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The Chilean Nitrate Industry in the Nineteenth Century.

Joseph Robert Brown

Louisiana State University and Agricultural & Mechanical College

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THE CHILEAN NITRATE INDUSTRY
IN
THE NINETEENTH CENTURY

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of History

by
Joseph Robert Brown
A. B., Texas College of Mines and Metallurgy, 1948
M. A., University of Chicago, 1949
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PREFACE

After the American colonies of Spain achieved independence in the nineteenth century, their natural resources were made accessible to foreign capitalists. The newly created countries of Latin America recognized the economic opportunities at hand; but without foreign assistance, they were unable to develop their resources on a full scale. Their need for outside aid can be attributed to one or several of the following conditions: lack of capital resources, inadequate technical knowledge, indifference to industrial activities, and pre-occupation with other aspects of the life of their countries.

Of the Latin American peoples, however, Chileans were the ones most interested in economic activities. Because of this trait, they have been termed the "English of South America." The early Peruvian nitrate capitalists could be included in this category as well, for in reality it was the citizens of these two countries who founded the nitrate industry. Although until 1870, Peruvians and Chileans owned most of the nitrate deposits, European engineers provided the technical assistance necessary in operating the nitrate plants successfully.

For Peru in the 1870's and thereafter for Chile, the nitrate industry rose to a position of great importance. The

course of its development not only affected the economic life of these countries but their politics and foreign affairs as well. Adjacent Bolivia, too, felt the impact of nitrate developments. The conflicting economic interests of the three countries enmeshed them in a struggle that led to one of the few major wars fought in Latin America after Independence. Known today as the War of the Pacific (1879-1883), but to many contemporaries as the "Nitrate War," the conflict resulted in the acquisition by Chile of the entire nitrate region. This gave Chilean nitrate capitalists the opportunity to participate more freely in the development of the industry.

But opportunity for Chilean capitalists was opportunity for British capitalists too, and the latter found occasion to establish their dominance during Chilean reorganization of the industry. In the years that followed a tremendous growth in nitrate production occurred, and the policy of Chile toward the industry was established. That policy closely tied the interests of the Chilean government with the prosperity of the industry. However, the interests of nitrate capitalists and of the government did not always coincide. Intermittent conflicts between the two occurred until a basis for cooperation finally was achieved at the beginning of the twentieth century.

This dissertation will consider the developments outlined in the above paragraphs. Although the present study

has been limited to a discussion of the nitrate industry in the nineteenth century, it has been necessary to carry the treatment slightly beyond 1900 in presenting statistics and in bringing certain developments to an appropriate conclusion.

For several reasons the turn of the century constitutes the end of one period of nitrate development and the beginning of another. In the first place, by that time the formulation of Chile's nitrate policy had been stabilized on the principles of protecting nitrate revenues and promoting their gradual increase by augmenting productive capacity. Secondly, after 1900 the government reversed its antagonistic attitude toward activities of private nitrate interests and within the limits of its established policy sought to cooperate with private interests for the common welfare. Thirdly, the attempts made by producers prior to 1900 to control production in their own interests had proven to be temporary expedients, incapable of solving the basic problems of the industry. A renewed effort by producers after the turn of the century, in which the major faults of earlier efforts to control production were corrected and the support of the government won, achieved a seemingly permanent status. Fourthly, British dominance which was the chief characteristic of nitrate history prior to 1900 was definitely on the wane by that date. Lastly, it was not until after 1900 that organized labor became a powerful factor in the nitrate industry.

Because of the scarcity of data, this study gives only brief consideration to the technical, managerial, and legal aspects of the history of the nitrate industry. Moreover, definitive treatment of the subjects emphasized in the following pages has been impossible, since the data necessary for such a study is widely dispersed or cannot be located. The chief deficiencies lie in the lack of files of Chilean newspapers (such as El Ferrocarril, El Mercurio, and the Chilean Times), and in the absence of materials relating to activities of Chileans in the nitrate industry. Records of the Delegación de Salitreras (Bureau of Nitrate Affairs) and court records in Chile are other sources that have not been available for consultation. An effort has been made, without success, to find the private papers of leading British participants in the early history of the nitrate industry.

However, the sources for a history of the nitrate industry found in United States libraries are numerous. The Library of Congress, Harvard College Library, Boston Public Library, and the library of the University of Chicago all contain valuable materials for such a study. For the laws and decrees of Peru, Bolivia, and Chile that pertain to the nitrate industry the best sources are the two compilations edited by Carlos E. Ibañez and Carlos Aldunate Solar respectively. Compilations of statistics are found in the reports of the Delegado de Salitreras, in the appendices of various books such as those written by Dr. Erwin Semper and

Dr. Michels and by Francisco Valdés Vergara, and in other statistical reports issued by the Chilean government. Contemporary accounts of the nitrate industry are helpful but incomplete in their treatment. Of those available for use no better example could be cited than the studies published by Guillermo E. Billinghurst, one-time consul in Iquique and later president of the Republic of Peru.

The best English source for a history of the nitrate industry is the South American Journal, but helpful too are the many financial journals published in England. A number of Englishmen who travelled or lived for a time in Chile have written accounts that include information concerning the nitrate industry. The two most worthy of note were written by journalists, William Russell and Maurice Hervey. Publications relating to British financial activities, especially the Stock-Exchange Year-Book, possess considerable information about English nitrate companies. Some information is contained in the published reports of British and United States consular agents in Chile. Information obtained from the British consular records on deposit in the Public Record Office in London indicates that they contain a wealth of material on the nitrate industry. Limited use of these records was made possible by employing a professional research assistant.

The writer wishes to express his appreciation to Dr. J. Preston Moore and Dr. Jane De Grummond for their invaluable

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ABSTRACT

Although before 1879 no major deposits of nitrate were located in Chilean territory, Chilean industrialists owned valuable nitrate properties. Their holdings were located in the Peruvian province of Tarapacá, where the most important deposits of nitrate lay, and near Antofagasta in Bolivia. In the decade of the 1870's, however, Peru nationalized the nitrate industry in Tarapacá and tried to gain control over the deposits in Bolivian territory. At the same time, Bolivia attempted to curtail the privileges she had previously granted Chilean nitrate interests. Because of these actions Chilean nitrate interests suffered.

The government of Chile supported the interests of her industrialists by diplomatic action. A bitter controversy between Chile and Bolivia ensued. The climax of this diplomatic struggle occurred in 1879 when Bolivia violated an agreement not to tax Chilean nitrate interests. This action led to the War of the Pacific (1879-1883) in which Chile fought Bolivia and Peru. The treaties that ended this war left Chile in possession of the entire nitrate region.

In 1880, Chile imposed a high tax on nitrate exports. This tax quickly became the major source of revenue for the government. Other aspects of the nitrate policy of Chile, and especially the policy of selling state-owned nitrate

lands, were designed to protect and increase the revenues obtained from the nitrate export tax.

In returning the nitrate industry of Tarapacá to a system of private enterprise, the government of Chile made possible significant investments by English capitalists in the industry. Actually, English capitalists dominated nitrates until the twentieth century. Of the English capitalists John Thomas North, "The Nitrate King," was the most prominent. He not only was responsible for the large-scale introduction of English capital into the industry during the 1880's; but in addition, he almost achieved success in his effort to monopolize the nitrate industry. North controlled the profitable Nitrate Railways Company, which operated in Tarapacá, as well as many producing companies and other enterprises in the nitrate region. Much of the credit for frustrating North's nitrate monopoly plan can be given to President Balmaceda (1886-1891). Balmaceda also opposed British domination of the nitrate industry.

Even though British nitrate capitalists supported the Congressionalistas who overthrew Balmaceda in the Revolution of 1891, the Chilean government continued to pursue an anti-British policy. Major aspects of this policy included opposing production limitation schemes proposed by British producers, permitting the construction of competing railroads in Tarapaca, and encouraging Chileans to purchase state-owned nitrate lands.

For Chile the economic significance of nitrate developments was quite great. Nitrate exports eventually comprised three-fourths of the exports of Chile and made possible a favorable balance of trade. The industry provided markets for Chilean agricultural products and jobs for Chilean workers. Above all, revenues derived from the tax on nitrate exports provided the government with a large income.

CHAPTER I

THE HISTORY OF THE NITRATE INDUSTRY THROUGH THE WAR OF THE PACIFIC

Nitrate has been discovered in only one area of the world in quantities extensive enough to allow large-scale commercial exploitation. This area, located in South America, lies between the Andes Mountains in the east and the coast range on the west, and extends from the eighteenth to the twenty-fifth parallel, south latitude. During the nineteenth century the more important deposits were located in the Tamarugal Pampa which encompasses the northern half of the nitrate region. The nitrate beds lie in the western portion of the Pampa where the terrain rises from the Pampa to meet the coast range. These beds are not continuous, however, since lateral mountain ranges cut the western section of the Pampa into many parts, each varying in elevation from twenty-five hundred to five thousand feet. The distance between the nitrate beds and the sea varies from twenty to fifty miles. The coast range which lies between the deposits and the sea drops abruptly from heights of fifteen hundred feet and in some cases six thousand feet to the Pacific Ocean without leaving a coastal plain. Along the coast of this

region--frequently called the Atacama Desert--there are no good harbors.¹

The nitrate beds have been the subject of numerous geological investigations; however, their origin has yet to be conclusively determined. The nitrate is found in an impure state in a substance called caliche. The beds of caliche vary in thickness from eleven inches to fourteen feet and may be found as far as thirty feet below the surface of the soil. The quantity of nitrate in the caliche ranges from ten to seventy per cent.²

Before the Spanish conquests in the New World, Indians living in areas adjacent to nitrate fields utilized small quantities of caliche as fertilizer, but their method of refining, if one did exist, was too primitive to allow extensive exploitation. The extension of Spanish control over this region by the middle of the sixteenth century had little effect on the use made of these deposits, since the conquistadores failed to realize that wealth could be obtained by extracting substances other than precious metals and

¹The best description of this region is to be found in Isaish Bowman, Desert Trails of Atacama (New York: American Geographical Society, 1924).

²A survey of the various theories on the origin of nitrate deposits is made by William Ross, "The Origins of Nitrate Deposits," Popular Science Monthly, LXXXV (Oct., 1914), 134-145, and by W. S. Tower, "The Nitrate Fields of Chile," Popular Science Monthly, LXXXIII (Sept., 1913), 209-230. For a detailed analysis of the deposits see Dr. Erwin Semper and Dr. Michels, La Industria del Salitre en Chile, Trans. and Ed. by Javier Gandarillas and Orlando Ghigliotto Salas (Santiago: Barcelona, 1908), pp. 6-30.

valuable stones. The Spaniards did use some caliche in the manufacture of gunpowder, although this was discouraged by the Spanish monarchs who feared that any development of this industry would reduce the profits obtained from the royal monopoly on the sale of gunpowder. At times, colonial officials permitted clandestine operations in the nitrate fields, yet the lack of official sanction was a factor in retarding the development of the industry. The colonial period was nearing its end before permission to produce was granted.³

Even if encouragement had been given, the development of the nitrate fields would have remained meager because there was no adequate method of elaboration. Not until early in the nineteenth century was the technique of nitrate production improved to the point where caliche could be transformed in large quantities into a usable product. By 1810, this process had been adopted by the ten nitrate producing establishments--oficinas⁴--in the Peruvian province of Tarapacá.⁵

³Roberto Cornejo, El Salitre (Valparaiso: Fisher Brothers, 1930), pp. 3-9.

⁴The word oficina literally means workshop or plant. However, when used in connection with the nitrate industry it refers to any bed of nitrate deposits on which there is machinery to transform caliche into a finished product. Oficinas vary widely both in plant capacity and in extent of deposits. They are given names such as Primitiva, Rosario, and Agua Santa.

⁵Guillermo E. Billinghamst, Los capitales salitreros de Tarapacá (Santiago: 1889), pp. 10-12.

The wars for independence stimulated work in the nitrate fields, and operations were considered essential by the revolutionists who controlled the area after the Spaniards were driven out of Chile.⁶ Independence did not bring about any marked changes in the industry since local consumption of nitrate as a fertilizer did not provide an adequate market and its use in the manufacture of gunpowder did not require expansion of productive facilities. Ultimately, the farms of Europe and the United States came to be the chief consumers of nitrate; and while these markets were opened during the decade of the 1830's, the attempt to enlarge them did not gain great headway for at least half a century. The first successful shipment of nitrate was made in 1831 when a cargo shipped to France was sold. In the following year regular shipments to England began.⁷

The gradual expansion of markets, chiefly in Europe but to some extent in the United States too, resulted in the development of the nitrate properties in Tarapacá from which the entire supply of nitrate came until 1870. After 1850, Chilean and British entrepreneurs became active as producers along with the Peruvians, but the latter still constituted the largest group.⁸ The commerce connected with the nitrate

⁶Carlos E. Ibañez, Minas i Salitreras, Contiene las leyes, decretos supremos dictados i jurisprudencia vigente sobre estas materias (Santiago: La Lira, 1906), pp. 114f.

⁷Cornejo, El Salitre, pp. 10, 25, 30f.

⁸Ibid., p. 43; Billinghamurst, Los capitales salitreros, pp. 13, 31-33.

trade, however, was largely controlled by Chileans whose activities centered in their port city of Valparaiso. Because of this a steady increase in the strength of Chilean nitrate interests, who were frequently associated with Englishmen, was not unnatural.⁹ In large part the desire of Chile to extend her boundaries northward grew out of this economic expansion as represented by the constant augmenting of Chilean economic interests in the Peruvian and later in the Bolivian territories that stretched along the Pacific coast. Not only Chilean entrepreneurs but Chilean workmen migrated to the region in significant numbers. The latter became an important segment of the population in Tarapaca and comprised the majority in the Bolivian littoral.¹⁰

To retain the proper perspective concerning the economic activities in the nitrate region, it must be emphasized that the guano industry was the most important economic enterprise in Peru until 1872. The chief sources of the deposits were located on rocky islands off the Peruvian coast, principally on the Chincha Islands several hundred miles south of Callao. The immense quantities of guano found there were frequently sixty to one hundred feet in depth; in addition, deposits of lesser importance were located along the coast of the mainland. At no time before the decade of the 1860's did

⁹Gonzalo Bulnes, Chile and Peru (Santiago: Universitaria, 1920), pp. 36ff.

¹⁰Ibid., p. 43.

the nitrate industry emerge from the dominating shadow of the guano enterprises that provided the main source of fertilizer for Europe, the largest profits for the Peruvian government, and the chief incentive for the Chilean policy of expansion northward.

Guano was known to and utilized by the Inca Indians and by their successors, the Spaniards. Beginning in 1840 it was introduced into Europe where it quickly acquired a large market. So lucrative did Peru's guano trade become that the government nationalized the industry; and from 1853 through 1872 at least eight million tons of this highly valued fertilizer were shipped from the Chincha Islands. The revenues from these cargoes enriched the Peruvian treasury, gave that country excellent credit abroad, and encouraged the initiation of a gigantic public works program. To finance this program, which was poorly planned and exceedingly costly, huge loans were contracted in Europe. As long as the guano deposits remained plentiful, Peru's revenues were equal to the burden imposed by this debt and signs of prosperity pervaded the land.¹¹

Although the nitrate industry received little official attention during Peru's "Guano Age," the government followed a liberal policy in the disposition of nitrate deposits which permitted a steady expansion. Until late in

¹¹Clements R. Markham, A History of Peru (Chicago: Charles H. Sergel and Co., 1892), pp. 343, 486f. Carlos Wiesse, Historia del Perú (Lima: Francesa Cientifica, 1939), pp. 55, 70.

the decade of the 1860's, nitrate lands in Tarapacá were open to free exploitation on the basis of grants obtainable from the Peruvian government to individuals who discovered nitrate deposits. Each applicant received two estacas of land or approximately twenty-four acres. Therefore, in order to obtain a large tract of deposits co-operation between individuals, frequently within a family, was necessary. Under this policy a considerable quantity of nitrate deposits were acquired, but not all were brought into production immediately. However, in 1868 the making of grants was suspended by a decree dated November 30.¹²

The later imposition of a state monopoly on nitrate sales and the subsequent expropriation procedures were measures that grew out of the financial necessities of the Peruvian government and its plan to obtain added revenues through government control of the industry. The large revenues Peru previously obtained by her control of the exportation of guano were no longer adequate to meet the expenses of government. It proved to be impossible to revive the industry because of approaching exhaustion of the guano deposits and the increasing competition that fertilizer was encountering in world markets from the expanding nitrate

¹²Gustavo Julián, "Memoria sobre la Explotación i Beneficio del Salitre i Yodo," Elaboración de salitre i yodo (Santiago: Nacional, 1889), pp. 71f; Julio Ruiz Bourgeois, Instituciones de Derecho Minero Chileno (Santiago: Jurídica, 1949), II, 320; Enrique Cuevas, The Nitrate Industry (New York: Wm. S. Meyers, 1916), p. II.

industry.¹³ A diligent search for new sources of revenue became imperative. It was only natural that President Manuel Pardo (1872-1876) should turn to the nitrate industry.¹⁴ Not only was the use of the two products similar; but the supply of nitrate, like the guano deposits, was preponderantly under the control of Peru.

Initially the Peruvian government levied an export tax on nitrate in an attempt to augment its revenues; but the continued competition, the persistence of the government's financial difficulties, and the desire of Peruvians to monopolize the revenues of the industry which were in part being siphoned off by Chileans, resulted in measures being adopted by Peru that culminated in nationalization. Thus, the Peruvian Law of January 18, 1873, established the policy of nationalizing the sale of nitrate. This action was the first major step in the process whereby ownership and control of the entire industry was transferred from private interests to the government.¹⁵

¹³Bulnes, Chile and Peru, pp. 50ff; Thomas J. Hutchinson, Two Years in Peru (London: Sampson, Low, Marston, Low and Searle, 1873), I, 57.

¹⁴Pardo is noted as the first civilian to become chief executive of Peru. Pardo promoted educational development, attempted to re-organize the government's finances on a more economical basis, and nationalized the nitrate industry. The Secret Alliance of 1873 with Bolivia was also signed during his presidency. On the whole, he strove to establish law and order and to steer a middle course between the extreme conservatives and extreme liberals. See Wiesse, Perú, pp. 92ff.

¹⁵Ibañez, Minas i Salitreras, pp. 282f.

Under the law state monopolization of sales would extend for a period of two years with the legislature having an opportunity at that time to review the policy in full. By decree the initiation of the experiment was set for September, 1873. The government was to accept annually a quantity of nitrate equal to that exported in the previous year--four and one-half million Spanish quintals--from private producers each of whom was to be given a quota fixed by a commission especially appointed for that purpose.¹⁶ Producers were to be paid 2.40 soles per quintal and the selling price was to be established in order to assure the government a profit of twenty-five soles on each quintal marketed.¹⁷ But not all sales of nitrate came under government control as would appear from the law. Private export of nitrate was permitted to continue on payment of an export duty, and nitrate sold in this manner was derived mainly from oficinas that did not have contracts to produce for the government.¹⁸

Because the profits received by Peru did not reach the level anticipated, her financial problems remained

¹⁶A Spanish quintal is equivalent to forty-six kilograms and equals approximately one hundred and one English pounds.

¹⁷A sole is the Peruvian monetary unit that during this period was valued at forty-four pennies in sterling currency. In the Monopolization of Sales Law provision was made for lowering or raising the price paid producers to compensate for differences in the quality of nitrate sold to the state.

¹⁸Ibañez, Minas i Salitreras, pp. 283-286; Cuevas, The Nitrate Industry, p. 11.

unsolved. Peruvian leaders thought that the failure of the experiment was caused by inadequate government control over production.¹⁹ Thus, toward the end of the expiration of the Monopolization of Nitrate Sales Law, Peru determined to assume complete charge of the nitrate industry. The Law of Expropriation was enacted on May 28, 1875. It authorized compensation for the expropriated property up to the amount of seven million pounds, with approximately four million pounds of this sum to be expended to buy nitrate properties and the remainder to be dedicated to purchasing the railways serving the industry.²⁰

The decree issued by President Pardo putting the law into effect established the following conditions: those who agreed to sell their nitrate properties would receive in return certificates redeemable in two years with an interest of eight per cent; if the seller desired, the certificates would stipulate the oficina represented by the securities; or if no desire for the inclusion of this privilege was expressed, certificates issued would not represent any specific property. Should an owner wish to do so the law permitted him to retain operating control of the oficina until full payment was made but certificates issued in such cases would

¹⁹However, if the export statistics are correct, the sales made by the government accounted for eighty per cent of exports in 1874, the first full year of the law's operation.

²⁰Ibañez, Minas i Salitreras, pp. 286f.

not be transferable. Those operators desiring to sell for cash would consummate with the government a promise-of-sale agreement. They would be allowed to continue producing and exporting without restriction but would be required to pay an export duty which initially was fifteen soles per quintal but was later raised considerably. The increase was intended to make private exportation unprofitable and hence to promote the rapid completion of the monopoly. However, the final sale price received by those who chose this alternative plan was to be reduced one-half of one per cent per month. The reduction was justified on the grounds that exploitation of the deposits diminished the property's value and that permission to sell privately might constitute an advantage.²¹

The decree also contained provisions concerning the financial transactions involved in the expropriation process. An association of Peruvian banks was empowered to handle nitrate sales for the government and to pay interest to certificate holders. By virtue of modifications made in a later decree, the net profits accruing from nitrate sales on the government's account were to be used by the banks to pay interest installments, and if such funds proved inadequate to meet these obligations, part of the export duties would be available to meet the deficit.²²

²¹Ibid., pp. 287ff.

²²Guillermo E. Billinghamurst, Legislación sobre salitre y bórax en Tarapacá (Santiago: Cervantes, 1903), pp. 414f.

