressed during the deliberations by major countries were notable as these seem relevant even today for developing countries. The United States, for example, while declining to accept, stated "the internal regulation of those matters by the legislation of this country is so much a matter for domestic consideration and control, especially with reference to the question of trade marks and their Federal protection under existing treaties, that this Department cannot agree to submit such questions to the proposed Congress..." Further, two of the countries represented at the Conference, the Netherlands and Switzerland, had no legislation for the protection of inventions and grant of patents. In France, the French delegates were violently attacked on the ground that they had sacrificed the interests of their country.

27Three States soon left the Paris Union: Ecuador (1886), El Salvador (1887), and Guatemala (1895). See: Anderfelt, n.1, p.70.
either forcibly brought or persuaded to accede to the Paris Convention. It perhaps explains why Ecuador, El Salvador and Guatemala subsequently left the Paris Union in quick succession. The objective of the right of priority was to allow the prospective inventors to acquire exclusive rights on the first-come-first basis and thereby lessen the period of patent grant marginally. In other words, the provision allowed a patentee who had filed a patent application in one member State, to acquire a priority right of six months during which he could file an application for a patent grant in any Member State without the risk of having third parties do it before him. The independence of patent grants was also recognized. Patents applied for in the various countries of the Union by nationals of countries of the Union were regarded as independent of patents obtained for the same invention in other countries, whether members of the Union or not (Article 5 bis).

The provision relating to importation and the working of the patented invention constituted a major cornerstone of the Paris Convention. Importation of the patented products were allowed under Article 5; it did not attract the sanction of forfeiture. This single provision occupied a greater part of the deliberations of all the subsequent revision conferences. The working of a patented invention was defined in clear terms by

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31The present priority period is 12 months.

32Article 4 bis introduced at the Brussels Revision Conference of 1897-1900 established the principle of "independence of patents". See: Rajeev Dhavan, n.16, p.143.
providing for an obligation on the patentee to exploit his patent according to the laws of each particular State. This was termed as "local working". The history of evolution of the international patent legislation presently, however, has reached the other end whereby few developed countries have succeeded in eliminating in toto the provisions relating to "local working".

A. Revision Conferences

The Paris Convention has been revised six times. The concern of the Member States of the Paris Union in the Revision Conferences was primarily confined to the prescription of limits to which national laws may require patentees to exploit their inventions and the types of sanctions allowed. Though the formulations relating to the exploitation of patents as embodied in Article 5 originally were crucial for less industrialized countries, its evolution did not consider growing disparities in economic development. As a result of this, the emphasis on "compulsory working" as embodied in Article 5 shifted gradually towards "compulsory licensing", implications of

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*Article 14 of the Paris Convention (1883) states that periodic diplomatic conferences shall be held for the purpose of revising original text. For the official English Text of the Paris Convention Convention see Paris Convention for the Protection of Industrial Property of March 20, 1883 as revised at Brussels on December 14, 1900, at Washington on June 2, 1911 at The Hague on November 6, 1925, at London on June 2, 1934, at Lisbon on October 31, 1958 and at Stockholm, on July 14, 1967 (Geneva: WIPO, 1980).

*Anderfelt, n.1, p.72.

*Ibid., p.122; Also see Penrose, n.1, p.91; It is mentioned "...economic cooperation or dependent status and affinity of legal traditions with the former mother country have been more important factors than for instance the country's state and evolution in the economic and technological field."
which will be examined later in greater detail.\textsuperscript{4} At the conclusion of the sixth Revision Conference one discerns even the dilution of the principle relating to "compulsory licence" by incorporating few qualifying clauses. That made the operation of "compulsory licence" clause even more difficult. This is not all. The Agreement on TRIPs views even the "compulsory licence" requirement as a major barrier to international trade. This evolutionary process took more than one hundred years. An effort has been made in the following analysis to identify major changes brought about in these Revision Conferences.

\textit{i. The Revision Conference of Brussels, 1897-1900}

This Conference could not achieve any concrete results when it met initially.\textsuperscript{5} A Belgian proposal to put a total ban on revocation for non-working did not get approval of the majority of delegates.\textsuperscript{6} Subsequently, after prolonged negotiations, this proposal was accepted, albeit reluctantly by many countries, with qualifications. It, \textit{inter alia}, suggested that the revocation of a patent for non-working would not be applicable before the lapse of three years from the date of application, with

\textsuperscript{3}See Chapter Seven.

\textsuperscript{4}This Revision Conference had a membership of sixteen countries when it began in 1897. Subsequently, when it met again in 1900 to conclude the unresolved part of the work, it had an enhanced membership; notably, all the major developed countries of today adhered to the Convention during proceeding of the revision. Apart from Germany and the United States, Japan became the first Asian country to independently adhere to the Convention. See: Anderfelt, n.1, p.73; Ladas, n.25, p.59.

