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Historical Development of European Patent Law: From National Laws and Customary Practices to the Adoption of Paris Convention (1883)

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Abstract

The role of robust patent protection has been widely discussed in intellectual property literature as the key reason behind technological advancement. The voices rising from developing countries and global civil society against stringent patent system are belittled by the counter-argument that industrialized nations reached their zenith of technological progress due to a strong patent regime. The conception of patent was originally born and grew up in Europe through a historical process. Therefore, a thorough inquiry is warranted to address the question as to the legal, political, and economic discourses which gave the patent its current form. Employing historical method of inquiry, the study seeks not only to explore the genesis of patent law but historicise patent regulations, practices, and national legal discourses of European national legal systems. The inquiry aims to investigate the phenomenon within a broader interdisciplinary framework encompassing philosophical discourses on economic, social, and international commerce. The insight into the European mode of industrial revolution and patent system may be helpful in comprehending the present-day phenomenon of legal discourse on patent law and intellectual property.

Keywords: European Patent law, Intellectual property, Royal prerogative, Monopolies privileges, Patent controversy, Paris Convention (1883).

Introduction to Historical Roots of Patent's Laws, Discourses and Practices

The patent in contemporary sense is spoken for legal device designed to protect technology or invention which is granted by a sovereign or a competent authority. In English diction, the phraseology of patent stemmed

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from Latin term *patere* meaning to 'lie open', and it is customarily used for a sovereign document granted or declared by the sovereign to confer exclusive privileges for a number of purposes including *letters patent* for inventions.¹ Other objects of letter patent include grants of title, status, office, right etc.². However, this study excludes the secondary purposes and is limited to the letters patent related to invention only. An historical approach has applied to this study to understand the legal need and utilization of patent laws in today's world through the lens of its history.

Genesis of patent in Italian City-States

The first known statutory law that can be marked as laying the foundation of the modern patent system in European history emerged during the Renaissance era in the Italian city-state of Venice. The Senate of Venice, in March 1474, legislated the *Venetian Statute (Parte Veneziana of 1474)*, providing that an inventor by virtue of his invention could enjoy certain substantive rights for ten years and not because of any random state-policy granting privileges.³ The law made binding on the government to reward for invention having any public utility. Along with Milan and Florence, the Republic of Venice was thriving because of its progressive laws and dynamic manufacturing policies, which were incentivizing innovation and creativity.⁴ Through the emergence of patent law, the senate of Venice regulated the trade practices that started in the thirteenth century in order to incentivize immigrant inventors and traders. The enactment of Venetian Statute of 1474 can be attributed to a number of factors. Firstly, the guild structure of inventors established the practice of protecting secret knowledge inherited from past generation of artisans. In view of its safe transmission to the next generation of artisans, a protection mechanism of secret oaths was introduced. Secondly, in order to incentivize the foreign inventors, artisans, and traders to bring their innovations in the city-state, an innovation protection policy was enacted which gained momentum after Venice's battles with Milan caused heavy financial losses. These factors led to the enactment of the Venetian Statute of 1474.

¹ *The Black's Law Dictionary*, 6th edition (West Publishing Co., 1990), 1125.

² Giles S. Rich. "Are Letters Patent Grants of Monopoly," *Western New England Law Review* 15 (1993): 239.

³ Joanna Kostylo. "Commentary on the Venetian Statute on Industrial Brevets (1474)", in L. Bently & M. Kretschmer (eds.), *Primary Sources on Copyright (1450-1900)*, (2008). Visit at www.copyrighthistory.org.

⁴ Jackson J. Spielvogel. *World History, The Human Odyssey* (South-Western Publisher, 1999), 420-421.

In the city-state of Florence, Filippo Brunelleschi, an architect, who was against the guild-mechanism, moved an application in 1421, requesting the government authority to grant monopoly patent rights to his ingenuity ascribed to in his name for his invention of cargo-boat. Moreover, Brunelleschi placed conditions for disclosing the secret knowledge of his invention which evolved into contemporary patent procedures: firstly, no one would be permitted to reap benefit from his invention without his consent, and, secondly, in return for his sharing with public the secret of his invention, he would be granted special monopoly privileges. The governments in Florence assented to his conditions and conferred him privileged rights for three years. Once the precedent was set in the Italian city-states, the inventors got incentive to publish their secrets of invention in return for monopoly patent rights.