The commission appointed to determine the value of the nitrate lands began its work in 1876. Apparently the valuations they made were based almost entirely upon descriptions of the properties submitted by the owners who frequently exaggerated their value or made inaccurate reports in other ways. For instance, the method of delineating boundaries was extremely rudimentary and unsatisfactory. Boundaries were marked off by digging a furrow around the property; the furrow could easily be and often was changed to the disadvantage of the state.²³

Based upon the commission's reports, Peru had by the start of the War of the Pacific in 1879 issued certificates to the amount of 19,205,252 soles, including 600,000 soles in certificates for the Patillos railroad still under construction. At the rate of exchange then prevailing the value of these certificates expressed in pounds sterling was 3,520,962. More than one hundred and twenty major properties and a large quantity of lesser lands were acquired by the issuance of these certificates.²⁴

²³Cuevas, The Nitrate Industry, p. 12; Julián, "La Esplotación del Salitre," p. 72.

²⁴Francisco Valdés Vergara, Memoria sobre la Administración de Tarapacá (Santiago: República, 1884), Appendix No. 1, pp. 128-145. In no two sources does the list of properties for which certificates were issued agree in detail. Billinghamst, Los capitales salitreros, p. 39 states that the amount emitted equalled S 20,339,203. A later estimate by an English source placed the valuation at £ 3,622,000. See Journal of Finance (London), Ed. by S. F. Van Oss, II (1897), 145.

However, the process of buying nitrate lands had not been completed. At least twenty oficinas and probably more remained unsold, and these were owned chiefly by Europeans and Chileans. Negotiations for nineteen properties valued at 1,617,600 soles, or £ 305,360, had been made but final approval by the government was pending. This sum, when added to the value of certificates issued, brings the valuation of the nitrate works in Tarapacá in 1879 to £ 3,826,322.²⁵

The security for the nitrate certificates included not only those properties represented by issued certificates but also all unexploited lands, abandoned lands, and other properties under the jurisdiction of the state fiscal agent in Iquique.²⁶

Under the original plan the railway that served the nitrate region was to be expropriated also, but nothing had been done to accomplish this by the outbreak of the war. In proceeding with the entire operation the government of Peru faced many difficulties. The chief obstacle lay in the inability of Peru to obtain a foreign loan. The plan had been to retire the certificates within two years. To accomplish this the original expropriation law had authorized the

²⁵Valdés Vergara, Administración de Tarapacá, Appendix No. 1, pp. 145-147. Semper and Michels, Industria del salitre, p. 283 lists twenty-nine such properties. Twenty-two, for which figures were given, had a combined value of S 1,538,000.

²⁶Billinghamst, Legislación sobre salitre, p. 444.

president to contract a loan in Europe for seven million pounds, but European financiers would not co-operate. Although the nitrate properties did constitute sufficient collateral, Peru's large outstanding foreign debt contracted in previous years had dried up the market for her bonds.²⁷

The status of nitrate property in Tarapacá in 1879 can be represented by the following categories: lands the state held title to and represented by certificates; lands in the promise-of-sale group; unclaimed and unexploited state properties; lands that reverted to the state because they had not been under production for eight months; and lands remaining in private possession.²⁸ Nitrate lands could also be classified according to whether their production was sold under contract to Peru or whether it was sold privately. By 1879, there were at least twenty-six nitrate establishments producing under contract to Peru. Most of the others were shut down.²⁹

The nationalization of nitrate lands in Tarapacá gave Peru a virtual monopoly over the industry, but not a completely secure one. The action quickened the rate at

²⁷Wiesse, Perú, pp. 100f.

²⁸Billinghurst, Legislación sobre salitre, pp. 261f, 412f. Reversion of unoperated lands to the state resulted from a decree issued in 1876. Involved were some sixty properties, a list of which can be found in Semper and Michels, Industria del salitre, Appendix No. 18, pp. 284f.

²⁹Valdés Vergara, Administración de Tarapacá, pp. 176f.

which nitrate lands in non-Peruvian territory to the south were being developed since Chilean producers who sold out to Peru shifted their activities to the fields of Aguas Blancas and Taltal in Chile and to the deposits that lay near Antofagasta and Tocopilla in the Bolivian province of Atacama. The economic development of the Bolivian littoral--which was geographically closer to Chile than to Bolivia--was dominated by Chilean capitalists. Thus, while most of the deposits were located in Bolivian territory, the initiative in developing non-Peruvian nitrate deposits came chiefly from Chile. In addition, most of the labor was Chilean. These factors, of course, strengthened the growing sentiment in Chile for annexation of the Bolivian littoral.

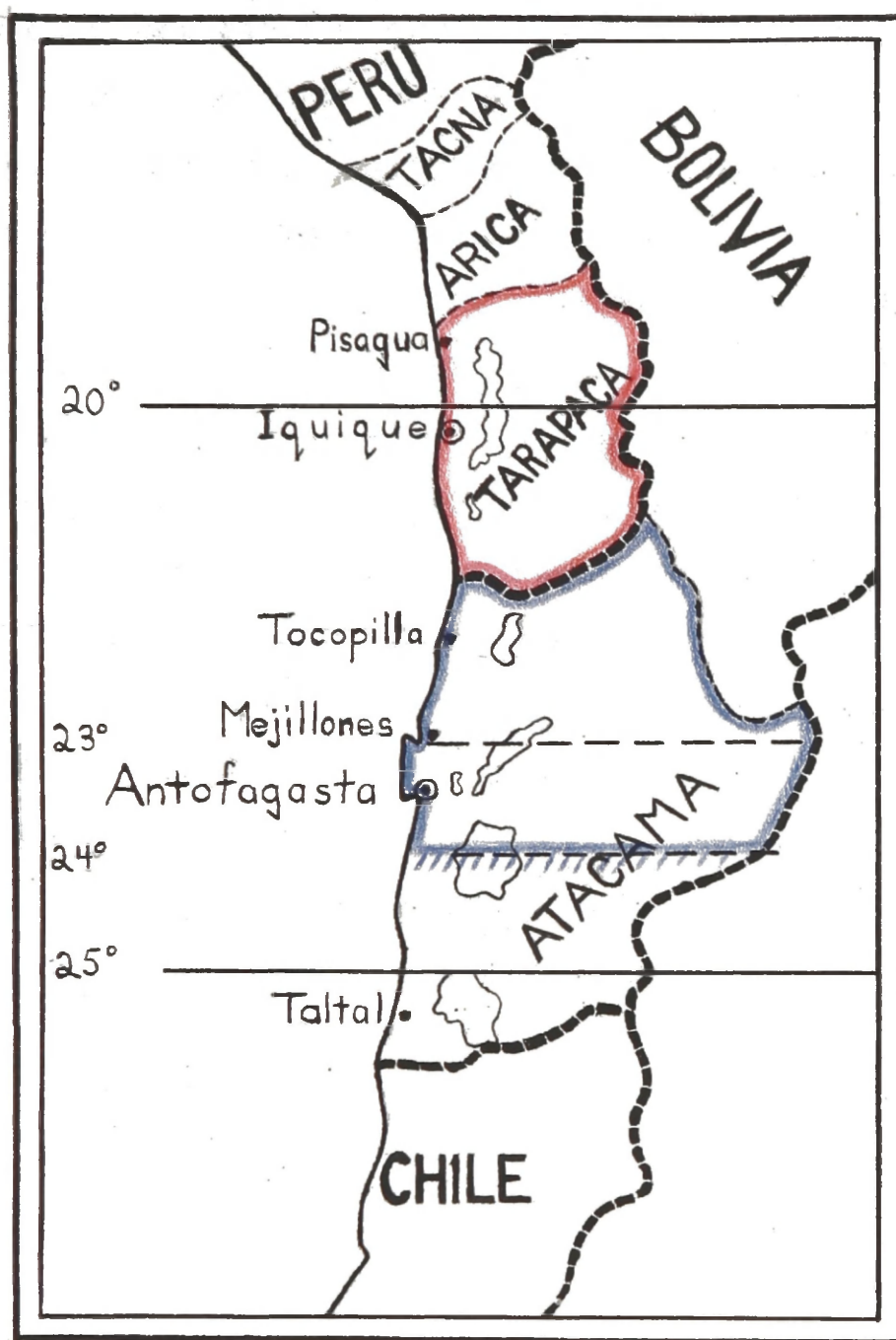
Peru became apprehensive about the growing competition in nitrates and the threat of Chilean control. Her leaders sought to devise ways to overcome these problems. Their concern was solely with the Bolivian beds since deposits in Chile were considered inconsequential at that time. Yet Peruvian attempts to curtail if not control nitrate production in Bolivia were in effect as antagonistic to the interests of Chile as the nationalization laws in Peru had been. Moreover, the process by which Peru hoped to minimize future competition with her monopoly of nitrate is intimately connected with the political and economic relations existing between Chile and Bolivia. Their relations were marked by sharp differences that converged in a boundary dispute, which grew in seriousness from its inception in 1842.





The lack of a clearly defined boundary between Chile and Bolivia provided the occasion for the controversy between these two countries concerning the limits of their respective jurisdictions. Their dispute, however, was not an unusual one. The republics of South America were plagued by boundary problems, most of which were caused by the failure of Spain during the colonial period to define her political jurisdictions. These colonial territorial divisions were accepted informally by the newly independent Spanish-American republics as the basis for their boundaries. Yet in many instances regions situated on the outer edges of Spanish political divisions were thinly settled if at all. Since these regions were unimportant at the time, there was little occasion for the exercise of authority in them and no need of delimiting political jurisdictions precisely. The disputed area falls in this category.³⁰

The boundary controversy provoked by Chile in 1842 constituted an attempt to extend her political limits beyond the line commonly assumed to be her northern boundary and into an area where Bolivian authority had been exercised. According to an official map of the colonial boundary between the province of Potosí (Bolivia) and the Presidencia of Chile, the territory of the latter extended only as far as the Salado River, approximately the twenty-sixth parallel;

³⁰William J. Dennis, Documentary History of the Tacna-Arica Dispute (Iowa City: Published by the University, 1927), University of Iowa Studies in the Social Sciences, VIII, No. 3, p. 30.

The Nitrate Region, 1878



-  Boundary between Chile and Bolivia established by the Treaty of 1874
-  Ceded to Chile by Peru in Treaty of Ancon, 1883
-  Transferred to Chile by Bolivia in Truce of 1884
-  Nitrate Fields

and official and unofficial reports from American and British representatives confirm that Chilean authority extended no farther north than the port of Paposo, on the twenty-fifth parallel.³¹ Because they are so indefinite regarding boundaries, the constitutions of both Chile and Bolivia fail to provide a basis for judgement of the boundary line.³²

Thus, when in 1842 President Manuel Bulnes (with the support of Congress) claimed the twenty-third parallel as the northern boundary of Chile, the northward expansion of that country had taken an important first step. This claim was made with the expectation that guano would be discovered in the region and with the hope of sharing in the wealth and revenues such deposits would produce.³³ But no such development occurred for many years and then only on a small scale.

The Bolivian government consistently rejected Chilean claims, and no actual extension of Chilean authority occurred until 1857. At that time the landing of Chilean forces at Mejillones, just south of the twenty-third parallel,

³¹Ibid., pp. 30, 32-34, 38-40.

³²Ibid., pp. 36-38.

³³Bulnes, Chile and Peru, pp. 2-7; The claim was made shortly after large guano deposits were discovered in Peruvian territory. The text of the presidential message in which the claim was made can be found in Dennis, Tacna-Arica Documents, pp. 41. In this same work, pp. 30-43, the relevant documents pertaining to the boundary dispute are transcribed. They clearly show that the Chilean claim did not rest upon historical precedents.

brought the boundary question to a critical stage. War seemed imminent until the crisis with Spain developed. That crisis, during which both Chile and Bolivia co-operated with Peru against the mother country, drew the two together sufficiently to make possible a partial settlement of the boundary dispute.³⁴ Negotiated as the Treaty of 1866, the agreement established a provisional boundary at the twenty-fourth parallel, provided for the sharing of export duties on guano and minerals in the disputed area, allowed citizens of both countries equal rights to work in the area, and required mutual agreement on the export duties to be levied. In addition, the treaty provided for the establishment of a customs house at Mejillones, north of Antofagasta, to be the only one authorized to receive these duties, and permitted the Chilean officials to oversee the operation of the customs house.³⁵

It soon became apparent that the treaty did not lessen the difficulties. Disagreement arose over the interpretation of the treaty and dissatisfaction with the treaty was widespread in both countries. The occasion for the controversies lay in discoveries of nitrate deposits in the disputed region. The most important discoveries were made north of the provisional boundary in the area around Antofagasta. South of

³⁴Bulnes, Chile and Peru, pp. 8-10.

³⁵Dennis, Tacna-Arica Documents, pp. 49f for the text of the Treaty of 1866.

the boundary nitrate deposits were found in the areas of Taltal and Aguas Blancas, but these were of lesser desirability because of their low-quality caliche and the difficulties encountered in transporting the product to the coast.³⁶

Bolivia regretted the concessions previously granted to Chile and sought to regain complete freedom of action at least in the territory north of the provisional boundary. In order to win independence of action in matters affecting the exploitation of nitrate deposits, Bolivia asserted that nitrate did not come under the provisions of the Treaty of 1866 since it was not classifiable as guano, mineral, or metal.³⁷ These three words were the only ones used to designate the resources coming under treaty regulations; therefore, from a strictly technical point of view the claim was justifiable. However, lack of precision in the use of terms in the treaty permitted Chile to contest the Bolivian interpretation. It was argued that since the words "minerals" and "metals" were used interchangeably, it was unreasonable to exclude nitrate deposits from coming under the stipulations.

A second major controversial question involved the article of the treaty that required the establishment of a Bolivian customs-house at Mejillones and restricted exports to that institution. This limitation would not have

³⁶Bulnes, Chile and Peru, p. 13.

³⁷Ibid., pp. 11ff.

adversely affected the guano trade for which it was designed because no important deposits of guano were discovered in Bolivian territory outside that region. But it did seriously impede the exploitation of nitrate since the natural port for that trade was Antofagasta. Bolivian refusal to establish facilities for collecting customs duties at that port rested upon the strict language of the treaty, yet it naturally appeared to Chile as an unfair and too strict reliance upon treaty terms.

Tension between the two countries over this situation reached alarming heights from 1872 to 1874. What appeared to Chile to be Bolivian violation of the letter and spirit of the treaty was viewed by Bolivians as Chilean expansionism and a threat to continued Bolivian rule in her increasingly valuable coastal region. The interests of Peru, too, were intimately involved in the boundary controversy which occurred at a propitious time for that country. It was to her interests to prevent Chilean expansion northward and to forestall the development of competition with the Peruvian nitrate monopoly. Since Peru and Bolivia both vigorously opposed Chilean expansion, there existed a basis for co-operation between the two.

At the height of the crisis in 1873, Peru and Bolivia signed a secret mutual defense treaty that stiffened Bolivia's attitude and prevented her ratification of an agreement signed with Chile in 1872 designed to resolve the controversy

over the Treaty of 1866.³⁸ The basic aim of Peru was to aid in maintaining the claims of Bolivia and in return for such support to obtain Bolivian co-operation in preserving her own nitrate monopoly. Had the position of Bolivia been successfully maintained, later events indicate that Peru would have received the co-operation she needed. However, the Bolivian determination to oppose Chilean demands quickly weakened. Political instability and the inauguration of a new president, Tomas Frías, who desired a pacific solution to the controversy, were factors that promoted the change in policy.³⁹ But the adamant stand of Chile, reinforced by the arrival of new naval vessels, may well have led Peru and Bolivia to a more careful consideration of the implications of their policy.⁴⁰

Within a few months after the signing of the secret treaty a settlement was reached between Bolivia and Chile. Known as the Treaty of 1874, it was ratified by the Bolivian legislature only after heated debate revealed strong opposition to it. Chilean capital and enterprise in the now

³⁸A description of this controversy may be found in Ibid., pp. 18-20; Dennis, Tacna-Arica Documents, p. 57; For the text of the Treaty of 1873 see Ibid., pp. 57-59.

³⁹Tomas Frías became president of Bolivia in 1874 and served until 1876 when he was overthrown by his Minister of War, Hilarión Daza. Both before he became president and afterwards, Frías served his country as a diplomat.

⁴⁰Dennis, Tacna-Arica Documents, p. 61.

fully recognized Bolivian area north of the twenty-fourth parallel was to be protected from the imposition of additional taxes for a period of twenty-five years. For her part, Chile renounced any claim to share in the custom-house revenues which were made payable at Antofagasta as well as at Mejillones.⁴¹ This treaty gave full satisfaction to Chilean demands.

The strong position maintained by the Chilean government in her controversy with Bolivia was based in large part upon the desire to protect the interest of Chilean nitrate producers in the disputed area. The development had been a rapid one beginning in 1866 with the discovery of nitrate deposits by the Chileans Francisco Puelma and José Santos Ossa.⁴² In the same year the discoverers obtained from Bolivia a concession to work their find, the Salar del Carmen, nine square leagues in extent, in return for building a mole at Antofagasta.⁴³

Based upon their concession, Puelma and Ossa formed the Compañía Explotadora del Desierto de Atacama which in

⁴¹For text of Treaty of 1874 see Ibid., pp. 62f; See also Bulnes, Chile and Peru, pp. 30-36.

⁴²José Santos Ossa played a leading role in the early economic development of northern Chile and the Bolivian littoral. See Samuel Ossa Borne, "Don José Santos Ossa," Revista Chilena de Historia y Geografía, LXIX, 186-214 and LXXII, 176-228.

⁴³Bulnes, Chile and Peru, pp. 36f; Chile, Ministerio de Hacienda, La industria del salitrero de Chile (Santiago: La Nación, 1935), I, 18.

negotiations with Bolivia in 1868 obtained additional concessions. By virtue of this agreement of 1868 the company received the exclusive privilege of working nitrate deposits in Atacama, exemption from taxation for fifteen years, and grants of approximately fifty additional square leagues of land. Their sole obligation was to build a railroad between their lands and Antofagasta some twenty-two leagues away-- which by necessity the company would have built anyway. Shortly afterward, the Compania Explotadora was reorganized with the aid of the great Chilean financial house, El Banco Edwards, and a wealthy English guano and nitrate investment firm, Anthony Gibbs and Company, into Melbourne Clark y Cia.⁴⁴ Realizing the extent of their concession, the new company strove to preserve its privileges in the face of demands by discoverers of new deposits and adverse public opinion in Bolivia. Heavy investments were made by this company yet indefiniteness regarding its privileges mounted.

Political instability in Bolivia prolonged the uncertainty of the company as to the permanence of its privileges. Revolution overthrew the government of the notorious dictator

⁴⁴Ibid.; Bulnes, Chile and Peru, pp. 37f; Melbourne Clark was one of the few Englishmen to work in the nitrate fields of Peru prior to 1865. Anthony Gibbs and Company of London established commercial houses in Peru and Chile in 1826. This company was until 1864 the exclusive agent for Peru in marketing guano. Beginning in 1865, the firm became important as investors and merchants in the nitrate industry.

Melgarejo who had originally granted the concessions.⁴⁵ Several years later in 1872, a new government restricted the company's grants by reducing to fifteen square leagues its territory and by annulling its exclusive privilege. But this action was short lived, for in the following year compensation for rescinded concessions was made by granting the company an additional fifty estacas in the nearby Salinas region and by affirming the fifteen years exemption from taxation. The agreement of 1873 also laid down rules for the operation of the company railroad, for tax exemption on imported railroad equipment, and for the appointment by the company of an agent to reside in Antofagasta. In return the company agreed to pay to Bolivia 2,000 bolivianos annually.⁴⁶

The final status of the company, which had again reorganized as the Compañía de Salitres y Ferrocarril de Antofagasta, gave to it the advantages that its owners felt necessary in order for Bolivian nitrate to compete with the

⁴⁵ Mariano Melgarejo who ruled Bolivia from 1864 to 1871 was, perhaps, the worst ruler that misruled country ever had. In two boundary treaties (one each with Brazil and Chile) he alienated lands over which Bolivian claims were strong, and by debasing the coinage and selling Indian communal lands he disrupted Bolivia's economic life. Vain, bloodthirsty, and debauched in his personal life, he seems to have had no redeeming characteristic.

⁴⁶ Ruiz Bourgeois, Derecho Minero Chileno, p. 321; Bulnes, Chile and Peru, pp. 39-50; Carlos Aldunate Solar, Leyes, Decretos I Documentos Relativos a Salitreras (Santiago: Cervantes, 1907), Bolivian Section, pp. 23-5, 38-41.

more cheaply produced nitrate of Tarapacá.⁴⁷ Although the company eventually fell under the control of its British investors, many prominent Chileans held stock in the enterprise. It has been asserted that these Chileans exerted "an undue influence on the government of Chile," in the company's behalf.⁴⁸

Development of the nitrate deposits in the Antofagasta area and in the Chilean areas of Taltal and Aguas Blancas continued throughout the decade of the seventies.⁴⁹ The major new addition, however, lay north of Antofagasta in the area known as Tocopilla. While Tocopilla was to surpass in production the fields of Tarapacá a half-century later, its development in no way threatened the Peruvian monopoly since it came under Peruvian control. That control was acquired indirectly by an arrangement between Peru and John G. Meiggs.⁵⁰ In 1876, Meiggs leased from Bolivia most of the deposits in Tocopilla, free from taxation, for a monthly rental of 10,000 bolivianos. The contract expressly permitted Meiggs to engage in arrangements with foreigners

⁴⁷Ibid., p. 37.

⁴⁸Dennis, Tacna-Arica Documents, p. 51.

⁴⁹Aldunate Solar, Documentos Relativos a Salitreras, Bolivian Section, p. 25 shows that Bolivia granted other concessions in the Antofagasta area. See also Bulnes, Chile and Peru, pp. 38, 43.

⁵⁰John G. Meiggs was associated with his more famous brother, Henry, in the latter's railroad construction projects in Peru. They were citizens of the United States.

concerning the use of his concession. Within a few months his lease had been transferred to Peru whose policy in regard to these deposits did not, however, prevent some exploitation since portions of the Tocopilla properties were re-leased by that government.⁵¹ But the provision for alienation in the original contract and the rapidity with which Peru obtained control of the deposits show conclusively that Bolivia was a willing partner in Peru's monopolization schemes.

