



Documentos de Trabajo 58

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Early Patent System in the Developing
World: the Chilean Case. 1840s-1910s

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Septiembre 2014

The doctrines and the making of an early patent system in the developing world: the Chilean case. 1840s-1910s

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This article analyses the creation of the first Chilean patent law (1840s-1920s), by examining the underlying doctrines and key actors (political and business people) in the making of one of the earliest patent systems in Latin America and the developing world. From three main doctrines supporting IP protection (natural rights, contractarian and utilitarian) the article identifies elements of the first, disregard for the second and some traits of the third doctrine in the law. Protection of ‘introductions’, a non-contemporary IP subject matter, resulted from the mix of utilitarian and protectionist beliefs of policy makers, the influence of colonial regulation and a series of petitions for privileges made between 1830-40.

Keywords: Patent law, Chile, 19th century, utilitarianism, natural rights.

1. Introduction

The depth and characteristics of intellectual property (IP) protection laws and their underlying principles have been pointed out as an important force behind the economic development of countries around the world since the Industrial Revolution.¹ In this context, a great deal of research has been devoted to the understanding of the forces and doctrines behind the making of IP laws during the last few centuries, and how they evolved from a privileges *awarded* by the Sovereign into property *belonging* to individuals.² However, most of this research agenda has focused on the emergence of such institution in Western “North” nations, a therefore little is known about the making of IP institutions in the developing world or the extent to which different doctrines may have influenced such

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process or the interplay between beliefs of policy makers and business people. This article attempts to address this void by examining an early example of the emergence of IP institutions in the developing world, by studying the making and the doctrines of the firstly IP institutions in Chile during the post-independence. For this purpose we explore the role played by different dimensions and forces in the making of IP laws in Chile: i) the relative influence of the different doctrines regarding the justifications of IP institutions in western nations since the Enlightenment, ii) the degree of knowledge by Chilean policy makers of the above doctrines, iii) the influence played by business people in the enactment of the IP system, iv) the legacy of Spanish colonial institutions and v) the “pragmatic” drive of the authorities of a newly independent nation involved in forging its economic and social institutions.

Chile established its first republican Intellectual Property (IP) protection system (copyright and patent laws) relatively early, both in terms of its own institutional history, and with respect to the developing world. Chile’s first IP protection system was enacted at a time when the best system for promoting and enhancing creativity and innovation was under debate in the developed world. The enlightenment provided not only the opportunity, but also the means for the emergence of different rationales for explaining and supporting the development of IP institutions on both sides of the Atlantic; it also fostered the questioning of these propositions across the Atlantic.³ Although Chile played no part in these policy and philosophical debates, Chilean policy makers influenced by businessmen petitions and their own beliefs, made long term economic policy decisions during the process of defining the country’s first legal structures after independence (1818). It was the 1833 Chilean Constitution that recognised property rights for authors and inventors over

their productions; by 1834, Congress had enacted a copyright law and by 1840 the first patent law. The emergence of the first IP laws implied a *de facto* choice based on the views of enthusiasts' of an IP system, although the system chosen was very peculiar, different from patent systems of developed countries (France, US and UK). This paper examines the emergence and development of the first Chilean patent system during the 19th century from the perspective of the philosophical doctrines that were embedded in its drafting and later in its functioning.

To accomplish this goal, the article first identifies the three main doctrines that had developed in late 18th and early 19th centuries providing rationales for an IP protection system; utilitarian, contractarian and natural rights philosophies. It also makes reference to the evidence of connection of these views and policy makers. Secondly, the paper examines the genesis of the patent law and analyses the main features of the patent system and its subsequent modifications during the 1830-1900s period. To provide a meaningful account of the first patent law, this article reviews the constitutional umbrella that triggered the enactment of the IP laws, identifying extant legal models and relevant actors during the drafting of the Constitution in the early 1830s. The article briefly reviews the main substantive modifications of the first patent law that occurred throughout the 19th century, with the aim of tracing any possible alterations in the doctrinarian orientation of the patent system until the major reforms occurred after the 1920s.

The paper is organised in the following fashion; after this introduction, the second part discusses the three main doctrines that support the existence of an IP system that emerged during the enlightenment. The third part analyses the genealogy of the first patent law, with a special emphasis on identifying its underlying doctrines and examines the

Chilean patent law, its evolution and similarities to extant systems in other countries. The final section contains the conclusions.

2. A brief review of the doctrines supporting IP protection.

Three main doctrines justifying IP protection are examined below: i) utilitarian, ii) contractarian and iii) natural rights doctrines.

Utilitarian and Classical economist approaches to IP

The Utilitarian justification for an IP system states that proprietary institutions provide the means for maximizing societal wealth: the IP system allows inventors to recover the expenses to be incurred in developing an invention or work, such that without the legal protection, the invention or work would not take place.⁴ IP protection was one of the few areas where government intervention was required for improving social welfare.⁵ These were the only cases of harmless monopolies.⁶ Bentham considered an IP system as an essential means for enabling inventors to gain from their inventions, as non-rivalrousness of the invention would deprive them of any pecuniary benefits:

He who has no hope that he shall reap will not take the trouble to sow. But that which one man has invented, all the world can imitate. Without the assistance of the laws, the inventor would almost always be drawn out of the market by his rival, who finding himself without any expense in possession of a discovery which has cost the inventor much time and expense, would be able to deprive him of all his *deserved* advantages, by selling at a lower price.⁷

For utilitarians and classical economists, an IP system entailed not just an *efficient* artefact, but also a *fair* means for recouping the costs of developing new knowledge. For Smith, these type of privileges were: ‘the easiest and most natural way in which the State can

recompense them for hazarding a dangerous and expensive experiment, of which the public is afterwards to reap the benefits.’⁸ For Bentham: ‘An exclusive privilege is of all rewards the best proportioned, the most natural, and the least burdensome. It produces an infinite effect, and it costs nothing’.⁹ With respect to the exclusive privilege of using own improvement for a limited period of time, Mill stated: ‘This is not making the commodity dear for his own benefit, but merely postponing a part of the increased cheapness which the public owe to the inventor, in order to compensate and reward him for the service.’¹⁰

In a utilitarian world, society gains with inventions and works. They cannot be warranted without an IP system, and thus legal protection becomes a necessity. Because classical economist abhorred monopolies, except for those necessary to improve social welfare, a utilitarian grounded IP system assumes that the subject matter is useful. But would utilitarians endorse examination of an invention to grant protection? Utilitarians argued that the efficiency of the IP system is that it is not the government, but the market that is the ultimate judge of the value of an invention and that the IP system provides the sufficient means to correct the distortions produced by non-rivalrousness of the subject matter. This view would seem to imply that examination is unnecessary. However, the contempt of monopolies by classical economists would require limiting the granting of exclusive privileges only to the deserving useful inventions, and therefore patent examination appears as a coherent utilitarian institution. In a similar vein, the establishment of a working requirement in patent laws also appears as a utilitarian grounded rule, considering that it works as a sort of insurance norm for the fulfilment of the improvement of social utility that is sought by the patent system.

Many 19th century patent systems had a utilitarian orientation as they explicitly referred to the utility of the subject matter. A strict utilitarian patent regulation would also require the assessment of utility to minimize the chances of granting unnecessary monopolies. Examination was rare in the Venetian patent system¹¹ and rare in 19th century patent legislation. Even the British patent system had no systematic examination of patent applications except when oppositions were filed under the *caveats* institution prior to the 1850s.¹² Examples of 19th century patent systems with general examination could be found in the US and Germany. Examples of 19th century patent legislations that required utility of subject matter but had no examination procedures were the Spanish (1829), Mexican (1832) and Austrian (1852) legislations. The French patent legislation (1791) subjected the principle of ownership of the inventions to their usefulness to society, in a similar fashion than Austrian law required utility of inventions. Most 19th century patent legislations conceived a working requirement.