\textsuperscript{5}Ibid. Belgium had made this proposal in 1880 itself. At the Brussels Revision Conference it received the support of the United States.
the further qualification that revocation would only be allowed in cases in which the patentee could not justify his inaction. There was however, no clear clarification as to what actually constituted "justification". The content of what would constitute 'justification' was left to each country's to decide. Even at this juncture, it is quite clear that a great deal of importance was attached by some states to "local working". However, the countries which were considered to be industrially advanced at that time did not approve the 'hard' patent regulation such as "revocation for non-working". It is these countries which exercised greater influence on the proceedings of the Revision Conference.

Germany and Austria, neither of which was yet a member, had made it known that, while they were prepared to join the Union, their adherence depended on the adoption of certain amendments, of which the limitation of the sanction of revocation was the most important. When the Conference was reconvened in 1900 to approve the provisions relating to "working" of a patented invention, the ambiguities in its actual operation still remained. It was codified in Final Protocol 3 bis, which read: "The Patentor in each country shall not forfeit his patent for non-working until after a minimum period of three years from the filing of the application in the country in question and in case he cannot justify his inaction". The implications of this provision were not conducive to the interests of the then less industrialized countries. It virtually

*Ibid.

**Unsuccessful efforts to license was suggested as justification. See: Anderfelt, n.1, p.74.

***Ibid.
granted a three year monopoly for the patentee with no concomitant obligation to exploit the patent locally.

ii. **The Revision Conference of Washington, 1911**

At the Washington Revision Conference the specifics of "local working" were attempted to be clearly laid down. It was proposed that the sanctions of revocations should in principle be replaced by compulsory licensing; each country should retain the right to demand that consumers be adequately supplied; and that licences be given on reasonable terms if asked for, at the risk of revocation. The use of this power was, however, to be limited to cases in which parties immediately concerned, i.e., consumers and producers, had complained of not being able to either buy goods or obtain licenses; and the three-years rule limiting the use of revocation should be retained in any case.

This, in all its practical connotation, meant the substitution of compulsory licensing for compulsory working. The member countries of the Paris Union which were participating in the Revision Conference were not unanimous in accepting this proposal. For each country its national interest prevailed. The Great Britain, for example, altered its position as enunciated by it in 1880 supporting "revocation" without any qualification to the

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*Ibid., p.75. The membership of the Conference stood at 22. Austria, Cuba, Germany, Hungary, and Mexico were the new members. Most of the Latin American countries were represented at the Conference by their colonial administrations. Russia and Siam were the two prominent Asian countries after Japan to be represented at the Convention. It is difficult to understand the motivations behind the decision by many poor countries to accede; probably, these countries must have concluded that accession to Paris Union would bring in a rapid growth of science and technology. The evolution of the history of international patent system shows us that this did not happen at all.*

provision of "compulsory licensing". This change of mind by Great Britain was due to certain underlying economic factors. It may be noted that during 1880s the Great Britain was a leading industrialized nation. By the turn of 19th century, it lost its leadership as the prominent industrial power. Accordingly, change in its policy towards exploitation of patented invention was embodied in the amended U.K. Patents and Designs Act, 1907 in order to meet the challenge posed by Germany and the United States. Besides taking a leaf out from the English Patent Law, there was a proposal which *inter alia*, intended to harmonize the interests of the society on the one hand, and the patentee on the other. The proposal sought: (a) to give the industry of every country the possibility of utilizing any invention on a footing of equality with all other countries protecting that invention; (b) to prevent any international bias operating either in favour of the inventor against the public interest or against the inventor in favour of any particular interest; and (c) option to take necessary measures assuring the introduction either of new industries likely to benefit the economy or of products demanded by their consumers. However, there was no unanimity in accepting these proposals by the member countries. Thus, no crucial change was effected at the Washington Conference that affected the manner in which a patentee could be obliged to exploit his patent by national law. The text of article 5(2) at the Washington Conference read:


*Ibid., p. 76.