In spite of Peru's efforts during these years her monopoly of nitrate production had not been fully realized. With the failure of Peru and Bolivia to co-operate closely in the period from 1873 to 1874 the expansion by Chilean nitrate interests continued in following years. Later in the decade when the irresponsible Bolivian, Hilarion Daza, acquired dictatorial power, Peru was afforded another opportunity to gain support from Bolivia.⁵² Daza's pronounced anti-Chilean attitude, his need for immediate revenues, and Chilean involvement in a boundary dispute with Argentina were circumstances that augured well for a successful move designed to reduce and perhaps eventually eliminate competition from nitrates produced by Chileans. Thus, with the

⁵¹Aldunate Solar, Documentos Relativos a Salitreras, Bolivian Section, pp. 93f; Ruiz Bourgeois, Derecho Minero Chileno, p. 323.

⁵²Hilarion Daza stands next to Melgarejo as Bolivia's worst ruler. Almost as intemperate as his predecessor, his stubborn and blundering diplomacy precipitated the War of the Pacific. As a result, Bolivia lost not only her portion of the nitrate region but also her only outlet to the sea.

assurance that if needed, Peruvian support would be available, Daza decreed on February 14, 1878, the imposition of a tax of ten centavos on each quintal of nitrate shipped from Bolivian ports.⁵³

This was a conscious and premeditated violation of the Treaty of 1874 which mainly affected the privileges of the Antofagasta Nitrate and Railway Company. The agent of this company, George Hicks, protested the action and refused to pay the tax, while the owners exerted their influence to obtain diplomatic support from Chile.⁵⁴ That government willingly and vigorously supported the position of the company, but these efforts were to no avail. For almost a year the controversy raged, operations of the company ceased, and the agent fled Antofagasta to avoid arrest. Bolivia declared the company's concessions null and void, confiscated its property, and announced an auction of them on the grounds of non-payment of taxes. However, on the day designated for the auction naval forces of Chile took possession of Antofagasta.⁵⁵ This measure, deemed necessary to protect Chilean

⁵³Ruiz Bourgeois, Derecho Minero Chileno, p. 322; Aldunate Solar, Documentos Relativos a Salitreras, Bolivian Section, p. 48.

⁵⁴The agent, George Hicks, was later associated with the important English nitrate investor, John Thomas North. See William H. Russell, A Visit to Chile and the Nitrate Fields of Tarapacá (London: J. S. Virtue & Co., 1890), p. 47.

⁵⁵Aldunate Solar, Documentos Relativos a Salitreras, Bolivian Section, p. 48; Bulnes, Chile and Peru, pp. 104-106.

interests, was later regarded by a renowned Chilean historian as warranted since Chile's "legitimate economic expansion was being checked in a shameful and humiliating manner."⁵⁶

Actually, the Peruvian government was reluctant to participate in hostilities because both its army and navy were in a state of unpreparedness. Her efforts to mediate the differences between Chile and Bolivia not only proved fruitless, but also revealed a hostile attitude in Chile toward Peru. Both of these factors along with the war sentiment in Peru and the obligations of the secret alliance made the early entrance of Peru into the conflict unavoidable.⁵⁷

Even though the war lasted for four years, a victory for Chile was made certain in half that time. The landing of Chilean troops in Antofagasta was followed by the complete acquisition of the Bolivian littoral. By the end of the year 1879, the seas had been swept clear of the Peruvian navy and the flag of Chile waved over the nitrate province of Tarapacá. Decisive Chilean victories over the allied armies in 1880 and early in 1881 brought to an end active Bolivian participation in the war and brought about Chilean control of a large part of Peru, including Lima. Even though desultory fighting in Peru continued, the supremacy of Chile on

⁵⁶ Luis Galdames, A History of Chile, Trans. and Ed. by I. J. Cox (Chapel Hill: Univ. of North Carolina Press, 1941), p. 325.

⁵⁷ Ibid., p. 326; Wiesse, Perú, pp. 102ff.

the west coast was assured.⁵⁸

Chilean war aims were not clear-cut at the outset of the war; however, as the dominance of Chilean arms became apparent, her terms of peace became more stringent. At first, Chile demanded the annexation of the Bolivian littoral and an indemnity from Peru for the restoration of peace.⁵⁹ With her occupation of the coastal province, Chile sought to assure the defeat of Peru by breaking the alliance of 1873. To accomplish this design Chile proposed Bolivian acceptance of territory from the Peruvian coastal area to compensate for her lost littoral if Bolivia would denounce her ally and join with Chile in fighting Peru.⁶⁰

The first indication of this design came in April, 1879, and an official proposal followed in May.⁶¹ However, it was rejected by the Bolivian president Hilarión Daza. Still, Chilean leaders continued to discuss among themselves the advisability of establishing a Bolivian corridor out of Peruvian territory north of Tarapacá. Besides providing compensation to Bolivia, the security of Chile would be

⁵⁸Galdames, History of Chile, pp. 327-335.

⁵⁹See the "Chilean War Circular," in Dennis, Tacna-Arica Documents, pp. 83ff, and "Opinion of Minister Osborn on Chilean Objectives in the War," on p. 83.

⁶⁰Ibid., pp. 81ff.

⁶¹Ibid., pp. 102f.

strengthened by a third power lying between herself and Peru.⁶²

The attitude of Chile in favoring the acquisition of territory north of Tarapacá by Bolivia indicates her intention of annexing Tarapacá. The proposal of May, 1879, did not specify annexation; however, that was strongly hinted at by the inclusion of an article requiring the nitrate works as a guarantee for Peruvian indemnity. But it was not long before Chilean views crystallized on this matter. A letter written by Chilean Minister José Santa María on November 20, 1879, when Peruvian forces were being expelled from the nitrate province states: "We can say that Tarapacá is ours." After discussing the military situation he more pointedly declared, "We...are owners of Tarapacá."⁶³ By the middle of 1880, annexation had definitely become one of the major war aims of Chile.⁶⁴ Actually, the failure of the mediation efforts of the United States in the fall of 1880 can be attributed to Chile's determination to retain the nitrate province and Peru's refusal to treat on this basis.⁶⁵

⁶²Ibid., pp. 138f.

⁶³Ibid., p. 117f.

⁶⁴Herbert Millington, American Diplomacy and the War of the Pacific (New York: Columbia Univ. Press, 1948), p. 71.

⁶⁵Ibid., pp. 71ff; Senate Documents, 47th Congress, 1st Session, IV, Doc. No. 79, pp. 406-418. Millington's account is a thorough study and presents an authoritative account of the role of the United States in the War of the Pacific.

Later on, Chilean war aims expanded to include the annexation of the territory beyond the nitrate province known as Arica and Tacna. Not only did Chile want to establish a buffer region between herself and Peru but she hoped to find additional sources of nitrate in this area. This extension created a serious diplomatic problem which was to plague the Americas for the next fifty years.⁶⁶

In large measure the fate of Tarapacá determined the future economic status of both Chile and Peru. Loss of the province by Peru seriously impaired her public finances already damaged by the decline of the guano industry. Faced with an immense foreign debt contracted in the Guano Age, Peru's ability to satisfy her obligations rested upon the growth of revenues derived from the developing nitrate industry.⁶⁷

Chile, on the other hand, had experienced a serious depression during the decade of the 1870's. As a result of the acquisition of the Tarapacá nitrate fields, these difficulties were overcome.⁶⁸ In this respect, the significance of the War of the Pacific has been stated as follows:

The victor would gain a source of revenue that insured a steady income to its government, and thus taxes would be reduced; the loser would

⁶⁶For a summary of the controversy see Dennis, Tacna-Arica Documents, pp. 11-29.

⁶⁷Millington, American Diplomacy, p. 9.

⁶⁸Galdames, History of Chile, pp. 319-321.

be forced to seek other measures for raising money and would remain a poor country.⁶⁹

Not only was the disposition of Tarapacá of importance to the warring states; foreigners also had an interest in the matter. Because the economic interests of North Americans in Peru and Chile were slight, the welfare of capitalists of the United States was not seriously affected by the war or its outcome. European interests, however, had significant holdings in these countries. These foreigners were represented mainly by Peruvian bondholders; and nitrate certificate holders, although not nearly so important financially, constituted another category whose interests were at stake in the conflict.⁷⁰ European interests can be classified in the order of their importance as British, French, and German. They, along with several groups in the United States, attempted to influence the decision regarding the fate of Tarapacá.

The loss by Peru of the nitrate province would make the redemption of Peruvian bonds difficult, if not impossible, for Europeans. That is, unless Chile accepted responsibility for the bonds along with the province. But Chile persistently refused to accept responsibility.⁷¹ Thus, many

⁶⁹Henry C. Evans, Chile and Its Relations with the United States (Durham: Duke Univ. Press, 1927), p. 97.

⁷⁰Ibid., p. 100; Millington, American Diplomacy, pp. 33, 57.

⁷¹Sen. Docs., 47th Congress, 1st Session, IV, Doc. No. 79, pp. 148f.

bondholders, particularly the French, tried to prevent Chilean annexation of Tarapacá. They formed an organization for the specific purpose of forestalling annexation by the neutralization of Tarapaca under the protection of the United States. Called the Crédit Industriel, the group devised a plan which they claimed would protect the interests of the warring states and the creditors of Peru.⁷² Their scheme involved the creation of a monopoly for the sale of guano and nitrate which it would operate. The profits derived from the monopoly would be used to redeem both the Peruvian bonds and the nitrate certificates, and to provide annual payments to Chile as well as to Peru. The proponents of this plan reasoned that the distribution of nitrate profits in the manner described above would satisfy the legitimate demands of all interested parties.

The promoters of the Crédit Industriel realized that Chile would oppose their scheme and that its acceptance could be achieved only by the intervention of the United States. Since the North American republic was apparently sympathetic toward the cause of Peru, the Crédit Industriel held high hopes of obtaining her co-operation. Nevertheless, efforts made by agents of the company to gain the support of the United States for their plan were unsuccessful.⁷³

⁷²Ibid., pp. 450-452.

⁷³Millington, American Diplomacy, pp. 97ff.

The failure of the scheme of the Crédit Industriel was due in part to lack of support from the United States. Other factors which contributed to its downfall were opposition from British bondholders and the government of Chile.⁷⁴ Furthermore, President Piérola of Peru, who succeeded Mariano Prado, reversed the policy of his predecessor and vigorously opposed the scheme of the organization.⁷⁵

British bondholders followed a more practical course of action. They entered into agreements with the Chilean government, who controlled the guano deposits during the war, that permitted a portion of the profits made from guano shipments to be paid to the bondholders.⁷⁶ Early in 1880, the Chilean Minister of Public Works noted that the creditors of Peru (probably including the nitrate certificate holders as well as the bondholders) "have been a powerful lever in Europe to prevent the Peruvians from securing war elements and to create for us a beneficent atmosphere in the opinion of those peoples . . ."⁷⁷ He referred to a meeting of these creditors which supported "the annexing of Tarapacá by Chile,"

⁷⁴Sen. Docs., 47th Congress, 1st Sess., IV, Doc. No. 79, pp. 700f.

⁷⁵Ibid., pp. 342-344; Dennis, Tacna-Arica Documents, pp. 131f.

⁷⁶Ibid., p. 160; Millington, American Diplomacy, p. 47.

⁷⁷Ibid., p. 47.

and the reference undoubtedly referred to a meeting held by British creditors in London early in 1880.⁷⁸

The foreigners among the nitrate certificate holders wished to recover their properties or were apprehensive about receiving payment for their securities from the Peruvian government. These dispossessed owners included, in the main, Chileans and English although some German and French interests were represented. While they did not agree as to the best course of action for the protection of their interests, some of them apparently favored Chilean acquisition of Tarapacá. Probably they felt a greater confidence in the ability of Chile to make the payments on the certificates or else hoped that the industry would be returned to private enterprise by that country.⁷⁹

The English comprised the largest group of Peruvian creditors. Early in the war Chileans became fearful lest the English government intervene to protect her investors from severe losses when it was declared in Parliament that British interests would be protected. However, the United States Minister in Santiago reported that he had been assured by the British Minister that the policy meant only to provide what was considered normal protection.⁸⁰ American

⁷⁸Dennis, Tacna-Arica Documents, pp. 133f.

⁷⁹Ibid., p. 64.

⁸⁰Sen. Docs., 47th Cong., 1st Sess., IV, Doc. No. 79, pp. 87f.

diplomats believed England, France, and probably Germany favored Chilean annexation of Tarapacá.⁸¹ However, the possibility that these countries were responsible for Chilean annexation is slight. The commercial interests of England probably inclined her toward a policy favorable to Chile; yet the interests of British bondholders were allied with the fortunes of Peru. The French interests were similarly situated. French bondholders actively attempted to promote the cause of Peru, whereas those who owned nitrate certificates might well have been in the group desiring the transfer of Tarapacá to Chile.

American economic interests uniformly favored the frustration of Chilean expansion during the War of the Pacific. Some support from capitalists of the United States had been given to the scheme of the Crédit Industriel, and two other groups requested help from the State Department during the war in an effort to make good their claims against Peru.⁸² One of these was the notorious Peruvian Company. Its interest was based upon an early guano claim of Alexander Cochet which had been determined by congress in 1861 to be "without foundation."⁸³ A second was the claim of J. T. Landreau.⁸⁴ Both of these claims were originally of French

⁸¹Ibid., pp. 424f.

⁸²Millington, American Diplomacy, pp. 98f.

⁸³Ibid., p. 106.

⁸⁴Ibid., pp. 111f.

origin, and their importance in determining the issue of the cessation of Tarapacá lay in the damage they did to American diplomatic efforts to mediate the quarrel.⁸⁵

The ratification of the Treaty of Ancón by Peru and Chile in 1883, and the signing of the Truce Pact between Chile and Bolivia early in 1884 brought the War of the Pacific to a close.⁸⁶ As a result of these agreements, Chile gained possession of the entire nitrate region. While title to Tarapacá was accorded Chile at Ancón, Bolivia steadfastly refused to cede her littoral permanently. To Bolivia access to the Pacific Ocean was a necessity, and her government was willing to grant Chile title to the Antofagasta region only if another outlet was provided. In 1895, Chile formally recognized Bolivia's right to an outlet, but it was not until 1904 that the two countries agreed upon details. Only then did Bolivia surrender to Chile her title to the coastal province.⁸⁷ The heritage of the War of the Pacific, however,

⁸⁵Ibid., p. 142.

⁸⁶Dennis, Tacna-Arica Documents, pp. 221-227 gives the text of the two agreements.

⁸⁷Ibid., p. 232.

continued to disturb relations between Chile and her former opponents.⁸⁸

⁸⁸Since 1904, Bolivia has kept alive her aspirations for a corridor to the Pacific Ocean. Peru and Chile were involved in a serious dispute until 1929 over the provinces of Tacna and Arica. Although the Treaty of Ancón had left Chile in temporary possession of both areas, provision was made for a plebiscite to be held in 1894. Disagreement over the method of conducting the plebiscite prevented it from being held. The dispute continued until 1929 when a settlement was reached. As a result of the treaty ratified in that year, Peru regained the province of Tacna and Chile kept Arica.

CHAPTER II

THE DEVELOPMENT OF A CHILEAN NITRATE POLICY

Prior to the War of the Pacific, the nitrate policy of Chile was designed to promote the rapid exploitation of the deposits under her control and to create conditions that would allow those deposits to produce in competition with the more favorably situated producers in Bolivia and Peru. Because of that aim no taxes were imposed on the industry. This policy, formulated in full with the issuance of the last of a series of decrees on July 28, 1877, facilitated the acquisition of nitrate deposits by Chilean capitalists.¹ Discoverers of deposits were permitted to lay claim to lands up to three hundred hectares in extent, but each new claim had to be located at least ten kilometers distant from any previously existing claim. The decree also stipulated that if within one year the recipient gave evidence that the deposits were being worked he was to receive final title to the property. This requirement could be fulfilled by proving the existence of nitrate producing equipment on the

¹Ibañez, Minas i Salitreras, pp. 168-170, 175; Aldunate Solar, Documentos Relativos a Salitreras, Chilean Section, No. 2, pp. 45, 53f; Billinghamurst, Leyislación sobre salitre, pp. 397-399, 419; Semper and Michels, Industria del Salitre, pp. 128, 130.

property or the achievement of a production rate of one hundred metric quintals per month. To the last mentioned requirement an exception was made in 1881. Producers in Taltal and Aguas Blancas were relieved from fulfilling that condition because lack of rail transportation in the region hindered rapid development of the deposits. Finally, the decree stated that the Intendent in each province was empowered to administer the provisions of the decree and to grant a six months extension of the production rule in the event special circumstances warranted the privilege. But in spite of Chile's liberal policy, her nitrate fields did not give serious competition to the older Bolivian and Peruvian fields.

When Chilean authorities acquired control of the Bolivian and Peruvian nitrate fields late in the year 1879, the status of the industry and the relation of Chile to it were completely altered. The new situation required a thorough revision of the nitrate policy of Chile; however, for many months no steps in this direction were or could be taken because of the indefiniteness of her control and her preoccupation with military affairs. Then too, when Tarapacá was occupied Chilean authorities were baffled by the complex arrangements Peru had established in the prosecution of her scheme of monopolization.²

At first the transfer of the province to Chile

²Valdés Vergara, Administración de Tarapacá, p. 12.



resulted in a sharp drop in production. This occurred because most operators feared that should they continue operations under Chilean rule, Peru would institute reprisals if she regained control of the province. Their apprehension was justified, since on December 6, 1879, a decree promulgated by the Peruvian government prohibited shipments of nitrate from Tarapacá and warned that fines would be imposed on violators of this directive. Others, whose sympathies were with Peru, hesitated to aid the war effort of Chile.³ On November 24, 1879, the Chilean Minister of War attempted to allay the feeling of insecurity among nitrate producers of Tarapacá.⁴ He stated that both commerce and industry would be given every encouragement and that property owners would receive protection in the enjoyment of their rights. But the statement was too general to achieve its purpose. While it did mark the initial statement of the intentions of the Chilean government, actually, Chile was not in a position to announce a settled nitrate policy. Without one, of course, she could not gain the confidence of the producers. Moreover, the war was still being fought; and although Chile was in control in 1879, the final status of the nitrate region remained doubtful.

³Billinghurst, Legislación sobre salitre, pp. 255f; Daniel Martner, Estudio de política comercial chilena e historia económica nacional (Santiago: Universitaria, 1923), II, 384; Millington, American Diplomacy, pp. 46f.

⁴Billinghurst, Legislación sobre salitre, pp. 241f.

Meanwhile, Chile hoped to obtain revenues from the export of nitrate from Tarapacá to aid in financing the war. She sought to stimulate exports by granting permission for private export with the payment of a tax of \$1.50 per Spanish quintal (\$3.26 per metric quintal).⁵ However, producers failed to respond to the opportunity for the reasons previously cited or because they thought the tax might soon be reduced.⁶ Failing in her effort to gain revenues in this manner, Chile deemed it necessary to revert to the Peruvian policy of selling nitrate on the government's account. A decree issued in February, 1880, directed all who had contracted to deliver specified quantities of nitrate to Peru to fulfill their obligations by delivering their quotas to Chilean authorities.⁷ While this arrangement brought almost three million pesos to the Chilean treasury and government sales of nitrate exceeded all other sales for the year 1880, the policy proved to be temporary.⁸

Since Chile now occupied militarily and later annexed the entire nitrate producing region, she had it in her power to achieve the monopoly Peru had tried so long to establish.

⁵Ibid., p. 242.

⁶See the letter written by Augusto Matte, Chilean Minister of Public Works, dated Feb. 6, 1880 in Dennis, Tacna-Arica Documents, pp. 133f.

⁷Valdés Vergara, Administración de Tarapacá, p. 4; Billinghamst, Legislación sobre salitre, p. 247.

⁸Ibid., pp. 247ff, 269.

However, she did not do so. It was not until later that many Chileans had cause to regret the decision--made in 1881--to discontinue the Peruvian policy. Discontinuance, when it was instituted, seemed necessary for several reasons: tremendous war expenditures made expropriation appear to be a financial impossibility; heavy demands placed upon officials in the prosecution of the war made administration difficult; and the Chilean government was disposed to give her influential entrepreneurs the opportunity to manage the industry.⁹

Realizing the advantages as well as the necessity of forming a concrete nitrate policy, the government initiated studies and surveys in an attempt to discover the proper path to follow. In January, 1880, the first Comisión Consultiva de Salitre was appointed to review conditions in the nitrate fields and to offer recommendations. This committee worked for several months collecting data, hearing testimony, and touring the northern provinces, before presenting its findings to the legislature.¹⁰ It made two major recommendations: first, to return the control of nitrate properties and commerce to the system of private enterprise; and secondly, to obtain a share of nitrate revenues for the public by the imposition of an export tax which it recommended to be \$2.20 per metric quintal.¹¹

⁹Martner, Política comercial chilena, II, 384-88.

¹⁰Billinghamurst, Legislación sobre salitre, pp. 265, 432.

¹¹Ibid., pp. 272-276.

The report of the first Comisión Consultiva met with a varied reception. Producers accepted both proposals in principle, yet displayed considerable opposition to the high rate at which the tax had been set. On the other hand, the administration of President Pinto refused to commit itself to return the industry to a system of private enterprise, although it strongly supported the tax recommendation.¹²

Since the initiative in the implementation of these proposals lay with the government and because the Pinto administration was chiefly interested in acquiring additional revenues, the tax on nitrate exports became the focus of controversy. It was the amount of the tax and not the tax per se that provoked outspoken opinions on the subject in the Chilean press and caused heated debates in the legislature where the issue was finally decided. Producers in the nitrate fields of Antofagasta, Aguas Blancas, and Taltal raised vigorous objections to the imposition of a duty that would apply to them equally with the producers in Tarapacá. An Antofagasta newspaper that voiced the opinions of nitrate producers outside of Tarapacá published numerous petitions objecting to the proposed duty. In an editorial severely critical of the tax recommendation, it asserted that such a

¹²Ánibal Pinto (1825-1884), Chilean diplomat and man of letters, entered political life in 1862 and rose to importance as Minister of War in the administration of President Errázuriz. Elected to the presidency in 1876, Pinto's term of office was marked by serious financial difficulties and the momentous War of the Pacific. See Galdames, History of Chile, p. 506.

proposal could be made only by a government that did not understand the status of the industry.¹³ In all probability producers in Tarapacá and nitrate merchants in Valparaíso held similar views.¹⁴ Producers in Tarapacá, who believed the existing tax of \$3.26 to be exorbitant, opposed the levy too; and the nitrate trading firms feared an excessive tax would lessen commerce in nitrate and thus reduce their profit. Even though such strong opposition to the tax was manifested, the view of the administration, at first, remained unchanged. It upheld the level of the impost as reasonable, and in an attempt to justify it the Finance Minister declared that the \$2.20 rate was requested in the interest of the war effort.¹⁵

It proved to be a difficult task for the government to resolve the differences that had developed over the amount of the export tax. Nitrate interests received effective support in the legislature where opposition to the tax recommendation was strong.¹⁶ An effort by the president to conciliate the opposition by proposing a reduction to \$2.00 failed, and the most the executive could obtain from the legislature was authorization to impose a tax of \$1.60 silver.