An emigrant from Lucca, Giovan Battista Guidoboni, came to Venice in 1569. He was granted patent by the government for his invention of a special, cost-effective silk thread for twenty-five years, among other patents for his inventions. Subsequently, his partnership with Maggino Gabrielli after negotiation with senate and princes succeeded in receiving patents for their many inventions in Venice thereby attaining a mechanism to disclose their secrets.⁵ For instance, for receiving patent rights on the method of enhancing silk harvest in 1588, Gabrielli made available to the public the specification of the invention in *dialogues on the useful inventions for silk in Rome*.⁶ The tenure of patent protection was not uniform but varied depending upon negotiations with authorities and jurisdictions. For instance, in 1421, the state of Florence granted monopoly rights to Brunelleschi that were valid just for 3 years. In Guidoboni's case, for his silk-sewing thread invention patented in Venice, the protection tenure was valid for twenty five years,⁷ whereas, Gabrielli's tenure of patent was valid up to sixty years in the Papal territories which he received from Pope Sixtus V.⁸

Origin and Development of Patent Law in United Kingdom

Dawn of recognition of inventive creativity

In England, although letters patent granted by the Crown to the technology holders who would set up an industrial unit based on transferred or

⁵ Luca Molà. *The Silk Industry of Renaissance Venice* (JHU Press, 2000), 204-209.

⁶ J. Kostylo. "Commentary on the Venetian Statute on Industrial Brevets (1474)".

⁷ Molà. *The Silk Industry of Renaissance Venice*, 207.

⁸ Ibid, 204.

imported technology commenced in the fourteenth century,⁹ the first grant of letters patent for invention can be traced back to the year 1449 during the reign of King Henry VI. They were granted for the manufacturing of innovative stained glass for Eton College.¹⁰ The first letters patent in the modern sense was granted in 1331 by King Edward III to John Kempe, a weaver of woollen cloth. This was part of the officially declared policy of Edward III to attract foreign immigrants and experts in weaving woollen cloth in view of capacity-building of the local English woollen-weavers.¹¹ The grant of letters patent to John Kempe was contingent upon a binding promise that he would train the native learners in woollen weaving skills.¹² Ramon Klitzike credits the Italian patent monopoly regime for influencing the English Crown to set the same pattern¹³ in order to strengthen the indigenous industry. But, in practice, the grant of such letters patent to hold monopolies on certain manufacturing creations could not become common until 1551.¹⁴ On the other hand, evidence too is available that in 1449 letters patent, which were valid for 20 years, were granted by King Edward VI to an emigrant John of Utynam for the manufacture of stained-glass windows.¹⁵

Queen Elizabeth I and Patent Law

The Elizabethan (reign: 1558-1603) era was notorious in this regard. The obstructive nature of privileges and the abuse of royal prerogatives started to adversely affect the English patent system especially after 1551.¹⁶ The royal prerogatives were at the arbitrary discretion of the Crown without any objective criteria for the grant of monopoly right.¹⁷ It led the monopoly privileges restricted to few hands. These privileges were granted to the

⁹ WIPO, *Introduction to Intellectual Property: Theory and Practice* (World Intellectual Property Organization, 2017). Visit at <https://tind.wipo.int/record/27895?ln=en>.

¹⁰ *The Hutchinson Encyclopedia*, (Helicon publishing, 1998), 821.

¹¹ William James Ashley. "The Early History of the English Woollen Industry," *American Economic Association* 2, No. 4 (Sep 1887): 12. <https://www.jstor.org/stable/2696712>.

¹² Robert C. Kahrl. *Patent Claim Construction* (New York: Wolters Kluwer, 2016), 2-10.

¹³ Ramon A. Klitzike. "Historical Background of the English Patent Law," *Journal of the Patent Office* 41, No. 9 (1959): 615-650.

¹⁴ Adam Mossoff. "Rethinking the development of patents: an intellectual history, 1550-1800." *Hastings Law Journal* 52 (2000): 1255.

¹⁵ *The Hutchinson Encyclopedia*. See also Robert C. Kahrl. *Patent Claim Construction* (New York: Wolters Kluwer, 2016), 2-10.

¹⁶ Horace Pettit. *The Law of Inventions* (Harvard University, 1895, Digitized, Oct 29, 2008), 5-6.