The Social contract and the Exchange-for-secrets

A *contractarian* argument for IP protection, states that a patent system comprises a *social contract* between society and the inventor or author. Society negotiates the disclosure of the invention by the inventor for its own benefit. Otherwise, information would be kept secret by the inventor. The bargain entails the disclosure of the secret in exchange for a temporary exclusive right over its economic use; the exercising of these rights allows the right holder to reap pecuniary rewards from the invention similar to the rewards he would have reaped by relying on secrecy. In the bargain, society compensates the would-be secret holder with *secure temporary* exclusivity in exchange for the disclosure of the secret.¹³

Under this doctrine, society is the beneficiary of disclosure, and the compensation equates to the term of protection of exclusive rights. No additional compensation was needed in this bargain.

It could be argued that the contractarian doctrine is nothing but another version of the utilitarian logic, as the social contract is the institutional response to an exchange mutually beneficial for both parties, and therefore, society's welfare is to be improved by enacting the social contract. The difference between these two rationales is the nature of the origin of the IP institution. Under utilitarianism the norms emerge because without them the existence of the subject matter is endangered, whereas under the contractarian rationale, the existence of the subject matter is never challenged. The reason for having IP norms in a contractarian world is to improve the standing of one party without damaging the other, by means of a fair deal.¹⁴

The presence of the contractarian rationale in a patent law does not annul the utilitarian rationale. It only adds an additional necessary requirement: disclosure of the subject matter.¹⁵ The patent laws of many countries (US, France, UK, Germany and Sweden, among others) in 19th century required full public disclosure of the invention during the patent application process. Belgium's law (1854) conceived a short lapse (a three month period) after the awarding of the patent for complying with the publication requirement.

The 'natural right' contention for the IP system

While the utilitarian and contractarian arguments for an IP system are eminently pragmatic, some authors extended Lock's perspective of the '*labour theory of property*'¹⁶,

a natural right to tangible property originating in labour, to the realm of intangible knowledge such as creations and inventions originating in *mental labour*. In essence, the *labour theory of property* states that individuals have a ‘natural right’ over property that has been produced by their labour. The extension of this rationale from the domain of tangible matter to the realm of ideas states that if individuals have a natural right to the tangible things which derive from their labour, so should individuals have a natural right over the outcome of the *labour of people’s minds*.¹⁷ Unlike utilitarian and contractarian rationales, natural rights are believed not to be contingent upon statute laws, customs, or beliefs of any particular society or polity, or to the usefulness of the subject matter. They are rights which stem from nature, and therefore are of universal application. One consequence of such rights is the claim of perpetual term which ought to be granted to the creator.¹⁸

The natural rights argument led to subsequent twists and limitations of IP laws. Macfie¹⁹ highlighted that the granting of exclusive rights to a patentee as a means of establishing a ‘natural right’ over ideas and inventions violated the exercising of the *natural right* to use own inventions by subsequent independent inventors.²⁰ In his view, this violation provides an argument for annulling the justification for IP protection. A late 20th century view of this problem, coincided that a patent law violates the natural right to use the invention by subsequent independent inventors.²¹ However, this problem provides the justification for a limited term of protection, not the elimination of the patent system.²²

The natural rights’ doctrine can be detected in patent laws by their lack of reference to the other two doctrines, i.e. by the existence of exclusive rights that emanate from the inventions or works without any need for utilitarian or contractarian rationales regarding

the subject matter. The subject matter need not be useful or entail a gain for society, nor is any disclosure of the secret or privilege that is under the control of the author or inventor required in exchange for the term of protection. A patent system that grants authors and inventors perpetual terms of protection, or at least a discretionary right to prolong the term of protection, would also mirror a system that follows a natural rights doctrine.

There are no evident 19th century examples of patent systems that followed this doctrine. The analysis below shows that the first Chilean patent law would partially reflect such doctrine.

The doctrines in the Field: their influence in Chilean policy makers' beliefs.

It has been well documented elsewhere that the process of Latin American Independence from Spain that began in 1810 in Chile, was greatly influenced by the enlightenment, the French and US revolutions, among other factors. The quest for *modern* institutions to repeal colonial inheritance was present from the outset of the Chilean Republic. Several attempts for organizing the new State were carried out, one of which led to the civil revolt of 1830 that triggered the drafting of a new Constitution in 1833, which remained in place until 1925. Contemporary political and philosophical doctrines influenced differently many political actors.

Utilitarian views gained increasing influence among Chilean policy makers since the early days of the Republic, and noticeably, as early as the 1820s.²³ Despite the fact that Adam Smith's major economic propositions were viewed with certain mistrust by the Chilean elite prior to the liberal governments of the post 1860s, he was an author well-read by many political actors since the 1820s.²⁴ Bentham was popular in early republican elite

circles, and he maintained direct contact with, at least, O'Higgins, the architect of Chilean independence, and Bello, the architect of the Chilean legal system.²⁵

A major actor in the making of the new Constitution from the Conservatives was Mariano Egaña. He was an intellectual who held perhaps the largest personal libraries in Chile, which contained pieces from Bentham. He was well acquainted with modern European philosophies, but his was a less liberal political model; his aspiration was a simile of a Constitutional monarchy for a political system, and he transmitted his views during the Congressional discussions within which the IP laws emerged from.

3. The Genealogy of the first Chilean Patent System

The first Chilean IP system, derived from article 152 of the 1833 Constitution, which granted protection to the inventors and authors of creations, works and inventions.²⁶ It has been established elsewhere that the drafting of such norm was modelled on Brazil's 1824 Constitution.²⁷ Although neither Chile nor Brazil were the first countries to have treated IP protection at the highest level of a nation's legal institutions, since the US had included in its Constitution (1787) a norm that provided for protection for inventors and authors,²⁸ the tenor of the drafting of the norm was very different in nature to the US norm. It was perhaps its peculiar wording what triggered the tone of the first patent law that lasted almost unaltered until the 1920s.

The distinct structure of the Chilean Constitutional norm can be equated to a distinct doctrinarian inspiration for the justification for an IP system. Such doctrine was not the most predominant one at a time when IP protection had previously emerged. It should come as no surprise that the subsequent first patent law in Chile replicated the distinct

doctrinarian root from the parent Constitutional norm, making it peculiar relative to extant patent systems. However, the doctrinarian origin of the first patent law was subject to a rapid and sequential mutation resulting from the manner in which the law was enacted and later implemented. In practice, in a piecemeal and in-adverted fashion, the implicit doctrine that was put into practice was increasingly aligned in some respects to the one found in other countries with patent systems in Europe and North America during the 19th century. This mutation took place not by introducing legal amendments, which in fact made the system more natural rights oriented, but through the exercising the authority of the executive branch to regulate aspects of the law. The analysis below suggests that this practice imperceptibly violated the implicit Constitutional doctrine for IP protection. This strategy was curious as there were practicable legislative windows to amend both the Constitution and the patent law if the accomplishment of a utilitarian law reform was in order. Yet, the executive and legislative branches chose an equally effective, yet less conventional strategy for institutional transformation of the patent system.