¹³El Pueblo Chileno (Antofagasta), May 19, 1880.

¹⁴This trend of thought is illustrated by quotations from the Chilean Times (Valparaíso) and El Comercio de Valparaíso published in El Pueblo Chileno, May 17, 1880.

¹⁵Billinghamst, Legislación sobre salitre, pp. 282f.

¹⁶Ibid., pp. 279-281.

This law, passed on October 1, 1880, did not automatically apply to Tarapacá. Until 1884, the authority of the Chilean legislature did not legally extend to that region since Chile did not have formal possession. There the tax was placed into operation by presidential decree.¹⁷

The report of the first Comisión Consultiva and the legislative action based upon it left pending vexing problems that required additional consideration by the government. Even the tax law of 1880 was not accepted as final by producers who still hoped for a reduction; thus, there existed a need for further study of the nitrate situation. For that purpose a second Comisión Consultiva was created on April 9, 1881.¹⁸ The new commission was especially charged with the consideration of how to bring Chilean policy into harmony with the concessions made in the nitrate regions when Bolivia and Peru had been in control. This involved a study of the obligations Chile should accept arising from Peru's expropriation policy. The agenda also provided for a reconsideration of the question of taxes.¹⁹

Apparently, the deliberations of this committee were not as extended as were those of its predecessor, yet its

¹⁷Ibid., pp. 279-286, 292, 296; Aldunate Solar, Documentos Relativos a Salitreras, Chilean Section, p. 71.

¹⁸Chile, Ministerio de Hacienda, La industria salitrera (Santiago: La Nación, 1935), I, 20.

¹⁹Billinghamst, Legislación sobre salitre, pp. 416, 421.

major recommendations received the immediate approval of the government. To the disappointment of many the committee recommended the retention of the same nitrate tax. Those who disliked that provision, however, could certainly give their approval to the other recommendation made: the return of full title to the nitrate properties to certificate holders. In decrees issued in 1881, this policy was announced; and the procedure to be employed in the transfer was outlined.

The most important of these decrees was issued on June 6, 1881.²⁰ It announced that nitrate certificates issued by Peru would be recognized as valid obligations by the Chilean government. It also provided that properties in Tarapacá would be returned when seventy-five per cent or more of their certificates and the remainder in cash were deposited with the government. The cash deposit would be refunded if the outstanding certificates were brought in within ninety days. Three months later, the seventy-five per cent requirement was lowered to fifty per cent. The Decree of March 28, 1882, initiated the policy of accepting certificates for nitrate properties, with the previously outlined procedures in effect. By the end of 1882, certificates amounting to \$8,787,155 and representing fifty-seven separate establishments had been redeemed.²¹ Although extension of the

²⁰Aldunate Solar, Documentos Relativos a Salitreras, Peruvian Section, pp. 75-77.

²¹Valdés Vergara, Administración de Tarapacá, pp. 9-12; Ruiz Bourgeois, Derecho Minero Chileno, II, 321f.

redemption decree of 1882 had not been planned, the provision was revived again in 1886.²²

In the following year, 1887, a fairly successful attempt to call in all outstanding certificates was undertaken. It began with the cancellation of the privilege to redeem certificates and the enactment of a law providing for the buying of certificates by the state at the rate of £ 105 for a certificate originally valued at one thousand soles--the equivalent of £ 183.²³ To obtain funds to carry through the plan a foreign loan to be no larger than £ 1,113,781 was authorized. The retiring of certificates began in July, 1887 and was completed by the end of the following year. Seventy-one oficinas with a value of 10,450,623 soles (£ 1,097,250) were acquired by the state in this transaction. Owners of certificates representing eighteen oficinas refused to sell under the terms of this arrangement, and the government declared their rights void.²⁴ Nevertheless, holders of these

²²Aldunate Solar, Documentos Relativos a Salitreras, Peruvian Section, p. 91.

²³This arrangement was made with the government of Italy in a protocol signed on Feb. 15, 1887. Other countries followed suit and obligated themselves not to support contrary claims of their citizens. See Great Britain, British and Foreign State Papers, LXXXII, 1290f.

²⁴Aldunate Solar, Documentos Relativos a Salitreras, Peruvian Section, pp. 97-99, 102. A table giving the statistics of this transaction appears on pp. 103ff.

certificates were allowed to redeem them beginning in 1892.²⁵

The return of the nitrate industry of Tarapacá to private enterprise had been rapidly completed. Yet in the process the government had managed successfully to preserve for itself large parcels of nitrate property. Consequently, in future years, it was able to gain larger revenues from the sale of the lands and to exert a greater influence on the development of the industry by the manner of their disposition. The calling in of nitrate certificates in 1887 preserved to a great degree this power of the government.²⁶

Even before the process of redeeming certificates was finished, Chile's taxation policy had been established. Her policy in this regard was quite different from that of her predecessors, because in none of the nitrate fields did export taxes serve as a major source of public revenue prior to the War of the Pacific. In Tarapacá, until the policy of monopolization was inaugurated in 1873, Peru allowed free exportation. Thereafter, export taxes were imposed; yet they were secondary in importance from the standpoint that they operated as either supplementary income to the monopolization of sales policy or as a means of promoting the accomplishment of

²⁵Ibañez, Minas i Salitreras, p. 251. In all probability this action by the Chilean government constituted a reward to the foreign holders of these certificates who supported the revolution of 1891.

²⁶This action was taken by President Balmaceda. For further information on his nitrate policy see Chapter VIII, pp. 212ff.

complete state ownership. Beginning at the nominal level of S 0.04 per Spanish quintal, the tax was raised by a series of increases in 1876 to S 1.14 (fifty pennies) and again in 1878 to S 3.00. These raises were especially designed to make private sales impossible and thus to force those who had not already done so to exchange ownership of their properties for nitrate certificates.²⁷ The tax was bringing results by the time the war started.

Nitrate production in Bolivian territory was still in its early stages of development during the decade of the seventies. While Bolivia had granted tax exemptions to the first enterprisers in the fields near Antofagasta, that generosity would surely have ended within a few years had not treaty agreements with Chile forbid taxation of producers in that region.²⁸ The protection of the privileges given the Antofagasta nitrate producers by the Chilean government prevented Bolivian taxation in that field. In the second major Bolivian nitrate field, the district of Tocopilla, Chileans possessed no special privileges. But the decision to give Peru control over the deposits led to the adoption of the rental procedure whereby Bolivia assured herself of a fixed income regardless of whether Peru worked the deposits

²⁷Miguel Cruchaga, Estudio sobre La Organización Económica i la Hacienda Pública de Chile (Santiago: Gutenberg, 1880), II Appendix No. 2, p. 13.

²⁸Actually, a tax imposed by Bolivia led to the War of the Pacific.

or not.²⁹

Chilean policy changed from what it had been prior to 1879 and was gradually re-oriented toward an export tax basis as a result of new conditions created during the war. When nitrate was discovered in her fields in Taltal and Aguas Blancas in 1872, the Chilean government recognized that producers in these regions could not pay an impost and still compete successfully with the richer deposits of Tarapacá. But during the war need for additional revenues led to passage of the Law of September 11, 1879 which imposed an export duty on nitrate of forty centavos per metric quintal.³⁰ This tax was applicable only in the fields of Taltal and Aguas Blancas, which lay south of the twenty-fourth parallel, and the deposits in Antofagasta as far north as the twenty-third parallel. This latter area included the portion of the Bolivian littoral that Chile incorporated at the beginning of the war. The law, however, granted a two year exemption to producers in Taltal and Aguas Blancas because the lack of railway facilities handicapped the marketing of their product.³¹ When

²⁹Cruchaga, Estudio Económica de Chile, II, Appendix No. 2, p. 13; Semper and Michels, Industria del salitre, p. 123.

³⁰Billinghurst, Legislación sobre salitre, p. 302.

³¹Aldunate Solar, Documentos Relativos a Salitreras, Chilean Section, pp. 53f.

the tax was increased a year later and made theoretically uniform in all areas under Chilean control, the full exemption was reduced to fifty per cent and the privilege was extended to June 30, 1883.³² The exemption was granted because the producers in Taltal and Aguas Blancas were Chileans who originally had been encouraged by the government to develop those fields. Nevertheless, the government showed no disposition whatever to continue the policy when the privilege expired. As a result, operations in both fields ceased; for without railway facilities, competition on an equal basis with producers in Tarapacá was impossible. Producers in Aguas Blancas and Taltal protested the change in policy, but their efforts were in vain.³³

The immediate imposition of a tax by Chile which in effect was paid mainly by the Antofagasta Nitrate and Railway Company shows that Chile did not consider the tax exemption privilege previously enjoyed by that company necessary to promote the development of the Antofagasta fields during the latter part of the 1870's. Moreover, the Chilean action placed her government in the position of fighting a war to protect a privilege that she herself had rescinded even before the war was concluded.³⁴ Recognizing that this charge could

³²Ibid., pp. 65, 71, 75, 77, 101; Ibañez, Minas i Salitreras, p. 257.

³³Semper and Michels, Industria del salitre, pp. 314ff.

³⁴Of course, Chile was not legally prohibited from levying a tax on the Antofagasta nitrate producers.

be levied against her, the Chilean government maintained that it was the principle involved and the ultimate motives behind the Bolivian taxation that impelled her annexation of Antofagasta.³⁵ Nevertheless, under Chilean rule heavy taxation--such as the Chileans had feared Bolivia would impose--became both characteristic and permanent.

As has been noted, the forty centavo tax levied on the southern nitrate districts was not applied in Tarapacá. Instead, in the latter district a much higher tax of \$1.50 was imposed in 1879.³⁶ The tax in Tarapacá, until equalization occurred in the fall of 1880, amounted to \$3.26 per metric quintal. This was a level some eight times greater than the tax in Chilean territory but only slightly less than half as great as the Peruvian duty of 1878.

Admittedly, the Peruvian tax had been prohibitive, but the Chilean rate was not. Although that rate was changed to \$1.60 silver in 1880, producers in Tarapacá were still not satisfied; however, their ability to produce nitrate at a good profit remained undiminished as proved by the great expansion of the industry in following decades. The tax of 1880 was retained into the twentieth century and was paid throughout its period of effectiveness at the rate of exchange prevailing when imposed--thirty-eight pennies. An important modification in the procedure of paying the tax was made in

³⁵See the Chilean War Circular of April 12, 1879 printed in Dennis, Tacna-Arica Documents, pp. 83ff.

³⁶Billinghurst, Los capitales salitreros, p. 242.

1892 when the regulation requiring thirty per cent of the tax to be paid in sterling became effective; no modification was made in the ratio of exchange.³⁷

The nitrate tax was recognized by the government and considered by individual producers to be at a high level, but not until the nineties was considerable pressure exerted by producers to bring about a reduction. This pressure coincided with the deepest depression yet to be experienced by the nitrate industry and led producers to blame the high export tax for their ills. Yet in no way did the government seriously consider lowering the tax. It parried such demands by arguments to the effect that tax reduction would benefit consumers, not producers, and that recognition of the value of nitrate as a fertilizer, not the price, governed its use.³⁸

So important had the nitrate tax become in providing the government with revenues that reluctance to alter the tax is understandable. As early as 1880, twenty-one per cent of Chile's revenues were derived from that tax or from government sales of nitrate. The proportion increased in following years becoming twenty-five per cent in 1883, forty-eight per cent in 1890, and thereafter declining slightly to thirty-eight per cent in 1901. After 1901, nitrate revenues continued

³⁷Martner, Política comercial chilena, II, pp. 388, 437, 493f.

³⁸Chile, Delegación Fiscal de Salitreras y Guaneras, Memoria del Delegado en 1897 (Santiago: Nacional, 1897), pp. 29f.

to account for more than one-third of the total revenues of Chile.³⁹

Table I
The Nitrate Revenues of Chile, 1880-1909^a

Year	Amount	Year	Amount
1880	\$ 7,641,000	1895	\$41,253,000
1881	12,105,000	1896	37,748,000
1882	16,541,000	1897	35,750,000
1883	19,767,000	1898	43,747,000
1884	18,917,000	1899	46,670,000
1885	14,523,000	1900	49,551,000
1886	15,305,000	1901	43,671,000
1887	24,093,000	1902	44,977,000
1888	26,508,000	1903	49,090,000
1889	31,144,000	1904	50,236,000
1890	34,690,000	1905	56,415,000
1891	30,142,000	1906	59,722,000
1892	26,969,000	1907	55,760,000
1893	32,011,000	1908	68,740,000
1894	36,550,000	1909	71,325,000

^aFrancisco Valdés Vergara, Problemas económicos de Chile (Valparaíso: Universo, 1913), p. 347. Computations are adjusted to the rate of 18d.

The over-all nitrate policy of Chile was designed to preserve the revenues derived from the industry and even to bring about a gradual increase in them. In pursuance of this plan the government sold state-owned nitrate properties to the highest bidder to obtain revenue and to add to the productive capacity of the industry. Such additions, it was

³⁹Martner, Política comercial chilena, II, 390f, 477; Semper and Michels, Industria del salitre, p. 118.

thought, would eventually increase the quantity of nitrate exported and the revenues derived therefrom. Throughout the nineteenth century the formation and operation of combinations in the industry--which sought to curtail production--were in most instances vigorously opposed by the government.⁴⁰ As the adjoining table of the nitrate revenues of Chile shows, there was a total annual increase in revenues derived from the export tax in almost every year for which the statistics are given. During those years when a decrease is shown, the primary determinant was the effective organization of a combination.

Nitrate revenues were the chief source of public funds, and nitrate shipments quickly became Chile's major export, replacing the copper industry early in the decade of the eighties. It accounted for forty-six per cent of the exports of Chile in 1881, sixty per cent by 1893, and seventy-six per cent by 1902. The significance of this development and of the reliance placed by the government on nitrate revenues was that the single-product economic order that prevails in many Latin American countries prevailed also in Chile. Thus, being dependent upon the functioning of the nitrate industry, Chile's economy was unduly affected by fluxions in that industry.⁴¹

⁴⁰Combinations in the nitrate industry are discussed in Chapter VI.

⁴¹South American Journal and Brazil and River Plate Mail (London), XX (Jan. 18, 1883), 13; XXIII (April 17, 1886), 183; Chile, Superintendencia de Aduanas, Memoria en 1902 (Valparaiso: Helfman, 1903), p. 48.

It has already been noted that a major aspect of the developing nitrate policy of Chile related to the disposition of her public lands in the nitrate region. In the newly acquired northern provinces the government of Chile gained control over lands that possessed a variety of natural resources large in extent and valuable in nature. Among these, nitrate was the resource of most immediate importance since the markets for it were rapidly expanding, and the entire world's supply now rested under the control of a single nation. The greater portion of the lands in the northern provinces had been public property under Bolivian and Peruvian rule; therefore, these automatically devolved upon Chile. The Chilean policy of returning to a system of private ownership obligated that government to some extent in the disposition of its public lands; but once these obligations were settled, there still remained public lands known to possess nitrate deposits as well as other areas in which deposits were likely to be discovered.

Possession of these lands gave the government a potent weapon for exercising, in conjunction with her inherent powers of taxation and regulation, a decisive influence on the course of the industry's development. The future prosperity of individual producers frequently depended upon their ability to obtain new nitrate bearing lands with which to replace their worn-out properties; and after 1890, this could be achieved only inadequately and sometimes not at all by private transactions. Thus, most producers were forced to rely upon the

government for replacements.⁴² From this standpoint, it was fortunate for the producers that their acquisition of new properties normally met with the interest of the government.

Ownership of nitrate bearing lands gave the government another significant means of controlling the development of the industry in that the sale of lands could exert a decided influence on the volume of production. The government, in pursuance of a desire to increase production, could offer such lands for sale or achieve the opposite effect by refraining from selling state properties. But the desire to increase production was a persistent one, and its basis lay squarely in the relationship between the volume of nitrate exports and public revenues. Productive capacity largely determined the former while the chief determinant of the latter was the tax on nitrate exports. This relationship and the specific desire to increase revenues obtained from the nitrate tax continued to be the major influence in shaping the policy regarding the sale of state-owned nitrate lands. A final incentive for government sales can be ascribed to the need for the immediate revenue that the sale of the valuable state assets would bring.

Although initiated in 1882, the sale of nitrate lands on a large scale was postponed until after the Revolution of

⁴²In 1889 a company was formed in England to purchase a nitrate property. Their agent was unable to locate any property for sale. The company was finally liquidated. See South American Journal, XXVII (July 27, 1889), 100; and XXXI (Aug. 22, 1891), 215.

1891. The process of retiring nitrate certificates occupied the attention of the government until 1888, and the increase in the quantity of lands being exploited that resulted from certificate transfers obviated any necessity for sales from the standpoint of the producer. Likewise, it tended to reduce the chance that properties offered on a strictly cash basis would find buyers. Certificate sales, as is noted elsewhere,⁴³ had led to a great increase in foreign ownership of nitrate properties. A strong aversion to this trend grew among Chileans, of whom, the most prominent was President José Balmaceda.⁴⁴ Chileans feared that should a sale be held, foreigners would obtain most of the properties offered and foreign dominance of the industry would be increased. The sentiment, although widespread at the time and destined to develop to an even greater extent later, proved insufficient to bar permanently such interests from obtaining additional lands from the state. So intense was President Balmaceda's dislike of foreign domination of Chilean nitrate that in 1889 he threatened to forbid the sale of state-owned lands to them in the future.⁴⁵ However, after Balmaceda's death, his views were largely ignored.

⁴³See Chapter III, pp. 88ff.

⁴⁴For a fuller discussion of Balmaceda's anti-foreign attitude see Chapter VIII, pp. 212ff.

⁴⁵William H. Russell, A Visit to Chile and the Nitrate Fields of Tarapacá (London: J. S. Virtue and Co., 1890), p. 312; William H. Russell, "The Troubles in Chile," The Graphic, Feb. 14, 1891, p. 184.

The sale in 1882 offered lands located in Tarapacá to the highest cash bidder. There was no machinery for exploitation on these lands; however, the quality of the deposits indicated by the price paid for them, supports the conclusion that the state possessed properties not inferior to those already under production. Chile received only slightly less than the valuation placed on the properties by the government for those she sold. Even so, the results were disappointing since only fifteen out of one hundred and four properties offered found purchasers.⁴⁶ The Jefe Político of Tarapacá, Francisco Valdes Vergara, in his official Informe of 1883 ascribed the failure of the initial auction to the fixing of an absolute minimum price that frequently had no relation to the value of the property. He suggested that a specific, well-considered evaluation of the worth of each property be established if future auctions continued to be based upon pre-announced minimum prices.⁴⁷ This advice was later followed.

With the subsequent decline in the need for added revenues after 1882, a factor that partly accounts for the sale in that year, and the absence of the other motivating factors, no sale of state-owned lands was forthcoming for over a decade. But in 1893-94, some nitrate producers, especially

⁴⁶Semper and Michels, Industria del salitre, Appendix No. 18, pp. 290f; Aldunate Solar, Documentos Relativos a Salitreras, Chilean Section, pp. 171-175.

⁴⁷Valdés Vergara, Administración de Tarapacá, pp. 158-160.

among Chileans, began to clamor for new lands; and more importantly, the government found itself in need of additional revenues in order to permit resumption of specie payments and to meet payments due on the foreign debt. Thus motivated, it announced that auctions would be held in 1894.⁴⁸ During that year two sales were held (on June 15 and October 15) offering properties in various nitrate districts. From the forty-three oficinas and estacamentos placed on the market, twenty-three found purchasers who paid more than one million pounds sterling for these properties. The sales were quite successful, and the government obtained prices that at least equalled and frequently surpassed the officially estimated value. Another of the same series of auctions was held on May 16, 1895, when three properties were bought for a total of nearly one thousand pounds sterling.⁴⁹

One other sale was conducted before the end of the century, but it was not as important as the auction of 1894, since only minor properties were placed on the market. These deposits, bordering on working oficinas, were not of a sufficient size to warrant the use of separate machinery. Occurring in 1897, the sale produced twenty-seven thousand

⁴⁸Aldunate Solar, Documentos Relativos a Salitreras, Chilean Section, pp. 181-193; South American Journal, XXXVII (Sept. 1, 1894), 222; Oct. 20, 1894, p. 39; See also Fetter, Monetary Inflation in Chile, p. 82.

⁴⁹Semper and Michels, Industria del salitre, Appendix No. 18, pp. 292f.

pounds sterling for the eighteen properties bought.⁵⁰

The most effective use of nitrate land sales by the government came after the turn of the century when in 1901 and 1903 rich deposits were sold. For the twenty-nine properties auctioned in 1901, Chile received one hundred eighty-three thousand pounds. It was alleged that eighteen new companies were formed on the basis of the lands acquired by private interests at this time.⁵¹ Certainly the sale of 1901 greatly increased the productive capacity of the industry. While that had been one objective of the sale, by far the most influential factor had been the need for funds to meet the costs of expanding Chilean military forces so that the country would be prepared for what seemed to be an unavoidable war with Argentina.⁵²

For established nitrate interests the sale had meant a serious reduction in their relative strength in the industry and seemed to compromise their effort to restrict the growth of production. Therefore, this group strongly opposed the holding of other auctions--which the government was then contemplating--and maintained that due to present over-production, the freeing of new lands for exploitation through

⁵⁰Ibid., pp. 294ff.