¹⁷ Ellen Frankel Paul, Fred D. Miller, Jeffrey Paul (eds.). *Natural Rights Liberalism from Locke to Nozick*: Vol. 22, Part 1 (Edinburg: Cambridge University Press, 2005), 25.

genuine inventors, discoverers or to the persons having skills in the art of any business. Yet, the merchants engaged in foreign trade were permitted monopolies even on necessary provisions of life, for instance, salt, vinegar, starch, paper, and playing cards etc.¹⁸ The monopoly privileges were granted in return for financial contributions or services by the patent-holder.¹⁹

Consequently, greedy individuals or corporate monopolists of foreign trade were controlling the quality and fixing of imported goods to enhance their private profits. In this context, to apply for the protection of patent for any invention or discovery or for any other purpose on account of having skills became a non-starter.²⁰ The genuine inventors were concerned since 1561 about the protection of their innovations. The scenario was remarkably depicted in *Jacob Acontius' Petition addressed to Queen Elizabeth I*. His petition reflects the grievance and pain of every individual inventor. He starts his petition by saying that when an inventor sets on the quest of creating something beneficial for the public, he has to work earnestly; has to spare time and expenditures on experimentation and sometimes has to incur loss. It is natural to expect fruit of one's labour and creative rights if he succeeds in discovering a really useful and novel product, such as 'wheel machines, and furnaces for dyers and brewers'. In such a case, if someone uses his invention without his authorization apart from penalty, he will be at the receiving end without returning on his investment of labour and outlay. He then begs the Queen to forbid anyone who intends to use his invention in any manner.²¹ The well-articulated Petition of *Acontius'* proved fruitful as, in 1561, the industrial monopoly license policy was adopted which corresponds to the present-day patent system.²²

In the decade of 1570s, the Parliament raised the matter of arbitrariness and favouritism and began to question the prerogative of Crown regarding grant of letters patent for monopoly rights. The speech delivered by MP Mr. Robert Bell against monopoly prerogative was suppressed. However, in 1597, the parliamentary proceedings of the House of Commons again

¹⁸ Christopher Haigh (ed.). *The Cambridge Historical Encyclopedia of Great Britain and Ireland* (Cambridge University Press, 1985).

¹⁹ Bruno Leoni. *Law, Liberty and the Competitive Market* (New Brunswick NJ: Transaction Publications, 2008), 84.

²⁰ Pettit. *The Law of Inventions*, 5-6.

²¹ Robert C. Kahl. *Patent: Claim Construction*, 2nd edition (New York: Wolters Kluwers, 2016), 2-10.

²² Gary Hull (ed.). *The Abolition of Antitrust* (New Jersey: Transaction Publishers, 2005).

focused on questioning the validity of Crown's grant of monopoly powers. The Queen expected 'her dutiful and loving subjects would not take away her prerogative, which is the choicest flower in her garden and the principal and head pearl in her crown and diadem.'²³ Such unusually polite appeal from the Queen could not stop the passage of bill in the House of Commons and Crown had to suspend and repeal a number of letters patents which eventually impacted the Parliament's battle against the absolutism of the Crown.²⁴

Until the dawn of the seventeenth century, the practice of abuse continued without any judicial review by the Commons law courts. In 1602, Mr. Edward Darcy (plaintiff), holding monopoly license to import play cards, brought a lawsuit against Thomas Allein (defendant) who was engaged in play card-making and vending in the market. In this case of monopolies, Judge Sir Edward Coke declared the royal monopoly grant as illegal based on the reasoning that it prevented skilled persons in commerce from practicing the profession. It used monopoly for private advantage contrary to public good, thus injuriously impacting competition and prices.²⁵

King James-I had clashed with Parliament which always blocked the passage of budgetary bill for approval, the funds he desperately needed to finance his external wars. The royal abuse of granting monopolies was an easy way to raise finances from patent-holders of monopoly privileges. Thus, he continued the abuse of royal prerogative for grant of monopolies in order to evade Parliamentary approval of taxes.²⁶ This resulted in the marvellous development of the Statute of Monopolies of 1623, which was a breakthrough for patent law in Great Britain on modern lines, granting patent for fourteen years monopolies for producing new manufacture or inventions.²⁷ The new law created hope to end the abuse of Crown prerogative for matters other than genuine inventive enterprises. Yet, royal prerogative for grant of monopolies continued in international trade in

²³ Hannis Taylor. *The Origin and Growth of the English Constitution: An Historical Treatise*, Vol. 2 3rd Edition (New York: Houghton Mifflin & Co., 1895).

²⁴ Ibid.

²⁵ E. Wyndham Hulme. "The History of the Patent System under the Prerogative and at Common Law," *The Law Quarterly Review* 46 (April 1896): 141-154.

²⁶ Matthew Fisher. "The Statute of Monopolies and Modern Patent Law: Foundation or Elaborate Folly?" *Intellectual Property Quarterly*, No. 4 (2022): 176-207.