*No new principle was adopted, but many important amendments were made, namely, (a) the national-treatment clause of article 2 was extended to indications of place of origin and models of utility and to protection against acts of unfair competition; (b) new provisions were added to article 4, specifying the (continued...)*
"Nevertheless, the patentee shall remain under the obligation to exploit his patent in accordance with the laws of the country into which he introduces the patented article, but with the restriction that the patent may not be forfeited for non-working in one of the countries of the Union until after a period of three years of the date of filing the application in that country and only in case the patentee cannot justify his inaction." The text gave rise to varied interpretations as regards its applicability. It was not clear whether other causes of revocation were valid besides non-working. Further, it was also not clear whether a patent could be revoked before the expiration of three years for causes other than non-working.

iii. The Revision Conference of The Hague, 1925

The Hague Conference was termed as a "landmark" in the history of international patent system as it introduced for the first time clearly the principle of "compulsory licence". Before analyzing the implications and the impediments existing in the way

"(continued)
requirements and formalities which should be complied with in the contracting countries whenever a right of priority is claimed; (c) the Conference made clear the principle of independent status of patents in article 4 bis by declaring that this provision should be understood in an absolute manner -- namely, the patents were to be independent in respect to the grounds for refusal and for revocation, as well as in respect to their normal duration. See: Ladas, n.25, p.79.

"Anderfelt, n.1, p.107. Article 5(1) which did not change incorporated the principle relating to "importation". It read: "The importation by the patentee into the country where the patent has been granted of articles manufactured in any of the countries of the Union shall not entail forfeiture of the patent."

"The membership at the Hague Conference stood at 37 with the adherence of many new countries. The noticeable increase in the membership had been attributed to many prevailing political factors which inter alia included, (a) creation of new states by the treaties of peace; (b) increasing development in the arena of science and technology obviated the need for an effective international protection of industrial property. (continued...)"
of introducing "compulsory licensing" at this Conference, it would be pertinent to 

examine, albeit briefly, its meaning. It is defined as "an authorization by an authority, 
designated for this purpose (usually the competent administration or a court) to a person 
other than the patentee to do, without authorization by the patentee, acts which would 
otherwise be excluded by the patent." To put this in simple terms, the grounds upon 

which the compulsory licence might be granted were specified in the patent law of each 
country. Accordingly, the designated authority would decide on the basis of an 

application made by the person who seeks the compulsory licence whether the specified 
grounds had been established. Even though discretion to decide the granting of 

compulsory licence was rooted in the municipal legislations, several countries were not 
ready to dissociate themselves from incorporating compulsory working provisions. Spain, 
for example, opposing the proposal observed that "if the abolishment of any working 
requirement may be favourable to the large, industrialized countries, assuring them 
complete control of export markets, such a measure would prejudice the interests of less 
industrialized countries by transforming the patent monopoly into a trading monopoly

"(...continued)

and (c) the birth of new international organizations, such as League of Nations (through its Economic and 
Financial Committee and Committee on Intellectual Cooperation) and the International Chambers of 
Commerce (through its Standing Committee for the Protection of Industrial Property) accelerated 
the process of generating and extending active support to the activity of the Union. See. Ladas. n.25, p.81: 
A. Jayagovind, “International Patent System and Developing Countries”, Indian Journal of International 

"The Role of the Patent System in the Transfer of Technology to Developing Countries, 
TD/B/AC.11/19/Rev.1, 1975, p.10.
inimical to the development of local industry". Three other countries, Japan, Poland and Yugoslavia, were also opposed on the same grounds to the abolition of sanction of revocation for non-working. To accommodate the interests of these countries a compromise formula was evolved which *inter alia*, retained revocation with a condition that its use was dependent on the efficacy of compulsory licences for a particular period to prevent any abuses. Even at this juncture, there was no unanimity as to this compromise formula's actual operation. It was also not clear whether an actual grant of a compulsory licence had to precede revocation, or whether direct revocation could take place (still only after three years), if a compulsory licence was considered insufficient.

Another significant change made in the text of Article 5 at the Hague Conference which calls for closer scrutiny relates to the substitution of the concept of "the abuses which might result from the exclusive rights conferred by the patent" for that of "non-working". The phrase "non-working", however, was retained in a different form, i.e., "failure to work" so as to make it sure that even "non-working" constituted a part of the definition of "abuse". Nevertheless, the definite limits of the "abuse" could not be determined as it in fact gave way for diverse interpretations. This, according to some,

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"Anderfelt, n.1, p.79. Even during the proceedings of the Diplomatic Conference to revise the Paris Convention, Spain, adhered to more or less the same argument and it was supported by Canada, and New Zealand. See Chapter Four; Notably for developing countries the fundamental issue in the concluded debate within Uruguay Round Negotiations had remained the same; See, Chapter Five.