The origin of article 152 of the 1833 Constitution

The emergence of the constitutional provision that granted IP protection in independent Chile for the first time is closely linked to the role played by Mariano Egaña in the Grand Constitutional Convention of 1831-33 that enacted the 1833 Constitution. In fact, the only reference to such article is to be found in Egaña's 'voto particular', his draft proposal for the Constitution.²⁹ The overall sources for Egaña's conservative "voto particular" have been traced to the authoritarian Napoleonic and Monarchical Constitutional regimes of France and Brazil, and the Spanish Constitution of 1812.³⁰ His proposal for IP protection

became article 152 of the 1833 Constitution, and the source of this specific norm had been traced to article 26 of the 1824 Brazil's Constitution.³¹

An interpretation of the presence of this norm (together with article 151 of the Constitution, also present in Egaña's 'voto particular') appears as a statement of Egaña's belief in the social relevance of the business community in the welfare of society. In his role as Minister Plenipotentiary in London (1824-29), immediately before the Great Convention, he had paid special attention to channelling the business requests that originated in Britain to the Chilean Government.³² Even before the Convention was on the horizon, he had already publicly endorsed the economic protection of intellectual intangibles, as revealed by his letter of support to the Chilean Government of Rudolph Ackermann's editing and distribution privileges petition in London in 1825.³³

The drafting of the Chilean Constitution was quite peculiar and differed from previous Constitutional norms protecting IP. Unlike the US Constitution that gave Congress a duty to 'promote the progress of science and useful arts' by means of 'securing' for limited time exclusive rights to authors and inventors, the Chilean and Brazilian Constitutions first recognized the existence of authors' and inventors' exclusive rights emanating from their productions and discoveries, and then gave the authority to the Law to regulate the term of protection. Moreover, the Chilean and Brazilian constitutional norms also granted authors and inventors a right to indemnity in case of any obligation to disclose the protected subject matter. For the US i) IP laws were subject to meeting a goal of social progress and utility, and ii) Congress was mandated to determining the term of protection to secure the exclusive rights for authors and inventors. In Brazil and Chile, i) authors and inventors were entitled to exclusive privileges emanating from their

productions or discoveries, regardless of the existence of any social progress or utility, ii) authors and inventors were also entitled to a right of indemnity in case of necessary disclosure, and iii) the law was mandated to regulate the term of protection.

The drafting of the US IP Constitutional norm appears as unequivocally utilitarian; IP protection was an artifice necessary for promoting scientific progress and useful arts; authors and inventor had no warranted right that emanated from their productions or discoveries beyond Congress' mandate to secure exclusive rights for a limited period as a means of achieving such utilitarian goal. The drafting of the Chilean and Brazilian IP Constitutional articles was neither utilitarian, nor contractarian. The norm lacked any reference to any social goal or utility as a requirement for granting exclusive rights to authors and inventors (other than accepting that 'discovery' was implicitly or tacitly a synonym of utility or 'improvement').³⁴ The right to indemnity for disclosure signals two things: i) a strong belief that inventions produced property rights and ii) disregard for the contractarian patent bargain. Egaña's ideal seemed closer to a patent-as-right institution of modern patent systems, than a patent-as-privilege institution of early patent systems.³⁵ Later commentators of this norm justified the right to indemnity as a natural parallel of a remedy for a property right violation translated to a violation of 'mental and intellectual property'.³⁶

By the end of the 19th century authoritarian phase (1830-60) of the Chilean Republic, the country's liberal intellectuals embraced both the natural right approach to IP and the utilitarian doctrines when justifying the respective article of the Chilean Constitution:

The Constitution does no other thing than to recognize the natural right that a man has both to apply his intelligence and his activity to appropriate matters, taking advantage of the gains they may generate in benefit of the inventor and society, and to make his that which is an emanation of his thought. It is fair, because it is a condition of individual

liberty to recognize that a man who applies his intelligence, studies, time, fortune and health, should benefit exclusively from his invention or work, being it literature, art or sciences, to extract therefrom the pecuniary advantages he had sought. The interest of society is linked to this right, because it benefits itself by giving sustenance to the hope that serves as stimulus for those works on which great part of the progress and the wealth of the people rest.³⁷

Later it was stated:

The author's right over the publication of his work has always been recognised in almost every country as one of the principles of ordinary law and protected as property. If the fruits of the land that have been obtained by the labour of our arms enter into our dominion, for the same reason the output of our intelligence ought to be secured in our favour; and this is how society, when granting the appropriation of land through labour, does not only recognize a natural right principle, but also consults its own interests due to the increase in production, and therefore the recognition that the exclusive right of the author or inventor produces for it the promotion and progress of the useful arts and sciences that it benefits from.³⁸

In their view, IP protection was not only a *natural right*, but entailed a utilitarian way to improve and promote the progress of science and useful arts. However the term of protection was to differ between inventors and authors.³⁹ Either based on natural rights or utilitarian rationales, these intellectuals considered the Constitutional norm in harmony with the interests of society. Therefore, they saw no need to advocate for its reform in the process that would unfold during the subsequent liberal governments.

The contractarian 'exchange-for-secret' rationale played only a limited role in the first Chilean patent law. It granted exclusive privileges without demanding the end of secrecy throughout the term of protection. If any, the exchange-for-secrets would take place only after expiration of the privilege, and therefore the law entailed just a minimal version of the social contract theory for IP.

The Genesis of the 1840 Law and the conception of two types of Subject Matter.

The first Chilean patent law was distinctive due to several features. First, it was a relatively stable body of law, with few substantive changes until the 1920s. Second, it was peculiar in recognising two types of subject matter during part of 19th century. And third it was perhaps unique in its doctrinarian orientation. Below is a brief discussion of these aspects.

One of the sources for the dual conception of subject matter contained in the 1840 patent law can be traced back to the Colonial Spanish regulation for mining, which contemplated a similar type of protection for inventions and *introductions* in the mining sector. Protection was a perpetual exclusive privilege for inventors (article 18)⁴⁰ and introducers (article 19)⁴¹ of *useful and proven* inventions in the mining sector.⁴² The rationale for protection follows a quasi-utilitarian and natural rights doctrine; the former because of the reference to utility and society, and the latter because the terms of protection were perpetual.

Neater antecedents of the dual subject matter conception of the patent law can be traced back to legislative bodies during the 1830s decade, in particular, through the enactment of the copyright and patent laws, and through the management and treatment of a series of petitions for exclusive privileges made by individuals during the 1830s. One of the first republican antecedents of the dual conception of subject matter to be protected is found in Mr. Juan Quezada's petition for protection for a crystal and bottle factory in 1832 to President Prieto, who remanded it for consideration by Congress':

Exclusive privileges are a well-known remedy to foster industrious men towards new discoveries, or to what is the same, to *new productions*. They harm no one, because, not being created before granting protection, they cannot take away or harm non existing

rights, and never would production be promoted if talents and risky anticipations were not fostered by such means, which will, in the short term, place society in the position to enjoy benefits that it did not formerly enjoy. The practice of all civilized nations, and more importantly, the liberal principles that in this regard are followed by the supreme government, agree with my request in all its parts.⁴³ (Italics added)