²⁷ Klaus Boehm and Aubrey Silberston. *British Patent System: Administration*. Vol.1 (Cambridge University Press Archive, 1967).

favour of East India Company (EIC) as evident from Lord Jeffery's decision in *East India Company vs. Sandys* (1684) to uphold the EIC's monopoly right under the Monopolies Statute of (1623).²⁸

The period between 1850 and 1883 seems flowing together of two trends: first, the advocacy of anti-patent campaign demanding elimination of patent regime, and second, the movement by inventors to reform patent system to make convenient its procedures to obtain patent. Despite industrial revolution reaching its zenith in the United Kingdom, the patent mechanism was facing uncertainty and it was costly and sluggish to dispose of patent applications. The inventors were giving vent to their feelings openly as reflected in witness statements in hearings of Parliamentary Select Committee. For instance, great inventors such as James Watt and John Farey expressed dissatisfaction against the unjust patent procedure and unreceptive attitude of the courts in case of infringement of their property rights.²⁹ Even littérateurs like Charles Dickens highlighted this issue in a column 'A Poor Man's Tale of a Patent,' in which he satirically narrates a tale of a gentleman who had to visit not less than thirty-four offices to exemplify how dilatory, boring, and annoying the mechanism was for obtaining patent.³⁰

Although a legislative committee started conducting inquiry in 1829 to review the patent law and practice but it proved unsuccessful. The event of the Great Exhibition of 1851 and influx of inventions made inventors concerned about protection of their inventions. This provoked the formation of many unofficial associations to advocate amending the patent law. The Patent Law Amendment Bill was extensively discussed in the Parliament and its Committee over its object of reducing expenses, troublesome procedures experienced by inventors in obtaining patents, and to ensure certainty to getting rights for his inventions. The efforts of supporting inventors' movement finally came to fruition and the Patent Law Amendment Act of 1952 was enacted. The amended patent law simplified the procedure and

²⁸ John Brewer and Susan Staves. *Early Modern Conceptions of Property* (Routledge, 2014).

²⁹ Sean Bottomley. *The British Patent System and the Industrial Revolution 1700-1852: From Privilege to Property* (Cambridge: Cambridge University Press, 2014), 170.

³⁰ Charles Dickens' column, "A Poor Man's Tale of a Patent" *Weekly Journal Household Words* II (19 October 1850): 73, at <https://www.djo.org.uk/household-words/volume-ii/page-73.html>. See also Dickens. *A Tale of Two Cities: Hard Times for These Times*, Globe Ed. (New York: Hurd and Houghton, 1869), 150.

cost to obtaining patent and with appropriate protection of inventions provided for the appointment of Commissioners of Patents for Inventions.³¹

It will be pertinent to mention that during the Parliamentary debate, the opponents of patents protection system argued that major inventions made by great inventors like Brunei, Liebig, and Stephenson were not inspired by the patent protection. Rather only insignificant inventions rely on patent protection regime.³² Conversely, the movement representing reform of patent voiced against the cumbersome, huge expenses incurred on obtaining patents. The patent-holder was defended not as a monopolist but as a rightful owner of his property which was the fruit of his intellectual efforts. If patent was abolished, the society would be an enormous failure.³³ The anti-patent opinions were also rebutted by Attorney General with the reasoning that discoveries in scientific knowledge could rarely be created alone by joyous inspiration. This required devotion, hard work, longstanding experience, and trials. Even when the experiments ripen, investment of capital and time are still needed for inventions' public utility. Without inducement, a disinterested discoverer would not produce a discovery useful to society and in the absence of incentives would not bring forward even one-half of the discoveries.³⁴

Evolution of Patent Law in Continental Europe

From the Congress of Vienna of 1815 to the Franco-Prussian War (1870-71), no other technological power could catch up Great Britain in the supply of manufacturing goods.³⁵ With the passage of time, British patent laws and mechanism became effective. Once the stage set for industrial and technological revolution in Great Britain, it greatly influenced continental Europe and its patent laws. France and Germany took the lead and Belgium

³¹ The Patent Office Examining Staff Magazine, published March 1870, available at <https://assets.publishing.service.gov.uk/media/5a9fe872ed915d07a00fd8ee/Attachment-FOI-524.pdf>.

³² Opinion of Lord Granville and Mr. Ricardo, Member of the Commons. Patent Law Amendment Bill. HC Deb, (25 July 1851), Vol.118 cc1534-48. Visit https://api.parliament.uk/historic-hansard/commons/1851/jul/25/patent-law-amendment-bill#S3V0118PO_18510725_HOC_42.