"Ibid. It has been argued that the article permitted the application of revocation if the compulsory licence is not sufficient "in fact". It means "actual proof of insufficiency" was necessary before a patent could be revoked. Also see: S.P. Ladas, *The International Protection of Industrial Property* (Cambridge: Harvard University Press, 1930), Quoted in Anderfelt, n.1, p.81."
has tilted the balance of patent regulation towards society, an opinion which in our view, is not correct. Because, the non-applicability of "revocation" principle for a period of three years forecloses the options of effective utilization of patented invention by the society. Even it is difficult to conclude, that "compulsory licence" would adequately compensate possible abuses of monopoly grant. In these circumstances, the overall effect of Article 5 on the society results in its curtailed power to get access to new inventions.30

iv. The Revision Conference of London, 1934

The London Conference could be considered to have more authentically affirmed the dominant feature of compulsory licensing in regulating the abuses arising out of patent grants.31 The application for a compulsory licensing was subjected to a time-frame only after which it became operative. It was construed as three years and in effect

30 For the viewpoint of other writers, see: Anderfelt, n.1, p.82. The other changes effected to Article 5 concerned the starting date of the three-year period from that of the patent application to that of the patent grant and the patentee to show the causes for non-working to prove "the existence of legitimate excuses" rather than "by justifying his inaction". The relevant part of the text of Article 5 at the conclusion of the Hague Conference read:

(2) "Nevertheless, each contracting country shall have the right to take necessary legislative measures to prevent the abuses which might result from the exclusive right conferred by the patent, for example, failure to work."

(3) "These measures shall not provide for forfeiture of the patent unless the grant of compulsory licences is insufficient to prevent such abuses."

(4) "In any case, the patent may not be subjected to such measures before the expiration of at least three years from the date of grant, or if the patentee proves the existence of legitimate excuses."

31 At the London Conference the membership of the Paris Union was 40. There was, however, no significant jump in the membership. For the proceedings of this Conference see Anderfelt, n.1, p.82.
the Conference created a monopoly situation in favour of a patentee for three years. Further, no proceeding for the revocation or forfeiture of a patent was allowed till the expiration of two years from the date of grant of the first compulsory licence. The issues discussed at this Conference had one crucial focus, i.e., the efficacious utilization of compulsory licences in terms of working and other practical difficulties in its implementation such as finding enough licensees within the stipulated period.

The Conference continued to debate the problems which were of importance at the last Conference. Revocation of patent grants remained as an important factor in motivating local working, specially for the less industrialized countries. At the same time, many countries attempted to evolve compulsory licence as a sole sanction for non-working, subject to a provision that patentee should be prepared "to satisfy the needs of local market". This being very vague many less industrialized countries did not support the proposition. A Mexican suggestion, however, needs mention here. The suggestion while accepting the existing operational ingredients of compulsory licensing for non-working also went on to incorporate a "reasonable reduction" of the duration of the patent. Finally, a compromise formula was evolved which in effect resulted in creating a monopoly situation for a period of five years. The proposal while retaining the sanction of revocation, allowed its use only two years after a compulsory licence had been granted.\(^2\)

\(^2\)Article 5A at the London Conference read:

1. The importation by the patentee into the country where the patent has been granted of objects manufactured in any of the countries of the Union shall not entail forfeiture of the patent.

(continued...
v. The Revision Conference of Lisbon, 1958

The Lisbon Conference did not materially change the scope of Article 5A. On the other hand, it underlined the supremacy of compulsory licensing as a device to prevent abuses. Leaving aside other minor changes, the significance of the whole Conference could be assessed in terms of few assertions made by developing countries. In other words, the Lisbon Conference could be termed as an actual starting point for the emergence of some viewpoints of developing countries. Brazil, for example, proposed the reduction of the period during which a patentee was protected against sanctions for non-working. A proposal to completely abolish revocation was opposed by majority of developing countries. Among these were Brazil, Iraq and Yugoslavia. They continued to maintain that compulsory licences would not be sufficient to curtail the abuses arising out of patent grants.

(...continued)

2. Nevertheless, each of the countries of the Union shall have the right to take the necessary legislative measures to prevent the abuses which might result from the exercise of the exclusive rights conferred by the patent, for example, failure to work.

3. These measures will only provide for the revocation of the patent if the granting of compulsory licences shall not suffice to prevent these abuses.

4. In any case an application for the grant of a compulsory licence may not be granted before the expiration of three years and this licence may be granted only if the patentee fails to justify himself by legitimate reasons. No proceedings for the forfeiture or revocation of a patent may be instituted before the expiration of two years from the grant of first compulsory licence.

The membership at the Lisbon Conference increased to forty-seven. The new members notably included two members from Asia - Ceylon and Indonesia. For reasons clearly unspecified, Palestine, Danzing, Estonia and Latvia left the Union.