⁵¹United States, Department of State, Consular Reports, LXXX (1902), 163.

⁵²The basis for the war scare was a boundary dispute. It had been a pressing question for several decades, but was eventually settled peaceably in 1902. See Galdames, History of Chile, pp. 406f.

government sales served to aggravate unduly the problems of the industry. From the nitrate port of Iquique this attitude was echoed by the chief of the government's supervisory agency for nitrates (the Delegado).⁵³ Even with his support, a new sale was forestalled for only two years. While an apparent conflict between the interests of the government and of producers occurred, the difference was, rather, a matter of opinion concerning the course of action to be taken to promote the interests of both. The government reasoned that the nitrate market was expanding; therefore, capacity for production should be increased. The nitrate producers, for their part, held the opposite view. As events soon showed, the operators were wrong. When in 1903 state lands were again placed on the market, buyers willingly absorbed fifteen new properties for which they paid almost five and one-half million pesos.⁵⁴ The alacrity with which the lands found purchasers gives an added indication of the profitable state of the nitrate trade.

Thus, the sales policy that had been projected in the minds of Chilean leaders in the eighties and established in practice in the nineties was continued on a broader and more significant scale after the turn of the century. In the nineteenth century sales of state-owned nitrate lands had been few and relatively ineffective in bringing into the

⁵³Semper and Michels, Industria del salitre, p. 176.

⁵⁴Ibid., Appendix No. 18, pp. 294-299.

industry important new producers with the partial exception of the one held in 1894. For the most part existing producers had been the beneficiaries until after 1900. Indications after that date show that competition in the industry increased as a result of the government's policy regarding the sale of lands. With the entrance of new producers working new lands, productive capacity and exports climbed steadily.

Beginning with the sale in 1894, a new procedure that altered the old cash payment system went into effect. Stated in the Law of November 29, 1893, it provided that two years would be allowed before full payment was due. An initial payment of twenty per cent would be required with thirty per cent more to be remitted within a year and the remainder at the end of the second year. During the payment period an interest of eight per cent was to be charged, and failure to fulfill the obligations would result in penalty charges. Under this plan many purchasers met with difficulties in meeting their obligations principally because they overestimated the rapidity with which the properties could be made productive. To remedy this the Law of February 23, 1897 provided that purchasers in that year would have the period of payment lengthened to three and one-half years. This provision was also made applicable to those who had purchased lands under the previous law excepting those who had already exploited thirty per cent or more of the nitrate on mortgaged

lands.⁵⁵

The inauguration and extension of this time-payment policy was primarily designed to aid Chilean investors to obtain nitrate interests. They had claimed that they were hampered in obtaining such interests by their inability to compete with the superior capital resources of foreign investors. Still, the time-payment policy in its practical operations suggests that even that consideration did not fully equalize opportunities between Chilean and foreign purchasers. Those who had difficulty in meeting their obligations on time were mainly Chileans. Too, a measure of their difficulty arose from the falling exchange rate that made conversion of pesos into sterling increasingly costly.⁵⁶ Because of this hardship, Chileans also considered the policy of the government of selling lands for sterling adverse to their interests. This objection was satisfied in 1897 when Chilean pesos were made acceptable.

As a result of the sales held by the government, foreign investors were able to maintain their dominant position in the Chilean nitrate industry. With the exception of the auction of 1894 in which Chileans obtained approximately fifty

⁵⁵ Aldunate Solar, Documentos Relativos a Salitreras, Chilean Section, pp. 197-206; Ibañez, Minas i Salitreras, pp. 258f; Delegación de Salitreras, Memoria en 1897, p. 21.

⁵⁶ M. José Vicuña, Conferencia sobre la industria salitrera dada en el Congreso Minero de 1894 (Santiago: Barcelona, 1894), pp. 44ff; South American Journal, XL (Feb. 22, 1896), 206.

per cent of the lands purchased at that time, foreign interests, and those predominately English, obtained the majority of the properties.⁵⁷

Table II

Sales of State-owned Nitrate Lands, 1882-1903^a

Date	No. of Properties	Extent (Hectares)	State Assessed Value	Price Received
1882	15	2,300	₡ 660,381	₡ 646,281
1894	23	6,035	878,533	1,055,635
1895	3	327	104,495	108,092
1897	18	1,313	^b \$ 361,260	\$ 389,410
1901	29	2,065	1,960,321	2,447,671
1903	15	2,893	3,915,021	5,484,262
TOTAL	103	14,933	₡1,643,929 <u>\$6,336,602</u>	₡1,710,008 <u>\$8,321,343</u>
			₡2,119,174	₡2,334,104

^aCompiled from Semper and Michels, Industria del Salitre, appendix #18, pp. 290-299.

^bIn pesos of 18d.

All public and to an extent private nitrate lands were supervised by an organization that was carried over from Peruvian rule. Peru had established an official known as the Inspector General of Nitrate as her chief agent in the nitrate

⁵⁷This is indicated by the list of purchasers given in Semper and Michels, Industria del salitre, Appendix No. 18, pp. 290-299.

area. The office continued to operate under Chilean rule but was not permanently established until September, 1883. An Englishman named Robert Harvey held the post in 1879, when Chilean authority was established in Iquique.⁵⁸ Retained in the office until 1881, he performed a valuable service for Chileans by drafting several reports outlining the status of the industry. According to the testimony of the Chilean Jefe Político of Tarapacá, these reports were indispensable in the formulation of Chilean nitrate policy.⁵⁹

For years the Inspector General strove to enforce the laws regulating the industry and to oversee public nitrate properties with a staff and organization wholly inadequate to perform properly the numerous duties. One of the malpractices that illustrates the prevailing confusion during the early years of Chilean control was that unauthorized individuals were operating oficinas. This condition can be largely explained by noting the lack of knowledge of Chilean authorities regarding the policy that Peru had followed. It was not until repeated complaints had been made by certificate holders that official investigation revealed the existing condition and the practice stopped.⁶⁰

⁵⁸See Chapter III, pp. 83. Other aspects of Harvey's career as Nitrate Inspector considerably modify the favorable evaluation noted below.

⁵⁹Valdés Vergara, Administración de Tarapacá, pp. 4, 12, 28.

⁶⁰Aldunate Solar, Documentos Relativos a Salitreras, Peruvian Section, p. 79; Ruiz Bourgeois, Derecho Minero Chileno, II, 321.

Not only did Chilean officials become confused when dealing with situations that arose out of Peruvian arrangements, but for a time the Chilean Jefe Político of Tarapacá issued nitrate grants on his own initiative and without authorization from the government in Santiago.⁶¹ That practice, too, was halted when it was revealed. As a matter of fact, the policy of accepting nitrate land claims was stopped in 1884, shortly after the end of the war. During the war, grants could be obtained in the provinces south of Tarapacá, but apparently few were; while in Tarapacá no grants could be legally consummated. In 1884, the Chilean government ceased making grants in all her territories under the Decree of July 28, 1877.⁶² That action was necessitated by a provision in the Treaty of Ancón of 1883 which made Chilean laws applicable to the province of Tarapacá. Had no suspension occurred, private interests would have been able, and were eagerly planning, to make advantageous acquisitions under the decree of 1877.⁶³ In bringing about repeal the government followed the precedent set by Peru in 1868, and clearly indicated its expectation of gaining revenue from the sale of such lands. Revocation was also indicative of the intention of the government to organize the industry on a basis that would gain large

⁶¹Billinghamurst, Legislación sobre salitre, pp. 376f.

⁶²Ruiz Bourgeois, Derecho Minero Chileno, II, 327.

⁶³Billinghamurst, Legislación sobre salitre, p. 409.

revenues for the treasury and permit a measure of public control over the development of the industry without involving the government in nationalization.

The Chilean policy of preserving a large portion of the nitrate lands for the state placed a heavy responsibility upon the Inspector General's office, since it was in charge of the administration of public nitrate lands. Correction of the unsatisfactory status of the office, however, did not come until 1889. Then, President Balmaceda transformed it into the Delegación Fiscal de Salitreras y Guaneras and directed that it function under the supervision of the minister of finance.⁶⁴

In his decree that brought about this reform, Balmaceda bestowed numerous functions upon the Delegación. It was charged with caring for state-owned nitrate lands, measuring and evaluating both public and private nitrate lands, defending judicially public nitrate interests, and recommending means to increase consumption and to develop the industry. The Delegación was also responsible for gathering statistics, checking to assure that transportation facilities complied with the laws, and assuring personal security to the workers. To perform these many duties the staff of the Delegación was enlarged, and an official known as the Delegado was placed in charge of the office. He had an assistant, five deputies, a statistician, five engineers, and a host of lesser officials

⁶⁴Ibañez, Minas i Salitreras, pp. 236, 249.

working under him. In the performance of their duties the more important officials of the Delegación made regular inspection trips through the nitrate region.⁶⁵

In discharging its functions, the Delegación maintained a high level of efficiency. Its routine duties consisted of gathering statistics and keeping a careful watch over public property; its more important obligations were measuring and evaluating the quality of nitrate lands, protecting the interests of the government, and submitting recommendations for future policies. Recommendations made by the Delegado in his report for 1890 not only illustrate the high calibre of the advice given, but also show that it was often, though sometimes not immediately, followed. In the first place, the Delegado observed that since an increase in world consumption of nitrate would be advantageous to the state, the government should give financial support to advertising and sales promotion measures undertaken by the producers. While the Balmaceda administration did not implement this idea, the following administration gave effect to the proposal and eventually, in 1897, the policy became a permanent one. A second proposition pertained to the disposition of nitrate properties, particularly those too small to support independently an oficina. In the sale of these lands the Delegado believed that preference should be given to operators whose lands were insufficient to continue profitable production

⁶⁵Ibid., pp. 237f, 241-248.

or to producers whose lands were contiguous to the properties being sold. To an extent this was done in the sale of 1897. In a third plan, designed to preserve the public interest, the Delegado counselled the sale of public nitrate lands to forestall the formation of a combination in the following instances: if the government considered that such an organization was detrimental to its interests, if after permitting one to form it caused a serious decline in nitrate revenues. Circumstances in 1893 generally conformed to the latter situation and the device was effectively used.⁶⁶

The influence of the Delegado upon Chilean nitrate policy, however, was not always as strong as is suggested by the examples recorded above. For instance, in 1901 and following, the Delegado exerted his influence, without considerable effect, to prevent new sales of lands.⁶⁷ The recommendation was based upon the belief that the sale of 1901 had increased productive capacity sufficiently to provide for a steady expansion of exports, and that further increases would lead to over-production. The opinion indicates that the Delegado gave consideration to the interests of producers as well as to those of the government. Thus, it cannot be maintained that he merely reflected prevailing sentiment among

⁶⁶For the report of the Delegado for 1890 see Aldunate Solar, Documentos Relativos a Salitreras, Chilean Section, pp. 123-130.

⁶⁷Semper and Michels, Industria del Salitre, p. 176.

private interests nor that he was unmindful of the need for balancing the interests of the government with those of producers.

In two other important aspects the Delegación acquitted itself admirably. The first entailed testing all lands in the nitrate region to ascertain the extent and quality of the nitrate deposits. Officials worked continuously in this endeavor, and the government relied upon their reports in establishing the minimum prices for lands being sold.⁶⁸ The second field of activity involved establishing accurate boundaries of private nitrate lands. It has already been pointed out that usurpation of public lands was a practice carried over from the era of Peruvian control. Little had been done to correct this situation before the creation of the Delegación, and evidence exists that the problem was aggravated during the early years of Chilean control when nitrate inspectors overlooked or abetted illegal extensions of boundaries.⁶⁹ Considerable losses were incurred by the state as a result, since such usurpations diminished the value of the usurped properties to the degree that the caliche on them had been exploited.

During the decade of the nineties rectification of

⁶⁸For an example of the method of evaluating the quality of nitrate lands see Ibid., Appendix No. 9, pp. 200-203.

⁶⁹Ibañez, Minas i Salitreras, p. 254. It was reported that usurpation of state lands was practiced again during the Revolution of 1891.

boundary proceedings were numerous. This activity was spurred on by a presidential decree issued in 1895, but the magnitude of the undertaking and the necessity of relying upon unenergetic local officials to prosecute the cases in court hindered and slowed the entire operation.⁷⁰ After repeated urgings, the Delegado obtained in 1897 the assistance of a lawyer (to be free from legal ties with private interests) specially charged with the responsibility of conducting cases initiated by the Delegado. By 1904, the boundaries of nitrate establishments in Tarapacá had been definitely drawn. The importance of that function of the Delegación is indicated by the subsequent removal of its headquarters from Iquique to Antofagasta because it had corrected boundary irregularities in Tarapacá.⁷¹

At the same time a lawyer was added to the Delegado's staff, the office itself was more firmly established by the passage of a law regulating its activities. The law ratified in the main the organization and activities of the Delegación as it had been previously established by decree.⁷²

The Chilean nitrate policy promoted the growth of the nitrate industry, but it was not solely responsible for the great strides made following 1880. Chileans claimed credit,

⁷⁰Aldunate Solar, Documentos Relativos a Salitreras, Chilean Section, pp. 103-106.

⁷¹Ibañez, Minas i Salitreras, p. 263.

⁷²Aldunate Solar, Documentos Relativos a Salitreras, Chilean Section, pp. 103-109.

however, for the expansion of the industry, and in an official publication after the turn of the century, four of the policies of the government were noted as being instrumental in this development: (1) government subsidization of propaganda; (2) introduction of a superior method of refining "after the first years of Chilean dominance;" (3) "devolution of the nitrate beds to private property;" and (4) "imposition of the taxes on exportation, although high, . . . which would stimulate the cheapest production."⁷³

When properly evaluated, these assertions do not entirely uphold the contention they were intended to maintain. In reality, government support of propaganda did not assume major importance until the end of the century; moreover, the development of the technical advance alluded to began during the period of Peruvian rule and apparently was not developed by Chileans.⁷⁴ On the other hand, the return of the industry to private enterprise was a positive and important factor in bringing about the enlargement of the industry. Furthermore, the method of carrying out this aspect of the Chilean nitrate policy had the merit of preserving the interests of the state and preventing the monopolization of the industry.

The high tax on nitrate exports, however, cannot be

⁷³Chile, Estadística Minera de Chile en 1903 (Santiago: Barcelona, 1905), I, 39.

⁷⁴See Chapter V, p.153; Semper and Michels, Industria del Salitre, pp. 61f.

credited with promoting the expansion of the industry; nor was it imposed for the purpose of encouraging economy in working the nitrate deposits. Actually, the tax seems to have promoted the unwise practice of selecting first only the higher grade caliche for processing. This procedure resulted in progressively greater costs of production, not true economy.⁷⁵ From the standpoint of the government, the chief virtues of the high export tax were (1) that it preserved to Chile a large portion of the wealth produced by the nitrate industry that otherwise might have been siphoned off by foreign interests; and (2) that it provided Chile with a lucrative source of revenue. On the other hand, the taxation policy created two unfortunate results.⁷⁶ The first lay in the government's excessive reliance upon nitrate revenues. Secondly, the high tax may have kept the price of nitrate at a level that encouraged the rapid search for a synthetic substitute. Even before 1900, the nitrate trade felt the competition arising from a synthetic fertilizer; and while the development of a practical substitute was not forthcoming for a decade and a half more, a number of experiments leading to that end were being conducted.⁷⁷ Thus, in the long run it

⁷⁵Ibid., pp. 97; Miguel Cruchaga, Salitre y Guano (Madrid: Reus, 1929), p. 203. Cruchaga asserts that the combinations caused producers to exploit their best lands first.

⁷⁶See Francisco A. Encina, Nuestra inferioridad económica (Santiago: Universitaria, 1912), pp. 278f.

⁷⁷South American Journal, XLIV (Jan. 29, 1891), 124.

might have been more prudent for Chile to exact a lighter tax. With lower prices and greater production forthcoming, Chile would have, perhaps, retained her nitrate revenues intact without promoting competition. The heavy tax on nitrate exports in the nineteenth and early part of the twentieth centuries may have had a more profound influence on the history of present-day Chile than has previously been realized.

CHAPTER III

ENGLISH INVESTMENTS AND THE DISTRIBUTION OF OWNERSHIP

The capitalists of Great Britain dominated the investment field in Latin America throughout the nineteenth and into the twentieth century. They made their first major investments in Latin America in the 1820's; however, losses resulting from these investments curtailed the flow of capital to Latin America for several decades.¹ By the middle of the 1860's English capitalists again began to expand their interests, and English investments in Latin America mounted steadily for the next thirty years. As a matter of fact, during the last years of the 1880's there occurred a great boom on the London stock market centering around enterprises in these countries.² Although Chile did not receive as large

¹English investments in Latin America during the 1820's had been placed chiefly in government bonds and mining enterprises. There followed a spree of speculation which ended with a crash in 1825. In the market collapse most of the investments were liquidated with disastrous losses for investors. J. Fred Rippy, "Latin America and the British Investment Boom," Journal of Modern History, XIX (1947), 129. See also C. K. Hobson, "British Overseas Investments, their Growth and Importance," The Annals of the American Academy of Political and Social Science, LXVIII (Nov., 1916), 27.

²J. Fred Rippy, "The British Investment Boom of the 1880's in Latin American Mines," Inter-American Economic Affairs, I (March, 1948), 74.

investments as did many of her neighbors, English capital placed in Chilean enterprises was extremely significant to that country. This was especially true because of investments made in the all-important nitrate industry.

While French and German capitalists acquired important interests during the nineteenth century, they never seriously challenged British supremacy in this field. Investments in Latin America made by citizens of the United States were relatively unimportant.³

Although European investments in nitrates began in 1853, they were significant only after 1865. The first Europeans to acquire interests in the nitrate industry were engineers who came to install nitrate producing machinery. Many stayed and later obtained nitrate properties of their own or as frequently occurred, in partnership with Chileans or Peruvians. Their holdings, however, were not large and the men who founded them commanded too little capital to expand their interests. For the most part, these pioneers from Europe came from either England or Germany.

Only after 1865 did Europeans with sufficient financial resources to establish strong enterprises awaken to the opportunities that the fields offered. In that year the English commercial and investment firm of Anthony Gibbs and Sons transferred its activities from the guano trade to the

³Hebert Feis, Europe the World's Banker, 1870-1914 (New Haven: Yale Univ. Press, 1930), pp. 3-82 gives a summary of European foreign investments.

nitrate industry.⁴ This company joined two other English producers already in the field who had become indebted to it. In forming the Compañía de Salitres de Tarapacá, they operated two oficinas and claimed nine others.⁵ Other Englishmen, several Germans and a few Frenchmen also acquired important nitrate assets. Many of these individuals were later to participate in the incorporation of the industry on the London stock market.⁶ By 1872, European interests controlled approximately forty-six per cent of the productive powers of the industry, while Peruvians possessed less than one-third.

In spite of these new foreign enterprises, statistics denoting the productive power of the various nitrate producers during the decade of the seventies show the growth of Peruvian concerns and the decline in relative strength of

⁴Gibbs and Sons began operating in Peru in 1826. It is possible that the capture of the Chincha Islands (where most of the guano was located) by the Spanish in 1864, was a major cause of the company's action. See "Don José Santos Ossa," Revista Chilena, LXIX (No. 73), 198.

⁵Billinghurst, Los capitales salitreros, pp. 31f.

⁶The more important foreigners active in the nitrate industry at this time were the following: of English extraction, G. E. Brooking, J. D. Campbell, Milbourne Clark, F. J. Eck, J. M. Inglis, S. T. Humberstone, H. B. James, E. Hainsworth, Maurice Jewell, and G. Lomax; of German extraction, J. Gildermeister, and the partners invariably identified as Folsch and Martin.

foreign operators. (See Table No. III below.)

TABLE III
Distribution of Productive Power
in the Nitrate Industry, 1872-1878^a

National of	1872	1874	1878
Peru.....	29.1%	56.8%	58.8%
Chile.....	25.0	20.0	19.7
England....	21.8	14.5	13.4
Germany....	20.1	7.6	7.6
France.....	4.0	1.1	---
Italy.....	---	---	0.5

^aAdapted from Billinghamurst, Los capitales salitreros, p. 18.

These trends resulted from the policy of nationalization followed by Peru.⁷ A more detailed analysis of the distribution of nitrate interests by nationality is presented in the following table, number four, on the allocation of nitrate certificates. According to these statistics, Peruvians held over one-half of the certificates, Chileans owned eighteen per cent, and Europeans possessed almost twenty-eight per cent.

The decline of Chilean productive power in Tarapaca was partly compensated by the encouragement given by Chile to its industrialists to open the newly discovered fields of

⁷See Tables III and IV on pages 81 and 82 respectively. While the data in these tables cannot be accepted as completely accurate, the trend of development is probably reliably indicated.

Taltal and Agual Blancas. Production there and in Antofagasta were not taken into account in the above table; therefore, Chilean and English nitrate interests, too, would be slightly greater than is indicated in either Table III or IV.

The minority status of European capitalists in 1879, however, became a dominant one soon after the change to Chilean rule. Among the foreign investors the English quickly became the ascendant group.

TABLE IV
Distribution of Nitrate Certificates
by Nationality, 1879^a

National of	Value of Certificates	Per Cent	National of	Value of Certificates	Per Cent
Peru	S 10,665,033	54 %	Italy	S 847,900	4.3%
Chile	3,554,726	18	Spain	337,044	1.7
England	2,825,000	14.3	Bolivia	14,500	-0.1
Germany	1,508,000	7.6	France	4,000	-0.1

^aBillinghurst, Los capitales salitreros, p. 23.
Total value of certificates according to this table is
S 19,756,203.