³³ See Mr Macgregor's House speech on Patent Law Amendment Bill. HC Deb, (25 July 1851), Vol. 118, cc1534-48. Ibid.

³⁴ The House speech of Attorney General on order for Second Reading of 'PATENT LAW Amendment Bill'. HC Deb (25 July 1851). Ibid.

³⁵ *Reader's Digest Library of Modern Knowledge*. Vol. 2 (1978), 1001.

and Switzerland followed the race.³⁶ These countries set up leading polytechnics, laboratories, and crash programs for technical education and training programs.³⁷

In France, the ideals of French Revolution (1789-1799) had a profound impact on the organization of techno-scientific knowledge. It also infused fresh ideas into legal codes including the patent law.³⁸ Before political upheavals in France, the American Revolutionary wars (1775 - 1783) occurred. The American founders incorporated in the US Constitution provisions related to the intellectual property protection accompanied by the Patent Act of 1790, thereby laying a firm foundation of the second industrial revolution. The trans-Atlantic changes in Patent law were bound to have far-reaching implications for patent protection of France. The French Patent Code (1791) declared inventors' or authors' right as natural right to property. It was inspired by 'Declaration of the Rights of Man and of the Citizens' of 1789. The Declaration of 1789 sanctifies the inviolability of natural and property rights.³⁹ The enactment of French Patent law even before the adoption of the French Constitution of June 1793 highlights the high priority of patent protection in the thoughts of the founders of French revolution.

Patent Controversy at the Heart of Competing Discourses

During the period between 1850 and 1875, continental Europe witnessed the philosophical and economic debate between supporters of mercantilist theory and the proponents of free-trade or laissez-faire theory. The former theory of mercantilism in foreign trade (1500-1800) advocated that in order to increase the wealth of the nation there must be more exports and less imports so as to hoard extra bullion in national treasure needed for warfare. The policy of mercantilism became more dominant in the mid of nineteenth century in Great Britain, Netherlands, France, Germany, and Spain.⁴⁰ From Mercantilists' outlook, foreign trade was a zero-some game where the gain

³⁶ Jackson J. Spielvogel. *World History, The human Odyssey* (West Educational Pub, 1999), 452-655.

³⁷ For instance, Laboratories set by Thomas Edison during 1870 – 1880. *Reader's Digest Library*, 966.

³⁸ E. J. Hosbawm. *The Age of Revolution 1789-1848* (London: Macdonald & Co. Ltd., 1962).

³⁹ Section 1 of the French Patent Law, European background of patent system, See Gabriel Galvez-Behar, "The Patent System during the French Industrial Revolution: Institutional Change and Economic Effects" at <https://shs.hal.science/halshs-00544730v2/document>.

⁴⁰ *Reader's Digest Library of Modern Knowledge*, 938.

of one nation was equal to damage to the other trade partner. Therefore, they advocated and implemented restrictive trade practices and disallowed the import of foreign goods into the territories of their colonies.⁴¹ In the field of technology, the mercantilists were supporters of patent protection.

On the contrary, the proponents of *laissez-faire* or free-trade, propounded by Adam Smith, David Ricardo, and Hume were in the favour of nominal restraints on trade of goods or services. Accordingly, the exponents of free-trade or *laissez-faire* advocated *anti-patent movement*.⁴² A pro-*laissez-faire*, John Lewis Ricardo, a British Parliamentarian, argued against the rationale that patent inspired inventions and supported patent-abolitionists' advocacy to do away with patent system on grounds of its monopolistic nature and an excessive barrier to the *laissez-faire*.⁴³ The discourse created by patent sceptics created a mayhem known as 'Patent Controversy',⁴⁴ which swept across Europe, adversely affecting the patent rhetoric.⁴⁵ It shook the very basis of the patent system in the Continent and resulted in repeal of patent regime in the Netherlands, Switzerland, and Germany. In the late 1840s, the Netherlands started embracing the economic policy of patent-abolitionists' *laissez-faire* movement. The Dutch national and foreign inventors became vulnerable regarding the protection of their inventions.⁴⁶ In 1846, the Dutch Supreme Court ruled that the protection of the patent would be limited to the sale of such product in the market. In 1869, the Netherlands annulled its patent law and its industrialized society remained without a patent protection system from 1869 to 1907. After 1860, the anti-patent movement swept across the Dutch borders and beyond.⁴⁷ Interestingly, the nationals of Netherlands were enjoying patent protection in European and American territories, but they did not agree to reciprocate giving a rationale of dissimilar situations from country to country.