"Article 5A(2) read: "Each country of the Union shall have the right to take legislative measures providing for the grant of compulsory licences to prevent the abuses which might result from the exclusive rights conferred by the patent, for example, failure to work"."
There were few other points raised as regards the changes made. Firstly, it was not clear in Article 5A as to whether countries could take legislative measures other than compulsory licensing. The change seemed to leave open the possibility of interpreting paragraph 3 to the effect that revocation also be resorted to in cases in which a compulsory licence is supposed to be insufficient if it were tried.55 In this context, Anderfelt points out, "As paragraph 4 expressly limits itself to cases of non-working and insufficient working, this interpretation of paragraph 3 would mean that a country, upon judging that a compulsory licence would not be sufficient to prevent or rectify a certain abuse of the monopoly power of the patentee, could directly declare a patent forfeited in all cases save those regulated specifically by paragraph 4". He adds: "No author commenting on the Lisbon text has, however, mentioned such an interpretation".56 Even amidst this uncertainty, a strong view in favour of developing countries can be seen. First, it suggests that such an interpretation is valid and that compulsory licences could be granted for failure to work, and not for other purposes.57 Second, the period during

55Ibid., p.92. Article 5A(3): "Forfeiture of the patent shall not be prescribed except in cases where the grant of compulsory licences would not have been sufficient to prevent such abuses. No proceeding for the forfeiture or revocation of a patent may be instituted before the expiration of two years from the grant of the first compulsory licence."

Article 5A(4) provides that: "An application for a compulsory licence may not be made on the ground of failure to work or insufficient working before the expiration of a period for four years from the filing of the patent application or three years from the date of the grant of the patent whichever period last expires; it shall be refused if the patentee justifies his inaction by legitimate reasons. Such a compulsory licence shall be non-exclusive and shall not be transferable even in the form of the grant of a sub-licence, except with that part of the enterprise or goodwill using a licence."

56Ibid.

57Dhavan, n.16, p.156.
which the compulsory licensing procedure could not be invoked, i.e., "four years from the filing of the patent application or three years from the date of the grant of the patent whichever period expires last", recognized the procedural system as regard the "examination or search" of specifications operating within the realm of different countries. Third, it was clearly stipulated that compulsory licence must be non-exclusive and non-transferable. 58

For developing countries, Article 5 Quarter introduced at the Lisbon Conference had become a potential threat as it was likely to affect their economic interests. 59 The text of this article provided: "When a product is imported into a country of the Union where there exists a patent protecting a process of manufacture of the said product, the patentee shall have all the rights, with regard to the imported product, that are accorded to him by the legislation of the country of importation, on the basis of the process patent, with respect to products manufactured in that country." The substance of this provision becomes clear only when the difference between process and product patents is recognized. A process patent in very simple terms means a patent that protects a process of manufacture and the product patent protects products only. The legislative measures provided in many countries identify two different kinds of process patents, namely, "pure process patents and product-by-process patents". As the name suggests, for pure process patents the scope of protection is limited strictly to the process of manufacture. In other

58The implications of second and third factors would be examined while discussing the proceedings of WIPO Diplomatic Conferences in Chapter Four.

59Dhavan, n.16, p.157.
words, under a pure process patent use by a third party of the patented process would constitute infringement but not use or sale of the product so produced.60 The effect of product-by-process patent would be different. It not only restricts the use of process by a third party, but also, and independent, the sale and use of its products would constitute infringement.61 At the Lisbon Conference, this article implicitly created an import monopoly for the patentee blocking in the process all kinds of indigenous development. Further, the holder of a pure process patent risks being undercut in the market by infringing imports which he is powerless to block.62 For these reasons both UNCTAD and WIPO have recommended its deletion.63 Similarly, Article 4 quarter adopted at the Lisbon Conference has been criticized as it puts fetters on the authority of the State to regulate in the public interest the patent grant. The article stipulated that the "grant of a patent not to be refused and invalidated on the ground that the sale of the patented product or of a product obtained by means of a patented process was subject to restrictions or limitations resulting from the domestic law."64

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60Ibid., p.158.
61Ibid.
62Ibid., p.160. Significantly, developed countries at the GATT multilateral negotiations proposed its abolition in 1988; see Chapter Five.
64Rajeev Dhavan, n.16, p.158.
B. International Patent System and Developing Countries after 1960s

The significant developments that overtook the globe as a result of the Second World War had their impact on the growth of international patent system also. One of the notable developments related to a sudden increase in the membership of the international community. States which became newly independent inherited economies which were exploited ruthlessly by their colonial masters. The developmental priorities of these countries had received little attention in the revision conferences. Only in the Lisbon Conference one can notice an attempt made by few developing countries to project their interests though unsuccessfully.