The Presidential memo of this petition established at this early stage what would become a series of principles that would be shaped throughout the decade and enacted in the 1840 patent law: i) the introduction of a known but unexploited business was worth protecting, ii) these cases were useful to society as they increased its wealth, iii) exclusive privileges in these cases harmed future development of the industry and therefore the term of protection needed to be short. President Prieto stated that:

to agree on the utility of this important establishment one need only enunciate it, considering that well understood economic principles have become generalised and that illustrated men sustain projects with laudable interest that may contribute to public wealth. But, although the government feels obliged to recommend this petition submitting it to Congress, it is also its duty to prescribe the limitation of the terms of the concession (...) The greater the assumed increase and improvement produced by the projected factory to of for the country's wines and liquor industry the greater the interest for this useful establishment not to be the exclusive privilege of only one house.(...) this privilege would work as an impediment for other speculators and the national industry would find itself deprived of the advancement that could be provided by similar enterprises undertaken by different business people.⁴⁴

Soon thereafter, the President sent a Bill for a Copyright Law to the Chamber of Deputies in July 1833, just a few months after the enactment of the 1833 Constitution. In the preface to the Bill he announced that it was but the first half of the IP system designed to fulfil the regulation mandated by article 152 of the Constitution.⁴⁵ He also stated in such message that:

Industrial privileges, present in all advanced countries for the purpose of facilitating the operation of agriculture and the mechanical arts, were more limited than the rights granted for authors. The latter caused no harm to nations, but to the contrary, protected the orientation to the study and discovery of new truths, whereas industrial privileges,

although extremely advantageous, could ruin a whole branch of industry at some point and benefit only the inventor.

In his view, ‘the government would like to be judicious in granting such class of privileges, but plain in declaring them.’ Soon thereafter, this argument was also adopted by the Commission of the Chamber of Deputies arguing in favour of the Copyright Bill:

To declare that discovery or one’s own labour is property and that it needs to be enjoyed for a limited time is to enact what is prescribed by justice and common interest, and it is also to concede a new enjoyment for the community, to whom in appearance it is denied, because otherwise would it never enjoy such benefits.⁴⁶

In the end, it was not the President who finally drafted the industrial privileges Bill, but Congress. Several individual petitions for exclusive privileges submitted to the President revealed that his office did not have the powers to deal with them and they had to be submitted to Congressional sanction.

Table N.1 shows 16 applications detected in Congressional papers during the 1830s decade. Most of them were granted rapidly following the criteria suggested in the Presidential memo, except 3 applications that were subsequently remanded to the 1840 patent law sanction (petitions 13, 14 and 15 in the Table). Of these three, two were finally granted soon after the new law came into effect and one was never granted. It should also be noted that other than Wheelwright’s petition (6 percent of petitions), all of them were from residents.⁴⁷

TABLE N.1 EXCLUSIVE PRIVILEGES’ PETITIONS DEALT BY CONGRESS (1830-1840)⁴⁸

N.	Year	Requester	Industry	N.	Year	Requester	Industry
1	1832	Juan de Quezada	Bottle & Cristal Factory	9	1834	José Antonio Silva	Exploitation of marble, jasper & precious stones
2	1832*	Manuel Rojas	Mining Invention	10	1835	Guillermo Wheelwright	Steam navigation
3	1832*	Onofre Bunster	Invention in Silver	11*	1835p	Andres Blest ^d	Rum factory

			Mining foundry				
4	1833	Juan Lay & José Coupelon	Exploitation of marble, jasper & precious stones	12	1836	Antonio Vásquez	Leather manufactures (<i>cabritillas i tafiletas</i>)
5	1833	Joaquín Pérez & Manuel Carrasco	Exploit of marble, jasper & precious stones	13	1839*	José Vicente Larrain ^d	Introduction of unknown machine for oil extraction
6	1833	Carlos Thurn	Windmill in Valparaíso	14	1839*p	José Vicente Larrain ^d	New production Method for stearin candles
7	1833	José Vicente Bustillos ^d	Sulfuric Acid	15	1840p	José Luis Calle	Manufacture of spark plug from sebum
8	1834	Miguel Navas	Boot wax	16	1840	Guillermo Wheelwright	Steam navigation-extension

Source. Own elaboration based on Congressional papers.

* Invention

p Redirected to 1840 patent law

d Deputy

By early July 1840, the Senate received a new application (No. 15 in Table N.1) from Vice President Tocornal for an exclusive privilege,⁴⁹ also requesting a provisional authorization for the Presidential office to deal with these kinds of petitions until a general law regulating article 152 of the Constitution was passed. While a Senate commission drafted such short term bill, Senator Diego José Benavente drafted a bill of general scope on his own account. The former entered the floor on 15 July 1840 and the later on 20 July. By 22 July, both Bills had been discussed in the Senate, plus an extra bill for privileges remanded by the lower Chamber (No.13 in Table N.1). The general bill was approved with minor modifications to the one proposed by Benavente on the 22 July.⁵⁰ On 17 August 1840, the lower Chamber approved a modified text⁵¹ and both Chambers agreed on a definitive text by the 31 August. The Law was promulgated on 9 September 1840.

The aforementioned discussions in Congress prove that this law was not a Decree-Law originating in the Executive Branch as usually suggested by many authors. However, the principles set out by the President regarding introductions were clearly followed by Congress after 1832.

Among the petitions for protection, Congress had to consider only 4 (25 percent) referring in some way to proper inventions (two falling under the mining colonial regulation) and the rest referring to “introductions”, namely known businesses that were not present in the country (or at least not known to be present in the country by the Executive Branch or Congress). The fact that the majority of these petitions referred to introductions, plus the colonial antecedent of equating protection for inventions and introductions in the mining sector, led political actors to confound the strict spirit of the Constitutional norm (inventions) with a more ample set of situations worthy of protection, allegedly, under its umbrella. Below is a brief review of the discussions that gave birth to the protection of introductions in the patent law, here labelled as *copy & adopt* innovations, along with *creative* innovations.

The relationship between introductions and inventions

Applicants and legislators became well aware of the differences between introductions and inventions, but either refused to acknowledge that they fell outside the scope of article 152 of the Constitution,⁵² or assumed an extremely weak understanding of ‘novelty’ or simply surrendered the novelty principle to the usefulness principle. Among petitioners, the first assimilation of introductions to inventions was proposed in 1833 by applicants, labelled No.4 in Table N.1. Before citing the constitutional norm to justify their petition, they quoted an economist who had said:

that exclusive privileges for introductions of new industries that have to overcome great difficulties are a kind of privilege *of invention*, that covers the risks of the enterprise and the expenses of the initial endeavour, and limited in time, totally indemnify entrepreneurs for their anticipation and risks, without producing a burdensome privation to fellow citizens.⁵³

In 1834, applicant N.8 simply cited the Constitutional norm to support the request for the exclusive privilege, and the Commission of Deputies could not overlook the fact that the subject matter asking for protection had no resemblance to any invention whatsoever. But the commission could not simply turn down the application without a proper examination, and ended up stating that:

the Chamber cannot agree that the petition falls under the scope of article 152, without making sure that it is an invention requesting the privilege. Without clarifying this fact, which demands proof and other actions of less *décor* from the Legislative Body that distract it from other businesses of higher importance and general utility, it would either commit an injustice by denying the privilege or practice or a no less damaging or unfair act by granting it.⁵⁴

At this point, the lower chamber was not only making it clear that the scope of the protected subject matter covered by the Constitution was restrictive, but it was also introducing a standard of evaluation to qualify for protection. Conversely, the Senate at the same time had difficulty in equating inventions to the introduction of a *new* industry when examining Application N. 9 of Table N.1, and therefore was somehow diluting the principles previously set out by the lower chamber, and even agreed to extend the term of protection beyond the term granted to similar privileges the previous year:

The Budget Commission is of the opinion that, every *new invention being useful*, the Executive should be enabled to grant the exclusive privilege to exploit marble for a term of ten years, enforcing Article 2 of the Law of 6 September of 1833.⁵⁵ (Italics added).