⁴¹ Wei-Bin Zhang. *International Trade Theory: Capital, Knowledge, Economic Structure, Money* (Berlin: Springer-Verlag, 2008), 3.

⁴² Ibid, 3 -4.

⁴³ Adrian Johns. *Piracy: The Intellectual Property Wars from Gutenberg to Gates* (Chicago: University of Chicago Press, 2009).

⁴⁴ Penrose, Machlup and Edith. "The Patent Controversy in the Nineteenth Century. 'The Economic Journal of Economic History', Vol.10 (May 1950): 1-129.

⁴⁵ Anwar Shaikh. *Globalization and the Myths of Free Trade: History, Theory and Empirical Evidence* (Abingdon: Routledge, 2007), 36.

⁴⁶ Ibid.

⁴⁷ Eric Schiff. *Industrialization Without National Patents: The Netherlands, 1869-1912; Switzerland, 1850-1907*. (New Jersey: Princeton University Press, 1971), 20.

Switzerland, which was two decades behind Britain in starting the process of industrialization, caught up other technological powers of European continent by adopting the laissez-faire economic model of anti-patent policy. This policy of doing away with patent protection system helped to boost her pace of economic and technological development.

The anti-patent policy helped to accelerate the growth of Swiss chemical and pharmaceutical industry to imitate German innovation and thus attracted direct foreign investment. Switzerland endured this policy of no-patent system until 1907.⁴⁸ Many proposals were made in the years 1849, 1851, and 1854 by inventors to convince Switzerland to provide by law the patent protection but were turned down. In 1863, another effort in the legislature for providing patent protection was backfired, declaring patent as *verderblich* (insidious) and *verwerflich* (meaning defenceless).⁴⁹ Even after the Paris Union setup, diplomatic persuasion failed to convince Switzerland and Netherlands to adopt laws for patent protection and policy of reciprocity.⁵⁰ They continued to pursue the policy of national priorities. From the mid-nineteenth century, technology-making gained momentum due to the tide of nationalist movements across the Europe, raising unsuccessful revolts in Budapest, Prague, and Vienna against the monarchical rules.

This wave of nationalism also led to the Unification of Germany (1848-1871) by Bismarck after the success of the Franco-Prussian War (1870-1871). One of the chief factors of Bismarck's success against France can be attributed to the Prussian cutting-edge artillery technology, higher-speed rail-system made up of perfect railroad-wheel able to withstand train, and the patented invention of breach-loading needle guns of cast-steel (much superior than French muzzle-loaded bronze guns). All were invented by the German engineer Alfred Krupp.⁵¹ By that time resourceful in steel and railways manufacturing industries, Germany's economic growth rose more sharply after the unification of Germany.⁵² In such political and technological background, any effort made to harmonize the patent protection rules in

⁴⁸ Anwar Shaikh. *Globalization and the Myths of Free Trade*, 37.

⁴⁹ Machlup Penrose and Edith. "The Patent Controversy in the Nineteenth Century," *The Economic Journal of Economic History* 10 (May 1950): 1-129.

⁵⁰ Eric Schiff. *Industrialization Without National Patents*, 22-23.

⁵¹ Ernest R. May. *Knowing One's Enemies: Intelligence Assessment between Two World Wars* (New Jersey: Priciton Press, 1986), 505.

⁵² The Vienna Settlement of 1815 had settled that there would be a Germanic Confederation consisting of 38 independent German states.

thirty unified States of Germany failed. Yet, at the regional level, patent laws remained unchanged because of the influence of inventors. In 1863, there was a strong wave of anti-patent drive by economists, backed by the bureaucracy. In 1868, upon the advice of the finance ministry, Chancellor Bismarck asked the German Parliamentary committee to consider and report back the proposal to do away with patent system in order to lift the economy.⁵³ A publication appearing⁵⁴ in 1869 documented the anti-patent opinions and recommended to abolish the patent system. Consequently, Bismarck embraced substantially protectionist rules in order to shield domestic industry. In the meantime, new trends, tending to favour protectionism, emerged in the entire Continent and continued until 1876. The German Parliament's expert committee was asked to deliberate upon the new situation regarding patents. Charles Lyon-Caen made reflections on the regime of patents' nexus with justice. He said that the patent system uplifted industrial progress and that Germany would be isolated if she insisted on suppressing patents while other great nations had patent laws.⁵⁵ After deliberations, the Unified Patent Act (1877) was enacted, applicable to all German territories.