In 1961, Brazil, for the first time, brought into exclusive focus certain issues relating to the international patent system which directly affected developing countries by way of a draft resolution in the Second Committee of the United Nations General Assembly,6 entitled, "The Role of Patents in the Transfer of Technology to Underdeveloped Countries." The significance of this resolution lies in the fact that for the first time under-developed countries were seeking to occupy centre stage of the international patent system. The resolution made critical references to the working of the international patent system which, inter alia, included broadly the following aspects:6

accession to technical knowledge and the limitations placed by the system; patents taken out by foreigners without the intention of local exploitation; harmful restrictive provisions


6Ibid; Also see, Anderfelt, n.1, p.172.
in the licence agreements; royalty payments constituting a heavy burden on the balance of payments, which may be further aggravated by imports of patented products carrying artificially high prices. All these factors invariably affected in one way or the other the economic interests of underdeveloped countries. The Second Committee of the General Assembly, however, did not adopt in toto the Brazilian draft resolution. It was modified to such an extent that in the final course only one paragraph was retained in the operative part of the resolution. All references to the ill effects created by the application of international patent system were removed. Even the emphasis on the problems of underdeveloped countries was diluted to a large extent. The so-called "legitimate claims of patentees" were posited vis-a-vis "the special needs and requirements of the economic development of under-developed countries." The resolution affirmed in no uncertain terms that this harmonization was in the best interest of all countries.67

The other significance of the Brazilian resolution was that it actually brought the issues of international patent system for the first time in an altogether different forum, i.e., the United Nations. Unlike Paris Union, which was dominated primarily by few industrialized countries, the United Nations system with its universal membership offered greater opportunity for a democratic resolution of the problems concerned. The Brazilian initiative was met with opposition as it posed threat to the existing conventions relating to international patent system, especially to Paris Convention. The operative

67 Ibid. The final version of the resolution read: "Affirming that it is in the best interest of all countries that the international patent system should be applied in such a way as to take wholly into account the special needs and requirements of the economic development of underdeveloped countries as well as the legitimate claims of patentees".
paragraph of the draft resolution was therefore watered down. It merely called for a comprehensive report by the Secretary General addressing the following issues: "(a) a survey of national patent legislation with emphasis on the treatment of foreign paten
tees; (b) a study of the effects of royalties paid to foreigners on the balance of payments of developing countries; (c) a preliminary analysis of patent legislation in developing countries in the light of economic development objectives; (d) an indication of the possibility of revising legislation to serve economic development objectives; and (e) a recommendation on the advisability to hold an international conference with the aim to adjust the existing patent conventions to the needs of developing countries. In pursuance of this resolution, the United Nations Secretariat presented an interim report, entitled: "Transfer and Adaptation of Technology - Patents and the Economies of Underdeveloped Countries". This report was severely criticised by the United International Bureau for the Protection of Intellectual Property (BIRPI) as it was found to be incomplete and inadequate in many respects.

In 1964, a comprehensive final report by the Secretary General was published. It was entitled: "The Role of Patents in the Transfer of Technology to Developing Countries". This report elaborately analyses and documents the various aspects of international patent system and its possible linkages with the transfer of technology. In

"Ibid.

"This interim report was submitted to the Committee for Industrial Development. Doc.E/C.5/35, April 30, 1963.

"UNDOC.E/3861/Rev.1, March 1964.
the preparation of this Report replies by fifty-three countries to a questionnaire were taken into account in addition to a survey of patent legislations conducted by the BIRPI in thirty-four countries. The subject-matter in this Report had been discussed in two distinct, but related parts, namely, (a) Major Characteristics of Patent Systems; (b) Effects of Patents on the Economies of Underdeveloped Countries. In the first part the Report discusses various aspects of national patent legislations, including international and regional patent arrangements. The second part identifies the relationship existing between the process of actual transfer of technology and the production of patented products and use of patented process within the underdeveloped countries.71

The substantive aspects embodied in the Report dealt with issues which primarily affected the process of transfer of technology to developing countries. The Report discussed inter alia, the following - whether the patent system could play a useful role in encouraging the transfer of technology to developing countries and contribute to their economic development; and whether this system was proper vehicle for accommodating the respective inter-related interests involved. That is, (a) the interest of the inventor in his creation; (b) the social interest of encouraging invention; (c) the consumer interest in enjoying the fruits of the invention upon fair and reasonable conditions; and (d) the national interest in accelerating and promoting the economic development of the country.72

71Ibid.