The vast increase in British investments rested in part upon the incorporation of properties already in English hands in 1879.⁸ Yet British dominance was the result of the

⁸Examples of this characteristic may be found in the following references: Chile, Ministerio de Hacienda, Fomento de la industria salitrera (Santiago: Debates, 1889),

activities of three men, John Thomas North, Robert Boyd Harvey, and John Dawson, who prior to the War of the Pacific had not been prominent in nitrate affairs. Even though these men had been unimportant earlier, they achieved a position of leadership within a short time. As the lists of directors in English nitrate companies show, many of the pioneer English operators allied themselves with the trio. By co-operating with one another, North, Harvey, and Dawson were able to acquire potentially valuable nitrate deposits at greatly reduced prices. Later they used these as the basis for the numerous companies, whose formation in England they promoted in succeeding years.

Because two of the men held influential positions and because of their unusual ability, these men were in a position to capitalize upon the uncertain situation regarding the future of the industry created by the war. One of the triumvirate, Robert Harvey, was an engineer working for an oficina in Tarapacá in the 1870's.⁹ Just before the war began he had been made Inspector General of Nitrate by the Peruvian government. Harvey had the good fortune to ingratiate himself with the Chilean authorities when they invaded Tarapacá, and he was retained in his position for many months.

p. 129; Augustín Ross, Memoria sobre las Relaciones comerciales entre Chile y la Gran Bretaña (London, 1892), Appendix 25, p. 236A; South American Journal and Brazil and River Plate Mail (London), XLVI (June 6, 1899), 625.

⁹J. W. Merriam to Dept. of State, No. 79, Dec. 26, 1879, Iquique, I.

As Inspector General, Harvey was able to acquire in partnership with North and Dawson the right to operate several oficinas belonging to the government. He was, likewise, in a position to obtain a thorough knowledge of the various nitrate establishments in Tarapacá and to assess their value. Thus he gained within a short time priceless information that enabled him to engage in the buying of nitrate properties with a minimum of risk. Moreover, as a Chilean official he was ever aware of the attitude of the government on the question of whether or not the industry would be restored to private enterprise.¹⁰ It has been alleged that he was certain --as early as the middle of 1880--that Chile would honor the Peruvian certificates and return the properties to holders of those securities. It is equally probable that he possessed no sure knowledge, but merely a strong suspicion that the devolution of the nitrate establishments to private ownership was the more likely course of action by the government.¹¹

Although Harvey held a strategic position, he

¹⁰Billinghamurst, Los capitales salitreros, pp. 44, 47; Cornejo, El Salitre, pp. 80f, 100f; see also Osgood Hardy, "British Nitrates and the Balmaceda Revolution," Pacific Historical Review, XVII (May, 1948), pp. 165-175. I have also used the spanish translation of Hardy's article which may be found in Revista Chilena, No. 113, pp. 60-81, and is entitled "Los intereses salitreras y la revolución de Balmaceda."

¹¹By mid-1880, the first Chilean nitrate commission reported in favor of restoring private enterprise in the nitrate industry. However, the government took no stand on this question until a year later. See Chapter II, p. 44.

probably would not have acquired such vast holdings during the war years had he not joined another Englishman, John Thomas North, in the utilization of his knowledge. As a youth North had studied engineering for a few years.¹² Before completing his studies, he began working in a manufacturing plant near his home in Leeds, England. In that occupation he demonstrated sufficient ability to rise to the position of subforeman. North's great opportunity came in 1869, when his employer sent him to the west coast of South America to supervise the installation of some nitrate machinery. Instead of returning to England after the job was completed, North remained to seek his fortune. Although virtually penniless, the future "Nitrate King" obtained work which enabled him to gain a reputation as an engineer. By 1871 he had become manager of an oficina in Tarapacá.

Before long, he entered into other enterprises that gave him a sizable income. North held contracts with Peru to sell guano; he established a mercantile business in the major nitrate port of Iquique; and he became an agent for several shipping firms. From the standpoint of later events, the most important interest North acquired in the early 1870's was the Compañía Proveedora. Based upon a concession granted by the Peruvian government, this company supplied

¹²Hardy, "Los intereses salitreras," pp. 69f.

water to the towns along Peru's nitrate coast.¹³ These various enterprises, developed without much capital, produced quick profits. Apparently, North promoted them in order to establish himself in the nitrate industry. To do this required a large amount of capital for the purchase of lands and for the erection of a processing plant. It may have been that North approached his goal in 1875 only to be prevented from continuing his plan by Peru's nationalization scheme.

At any rate, North left for England in 1875 and did not return until shortly after Chile conquered the region. Upon arrival in Iquique early in 1880, he and Harvey became close associates.¹⁴ Like Harvey, North ingratiated himself with the Chilean authorities by placing the ships of his water company at their disposal. Within a short time the favor was returned in the form of a lucrative concession to export guano.¹⁵

In 1880, both North and Harvey had important business relations with a third Englishman resident in Iquique--John Dawson. Dawson was the manager of the Iquique branch of the strong Chilean financial institution, the Bank

¹³Pedro Pablo Figueroa, Diccionario biográfico de extranjeros en Chile (Santiago, 1900) pp. 159-161; South American Journal, XL (May 9, 1896), 524.

¹⁴See the letter written by Harvey in Billinghamst, Los capitales salitreros, pp. 44f, foot-note no. 1.

¹⁵Dennis, Tacna-Arica Documents, pp. 169, 192.

of Valparaiso.¹⁶ Because of his authority to lend money, Dawson was a necessary partner in the business designs of North and Harvey. The former had some capital of his own, but Harvey had no source of income sufficient to allow him to engage in the buying of nitrate certificates on a large scale. That Dawson did materially aid the pair in their transactions and held an interest in them is quite certain.¹⁷ As a result of a serious disagreement between himself and his employers, Dawson resigned his post in 1883. The misunderstanding might well have been over a reportedly controversial loan he made to North and Harvey in 1880.¹⁸ Some

¹⁶Billinghamst, Los capitales salitreros, p. 58. Billinghamst asserts that many Englishmen borrowed the capital needed to get their start from Chilean banks. See pp. 9, 59. Dawson and Maurice Jewell, another associate of North's, were members of the Municipal Council of Iquique from 1879 to 1883. Valdés Vergara, Administración de Tarapacá, p. 38.

¹⁷In a pamphlet published in London toward the end of the nitrate boom the following charge was made: When "Mr. Dawson, was the agent of the Bank of Valparaiso, all the power and influence derived from that post were at the service and disposal of Mr. North. All the companies in which he was a shareholder and their friends had credit there. Those who could not count themselves among the list of his friends, or who had the indiscretion of not winning the sympathies of the almighty lord of the province, were condemned to find the funds of the bank inaccessible, however good their securities." See Anon., The Nitrate Craze (London, 1889), p. 16. This quotation is an excerpt from the Chilean newspaper Libertad Electoral.

¹⁸In his book Los capitales salitreros, pp. 49, 63, Billinghamst asserts that after Dawson's loans to North and Harvey became known to his superiors, they ordered an immediate recall of them. But Dawson allowed the account to remain outstanding anyhow. When the eventual reckoning came in 1885, the bank suffered a great loss because of the fall in the rate of exchange, from thirty-five to twenty-five pennies, occurring in the intervening years.

years later, Dawson was again in charge of a bank in Iquique. But this time, it was with a British firm and one controlled by North.¹⁹

The opportunity for these three Englishmen to establish themselves as nitrate producers came with the repeated disasters suffered by Peru during the war. Those occurrences and the feeling of uncertainty on the part of certificate holders concerning the future policy of the Chilean government caused nitrate certificates to undergo a great decline in their market value. At this time many certificate holders, Peruvians particularly, believed that Chile might well follow the Peruvian example of monopolizing the industry and even refuse to honor the securities issued by the latter country. Especially in Lima, where the majority of the securities were located, owners of certificates displayed an eagerness to sell their interests.

North and Harvey journeyed to Lima to purchase oficinas at reduced prices on the supposition that Chile would recognize private rights and with a six hundred thousand peso letter of credit obtained from Dawson. All reports indicate that their venture was most successful. Some authorities claim they bought as many as nineteen oficinas at prices as low as twenty per cent of their face value, but

¹⁹In 1884, Dawson established in Iquique a newspaper, El Progreso, for the purpose of supporting the nitrate industry. P. P. Figueroa, Diccionario de extranjeros, p. 77.

it cannot be stated with certainty just how many they purchased or at what cost.²⁰ It appears, however, that North and Harvey acquired no less than seven oficinas valued by the Peruvian government at S 800,000 (about £ 150,000).²¹ Based upon these properties four companies were formed in England whose total capitalization equalled £ 835,000. Although the details of the North-Harvey transactions in Lima are obscure, North gave a general description of the situation some years later.

I comprehended, better than any other foreigner, the precise value of these certificates, inasmuch as I knew, by my past work and travels, that some of these lands contained important nitrate deposits. I bought, then, at a great discount, a considerable quantity of them, convinced that the Chilean government would triumph in the war and that, once victorious, she would respect completely the property right that these securities emitted by the vanquished constituted I practiced then a selection of these certificates with the object of increasing the exploitation of the nitrate fields that they comprised.²²

Thus, by the time North and Harvey returned to Iquique, they possessed the rights to most of the properties upon which

²⁰Cornejo, El Salitre, p. 116.

²¹Ibid.; The oficinas purchased by North and Harvey at this time were the Buen Retiro, Jazpampa, Nueva Carolina, Primitiva, Peruana, Pozo Almonte, and Ramirez.

²²Article by Gaston Calmette in El Figero (Paris), April 23, 1895 and quoted in Cornejo, El Salitre, pp. 116f. The quotation continues: ". . . wishing to assure forever the prosperity of this industry, of which no one in Europe suspected its great importance, I bought along with some friends the greater part of the shares of the railroad that served the region where the major nitrate lands were located. Thus, I became the arbiter of the future"

they founded an immense nitrate interest. It may well be, as a contemporary alleged, that during this trip the two men acquired for little more than one hundred thousand pounds, oficinas that were capitalized at approximately one and a half million pounds on the London stock market.²³ Certainly, the acquisitions were fortunate ones. For that, neither can be criticized as they have been by some Chilean and some British authors.²⁴ But if Harvey did possess the confidential information that Chile would return the nitrate properties to the certificate holders, then malfeasance in office could be legitimately maintained. Of course, the liberality with which Dawson gave credit for this speculation fails to measure up to the equality of treatment that is today deemed desirable in loan transactions. Nevertheless, one cannot view these dealings as either un-businesslike or as an isolated instance of favoritism. They were fortunate speculations that were made possible in part by privileges in no way unusual then. Considering the risk involved in speculating in depreciated securities whose ultimate worth depended upon their validation by a government not originally responsible for their issue, the profits resulting from the certificate purchases of North and Harvey were, in reality, partly justified. Others were trading in certificates at the same time, and there is reason to believe that the firm of Gibbs and Company was undertaking

²³Billinghurst, Los capitales salitreros, p. 49.

²⁴Ibid., passim; The Nitrate Craze, passim.

²⁴Ibid., passim; The Nitrate Craze, passim.

some speculations in certificates when North and Harvey made their coup.²⁵ These men were, as a matter of fact, akin to some of their North American contemporaries who, perceiving great developments to come in a particular industry, sought to capitalize upon the opportunities arising in like situations. That a degree of chicanery was involved in the early development of the nitrate industry should not be surprising to North Americans whose own economic history is filled with similar incidents.

In the spring of 1882, North designated Dawson as his agent in Iquique and sailed for England.²⁶ Within a few years he was to become a leading financier and the recognized head of the group of English investors who held strong interests in the nitrate industry. The plans North formulated for the future monopolization of the industry were grand in design; and in spite of adverse circumstances, he was partly successful in carrying them through. He headed, along with Harvey, a group that controlled three-fifths of the producing companies formed in England by 1890.

Of the six producing companies that North personally promoted, three were organized shortly after his arrival in England.²⁷ The first, and by far the most remunerative, was

²⁵Billinghamst, Los capitales salitreros, p. 49

²⁶Cornejo, El Salitre, p. 128

²⁷For the English nitrate companies and their capitalizations see Table V, p. 96 below.

the Liverpool Nitrate Company, Limited. Capitalized at £ 110,000, it purchased the oficina Ramirez from North and Harvey for ten times the price paid for it by those men in Lima. The differences existing in the purchase price in Lima (£ 5,000), the value of the oficina in certificates (£ 13,750), and the selling price (£ 50,000) led to the charge of over-capitalization.²⁸ The record of the Liverpool Company, however, refutes the allegation; for it was the most profitable English producing enterprise in the industry for the next thirty years. Of the two other producing companies formed by North before 1888, the first, the Primitiva Nitrate Company, Limited, was justly criticized for being over-capitalized. The second, the Colorado Nitrate Company, Limited, achieved a status midway between the Liverpool and the Primitiva.²⁹

During this period when North was establishing himself in the industry as a major nitrate producer he extended his interests by acquiring control of the Nitrate Railways Company, the railroad that provided transportation for Tarapaca.³⁰ With his extensive holdings, North represented the chief British interest in Chilean nitrated by 1887. His

²⁸Cornejo, El Salitre, p. 117; Billinghamurst, Los capitales salitreros, p. 49.

²⁹For the dividends declared by these and other English companies see Table VII, pp. 115f. See also, Ibid., pp. 79-83, 90.

³⁰For the history of this railroad (Nitrate Railways) see Chapter IV.

importance was recognized in the financial circles of London as is indicated by the favorable estimate of North that appeared in an issue of the Stock Exchange in 1888.

The introduction of this great article of commerce is due to the ability and energy of Col. North. It is he who has practically introduced this fertilizer into the European markets, he having discovered its valuable qualities in Chile. He has been rewarded for his exertions and prescience by having realized a princely fortune, which no one who knows him begrudges him. In making a fortune himself he has been the cause of numbers of other persons also largely benefiting by his knowledge and influence. As everybody knows, he is a self-made man, who carries his prosperity with a cheerful modesty, which indicates the innate true gentleman, and has brought him troops of friends.³¹

But North was still far from the goal he had set for himself; and in ensuing years, he attempted to solidify and assure the dominance of his interests by monopolizing the industry. In part, the basis for monopoly had already been achieved.³² With transportation facilities under his control and with a significant share of productive power, his chance for success was great.³³

To fulfill the plan a major increase in the productive power of the North-Harvey group was necessary. Thus, North undertook the floatation of a vast number of producing

³¹Stock Exchange, as quoted in South American Journal, XXV (Oct. 20, 1888), 742.

³²See excerpt from Libertad Electoral in Nitrate Craze, p. 16.

³³There may have been an earlier attempt, in 1884, on the part of Chilean producers to monopolize the nitrate industry. See South American Journal, XXI (May 8, 1884), 6.

companies on the London market, and in order to obtain the required response from purchasers of stock in England, he initiated actions that brought special attention to nitrate securities.³⁴ Those companies that had already been formed were to act, in his scheme, as the attraction for this capital. The Primitiva, Liverpool, and Nitrate Railways performed their function especially well. The first declared a ten per cent dividend in 1888 and in 1889, announced an astounding seventy per cent return; for the second straight year the Liverpool came forth in 1888 with a forty per cent return and in 1889, increased that to fifty-five per cent. Meanwhile, Nitrate Rails, which had returned only ten per cent in 1887, declared cash dividends in both of the following years of twenty-five per cent. The London Nitrate Company, Limited--the one other company formed before 1888 but not within the North-Harvey orbit--declared a return of 842 per cent in 1889, its only dividend to common stockholders in the nineteenth century.

These immense profits produced the desired result, a great demand for nitrate shares.³⁵ To capitalize upon this

³⁴"I think," said North in an interview, "that. . . [nitrate securities] form one of the best investments possible. Nitrate is as yet in its infancy; its properties are not realized. It is at once the best, the cheapest, and most successful fertilizer in the world. In time every country will be obliged to use it." New York Herald, quoted in the South American Journal, XXVI (Feb. 9, 1889), 179.

³⁵As early as October, 1887, the South American Journal wrote of a boom in nitrates and commented that "from a joint-stock point of view this nitrate industry is quite

"market boom" the interest group floated seven new producing companies and three service organizations whose combined capital equalled £ 2,472,000.³⁶ The eight other producing companies organized during the boom had a combined capitalization of £ 2,857,800. Since four of these enterprises probably were connected with the North-Harvey group through interlocking directorates, the influence of the "Nitrate King" extended beyond the interest group proper.³⁷

Several service companies, whose activities were directly related to the nitrate industry, were formed by the North-Harvey group.³⁸ The first of these was the Tarapaca Waterworks Co., Limited, organized in 1888. It acquired a

new, but private capital has for years been employed in working nitrate factories /and there is/ ample scope for the favorable utilization of joint-stock funds." See XXIV (Oct. 1, 1887), 562.

³⁶The seven new North companies were the Lagunas Syndicate, Paccha and Jazpampa, San Donato, San Jorge, San Pablo, San Sebastian, and Santa Elena. See Table V below.

³⁷The four companies connected by directorships were: Rosario, Santa Luisa, Lautaro, and Tamarugal. It was alleged, too, that the London company was under North's influence. For the lists of directors see Stock Exchange Yearbook (London) (1891), passim; See also Ross, Relaciones comerciales entre Chile y la Gran Bretana, Appendix 25, p. 236A. The Rosario company represented the incorporated holdings of the German J. Gildermeister, and the Tamarugal was formed from the nitrate lands possessed by A. Gibbs and Sons. See Billinghamurst, Los capitales salitreros, pp. 87, 90.

³⁸North had other enterprises in the nitrate region not represented by English companies. He was the principal stockholder in the gas company that served the nitrate port of Iquique, and he was part owner of the Tarapaca Foundry. See Cornejo, El Salitre, p. 130

TABLE V

British Investments in Nitrate Enterprises, 1890^a

Company	Date Organized	Total Capital ^b
Producing Companies		
*Colorado Nitrate Co., Ltd.	1885	£ 165,000
Julia Nitrate Co., Ltd.	1889	150,000
*Lagunas Syndicate, Ltd.	1889	162,000
Lautaro Nitrate Co., Ltd.	1889	300,000
*Liverpool Nitrate Co., Ltd.	1883	110,000
London Nitrate Co., Ltd.	1887	160,000
New Tamarugal Nitrate Co., Ltd.	1890	650,000
Acquired Tamarugal Nitrate Co., Ltd. formed in 1889		
*Paccha and Jaspampa Nitrate Co., Ltd.	1889	360,000
*Primitiva Nitrate Co., Ltd.	1885	200,000
Rosario Nitrate Co., Ltd.	1889	1,250,000
*San Donato Nitrate Co., Ltd.	1889	160,000
*San Jorge Nitrate Co., Ltd.	1888	375,000
*San Pablo Nitrate Co., Ltd.	1888	160,000
*San Sebastian Nitrate Co., Ltd.	1889	145,000
*Santa Elena Nitrate Co., Ltd.	1889	110,000
Santa Luisa Nitrate Co., Ltd.	1888	250,000
Santa Rita Nitrate Co., Ltd.	1889	96,300
Taltal Nitrate Co., Ltd.	1888	81,000
Tarapacá Nitrate Co., Ltd.	1889	80,500
Total Capital of Producing Companies		4,964,800
Service Companies		
*Bank of Tarapacá and London, Ltd.	1888	£ 500,000
*Tarapacá Waterworks Co., Ltd.	1888	400,000
*Nitrate Provisions Supply Co., Ltd.	1889	100,000
Anglo-Chilean Nitrate and Railway Co., Ltd.	1888	700,000
*Nitrate Railways Co., Ltd.	1882	3,443,000
Taltal Railways Co., Ltd.	1882	514,800
Total Capital of Service Companies		£ 5,657,800
Total Capital of All Companies		£10,622,600

^aCompiled from the Stock Exchange Year-Book (1891),
passim.

^bTotal Capital includes outstanding bonds as well as
shares.

*North-Harvey Companies.

going concern by purchasing the Proveedora Cía., which had long supplied water to Iquique and controlled the water supply business in Pisagua. Col. North, the owner of this enterprise and the promoter of the English concern, received a total of £ 150,000 for his interests.³⁹ Before the Tarapacá Waterworks was created, the water-supplying monopoly of Col. North was seriously challenged by a project engaged in by another Englishman, Thomas Hart. In 1885 the latter obtained from the Chilean government a concession to pipe portable water to Iquique from the Pica springs that lay southwest of Iquique on the eastern edge of Tamarugal Pampa. North tried to discredit Hart and his project, since it threatened his water business with complete ruin. Fortunately for North, Hart died before completing his project, and "The Nitrate King" purchased the concession from Hart's heirs for some £ 35,000.⁴⁰ With a capital of £ 400,000, Tarapacá Waterworks enjoyed a steady prosperity and returned to its shareholders slightly more than its capital by 1900. Iquique, Pisagua, Arica, the Nitrate Railways, and some of the oficinas were served by the company.

At the time the waterworks firm was being organized, the North-Harvey group founded the Bank of Tarapacá and London with a capital of £ 500,000. John Dawson, still a

³⁹Investor's Review (London), II (1893), pp. 135f.

⁴⁰Ibid.; Libertad Electoral quoted in The Nitrate Craze, p. 17; Guillermo E. Billinghamurst, Geografía de Tarapacá (Santiago: El Progreso, 1887), p. 111.

close associate of the interest group, was placed in charge of the bank. It was not an immediate success, however, since its activities were solely with the nitrate industry and with companies whose precarious position lowered its reputation. Nevertheless, it slowly established itself until by 1892 it was able to return profits to its owners, which, while low in comparison with those made by other service companies, were steady.⁴¹

In 1889, the Nitrate Provisions Supply Company, Limited, with a capital of £ 100,000, was added to the growing list of North-Harvey companies. Its purpose, as stated in the prospectus, was to establish a fleet of steamers to supply foodstuffs, merchandise, and other goods to the oficinas of Tarapacá. The design, though never realized, was to obtain a monopoly on supplying the company stores. It was claimed that success was assured because the directors also held positions of influence in eight producing companies and in the water and railway enterprises. As Billinghamurst noted at the time, the enterprise had no chance of success since its capital could in no way be considered sufficient to monopolize a trade in innumerable articles whose annual import value exceeded two million pounds.⁴² The prediction proved correct. The company never prospered.