The distinctions between introductions and inventions that the lower chamber was arriving at would eventually lead to the need to acknowledge that the Constitutional norm would not allow the granting of exclusive privileges over introductions, as an invention would have to be equated to a standard of novelty much higher than national application of an art or manufacture. This would pose a problem for the policy beliefs held by

government and Congress. By 1839, the lower chamber acknowledged this contradiction and surrendered the principle of novelty to the priority given to the principle of “public utility”. When examining the application of fellow congressman Larraín (N.13 in Table N.1), the Budget commission of the Lower Chamber stated:

if the law, in its literal meaning, appears to only grant privileges to the authors of true discoveries, public utility requires extending its benefits to the introducers of machines that had not before been known in the country.⁵⁶

The executive branch went through a similar process of initially ignoring the differences between inventions and introductions, merging them into one category later, and then acknowledging the differences, but ignoring the consequences of the Constitutional tenor for greater good, and therefore extending the scope for protection explicitly beyond inventions. By 1833 the President was not yet alluding to introductions falling under article 152, when he discussed inventions in the Presidential message for the copyright Bill. But by 1835 the merging of inventions and introductions became noticeable in the Executive as well. The Presidential memo concerning Application N.11 of Table N.1, argued for the convenience of shortening the term of protection to; ‘conciliate the encouragement that needs to be awarded to a new industry, with the general interest of society, which is always in contradiction to such privileges’.⁵⁷

By 1836 the Presidential memo presenting Application N.12 in Table N.1 argued that because the subject matter was *not* an invention and the sector had the capability of expanding, the President advocated for a shorter term of protection, openly contradicting the claim of invention made by the applicant.⁵⁸ By 1839, the principle of *novelty* of introductions became subsumed to their usefulness. This merger was exemplified by the conclusions arrived at by the President and the Supreme Court official (who become

President of the lower chamber thereafter) who dealt with Application N. 15 of Table N.1. The President argued for the usefulness for the country of the introduction of the *new* method to justify the granting of the privilege, whereas the Supreme Court officer had assured him that such method was not an invention made in the country and should not be granted a privilege under article 152 of the Constitution. However, the officer argued that the usefulness of the introduction would be of such magnitude that it was this sole principle which sufficed for granting the privilege requested.⁵⁹

Secrecy and inventions

Secrecy regarding inventions is one of the main features of the 1840 patent law. However, there is no reference to it during the Congressional discussions regarding exclusive privileges in the decade prior to the enactment of the patent law. Only the Constitution and the law itself refer to secrecy. This lack of reference suggests that this doctrinarian perspective was not present in the mind of policy makers.

4. The 1840 Patent Law

At the time the first Chilean patent law was enacted, only ten other countries worldwide were known to have patent laws;⁶⁰ they are presented in Table N.2.⁶¹ The law comprised 17 articles, and provided protection for two families of subject matter: inventions (products or processes), herein considered to be ‘creative’ innovations, and the introduction to the country of known but not yet established industries, herein defined as ‘copy & adapt’ type of innovations. From the extant patent systems, a similar dual subject matter model can be found in the 1826 Spanish patent law⁶² and Mexican patent law.⁶³

TABLE N.2 COUNTRIES WITH PATENT LAWS PRIOR TO CHILE'S FIRST PATENT LAW

Country	First Patent Law	Region	Timing Rank
UK	1624	Europe	1
USA	1790	Americas	2
France	1791	Europe	3
Netherlands	1809	Europe	4
Austria	1810	Europe	5
Russia	1812	Europe	6
Sweden	1819	Europe	7
Spain	1826-29	Europe	8
Brazil	1830	Americas	9
Mexico	1832	Americas	10
Chile	1840	Americas	11

Source: author's chart based on Appendix-Table A1 Rapp & Rozek ⁶⁴

The features of the protection provided by the Chilean law are outlined in Table N.3 and Table N.4. It is clear from these tables that the protection granted for both families of innovations was almost identical, except for the term of protection provided to each one. Relative to the 1826 Spanish law model, Chile adopted a system that made both families of innovations much closer in terms of the protection provided, as the term of protection granted for *copy & adopt* patents in Chile was 8 years compared to the 3 years granted under Spanish Law. In this regard, the Chilean patent law appeared to be more strongly influenced by the colonial mining regulations than the empire itself. The Mexican Law made no differences regarding the protections between copy & adopt and creative innovations, except for the process of eligibility that the former needed to go through. For *creative* innovations, Chile granted a term of protection of up to a maximum of 10 years after granting, whereas Spain provided protection for up to 15 years after granting.

Exclusive Privileges were granted by the Crown prior to the 1826 law in Spain, and by the Chilean Congress prior to 1840, as seen above. However, these pre-patent-law privileges were scant.⁶⁵

From the analysis of the legal provisions, the first Chilean patent law not only treated *creative* and *copy & adopt* innovations very similarly, but it also differed radically from the Spanish system by requiring a mandatory examination of every patent application. Originality was to be assessed by a commission of experts whose members, unlike the US examination system, were not required to be public officials. In the Mexican system, examination was designed to assess whether the subject matter controvened public health, national security or public morality, and not the utility of the inventions.

Like in many other countries, Chile's law protected inventors, although the law treated protected subject matter as a special type of property, since it allowed it to be transferrable, though subject to government approval, including forfeiture and infringement remedies in case of disapproval. As to the remedies, infringement was subject to fines, while fraud (when patents were obtained by individuals others than the inventors) was subject to similar fines plus imprisonment.

TABLE N.3 SUBJECT MATTER PROTECTED BY FIRST PATENT LAW

Subject Matter	Description	Term (Years)	Art.
'Creative patent'	To the author or inventor of art, manufacture, machine, instrument, preparation of materials or any improvement of thereof	≤ 10	1;3
'Copy and adopt patent'	Introduction of arts, industries or machines invented in other nations and unknown or not established or used in Chile	≤ 8	8

Protection was subject to a working requirement valid throughout the entire term of protection, plus a keep-up-quality requirement.⁶⁶ Regarding the priority of filing versus

inventing, the law was silent. But in cases of priority disputes the law gave competence of arbitration to three judges (one proposed by each party plus one appointed by the government) as the sole deciding instance.⁶⁷ The law was quite liberal in spirit, as it provided for no exceptions or exclusions, like existing patent models elsewhere.⁶⁸

During the 19th century until the turn of the century, the Patent law was subject to few amendments. Table N.5 summarizes such legal changes (Rules and Law). In 1851, a significant regulation was introduced that inclined the law towards the utilitarian doctrine. The Decree established the need for the examination report to clearly state the utility or inconvenience of granting the privilege, identification of the type of innovation (*copy & adopt* versus *creative*) and circumstances of the invention relevant for establishing the term of protection and of installation. Five years later, another decree established a publication requirement for all *copy & adopt* applications and the right to opposition was openly stated.⁶⁹ These regulations aimed at filtering the set of subject matters worth of receiving legal protection. In this regard, they aimed at fulfilling a utilitarian aim.