72UN Doc. E/3861/Rev.1, March 1964, p.11.
The subsequent developments show us that the patent issue became a focal point in the debates of the United Nations system. The United Nations Conference on Trade and Development (UNCTAD) dealt with this item in its Third Committee during its 1964 Session, taking specially into account the Report of the UN Secretary-General. This Committee endorsed the content of the Report and agreed that obstacles in the way of patent system for the developing countries could not be overcome by them alone in the prevailing system of industrial property. It also took into account the strong position of holders of these exclusive rights and recognized the need for transfer of patented technology with unpatented technology such as "Know-how and Trade Secrets".73

The Thirty-Seventh Session of the Economic and Social Council in July 1964 had on its agenda as an item, entitled, "The Role of Patents in the Transfer of Technology to Underdeveloped Countries". The opinions regarding the scope of measures which could be adopted brought out ample differences existing between developed and developing countries. While delegates of the developed countries supported the conclusion of the Report regarding the convening of an international conference as unviable and stressed the opinion of the appropriateness of national legislative administrative measures to be taken by the developing countries, representatives of the developing countries took the position that international measures were needed.74 During these sessions developing countries had attempted to loosen the grip of BIRPI on the development of the international patent system. It is pointed out that with the support

73Anderfelt, n.1, p.184.

74Ibid., p.185.
of the industrialized countries. BIPRI had managed to establish the principle of cooperation between the United Nations and itself and to delete all negative references to the international patent system in various resolutions and recommendations.75

The Secretary General's Report did not, however, finally conclude the debates on the issues concerning the international patent system. Brazil introduced once again a draft resolution, "The Role of Patents in the Transfer of Technology to Developing Countries", in the Twentieth Session of the United Nations General Assembly.76 This resolution noted that the Report had given an initiative to undertake more detailed study taking into account legal and administrative measures at the national level. The developed countries, on the other hand, concluded that the Report had finally identified the problems concerning patent issues in underdeveloped countries. At the Forty-Second Session of Economic and Social Council (ECOSOC), the Secretary-General, in response to the above resolution introduced by Brazil, submitted a progress Report, entitled, "Application of Science and Technology to Development."77 It briefly evaluated the actual experience of developing countries regarding the effectiveness and cost of foreign patented and non-patented technology, which inter alia, concerned78 (a) the preparation of studies showing how technology has been transferred, within certain industries, from industrialized countries to a limited number of the more advanced of the developing

75Ibid.
76UN Doc. A/c.2/L.824, 26 November 1965.
77UN Doc. E/43/9, 27 March 1967.
78Ibid; Also see, Anderfelt, n.1, p.189.
countries; and (b) studies undertaken parallel with those mentioned above, concerned specifically with the costs involved in the transfer of technology to developing countries. To provide material for this second series of studies, the Secretary-General had circulated a questionnaire to all Member States "to secure comprehensive information on all relevant measures and arrangements in effect or contemplated to ease the cost-burden of technological transfer to developing countries." The varied implications of this approach towards patent issues did not get adequate attention in the meetings of ECOSOC. Subsequently, a major step was taken at the third UNCTAD Conference held in Santiago de Chile in 1972. Its unanimous Resolution 39(III) invited the Secretary-General of UNCTAD and the Director-General of the World Intellectual Property Organization (WIPO) to bring up-to-date the 1965 United Nations Report on the subject. It requested him "to devote special consideration in this study to the role of the international patent systems in such transfer, with a view to providing a better understanding of this role in the context of a future revision of the system." Accordingly, a study was published in 1975 entitled "The Role of the Patent System in the Transfer of Technology to Developing Countries." This study elaborately dealt with the major characteristics of the patent system as embodied in the national legislations and the impact of the international patent system on the economic

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*UN Doc.E/4319, Annex II.

*UNCTAD II (New Delhi, 1968), expressed continued concern of developing countries for the adequacy of the international patent system, with emphasis on the necessity for these countries being able to export products made with acquired technology. For details see: Anderfelt, n.1, 193.

*UN Doc. TD/B/AC.1/19/Rev.1.
advancement of the developing countries. In its conclusion, the study proposed "a framework for the revision of the patent system", based on its survey of the main characteristics of national and international patent systems. Meanwhile, the seventh special session of the United Nations General Assembly adopted a resolution which inter alia, called for the revision and review of international conventions on patents and trademarks, to meet in particular, the special needs of developing countries, in order that these conventions could become a more satisfactory instruments for aiding developing countries in the transfer and development of technology. The UNCTAD study outlined the major areas of concern for the developing countries and called for its revision. The areas were: incorporation of new instruments in the system; spelling out both the rights and the obligations of the parties involved; sufficient flexibility in excluding several products and processes from patent protection in the light of the requirements of accelerated national economic development, public health, national defence, and the public interest in general; relating the scope of the patent privileges and their duration to the importance of the invention and nationality of the patent applicant; spelling out the obligations of the patent holders; stronger provisions for controlling the abuses inherent in the grant of monopolistic rights; stricter provisions to prevent import monopolies and to assure an actual use of the patents in national production processes:


GA Res.3362 (S-VII).

"See Part Three of the UNCTAD study concerning The Role of the Patent System in the Transfer of Technology to Developing Countries, TD/B/AC. 11/19, Rev.1, 1975, p.63: This part outlines the general summary and conclusions regarding A Framework for Revision of the Patent System."
and charging registration fees in relation to the commercial significance of the patented inventions and introducing a progressive scale in maintaining them.