⁴¹South American Journal, XLVII (Oct. 28, 1899), 505; Stock Exchange Yearbook (1891), p. 3.

⁴²Billinghamurst, Los capitales salitreros, pp. 106-112.

Much later, in 1895, the North-Harvey group floated its final service company, the Nitrate Producer's Steamship Company. Its operation was given to another firm with the stipulation that no remuneration would be received by the operators if net profits fell below ten per cent.⁴³ The company operated several ships competently, and an average dividend of eight per cent on its £ 100,000 capital was declared during the first six years it functioned.

These service companies, capitalized for a total of one million pounds, were organized by North as part of his plan to monopolize the industry. While they provided necessary services, the banking and provisioning needs of the industry especially were far greater than North's resources could supply. Thus, only the waterworks company, already a flourishing monopoly prior to its incorporation in England, experienced better than moderate success.

By 1890, nitrate companies formed in England dominated the industry. British investments in the nitrate industry totalled, £ 10,622,600, and English producing companies represented more than half of the productive power of the industry.⁴⁴ The investments were distributed as follows: £ 4,964,800 into eighteen nitrate producing firms; £ 700,000

⁴³South American Journal, XXXVIII (March 16, 1895), 293.

⁴⁴Ibid. XXX (Feb. 7, 1891), 163. According to my calculations based upon the reported production per oficina in 1890, the British controlled almost fifty-six per cent in that year.

into a combination producing and railway enterprise; and £ 4,957,800 into the three service companies and two railroads. Of the total British capital, the North-Harvey interests controlled approximately sixty per cent (£ 6,390,000). Of the capital devoted to producing companies, the group represented about forty per cent (£ 1,947,000). Because of the relative unity among British producers provided by the inter-locking directorates of the chief interest group, the "Nitrate King" held an even more significant place in nitrate affairs than is indicated by the productive power of his producing companies.⁴⁵ His primacy, although not complete, was recognized by his election as president of the Permanent Nitrate Committee established in London in 1889.⁴⁶ Until his death, North held that position.

North's influence in the industry was further enhanced through his relationship with British consular officials stationed in Tarapacá. In 1889 the vice-consul at Iquique, Maurice Jewel, was promoted to the consulship.⁴⁷ Because Jewel was a partner of North, a special relationship was apparently established favorable to the interest group. The

⁴⁵J. Fred Rippey, "Iniciativas económicas del 'Rey del Salitre' y de sus socios en Chile," Revista Chilena, No. 113 (Jan.-June, 1949), p. 83 and footnote no. 4; This article is a translation of an article appearing in the Pacific Historical Review, XVII (Nov., 1948), 457-465.

⁴⁶Asociación Salitrera de Propaganda, Circular Trimestral, Iquique, No. 12 (Aug. 21, 1896), Appendix, p. 3.

⁴⁷F. O. to Maurice Jewel, No. 1, June, 1889, F. O. 16/257.

British Minister to Chile recognized the inadvisability of this situation and recommended a change. He advised the Foreign Office that "we want a regular consul at Iquique-- the present man and his vice are partners of Col. North, wh is not quite correct and Iquique is an important Port. . . ."48 In all probability nothing was done to oust Jewel, since as late as 1895 the vice-consul at Pisagua was connected with the North group as an agent of the Nitrate Railways company.⁴⁹

Just before the boom collapsed the producing companies possessed a market value of almost nine million pounds-- approximately sixty per cent above their par value.⁵⁰ Companies formed before the boom days had declared by 1890 no less than forty-eight per cent in dividends, and one had returned to its stockholders 181 per cent. Meanwhile, many of those created in the early years of the boom had already made profits. Equally promising were the adjunct enterprises, although only Nitrate Rails had proved its worth.

The rapid floatation of these companies had been aided by the current wave of prosperity in the industry. That in turn stimulated rampant speculation in nitrate securities. The extent of this speculation can be seen in the table on

⁴⁸Kennedy to Sanderson, May 27, 1890, F. O. 16/259. The action taken by The Foreign Office on this matter was not revealed in the transcripts obtained from the Public Record Office.

⁴⁹J. Hayes Sadler to Salisbury, No. 6, Jan. 23, 1896, F. O. 16/296.

⁵⁰Journal of Finance (London), II (Oct., 1897), 149.

the market value of nitrate stocks during the boom years. The deflation that followed in 1890 is also shown. North, himself, seems to have encouraged speculation in the shares of his companies, although he denied the charge. A few

TABLE VI
Stock Market Quotations
For Some Nitrate Companies, 1888-1890^a

Company	Par Value	Highest Quotation 1888	Highest Quotation 1889	Highest Quotation 1890	Quotation on Nov. 28, 1890
Colorado	£ 5	11 7/8	11 15/16	5 1/2	2 1/2
Lautaro	10	-----	9 1/8	8	4 1/2
Liverpool	5	33 3/4	31	18	7
London	5	31 1/8	31 1/2	10	4
Primitiva	5	39 1/2	38 3/4	23	6
San Jorge	5	-----	12 1/8	7 5/16	5
San Pablo	5	18 3/4	15 1/2	5 1/4	2

^aInvestor's Monthly Manual (London), Nov. 29, 1890, p. 566.

unheeded voices had warned of the vicissitudes for investors who recklessly participated in this speculative mania and pointed out the lack of stability in the nitrate industry.⁵¹

⁵¹Financial Times (London), April 30, 1889, quoted in Henry Sewell Gana, British Capital and Chilean Industry (London: T. J. Johnson, 1889), pp. 1-2. In 1882, Gana tried to gain the assent of the producers in Aguas Blancas to

Perhaps the sharpest of these warnings came in 1887 from a British consul in Chile whose report predicted a sharp decline in nitrate prosperity and stated that the promoters in London "were going out on top of the tide."⁵²

Col. North's importance in the nitrate industry led the press to give him the title of the "Nitrate King," and he lived the part in both public and private life.⁵³ A leading gossip columnist of stock market affairs who called himself "Diogenes," repeatedly remarked that "whatever he touches seems to turn to gold."⁵⁴ Another comment, equally

the formation of an English company which would monopolize operations in that field. He failed. Judging from his attitude as expressed in this book, the experience soured him on the nitrate industry. See p. 5.

⁵²Great Britain, Foreign Office, Diplomatic and Consular Reports, Misc. Series, 1889, No. 122.

⁵³Late in the year 1888, North attended a dinner given by the financier Rothschild. Also in attendance were Lord Randolph Churchill and the Prince of Wales. The Weekly Bulletin commented: "We wonder what the Colonel's introduction to the Prince and the rest of the aristocracy will cost him?" Quoted in the South American Journal, XXV (Dec. 29, 1888), 1060. A week earlier it was reported that Col. North "is going to start the season with a big fancy dress ball at the Hotel Metropole. He has become Master of the Mid-Kent Staghounds, and it is boasted that at the first meet under his mastership, at Farmingham, the other day, 144 bottles of champagne were opened before the hunt commenced. Col. North is a rather well-built man, with a florid full face, whiskers, and a moustache. He is Col. of a Volunteer regiment." Ibid., Dec. 22, 1888, p. 1026. For a description of the fancy dress ball see Hardy, "Los intereses salitreros," p. 74.

⁵⁴South American Journal, XXV (Nov. 17, 1888), 868. North had many other enterprises outside the field of nitrates. He invested in the Arauco Co., which mined coal in southern Chile, and he held interests in a West Australian Gold Mine.

remarkable, noted that "Rothschild in financial topics occupied a lesser place to Mr. North."⁵⁵ Two other English publications, the Pall Mall Gazette and the Financial Times, largely concurred with the prevailing opinion of Col. North and added their laudations of the "Nitrate King."⁵⁶ However, at least one contemporary journal, the Financial News, used critical language in referring to the activities of North and regularly disparaged his interests.⁵⁷

The opposition to North rested, first, on the belief--largely substantiated at a later time--that he was more of a promoter and speculator than a businessman. Secondly, the antagonism against him was concentrated among the nitrate enterprisers outside of the interest group, especially among those trying to form companies to exploit the deposits of Taltal. North made vigorous efforts to frustrate the plans of others, and what was called by some a "Nitrate War" raged between the Taltal and North groups for many months. At a gathering of North's followers early in 1889, a lieutenant of the "Nitrate King" virtually declared war on the Taltal group in a "remarkably outspoken speech," while North himself asserted that any investments placed in companies operating

⁵⁵Cornejo, El Salitre, p. 128.

⁵⁶See South American Journal, XXVI (Feb. 9, 1889), 177; For the comment of the Stock Exchange, that "newspapers that have spoken well of his ventures have not found him ungrateful," see Ibid., Feb. 16, 1889, p. 211.

⁵⁷North carried on a feud with the Financial News. See Ibid., Feb. 9, 1889, p. 177.

in Taltal would be wholly lost.⁵⁸ Referring to North's fight with the Taltal interests, the South American Journal made the following observation: "With the best intentions, his opinions may be affected by his interests. These are evidently hostile to the Taltal competition."⁵⁹

North's campaign against the Taltal interests is entirely understandable. He had reaped a fortune in the boom years, but he had not achieved his objective of monopolizing the industry. To be sure, the group he headed controlled slightly less than fifty per cent of the productive capacity possessed by English companies.⁶⁰ Yet that strength was more apparent than real because the Primitiva company, which accounted for almost one quarter of the production of the group, had virtually exhausted its deposits.⁶¹ A sharp decline in productive power was imminent. Then, too, lacking a much greater control over production, North could not hope to dominate the non-English producers. His opposition to the development of the deposits outside of Tarapacá constituted an attempt to minimize the magnitude of the task that he still had before him.

⁵⁸Ibid., pp. 163, 177.

⁵⁹Ibid., p. 177. The comment continued: "With all respect for Col. North, we are disposed to think he is a little arrogant when he virtually proclaims that every concern, not brought out under his auspices, must be undeserving of public support."

⁶⁰Calculated on the basis of production reports for the year 1890.

⁶¹Billinghamurst, Los capitales salitreros, p. 91.

To pursue his plans, North found it necessary to go to Chile in 1889.⁶² He wanted to obtain additional nitrate establishments. Since the possibility of buying from private holders was small, the realization of the scheme rested upon the "Nitrate King's" ability to persuade the Chilean government to revive its policy of selling state-owned properties.⁶³ With this in mind, North began his well-advertised and ostentatious voyage to Chile.⁶⁴ He used all means at his command to gain a favorable press in Chile and to convince the Balmain administration of the wisdom of offering state

⁶²North obtained a letter of introduction from the Foreign Office to the Charge d' Affairs at Santiago. Since these letters were rather freely granted, it does not appear that North received special consideration. See letter of introduction given North, Jan. 24, 1889, F. O. 16/256. Another was provided W. E. Spencer, Jan. 30, 1889, F. O. 16/257.

⁶³North also wanted to check on his other interests in Chile. The most important was the Nitrate Railways, whose monopoly was being threatened by the government of Chile. In addition, North was part owner of the Arauco Co., a coal mining and railroad concern operating in southern Chile, and he was part owner of several enterprises located in Iquique. One was the commercial firm of North and Jewel, and another was the Tarapacá Foundry. See William H. Russell, A Visit to Chile and the Nitrate Fields of Tarapacá (London: J. S. Virtue & Co., 1890), p. 47.

⁶⁴Over two hundred persons were reported to have cheered North at the train station when he and his party were starting their journey to the seaport of Liverpool. Among the twenty people in the group were two newsmen, William H. Russell, formerly of the Times (London), and Montague Vitzetelly, representing the Financial Times. Apparently, North hoped these reporters would provide him with favorable press contacts in Chile. North stated that the expenses of this trip amounted to £ 20,000. See South American Journal, XXVI (Feb. 9, 1889), 176 and XXVII (Dec. 21, 1889), 795. Also consult Hardy, "Los intereses salitreros," p. 75.

nitrate deposits for sale. But even in personal talks with the president and other government officials, he met with hostility. While formerly Balmaceda had contemplated a new auction of state properties, he had abandoned the plan because he feared foreign interests would obtain most of the lands offered. A sale, he felt, would enable them to establish a monopoly over Chile's most important industry.⁶⁵ The official and personal attitude of the president toward English investments in the nitrate industry and regarding Col. North specifically was so unfavorable that he publicly criticized the "Nitrate King's" private transactions.⁶⁶ We can, therefore, credit Balmaceda's policy with preventing the culmination of the design that North had in mind when making his voyage to Chile.

Before North returned to England in the summer of 1889, there were indications that a period of depression was in store for the industry.⁶⁷ Although this fact was not fully recognized immediately, the years 1890 and 1891 were ones of reduced earnings. Only five of the nineteen producing companies paid dividends in these years. The aftermath

⁶⁵Russell, A Visit to the Nitrate Fields, p. 312.

⁶⁶Ibid., p. 62. For other aspects of North's voyage to Chile see Chapter VIII, pp. 215ff.

⁶⁷See Chapter VI for more about the depression. At the same time, the market for nitrate securities weakened. The stock market gossip, "Diogenes," claimed North's absence was the cause. South American Journal, XXVI (Feb. 9, 1889), 193f. But others said investors were selling while prices were still high. Investor's Monthly Manual (London), XIX (March 30, 1889), 99.

of the boom revealed the instability of the nitrate trade and showed the weaknesses of many of the enterprises. It also demonstrated that the high expectations stimulated by the high dividends of the boom years would not be reached for most companies.

While the heritage of the boom remained to plague some enterprises until the end of the century, two companies in particular suffered harshly from the effects of being formed hastily and unwisely. One of these, the Tarapacá Nitrate Company, Limited, was organized in 1889 by promoters who had no particular property in mind for the firm to operate. The promoters expected to purchase an oficina either from the Chilean government or through a private transaction. Eighty thousand five hundred pounds were subscribed as the capital, and the chairman of the company proceeded to Chile to buy a property. When it proved to be impossible to purchase an oficina, it was decided to invest in the shares of a new North-Harvey company, the Paccha and Jazpampa. Poor business management, however, led to the exhaustion of the entire capital, leaving no funds to meet past and current expenses. A threatened foreclosure was forestalled by an exchange of shares with the Paccha but involved a severe loss to investors.⁶⁸

The second example was the Primitiva, one of the first companies associated with the interest group. During the boom,

⁶⁸South American Journal, XXXI (Aug. 21, 1891), 215.

there had been a great deal of speculation in Primitiva stock. Much of it, of course, was stimulated by the dividend of seventy per cent declared in 1889. But when the Primitiva failed to declare a dividend in 1890, it was revealed that the previous one had been distributed on expected profits and with borrowed money. Faced with a debt of £ 200,000 and with exhausted soils, it could not regain its former position of eminence. No further dividends were declared by this company. When making plans in 1895 for a reorganization, which failed, North announced at the stockholder's meeting that he owned 5,430 shares bought at a total of £ 122,000. Intended to gain the confidence of the stockholders, his attempt backfired when it was revealed that he originally held 16,000 shares. Other directors of the firm also were charged with selling out at the high boom prices.⁶⁹ As one financial journal pointed out, North and his friends "sold and sold" while they were urging others to "buy and hold." With such revelations, North began to lose his influence among nitrate investors.⁷⁰ Those who had previously relied upon his financial keenness and refused to believe the allegations made against him, now began to regard him with resentment.

As so often happens, the majority of commentators accepted the boom while it flourished with few reservations, but later on evaluated it more critically. The South American

⁶⁹Ibid., XXXIX (Nov. 9, 1895), 491; Grt. Br., Consular Reports, Misc. (1889), No. 142.

⁷⁰South American Journal, XXXIX (Nov. 2, 1895), 467.

Journal could well be placed in this category. The estimate of the Economist in 1896 reflected the opinion of nitrate investors who were facing with apprehension a period of severe depression. It stated that "in its limited sphere there has been no more outrageous boom. . . than in the shares of the companies, which under the auspices of. . . Colonel North, were formed in such rapid succession for working nitrate properties in Chile."⁷¹ North provided a convenient scapegoat, and in some ways he deserved the abuse heaped upon him.

The companies floated under the auspices of North and Harvey provided huge profits to the promoters, who reaped additional rewards by speculating in the securities of their companies. Because they were primarily interested in gaining immediate returns from their investments, as well as attracting support for their stock floatations, North and Harvey followed the practice of declaring as high dividends as possible. This, of course, led to future financial weakness for their companies.⁷² Most contemporary observers, too, testify that the North-Harvey enterprises were over-capitalized.⁷³

The Lagunas affair provides a clear, although exaggerated, example of the methods employed by Col. North.

⁷¹The Economist (London), LIV (Aug. 1, 1890), 999.

⁷²Ibid.; Excerpt from the Financial Times (Sept. 2, 1896) quoted in South American Journal, XLI (Sept. 5, 1896), 266; The Investment Index, a quarterly supplement to the Investor's Monthly Manual, March 30, 1889, p. 99.

⁷³Ross, Relaciones comerciales entre Chile y la Gran Bretaña, p. 111.

While in Chile in 1889, North had purchased for £ 110,000 the nitrate lands known as Lagunas.⁷⁴ They were located south of the main deposits in Tarapacá and had no rail facilities. That same year he organized the Lagunas Syndicate Company, Limited, and transferred the property to it for seven hundred pounds in cash and shares valued at £ 109,300.⁷⁵ Lagunas Syndicate had a total capital of £ 162,000. In 1892 the value of the property was greatly enhanced when Nitrate Rails-- also controlled by North--contracted to extend its track to Lagunas.

By 1894 the time was propitious for floating a new company because prosperity for the nitrate industry had returned. North was ready and he organized the Lagunas Nitrate Company, Limited, with a capitalization of £ 900,000. Lagunas Nitrate bought one-third of the property of Lagunas Syndicate for £ 550,000 in cash and £ 300,000 in shares.⁷⁶ In this scheme, the important fact was that the directors of both companies were identical. North and his cohorts, as heavy investors in Lagunas Syndicate, were organizing Lagunas Nitrate solely for their own profit.⁷⁷ From the money derived

⁷⁴Cornejo, El Salitre, p. 135

⁷⁵South American Journal, XLIV (June 29, 1898), 122f.

⁷⁶Railway Times (London), LXXIII (May 14, 1896), 647. Apparently, Lagunas Syndicate sold its shares of Lagunas Nitrate (since the directors undoubtedly knew their true value) for £ 324,000.

⁷⁷Investor's Review, VIII (Oct., 1896), 305.

in the sale, Lagunas Syndicate declared a dividend of one hundred per cent--the first return it made. The deal, likewise, made possible a significant increase in the capitalization of Lagunas Syndicate. By 1896 its capital had risen from £ 162,000 to £ 1,100,000. At the same time, North contrived in another way to profit from the floatation of Lagunas Nitrate. In distributing the shares of the company he and his friends retained most of the stock. This had the effect of creating a great demand for it on the stock exchange. Speculation in Lagunas Nitrate shares ensued, and some paid as high as £ 493, for the £ 100 shares.⁷⁸ North's scheme has been described as follows: "Beyond the bare number required to keep the stock exchange in a good humor, all the shares were allotted to the directors and their entourage, whom the public were subsequently induced to relieve of their holdings"⁷⁹ A comparison of the records of share ownership in Lagunas Nitrate reveals a startling amount of selling in the manner described above. North, his wife and son, Lord Rothschild, Dawson, and others too decreased their holdings tremendously, while only two stockholders increased the number of shares they held at the time of the allotment.⁸⁰ Fortunately for North, the details of these dealings were

⁷⁸South American Journal, XXXVI (June 16, 1894), 651.

⁷⁹Investor's Review, II (Oct., 1893), 332.

⁸⁰Ibid., VIII, (Oct., 1896), 305.

not revealed until after his death.

In spite of the recession of 1890-1891 and the debacle of the Primitiva, Col. North retained his leadership of English interests. Throughout the period from 1890 to 1896, most of the British companies returned adequate dividends. This was especially true during the prosperous times from 1893 through 1895. Among the companies sponsored by North and Harvey, the most successful producing firm continued to be the Liverpool Company. From 1890 to 1896 it declared dividends amounting to 125 per cent. This brought the total returns made in thirteen years by the Liverpool enterprise to three times its capital. While this company was called "the bright particular star of the North group" it was also alleged that "it has acted . . . as a decoy duck to the public by attracting money into similar but overcapitalized ventures" ⁸¹ The San Jorge company delivered 87½ per cent during an equal period and brought its total returns to slightly over one hundred per cent for the eight years it had operated. The record of the Lagunas Syndicate equalled that of the San Jorge. Other profitable North-Harvey companies and the total dividends they declared from 1890 to 1896 were the San Pablo (40%), the Paccha and Jazpampa (32½%), and the Colorado (23½%). The New Tamarugal paid its eight per cent preferred shares, but the other producing companies in the

⁸¹ Financial Times as quoted in the South American Journal, XXXIX (Sept. 14, 1895), 285.

interest group declared low dividends or none at all.

Of the eight companies outside the North-Harvey group the London company continued to be the most profitable. It distributed dividends of 95 per cent on its preferred stock between 1888 and 1896. Three others, the Santa Rita (48%), the Rosario (38½%), and the Consolidated (26½%) made good records. After the Lautaro merged with the Santa Luisa in 1892, it paid 40 per cent in dividends before 1896. Both the Julia and the Taltal companies experienced continued weakness throughout the prosperous period, and even an amalgamation of these two firms in 1894 failed to improve their status.

Between the summer of 1895 and the summer of 1896 important changes occurred in the nitrate industry with the development of a depression. This decline continued with little abatement until the close of the decade.⁸² The depression in turn led to a serious diminution in the market value of the shares of companies engaged in or dependent upon the nitrate industry. From June to September, 1895, producing companies suffered a loss in market value of one million pounds, and a like amount was lost by Nitrate Rails. The lack of confidence in companies in the North-Harvey group, with the exception of the Liverpool, caused investors in those companies to bear the brunt of the losses.⁸³

⁸²See Chapter VI, p.180ff for a discussion of this nitrate depression.

⁸³Financial Times as quoted in the South American Journal, XXXIX (Sept. 14, 1895), 285.