International Law-making for Protection of Patent & Industrial Property

Trend of International Exhibitions and new legislation

The new tendency emerging since 1876 favoured protectionism across the European borders. Between the periods of 1850-1883 the trend of holding international exhibitions gained popularity. The foreign inventors were attracted to display their innovative work in the creative fields of art, inventions, and manufacture such as in the Great Exhibition held in London, Paris, New York, Vienna, and Philadelphia in the years 1851, 1851, 1867, 1868, 1889, 1853, 1862, 1876, and 1873.⁵⁶ The inventors willingly participated in international exhibitions if they were satisfied about the protection of their inventions and intellectual property from infringement and showed hesitation wherever their intellectual property was at risk of

⁵³ Johann Peter Murmann. *Knowledge and Competitive Advantage: The Co-evolution of Firms, Technology, and National Institutions* (Cambridge: Cambridge University press, 2003), 180.

⁵⁴ Robert Andrew. *Recent Discussions on the Abolition of Patents for Inventions in the United Kingdom, France, Germany and the Netherlands* (London: Longman, 869).

⁵⁵ Heinrich Kronstein and Irene Till. "A reevaluation of the international patent convention." *Law & Contemporary Problems* 12 (1947): 765.

⁵⁶ *The Waverley Encyclopedia*, (London: Waverley Book Company Ltd), 435.

copying or imitation. In order to secure the protection of their inventions or technology from piracy in foreign countries hosting international exhibitions, the inventors started demanding international patent law to protect their displayed inventions across the borders. The proposal for such across-the-border protection for inventions was advised by the manager of Great Exhibition held in London.⁵⁷ The House of Lords Committee examined these proposals to address the reservations of foreign inventors. The British Parliament enacted 'Protection of Inventions Act, 1851' aimed at protecting persons of all nationalities at exhibition of industrial work from piracy.⁵⁸ The purpose of this enactment was to enable inventors and artisans to exhibit their work at exhibitions without the fear of deprivation of the fruit of their labour. The Act of 1851 built up confidence in inventors. In the subsequent years up to 1883, thousands of applications were received by the Great Britain's Design Office for certification and registration of the inventions.

The Vienna International Exhibition of 1873

The 'Vienna International Exhibition of 1873' or 'The *Weltausstellung 1873*' was a momentous event towards the internationalization of patent law. Following the trend of European exhibitions, the administration of Austro-Hungarian Empire decided to hold an international exhibition at Vienna to be inaugurated on 1st May, 1873. Formal invitations were sent to industrial nations for participation.⁵⁹ However, a substantial number of invitee inventors showed hesitance to show up at Vienna Exhibition because of apprehension of piracy of their innovations by reason of flaws and restrictions inherent in Austro-Hungary Patent Law of 1852. The Austro-Hungarian law made binding on exhibitors to manufacture patented products within a year in Austro-Hungarian Empire. The foreign invitees, especially American patent-holders, showed resentment and warned to not participate in the presence of such laws unless changes were made in Austrian Patent Code of 1852 to the satisfaction of foreign inventors. The matter of reservations shown by the concerned inventors was taken up at diplomatic level. Foreign Office of Austria and United States representative

⁵⁷ Prof. Michael Blakene, lecture at WIPO international seminar on intellectual property (Cairo, February 17 to 19, 2003). Visit https://www.wipo.int/edocs/mdocs/arab/en/2003/ip_cai_1/pdf/wipo_ip_cai_1_03_inf1.pdf.

⁵⁸ Brad Sherman and Lionel Bently, *The Making of Modern Intellectual Property Law* (Cambridge University Press, 2004), xv.

⁵⁹ The Rotunda of the 1873 Vienna International Exhibition, was smashed due to fire on 17 September 1937.

John Jay began negotiations. As a result of diplomatic negotiations, a law was made in order to provide provisional patent protection to the participants of the Vienna Exhibition until 13th December, 1873.⁶⁰ This occurrence prompted an initiation of multilateral diplomatic negotiations for the internationalization of patent law and its reforms.⁶¹ Accordingly, in view of the development of diplomatic understanding regarding global patent protection, the Congress of Vienna for Patent Reforms was held in 1873 at Vienna.