These proposals for the revision were modified in order to achieve a greater degree of consensus among all groups of countries. Resolution 3(1) of the UNCTAD Committee on Transfer of Technology adopted in 1975 outlined nine considerations which were to guide the revision of the Paris Convention. These considerations were:  

(a) The need to improve the conditions for adaptation of technology and for development of indigenous technology in developing countries through, *inter alia*, the training of personnel and the provision of access to relevant documentation; (b) the need to promote an effective transfer of technology to those countries under fair and reasonable terms and conditions; (c) that the importation of the patented product is not as a general rule a substitute for the working of the patent in the developing country granting it; (d) that more adequate provisions are required to avoid abuses of patent rights and to increase the probability of patents being worked in the developing country granting them; (e) that the introduction of forms of protection of inventions other than traditional patents (e.g., inventors' certificates, industrial development patents, and technology transfer patents) should be examined; (f) that the need for technical assistance to developing countries in the field of industrial property, and in particular for expanded access to the utilization of patent documentation by developing countries, in order to facilitate the transfer, absorption, adaptation and creation of suitable technology, should be recognized; (g) that an in-depth review of the provisions on trade marks should be carried out; (h) that there

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*UN Doc.TD/B/520, annex 1.*
should be new and imaginative studies of possibilities of giving preferential treatment to all developing countries, and (i) that an ultimate aim of the ongoing process of revision should be to provide reasonable conditions for universal membership in the Paris Union. These proposals were unanimously endorsed by the UN General Assembly and the actual negotiations on the revision of the Paris Convention were passed on to WIPO.

The preparatory work for the revision of the convention started in 1975 and continued until 1980 when the first diplomatic conference on its revision was convened. Before all this, in 1967, Paris Union underwent a major organizational restructuring, primary motive behind this being a "desire to effectively stop outside organizations from upsetting the international patent system." Accordingly, the Convention establishing the WIPO was adopted at Stockholm in 1967 at the revision conference for the Paris Union. The two objectives of the WIPO Convention were: (a) to promote the protection of intellectual property (including industrial property) throughout the world, and (b) to ensure administrative cooperation among the inter-governmental Unions established by international agreements for the promotion of intellectual property (including the Paris Union and, for example, the Berne Union for the Protection of Literary and Artistic Works).  

"Anderfelt, n.1, p.260. BIPRI's Director stated: "In order that their exclusive competence be recognized in the industrial property and copyright fields, each Union must become an "agency", i.e., a generally recognized juridical and international body possessing organs fully representative of the States and a Secretariat; such transformation must be effected by means of an inter-governmental agreement."

V. Summation

In this chapter, we have outlined the evolution of the international patent system, taking into account the major concerns of developing countries. The evolutionary process shows the dominant nature of economic interests influenced the shaping of the provisions of the patent norms. For example, the emphasis on "local working" could be seen during the early stages of industrial revolution. Accordingly, revocation and compulsory licensing played a key role as tools to "work" the patented invention. There was a gradual shift from this position towards the strong protectionist aspect of the patent system. The positions taken by countries at the different stages of the revision conferences were basically influenced by the priorities and the dominant economic interests. Some of these priorities and interests may be summarily identified. Firstly, the focus shifted from the greater diffusion of inventive activity to the creation of strong monopolistic exclusive rights. Countries with the predominant technological and industrial set up supported this shift. Secondly, the initial requirements of strict requirements of "working" gradually gave way to the "compulsory licensing; even this licensing was subjected to certain conditions. In the final analysis, the linkages of licensing and working were to a large extent separated. In other words, local working was no longer the object of issuing a compulsory licences. The issuance of licences in general were based on the criteria of "public interest". Thirdly, the factors which necessitated technology transfer by way of "local working" were gradually sidelined. On the other hand, monopoly creation for the purpose of market domination took primacy, overlooking the interests of developing countries. In sum, the evolutionary process of the
international patent system during these revision conferences could be described as a journey from strict requirement of "working" to diluted and timebound norms of "Compulsory licensing". This journey, it should be noted, discarded the interests of technologically under-developed countries.

With the emergence of large number of new states since 1960s it is, however, possible to see in the evolutionary process of patent norms a reflection of the aspiration of developing countries. In this regard, the positive role played by the United Nations system also should be noted. Although this change, though not immensely influential and effective in the beginning, brought into focus the issues concerning developing countries. This is reflected in the proceedings of the Diplomatic Conferences which were convened to revise the Paris Convention in the 1970s. Considering its importance to developing countries, we shall deal with this Conference in the next chapter.