TABLE N.4 PATENT PROTECTION PROVIDED BY CHILEAN FIRST PATENT LAW

Protection	Description	Article
Term for installation	Yes	14
Physical extension	Regionally, nationally	13
Term extension	Yes, in justified cases before 6 months of expiration	16
Infringement	Fine \$100-\$1000 Indemnity	10
Property Ownership	Transferable; sellable. Need to be recorded before government.	9
Nullity	Yes Fraud (no inventor, extant industry, false testimony) Fine \$100-\$1000 Imprisonment (3-12 months)	11
Expiration, caducity	Competing privileges	12
	Arbitrage before 3 judges, not appealable if not installed within installation period, in case of abandonment of 1 year after installation, in case of degrading quality of products relative to level applied for	15
Examination	Commission of external examiners – <i>experts</i> –	2

Publication Requirements	Not required for the subject matter during term of protection	2;5;6
	Originality (novelty)	2;5
	Full Disclosure to the examiners' commission	2;5
	Fee \$50	5
Registry	Yes	4

Source. Own elaboration based on the 1840 Patent Law.

Money refers to nominal Chilean pesos.

The next amendment occurred in 1872, and repealed the right to obtain a *copy & adapt* patent. By 1883, the term of protection for patents (only *creative* innovations at the time) was extended up to 20 years, based on the importance and nature of the invention.⁷⁰ These legal changes moved the Chilean law one step further towards the natural rights constitutional doctrine, by removing *undeserving* subjects from the beneficiaries of the law, and by extending the term of protection of the *worthy*. However, the term extension also made a reference to utilitarianism by considering the 'importance' of the invention for awarding the patent.⁷¹ In the next five years the government was reorganising itself, and responsibility for patents switched from Ministry of the Interior to the newly created Public Infrastructure Ministry. In this process, government acquired the authority to make the examinations to patent applications internally or rely on external experts. Only in 1909 did the President relinquish the authority to award patents to the corresponding Minister.

TABLE N.5 MODIFICATIONS TO PATENT REGULATIONS

Date	Publication Date Official Gazette	Norm Type Law/Decree	Matter under Regulation-Description
09-09-1840	11-09-1840	Law	First Patent Law
01-08-1851		Decree 129	Regulates Examination Reports
16-08-1856		Decree 90	Publication Requirement Application Regulates Opposition
25-07-1872		Law	Elimination of 'Copy & Adopt'
20-01-1883	26-01-1883	Law	Term Extension up to 20 years
21-06-1887	21-06-1887	Law	New Responsible Government office
26-01-1888	27-01-1888	Law	New Responsible Government office Internal/External Examination
23-11-1895	14-12-1895	Decree 2143	Regulates Oppositions and Examination (Fees private)

06-12-1905	13-12-1905	Decree 3121	Regulates Expiration and Working Requirement
29-01-1907	04-02-1907	Decree 148	Regulates Expiration and Working Requirement
16-09-1909	07-09-1909	Law 2206	Minister Awards Privileges

By the turn of the century, the 1895 regulation merely updated the issues regulated up to 1856 (opposition, examination, publication of applications). Again, an explicit reference to the utility of the invention was required to be identified by the examiner in his report. Only in 1905 did a new regulation made significant changes in the functioning of the law: to enforce the working requirement. This regulation introduced teeth to the fulfilment of the implicit utilitarian aim of the law: to protect only deserving innovations.

Although the utilitarian doctrine was formally absent from the first patent law, as inventions need not be proven to be useful, this doctrine gained practical relevance in subsequent executive branch regulations.

5. Conclusions

Chile enacted an early patent law, relative to Latin American standards, and produced a relatively peculiar patent protection system. The influence of specific actors in the enactment of the law appears to be very significant. At the outset, Mariano Egaña was decisive in the drafting of the 1833 Constitution and in doing so, in introducing the natural rights doctrinarian structure that defined the future patent regulation. A later influence of utilitarian perspectives on IP protection emerged both from the Executive branch and Congress. President Prieto set out principles that were to be followed by Congress. And in Congress, Diego José Benavente became a major actor in drafting the law.

The twist from a purer natural rights to a mild utilitarian doctrinarian patent law was perhaps natural considering that utilitarian and Bentham views gained increasing influence among key policy makers in Chile.⁷² Adam Smith's had many readers in the elite and Diego José Benavente was one of them.⁷³

Although, the system appeared to have been kept relatively impermeable to the European patent controversy experienced during the 19th century⁷⁴, the hegemony of different doctrinarian streams for conceiving IP protection appeared to have been mildly present in Chile as well. From the three mainstream ideologies endorsing IP protection, the forging of the Chilean patent law was influenced by utilitarianism and natural rights. However, the inheritance of colonial institutions, and a post-colonial merger between protectionism and liberalism appeared to have taken place in Chile at the time the first patent law was conceived. So, based on natural rights in origin, the first patent law became partly utilitarian, but overall remained distant from the contractarian exchange-for-secret doctrine during 19th century.

The influence of European philosophies was perhaps as important in the making of the first Chilean patent law, as the pragmatism of policy makers. Pragmatism manifested itself in several ways. First, it appeared to have enabled the inclusion in the law of subject matter that would normally have fallen outside the scope of IP in most developed countries at the time: *copy & adopt* innovations, in addition to the mainstream subject matter of patents, *creative* innovations. This inclusion was not merely unpopular elsewhere (other than in Spain and Mexico) but even fell outside the scope of the 1833 Chilean Constitution. Second, the limiting straight jacket imposed by the Constitutional norm in the type of IP protection to be granted, did not stop policy makers from further pursuing their utilitarian

aims during the drafting of the law. The inclusion of examination and working requirements were outside the spirit of the Constitution, and unnecessary for fulfilling its natural rights philosophy, yet they were included. Third, the inclusion of a utility requirement, not only during the enactment of the law but through later regulations, as early as 1851, provides additional evidence that the elite were ready to bypass the Constitutional spirit to endorse their utilitarianism on IP.

The repeal of the protection of *copy & adopt* innovations later in the century followed by the extension of the patent term, may seem to indicate that the utilitarian intrusion on the patent law's innate doctrine was coming to an end. But this was not the case. The principle of utility of inventions, despite its absence in the Constitution or the law, was firmly held by policy makers from the outset. These beliefs managed not only to impose a utilitarian principle soon after the enactment of the law, but also managed to enforce it by assessing compliance through examination from the very beginning, and enforcement of the working requirement by the turn of the century. Although the subsequent legal changes did not enshrine utilitarianism on IP at the Constitutional or legal level, despite the liberal governments that ruled after the 1860s, which repealed *copy & adopt* privileges, the principle of utility and its consequences was never disputed despite its nonappearance in the law. Government exercised its right to examine and enforce the social utility of inventions. But legislators failed to implement a fully utilitarian philosophy in the IP system as found in many developed countries during that century and seemed totally unconcerned about endorsing the contractarian approach for protection of IP. The endorsement of secrecy of the full patent documents outside the opposition proceedings limited the scope of public access to the protected technology, and therefore restricted the

fulfilment of the utilitarian principle. It also hampered and delayed the development of the an equivalent to the best mode doctrine. In this regard, the Chilean patent law seemed to perform as a hybrid system between patent-as-privileges and patent-as-property.⁷⁵

Acknowledgments

Early versions of this paper were presented at the workshop ‘Rethinking Patent Cultures’, at the University of Leeds (May 2014) and the Economic History workshop at University of Santiago and University of Valparaíso (May 2014). The author wish to thank participants for their constructive comments and questions, specially to Graeme Gooday and Mario Biagioli. The author also wish to thank Javier Núñez for commenting drafts of the paper.