Congress of Vienna for Patent Reforms of 1873

The Congress of Vienna for Patent Reforms of 1873, held from 4 August till 9 August of 1873, paved way for the agreement and adoption of a uniform global law for protection of industrial property. Based on the report of Preparatory Committee and reservations set forth by stakeholders, the Congress deliberated it for adoption. It was resolved that the natural right of inventor ought to be protected by the laws of all civilized nations. The normative principles upon which suitable and effective patent law should be based were also agreed. The Governments of States were urged to develop international understanding for protection of industrial property. The Preparatory Committee was re-designated as an Executive Committee having mandate to go ahead with the work already agreed to and to make the settled principles public. Also, the Committee was mandated to convene conferences whenever found expedient.⁶² These developments ultimately led to the first legally binding global instrument for protection and enforcement of industrial property rights known as the 'Paris Convention for the Protection of Industrial Property (1883)'.

Paris Convention for the Protection of Industrial Property 1883

Signed and agreed initially on March 20, 1883, the Paris Convention protects industrial property⁶³ including patents for inventions. It came into force on July 7, 1884. The Member States of the Paris Convention constitutes the

⁶⁰ Stephen P. Patents Ladas. *Trademarks and Related Rights: National and International Protection*, Vol. I. (Cambridge, Massachusetts: Harvard University Press, 1975), 60-61.

⁶¹ The Rotunda of the 1873 Vienna International Exhibition By Ly Y. Bui at <https://digital.lib.Umd.edu/worldsfairs/result/id/umd:992>.

⁶² Stephen P. Patents, Trademarks and Related Rights.

⁶³ Trade marks, collective marks, Industrial Designs, Trade Names, Indications of Source and Unfair competition.

'Paris Union' to safeguard industrial property including Patents for inventions (Article 1).

The member countries shall have to provide the same protection or remedy for infringements to the nationals of other countries as available to their own citizens (Article 1). Before the coming into force of the Paris Convention, if an inventor had intended to protect his invention outside of his country, he would have to file patent application in all other territories simultaneously, or else his rights could be at risk where patent protection was not secured. Practically, it was extremely difficult and incurred considerable cost. The Convention cured this problem by devising a 'right of priority' system. If inventor filed many applications in different national jurisdictions at different times, the time of first application will be considered for all the applications even if first application had been cancelled or withdrawn.

This will be applicable even if original application had been withdrawn. Similarly, the Paris Convention provides fundamental rules of equal treatment to the local and foreign originators. Since its adoption in 1883, the Paris Convention has been revised many a times, the last one being in September 1979. In order to carry out administrative work of the Union, the Convention created an International Bureau. A similar bureau was set up for the Berne Union administrating intellectual property in copyrights under the Berne Convention. Both the Unions were amalgamated together in 1893 to form an umbrella bureau. This was known as United International Bureaux for the Protection of Intellectual Property (BIRPI), which is headquartered in Switzerland. The head office later on shifted to Geneva in 1960. In 1967, the World Intellectual Property Organisation (WIPO), an specialized agency of the UN, was established to replace the BIRPI.⁶⁴ It meant to ensure IP for everyone's ideas, exchanging safely across the world.

Conclusion

The first known patents were granted in England in 1331 and Florence in 1421 to John Kempe and Filippo Brunelleschi respectively. However, the credit of developing European statutory patent law goes to the Senate of Venice to enact Patent Statute (1474) during Renaissance era. The Venetian Patent law is traced back as the origin of patent law as it is now. The Italian states especially Venice, Florence, and Milan were far ahead than their

⁶⁴ About WIPO, The World Intellectual Property Organisation at <https://www.wipo.int/about-wipo/en/>.

contemporaries in developing patent law and to attract foreign innovators. The English patent system of granting letters patent was vested in royal prerogative which was abused frequently for a long period of time. The industrial revolution seems unaffected due to the inconsistency and abuse in practice of granting patent vested in royal prerogative powers. In continental Europe, the practice of granting patent for invention seems not uniform and kept fluctuating under the influence of mercantilism and laissez-faire discourses. For decades, the Netherlands, Germany, and Switzerland remained entangled in the so-called 'patent controversy' which occurred during the nineteenth century. It is an enigma for a researcher to find out how these countries flourished in technology and industry in the absence of patent laws. It is paradoxical when explored that Bismarck's victory in Franco-Prussian wars was ascribed to the German's superiority in armament technology. Yet, after victory in the unification of Germany, anti-patent discourse prevailed for several years. The European historical evidence goes against the contemporary rationale about indispensability of patent protection for technological progress. From the European experience of the late nineteenth century preceding the Paris Convention, it can be concluded that without adhering to the common international patent standards, the flow of technology across the border would not have been possible.