Notes

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- 1 See North, *Structure and Change in Economic History*; North, *Institutions, Institutional Change and Economic Performance*; North, *Understanding the Process of Economic Change*.
 - 2 For the UK, see Sherman and Bently, *The Making of Modern Intellectual Property Law. The British Experience, 1760-1911*; Bently, "The making of modern trademark law: the construction of the legal concept of trade mark (1860-1880); Bottomley, *From privilege to property: The British patent system during the Industrial Revolution, 1700-1852* ; for the US, see Biagioli, 'Patent Republic: Representing Inventions, Constructing Rights and Authors.'
 - 3 Machlup and Penrose, 'The Patent Controversy in the Nineteenth Century '.
 - 4 Utilitarians conceived the IP system as a legal right not as a natural right; Harrison, Bentham. This view was held much earlier by Jefferson, Letter to Isaac McPherson.
 - 5 Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*.

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- 6 Smith, *Lectures on Jurisprudence*. Smith also paralleled IP privileges to temporary monopolies to trading companies establishing ‘new trades’; Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. see book V, Chapter I, part III, article I, pp.418. This view is problematic for the IP parallel as it endorses for a very weak novelty standard, and reduces IP protection to investment protection. This reasoning is not present in other utilitarians’ rationale for IP protection.
- 7 See Chapter XV, V pp.316, Bentham, *The Rational of Rewards*.
- 8 See Book V, Chapter I, part third, pp. 418, Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*.
- 9 See Chapter XV, V pp.316, Bentham, *The Rational of Rewards*.
- 10 See Book V, X.4, pp. 314, Mill, *Principles of Political Economy*.
- 11 Biagioli, 'Patent Republic: Representing Inventions, Constructing Rights and Authors.'
- 12 In the 1838-47 period, 34 percent of patent applications were opposed and examined under the caveats system (Bottomley, *From privilege to property: The British patent system during the Industrial Revolution, 1700-1852*).
- 13 This exchange-for-secret rationale for the patent system was contained in De Bouffler's report to the French National Assembly in 1790 and used later as part of the arguments in the patent controversy of the 19th century. The literature identifies Louis Wolowski as one of the advocates during the 19th century controversy. See Machlup, *An Economic Review of the Patent System*; Machlup and Penrose, 'The Patent Controversy in the Nineteenth Century'; Penrose, *The Economics of the International Patent System*.
- 14 This would be equivalent to a Pareto-welfare-improving exchange between parties moving from a point lying outside Edgeworth’s contract curve towards a point lying on the curve itself.
- 15 The working requirement can also be part of the disclosure requirement inherent to the ‘patent bargain’, if it functions as an insurance norm for the public disclosure sought by the bargain, particularly in early patent systems (Biagioli, 'Patent Republic: Representing Inventions, Constructing Rights and Authors.'). In the US, the necessity of the working requirement prior to independence was eroded with the establishment of the best mode principle after the enactment of the 1790 patent law. In contrast, the

working requirement can work as an insurance norm for the usefulness of the invention under a utilitarian doctrine.

16 See Chapter V, § 27, Locke, *Two Treatises of Government*..

17 See the discussion for labor of the mind in chapter 1 of Sherman and Bentley, *The Making of Modern Intellectual Property Law. The British Experience, 1760-1911*. for the UK experience in 18th and 19th century.

18 This view was advocated by French intellectuals at the end of 18th century. Jobbard was the most prolific proponent of such view according to Machlup and Penrose, 'The Patent Controversy in the Nineteenth Century '.

19 Macfie, *The patent question under free trade: a solution of difficulties by abolishing or shortening the investors monopoly, and instituting national recompenses*.

20 For other proponents of this argument see Machlup and Penrose (1950) pp. 14-15.

21 Nozick, *Anarchy, State, and Utopia*.

22 Like utilitarians, he also believes that a patent system does not deprive anyone of anything as the invention benefits people only because its inventor has invented it.

23 Will, 'The Introduction of Classical Economics into Chile.', Neira Navarro, 'Jeremy Bentham y el liberalismo en Chile durante la primera mitad del siglo XIX.'

24 Will, 'The Introduction of Classical Economics into Chile.'

25 See Will, 'The Introduction of Classical Economics into Chile; Jaksic, *Andrés Bello: La pasión por el Orden*; Neira Navarro, 'Jeremy Bentham y el liberalismo en Chile durante la primera mitad del siglo XIX.'

26 Article 152 of Chile's 1833 Constitution stated that every author or inventor should have the exclusive property right to their discoveries or productions for the time conceded by law, and should it require disclosure, a corresponding indemnity should be given to the author. (The original Spanish text reads "Todo autor ó inventor tendrá la propiedad exclusiva de su descubrimiento, ó producción por el tiempo

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- que le concediere la ley, y si ésta exigiere su publicación, se dará al inventor la indemnización competente”).
- 27 Brahm García, 'La estructuración del régimen de gobierno de el "voto particular" de Mariano Egaña y sus fuentes.'
- 28 Article 1, section 8 of US Constitution states that Congress' ought to “promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries;”
- 29 The compilation made by Letelier, *La Gran Convención de 1831-1833. Recopilación de Sesiones, Discursos, Proyectos y Artículos de Diarios Relativos a la Constitución de 1833.* contains this reference in N. 37 -complete notes of Mariano Egaña's “voto particular”- as article 177 (pp. 97); also as article 17 in the 2nd and third drafts compiled (pp. 100, 109). It appears as article 20 in the Bill for Constitution in N. 47 (pp. 160).
- 30 Brahm García, 'Mariano Egaña y La Constitución Política de 1833. Las fuentes del “Voto Particular”.'
- 31 Brahm García, 'La estructuración del régimen de gobierno de el "voto particular" de Mariano Egaña y sus fuentes.'
- 32 See for instance the tenor of the letters regarding the Anglo-Chilean Mining Association, the Chilean Mining Association, and the Chilean and Peruvian Mining Association These letters are codified as N.33 (17 December 1824 in pp.84-88), N.47 (15 January 1825 in pp.107-110) N.66 (20 July 1825, pp. 131-132), (Gonzalez Echenique, *Documentos de la Mision de Don Mariano Egaña en Londres (1824-1829).*). Additional information of these companies has been published elsewhere (Veliz, 1975).
- 33 Egaña's letter states that it “would be unfair to allow other foreign booksellers to introduce into the country original works that with so much fatigue and expense had been published by Mr. Ackermann”. The letter is labelled as N.93 dated May 12 1825 (in Gonzalez Echenique, *Documentos de la Mision de Don Mariano Egaña en Londres (1824-1829).*).
- 34 The origin of the Chilean norm contained traces of a utilitarian inspiration, but references to usefulness were aborted during the drafting process. One draft proposal for the Constitutional article made by Egaña

stated the need to amend the draft in order to limit the right of the inventors for inventions of public utility. See incomplete draft of the Egaña's 'Voto Particular' in pp.100 in Letelier's compilation (Egaña, "Otro Borrador incompleto del Voto Particular de Egaña."). However, the minutes of the Constitutional Convention's sessions do not reflect that he pursued such aim in the draft discussions.

35 Biagioli, 'Patent Republic: Representing Inventions, Constructing Rights and Authors.'

36 See pp. 390 in Huneeus Zegers, *La Constitución ante el Congreso. O sea Comentario positivo de la Constitución Chilena*.

37 See pp. 202, Lastarria, *La Constitución Política de la República de Chile. Comentada*.

38 See pp. 227 Carrasco Albano, *Comentarios sobre La Constitución Política de 1833*.

39 In Lastarria's view, literary works ought to be perpetual as they entail only reproduction rights and as such, do not hamper anyone's ability to learn from the knowledge they generate while allowing the author to obtain the deserved benefit from his creation. Inventions needed to be made accessible to mankind, and thus limitations on exclusivity were correct. In Carrasco Albano's opinion, by limiting the term of protection, the law in the ends protects not property as such, but the enjoyment of the fruits of property, so as to avoid the degeneration of this type of property into monopolies.

40 It read "Useful and approved inventions that after an overall assessment of its use for over a year shall be granted an exclusive privilege lasting the life of the author, so that nobody, without his consent, may use them without contributing a moderate part of the advantage and gain effectively resulting from the inventions".

41 It read "Any individual, who due to his own study, instruction or information received or due to travel to other regions, presents a machine, procedure or method used in other places and times, and it is approved and qualified as stated in article 17, has to be served and awarded in the same manner as if he were an inventor, because if his gratification may be less, his merit and work may be more and the public benefit shall always be equal where it is installed, either concerning an absolutely new invention or the transportation and application of an unknown practice."

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- 42 This regulation dates from 1783 and included a Mining Tribunal that was implemented in 1787 in Chile. Although the Tribunal has been claimed to have contributed in the promotion of inventions (Mendez Beltrán, "Prologo al Informe de Minería de Juan Egaña."), Egaña, *Minería y Metalurjia Colonial en el Reino de Chile. Una visión a travez del informe de Don Juan Egaña al Real Tribunal de Minería en 1803.* He reported only one invention (made by Juan Francisco Herrera, in N. 90).
- 43 See appendix N. 608 attached to the lower chamber's session of September 3 of 1832, in Letelier, *Sesiones de los Cuerpos Lejislativos de Chile.*, pp.553-4
- 44 See appendix N. 607 in Letelier, *Sesiones de los Cuerpos Lejislativos de Chile.*, pp. 553
- 45 See appendix N. 94 attached to the session of 29 July 1833 in the lower Chamber, Letelier, *Sesiones de los Cuerpos Lejislativos de Chile.* President Prieto's letter to the Congress stated that "this Bill shall be considered the first part of the law that is referred by in Art. 152 of the Constitution, retaining for myself the privilege of presenting later another Bill regarding industrial privileges."
- 46 See annex N. 104 in Letelier, *Sesiones de los Cuerpos Lejislativos de Chile.*, pp. 86
- 47 Only privileges N. 4 and N. 5 in Table N.1 were granted to non-nationals, but they had been residing in Chile for a long term when the application was made (see annex N. 8 and N. 9 in pp.11 and annex N. 42 in pp. 34 in Letelier, *Sesiones de los Cuerpos Lejislativos de Chile.*).
- 48 Between Independence (1818) and 1830, only 5 exclusive privileges were published in the bulletin of *Laws and Decrees.* 3 factories and 2 mining privileges for British companies.
- 49 See appendiz N. 216 in Letelier, *Sesiones de los Cuerpos Lejislativos de Chile.*, pp.293.
- 50 Amendments were introduced to articles 5, 7, 9 and 17 and article 15 was added.
- 51 Amending articles 2, 5 and 8 of the Senate bill.
- 52 Huneeus Gana, *Los privilegios exclusivos en Chile: estudio de la legislación vigente y de la conveniencia de su reforma* claimed the unconstitutionality of including introductions under the patent law in an celebrated law Dissertation.
- 53 See appendix N.9 in Letelier, *Sesiones de los Cuerpos Lejislativos de Chile.* on pp. 11
- 54 See appendix N. 429 in Letelier, *Sesiones de los Cuerpos Lejislativos de Chile.*, pp. 361-2

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- 55, See appendix N.311 in Letelier, *Sesiones de los Cuerpos Lejislativos de Chile.*, pp. 194
- 56 See appendix N. 134 in Letelier, *Sesiones de los Cuerpos Lejislativos de Chile.*, pp. 109.
- 57 See appendix N. 634 in Letelier, *Sesiones de los Cuerpos Lejislativos de Chile.*, pp. 433.
- 58 See appendix N.299 and N. 300 in Letelier, *Sesiones de los Cuerpos Lejislativos de Chile.*, pp. 280.
- 59 See appendix N. 216 and N. 217 in Letelier, *Sesiones de los Cuerpos Lejislativos de Chile.*, pp. 293.
- 60 Rapp and Rozek, 'Benefits and costs of Intellectual Property Protection in Developing Countries; Rapp and Rozek, 'Benefits and Costs of Intellectual Property Protection in Developing Countries.'
- 61 Holland repealed its patent law later.
- 62 Sáiz González, 'The Spanish Patent System (1770-1907); Sáiz González, *Las Patentes y la Economía Española (1826-1878)*..
- 63 The Spanish introductions remained in force until mid 20th century. Article 21 of the Decree of 7th of May of 1832 (Mexican patent law) provided for the protection of introductions, if government remanded to the Congress petitions for its' assessment of the industry's degree of importance. Only those of great importance were eligible.
- 64 Rapp and Rozek, 'Benefits and costs of Intellectual Property Protection in Developing Countries; Rapp and Rozek, 'Benefits and Costs of Intellectual Property Protection in Developing Countries.'
- 65 Sáiz González, *Las Patentes y la Economía Española (1826-1878)*. recorded 79 privileges granted by the Crown between 1759 and 1826 in Spain. A revision of the Chilean Laws and Decrees Bulletins shows 5 privileges granted between 1822 and 1830, plus the 16 privileges shown in Table N.1 between 1830-40. The Chilean Congress retained the authority to grant exclusive privileges outside the scope of the 1840 patent law. The Congress' privileges were broadly granted during the 19th century as a means to build public infrastructure (roads, railroads, etc.) through concessions to private individuals and corporations to exploit limited time monopolies in exchange for the private funding necessary to build such infrastructure.

66 The patent was subject to expiration or caducity in case of abandonment for over one year after the completion of the term awarded to put it to work or diminished quality of products relative to the models provided in the application process.

67 Later codes of general application eliminated this special court from the general judiciary system.

68 For instance, the 1832 Mexican law prohibited the protection of inventions that were contrary to public health, morality or national security.

69 This feature of the early Chilean patent system is also commonly overlooked (see for instance table N.4 in Lerner, '150 Years of Patent Office Practice.').

70 This fact is generally overlooked in the literature, and almost always ignored (note the entries for Chile in Table 2 in Lerner, '150 Years of Patent Protection'; Lerner, '150 Years of Patent Protection ', or pp 11 in Agency and Barker, Epitome of the world's Patent Laws and statistics.).

71 In 1864 Representative Manuel Antonio Tocornal introduced a Bill for the comprehensive overhaul of the Law, but did not succeed. In the 1880s, Congress was requested to grant an extension of the term of protection to an inventor, and decided to modify the general law after a heated discussion (see Official Gazette of 2 September 1882). By that time, a Bill introduced by Deputy Felix Echeverría to radically modify the law was discussed and rejected.

72 Will, 'The Introduction of Classical Economics into Chile.', Neira Navarro, 'Jeremy Bentham y el liberalismo en Chile durante la primera mitad del siglo XIX.'

73 Will, 'The Introduction of Classical Economics into Chile.'

74 Machlup and Penrose, 'The Patent Controversy in the Nineteenth Century '.

75 Biagioli, 'Patent Republic: Representing Inventions, Constructing Rights and Authors.'

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