TABLE VII

Dividends Declared by English Nitrate Producing Companies^a
(Common Stock)

	To 1890	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Alianza							Org.	nil	nil	nil	6	6
Amelia								Org.	nil	nil	nil	nil
*Colorado	48½	nil	nil	3	6	8	6½	nil	nil	nil	nil	nil
Consolidated					8½	13	5	4	2	2	2	2
Esperanza											Org.	nil
Julia	nil	nil										
Julia-Taltal							Org.	nil				
*Lagunas Ni.						7½	nil	nil	nil	nil	nil	nil
*Lagunas Sd.	nil	nil	nil	nil	nil	nil	100	4	2	nil	3	4
Lautaro	5	nil	nil	5	10	15	10	10	6	3	4	6
*Liverpool	181	nil	nil	12½	22½	35	30	25	15	12½	15	35
^b London	842	nil	nil	nil	nil	nil	nil	nil	nil	2½	2½	8
New Julia								Org.	nil	nil		
New Paccha & Jazpampa										Org.	nil	nil
^c New Tama- rugal		nil	nil	nil ^d	nil	nil	nil	nil	nil	nil	nil	nil
*Paccha & Jazpampa		2½	2½	6	12½	9	nil					
*Primitiva	80	nil	nil	nil	nil	nil	nil					
Rosario		7½	nil	2½	6	12½	10	6	nil	nil	nil	3½
Salar del Carmen								Org.	nil	6	7½	10

	To 1890	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Santiago											Org.	16
*San Donato		nil	nil	nil	nil	2½	2½	nil	nil	nil	nil	nil
*San Jorge	15	10	15	12½	17½	20	12½	10	7½	7½	7½	7½
*San Pablo	20	2½	10	12½	10	5	nil	nil	nil	nil	nil	2½
*San Sebastian	10	nil	nil	nil	4	10	nil	2	nil	2	1½	2
*Santa Elena		5	5	7½	nil	nil	nil	nil	nil	nil	nil	nil
Santa Luisa		nil	nil									
Santa Rita		nil	nil	13	15	10	10	nil	nil	2½	nil	5
Taltal	nil	nil										
Tarapacá		nil										

^aCompiled from the Stock Exchange Year-Book (1889-1901), passim.

^bOf this company's £ 160,000 capital, £ 110,000 is in preferred shares of 7 per cent.

^cOf this company's £ 390,000 of share capital, £ 195,000 is in preferred shares of 8 per cent.

^dThis company paid common shareholders 2½ per cent in the years 1892-1894.

*Original North-Harvey companies.

Then, as the decline set in, another blow hit the industry. Col. North died of apoplexy at a stockholder's meeting.⁸⁴ Coinciding with the depression, North's death removed the sole remaining symbol of a thriving era for the nitrate investors. And even though much criticism had been leveled at him for several years, one newspaper, which had been quite unfavorable toward the man in his later life, remarked: "His removal from the field whatever the ultimate effect will be must cause disorganization, and his blunt bluffness will be missed from many a company meeting for some time to come."⁸⁵

For a while, the market reflected the loss of North who had been chairman of six nitrate companies (this number includes service companies) and a director in three others.

⁸⁴Ibid., XL (May 9, 1896), 510. A short biographical article follows on p. 524. North built an "Italian Palace" at Eltham, Kent which he called Avery Hill. It was located on an estate approximately 450 acres in extent. Avery Hill contained a picture gallery 100 feet by 50 feet, a dining room 50 feet long, and a "big, brilliant ballroom decorated in crimson velvet. The picture gallery was panelled in mahogany and marble, onyx, and tile mosaic were used in various rooms." The cost of building was between £ 250,000 and £ 300,000. See South American Journal, XXVII (Sept. 21, 1889), 381; XLI (July 11, 1896), 30. North entertained at Avery Hill all important Chileans visiting in England. P. P. Figueroa, Diccionario de extranjeros, p. 160.

⁸⁵Pall Mall Gazette (London), May 6, 1896, p. 4. Flowers were sent to North's funeral by over one hundred persons or businesses. Included in this group were the Prince of Wales, the King of Belgium, and the Khedive of Egypt. See South American Journal, XL (May 16, 1896), 549.

In addition, North had many other enterprises independent of nitrates.⁸⁶ The belief that he held large blocks of stocks, however, was not justified by the fact. Apparently, North had reduced his holdings considerably or transferred them to his son.⁸⁷ The market recovered after this disclosure, but the depression continued to harass the industry during most of the remaining years of the century.⁸⁸

Actually, the strength of the North-Harvey group was declining by 1896, and it virtually disintegrated within a few years after the death of its leader. Harvey, who succeeded North as chairman of Nitrate Rails and of some of the other enterprises, was unable to maintain firm control. He was eventually ousted from his positions with several of the companies.⁸⁹ The formation of a number of new producers as a result of the state land sales of 1894-95 had likewise served to lessen the power of the interest group.

During the period of depression from 1896 to 1900 a few companies suspended production entirely, and most others

⁸⁶Ibid., XXXVII (Nov. 10, 1894), 474.

⁸⁷Reports concerning the relatives of North conflict. One report states North had two sons, Harry and Arthur, Jr., one brother, Gamble, and a son-in-law named Lockett. See Ibid., XL (May 16, 1896), 549. Another report states North had one son, Harry, two brothers, Harry and Gamble, a son-in-law named G. A. Lockett, three daughters, for whom only two names are given--Louise and Florence. His wife was named Jane. Ibid., XLI (July 11, 1896), 48.

⁸⁸Ibid., XL (May 9, 1896), 510.

⁸⁹Ibid., XLIII (Aug. 14, 1897), 176f.

TABLE VIII

British Investments in Nitrate Enterprises, 1900^a

Company	Date Organized	Total Capital
Producing Companies		
Allianza Nitrate Co., Ltd.	1895	£ 1,200,000
Amelia Nitrate Co., Ltd.	1896	391,000
*Colorado Nitrate Co., Ltd.	1885	160,000
Consolidated Nitrate Co., Ltd.	1893	140,070
Esperanza Nitrate Co., Ltd.	1899	40,000
*Lagunas Nitrate Co., Ltd.	1894	900,000
*Lagunas Syndicate, Ltd.	1889	1,190,000
Lautaro Nitrate Co., Ltd.	1889	603,340
*Liverpool Nitrate Co., Ltd.	1883	110,000
London Nitrate Co., Ltd.	1887	160,000
New Paccha and Jazpampa Nitrate Co., Ltd.	1898	34,850
New Tamarugal Nitrate Co., Ltd.	1890	566,460
Rosario Nitrate Co., Ltd.	1889	1,108,000
Salar Del Carmen Nitrate Co., Ltd.	1896	180,500
*San Donato Nitrate Co., Ltd.	1889	160,000
*San Jorge Nitrate Co., Ltd.	1888	300,000
*San Pablo Nitrate Co., Ltd.	1888	160,000
*San Sebastian Nitrate Co., Ltd.	1889	143,750
Santa Catilina Nitrate Co., Ltd.	1900	100,000
*Santa Elena Nitrate Co., Ltd.	1889	107,875
Santa Rita Nitrate Co., Ltd.	1889	120,800
Santiago Nitrate Co., Ltd.	1899	290,000
Total Capital of Producing Companies.		7,666,645
Service Companies		
Anglo-Chilean Nitrate and Railway Co. Ltd.	1888	1,047,100
*Nitrate Provisions Supply Co., Ltd.	1889	100,000
*Nitrate Railways Co., Ltd.	1882	3,938,010
*Nitrate Producer's Steamship Co., Ltd.	1895	100,000
*Bank of Tarapaca and London, Ltd.	1888	500,000
Taltal Railways Co., Ltd.	1882	600,000
*Tarapaca Waterworks Co., Ltd.	1888	400,000
Total Capital in Service Companies.		£ 6,685,110
Total Capital in All Nitrate Enterprises.		£14,311,755

^aCompiled from the Stock Exchange Year-Book (1901),
passim.

*Original North-Harvey Company.

found it necessary to work only part time.⁹⁰ Of the twenty-two English companies that operated throughout the latter half of the nineties, only four made significant profits. While most others failed to declare any dividends, a few of the six new enterprises were making profits by 1899.

A growth in capitalization of the English nitrate companies occurred during the decade of the nineties. In 1890, eighteen producing and seven service companies represented an investment of over ten million pounds. In 1896, with seventeen producing and eight service organizations, the total investment climbed to almost thirteen million pounds. In 1900, the total investment of over fourteen million pounds represented twenty-two producing and seven service companies.⁹¹ However, these increases did not enhance English power in the nitrate industry.

After 1900, the industry underwent significant changes brought about chiefly by the government sale of vast new nitrate deposits. As a result of properties acquired in

⁹⁰Journal of Finance, IV (Oct., 1897), 149. Only the Liverpool company was at par on the stock market at this time.

⁹¹This sum includes only the capitalized value of companies listed by the Stock Exchange Yearbook. Evidently, some British interests were incorporated in Chile. For instance, North partners, Jewel and Dawson, were part owners of the San Agustín de Huantajaya Mine Co. whose headquarters were in Iquique. See South American Journal, XXIII (Jan. 9, 1887), 4. In addition, British investments in property located in Iquique were considerable. See the report of the British consul at Iquique, F. O. 16/333 (Oct. 3, 1901).

these sales, forty-six new oficinas began producing by 1907. Half of these new nitrate establishments appear to have been owned by Chileans, while English interests accounted for only one-fifth of the total. A return of prosperity, likewise, made possible the revival of twenty-four oficinas that had not been operated in 1900.⁹² Fifty per cent of the oficinas in this group were of English ownership. These changes led to an increase in production and to a shift in the ownership characteristics of the industry.⁹³

The distribution of ownership of the nitrate industry during the years immediately following the War of the Pacific is difficult to determine accurately. Detailed statistical reports on capital invested in the industry or regarding productive power are either lacking or unavailable. The earliest and most authoritative estimate is for the year 1884.⁹⁴ At

⁹²Data taken from tables in Semper and Michels, Industria del salitre, pp. 338-344. Salvador Soto, Notes on Some of the Principle Industrial Establishments in Chile (Santiago: M derma, 1901), pp. 56-58 lists the oficinas existing in 1900. Among the seven he lists as being the largest producers, four are English, and one each was listed for German, Spanish, and Chilean interests.

⁹³Adolfo Ortuzar, Chile of Today (New York: Tribune Assoc., 1907), p. 87. According to an official calculation by Chilean authorities in 1906, 60% of the capital invested in nitrates was foreign, 22% was Chilean, and 18% was represented by enterprises owned jointly by Chileans and foreigners. Chile, Ministerio de Hacienda, Comision Salitrera, Informes i Actas de la Comision Salitrera (Santiago: Cervantes, 1909), p. 148. In 1908, an English consul estimated the distribution of capital as follows: English--38.8%; Chilean--38%; German--12%; Various--11.2%. Alejandro Bertrand, La crisis salitrera (Paris: Louis Michaud, 1910), p. 70.

⁹⁴Billinghamurst, Los capitales salitreros, pp. 61ff.

that time Chilean interests controlled thirty-six per cent of the productive power of the industry while Chilean and English capital owned jointly another fourteen per cent. Foreigners accounted for the remainder with the English possessing twenty per cent. Most Peruvians lost their holdings. Thus, Chileans held in the middle 1880's the largest interests in the industry. A reported attempt by Chileans to monopolize the industry at this time apparently mis-carried, because in subsequent years, their relative position in the industry declined sharply.⁹⁵

The "Nitrate Boom" considerably altered the relative strength of English and Chilean interests. The growth of English interests continued after the boom for at least another five years.⁹⁶ So rapidly did British investments in nitrate grow between 1885 and 1895 that a British consul asserted they controlled as much as seventy per cent of the productive power of the industry. However, the most reliable data places the maximum at sixty per cent.⁹⁷ Thereafter, depression, the effects of over-capitalization, and the policy of the Chilean government regarding the sale of nitrate lands brought about a decline in the proportion of productive

⁹⁵South American Journal, XXI (May 8, 1884), 6.

⁹⁶However, the proportion of productive capacity controlled by English producers did not increase.

⁹⁷Asociación de Propaganda, Circular Trimestral, No. 13 (Nov. 25, 1897), p. IV. Statistics compiled by Eduardo Vijil, manager of the association.

power held by British companies. By 1897, they represented only forty-two per cent and at the turn of the century only forty. This decline continued after 1900 until by 1912, English interests accounted for slightly over one-third.⁹⁸

With the decline of British interests, the productive power of Chileans rose. From a low of thirteen per cent in 1895, they gradually increased until by 1912 Chilean interests surpassed the English by a few per centage points. Apparently, the most important Chilean investors in nitrates were the great financial houses in Valparaiso and Santiago. The Bank of Valparaiso and the Bank of Edwards seem to have been particularly interested in such investments.⁹⁹ Wealth came to a number of Chileans from their nitrate enterprises; however, almost no information concerning their activities appears in the available records.

Besides the English, other foreigners held properties in the nitrate industry. The Germans were represented by two or three large producers. In 1884, the Gildermeister and the Folsch and Martin interests accounted for seventeen per cent of productive capacity; the sale of some of the Gildermeister holdings to an English company cut the German portion in half by 1890. Toward the end of the century a new German firm,

⁹⁸Ibid.; Cornejo, El Salitre, p. 160, gives the estimate of Vijil for 1912.

⁹⁹Ibid., p. 146; Billinghamurst, Los capitales salitreros, pp. 37f.

H. B. Sloman and Company, acquired large holdings in the district of Tocopilla. Germans controlled about twenty per cent of production in 1900.¹⁰⁰

One Spanish nitrate baron, Matías Granja, maintained a significant place in the industry from the 1870's onward. For a long time he operated properties in Tarapaca; however, it was his activity in the district of Aguas Blancas that makes him important. During the 1890's Granja obtained control of valuable properties in Aguas Blancas, and he began building a railroad into the region from the port of Caleta Coloso, just south of Antofagasta. The completion of this railroad in 1903 opened up the Aguas Blancas deposits for exploitation. Granja and his associates controlled from five to ten per cent of productive capacity.¹⁰¹

Statistics for 1897 reveal that other foreign groups controlled the remaining fifteen to twenty per cent of productive capacity. In the order of their importance they were: French - $8 \frac{3}{4}\%$; Peruvian - $5 \frac{3}{4}\%$; Italian - $4 \frac{3}{8}\%$; Austrian - $3 \frac{3}{8}\%$.¹⁰² Thus throughout the nineteenth century European companies led by the British dominated the Chilean nitrate industry.

¹⁰⁰Ibid., p. 157.

¹⁰¹Vergilio Figueroa, Diccionario histórico y biográfico de Chile, IV, 372-375.

¹⁰²While members of these groups have not been conclusively identified, the following individuals probably formed a part of the groups indicated: Eduardo Charme and Gil Galte (French), Pedro Perfetti (Italian), Jose Devescovi, and

the Mitrovitch brothers (Austro-Hungarian). Most of these men, but Charme, Galte and Perfetti in particular, are listed as heavy purchasers of nitrate lands in the government sales. See Semper and Michels, Industria del salitre, Appendix No. 18, pp. 290-299.

CHAPTER IV

THE NITRATE RAILROADS

Those who worked nitrate deposits during the early years of exploitation faced a difficult obstacle in getting their product across the high cordillera that separated the oficinas from the sea and the nitrate markets. At that time and until 1870, the slow and expensive process of freighting by carts constituted the only means of transportation. Its inadequacy was a major impediment to the expansion of production. Full development of the industry's potential rested upon the building of railway facilities which could carry large quantities of nitrate across the cordillera with ease and rapidity. These facilities, first acquired by the Tarapacá and Antofagasta producers, were later extended into other fields. The completion of a railroad in each of the nitrate fields resulted in an immediate increase in output. Even though it was of primary importance, the process of railroad building was not completed until after the turn of the century.

The first railroad was built in Tarapacá, the only nitrate-producing region prior to 1870 and the major one thereafter. The initial concession for its construction was made by the government of Peru in 1860. But the concession-

aires failed to begin construction as did a second group to whom the privilege was transferred in 1864. Lack of sufficient capital resources was the probable cause of failure. However, the next group to receive the grant, Ramon Montero and Brothers of Lima, met with success.¹ They were granted in 1868 a twenty-five year monopoly and a guaranteed return of seven per cent for building a line from the major nitrate seaport, Iquique, into the production region as far as La Noria. It also promised that preference would be given to the owners of this railway when authorization was made for additional construction in the region. Likewise, any railroad built to Bolivia was to connect with the Iquique line. Another provision permitted the sale of the railroad to foreigners if the approval of the government was obtained, but with the understanding that "if assigned to foreigners, they shall submit to the laws of the country, without power to have recourse to any diplomatic remedy."² Additional concessions to Montero and Brothers were made in 1869 and 1871. In effect, the former granted the right to extend the railroad through the nitrate district and to the port of Pisagua, while the latter allowed the building of feeder lines to oficinas

¹Luis J. Gobenes, Documentos de los Ferro-Carriles de la Provincia de Tarapaca (Lima: Nacional, 1873), pp. 3, 12.

²Budd to Kimberley, Dec. 12, 1894, P. O. 16/298. Messrs. Budd, Johnsons and Jecks were lawyers for the Nitrate Railways Co., Ltd. See also Ross, Relaciones comerciales entre Chile y la Gran Bretaña, Appendix No. 23, p. 214.

not adjacent to the main line.³ The railroad began operating in 1870. Thereafter, construction proceeded intermittently in completing the main line and in providing rail connections for oficinas as the need for them arose.

Although originally a Peruvian enterprise, the railroad in Tarapacá was finally controlled by an English firm. In 1874, Montero and Brothers incorporated their holdings into the Compañía Nacional de los Ferrocarriles Salitreras del Perú with a capitalization of £ 1,200,000; however, loans had to be secured in London to meet the costs of construction. Financial difficulties led the company into receivership within a short time, and control was not restored to it until just before the War of the Pacific began.⁴ In 1882, another reorganization brought about the incorporation of the company in England, and the Tarapacá rail system, now known as the Nitrate Railways Company, Limited, acquired all of the assets of the previous organization. Nitrate Railways kept the same capitalization but had outstanding £ 1,100,000 in debentures.⁵ The transfer was duly approved in advance by the government as the original concession required.⁶

³Ibid., pp. 215f.

⁴Russell, A Visit to the Nitrate Fields, pp. 355-358.

⁵Ibid., pp. 222, 539; Memorandum Presentado Por la Compañía de los Ferrocarriles Salitre a la Honorable Comisión (Santiago: La Republica, 1883), p. 28.

⁶Ibid.; Budd to F. O., Jan. 15, 1894, F. O. 16/298.

The formation of the first combination in 1884 brought financial difficulties to the company and to Ramón Montero who until then had controlled its operations. The combination restricted production. Thus, rail traffic was curtailed, the company failed to make money, and the market value of its stock declined. As a result, Montero became embroiled in financial difficulties and in 1886 was forced to part with most of his stock. A syndicate of English investors purchased : some seven thousand of the twelve thousand shares of stock for approximately fourteen per cent of their nominal value.⁷ In the following year, the leader of these English investors, Col. North, entrenched himself in control of the company by buying another two thousand shares from the original owners.⁸

Under Col. North's direction, Nitrate Railways participated in the nitrate boom of 1888-1889. Much speculation centered about this company. After the £ 100 shares of the company, whose market quotation rose to £ 285 in January, 1889, were divided into £ 15 shares, its stocks could be more easily traded on the exchange. It was widely believed that the promoters of this railroad managed to garner huge profits

⁷Stock Exchange Yearbook (1890), pp. 229f; Ross, Relaciones entre Chile y la Gran Bretaña, pp. 67, 74f.

⁸South American Journal, XXV (March 31, 1888), 270; June 9, 1888, p. 335.

in the ensuing speculations.⁹ Even so, the price of Nitrate Railways stock, unlike the stock of most companies participating in the boom, possessed a higher economic value than its share capital indicated. The chief reason for this lay in the monopoly the company enjoyed which enabled it to charge high freight rates without materially lessening the volume of traffic rolling over its lines.

The main line of Nitrate Railways, which was 190 miles long, started from Iquique where it ascended the coastal range, then turned northward and traversed the nitrate region, and finally veered west and down the cordillera to the port of Pisagua. Its many branch lines, which provided rail connections to outlying oficinas, included a 46 mile extension to the Lagunas beds south of Iquique. In all, the road had 291 miles of track by 1896. By 1903 its trackage totalled over 330 miles.¹⁰ This railway system provided the main transportation facilities for nitrate into the twentieth century. Before other railroads were built in Tarapacá, Nitrate Railways carried to port more than three-fourths of all nitrate exported.¹¹

As a matter of fact, Nitrate Railways proved to be

⁹Ross, Relaciones comerciales entre Chile y la Gran Bretaña, pp. 67f.

¹⁰Burdett's Official Intelligence (London) (1896), p. 739; Cuevas, Nitrate Industry, p. 50.

¹¹Delegación de Salitreras, Memoria en 1897, p. 61; South American Journal, XLIV (May 18, 1898), 604f; XLVI (April 22, 1899), 433.

the real "gold mine" of the industry until 1896. From the time Col. North gained control of the company in 1887 through the year 1891, shareholders received a fifteen per cent stock bonus (in 1888) and dividends whose total value equalled the amount of outstanding stock. From 1892 through 1895, dividends for holders of common stock amounted to 68 $\frac{3}{4}$ ths per cent, while preferred stockholders received their seven per cent and owners of debentures (which totalled £ 1,785,400 in 1895) received an interest of five per cent. Because of these large and steady returns on its high capitalization, the record of Nitrate Railways during these years far exceeded that made by any other enterprise connected with the nitrate industry.¹²

Largely as a result of these huge profits, considerable hostility toward Nitrate Railways developed in Chile. Company officials were appropriately embarrassed by the adverse public opinion and they sought means of counteracting it. The solution they chose, however, did not involve lowering rates and reducing actual profits. Rather, it was to undertake a financial reorganization of the company which would enable the shareholders to continue to receive large

¹²Statistics are taken from the Stock Exchange Year-book (1889-1896). See also Table X, p.150 below. The Investor's Review, II (1893), p. 336 commented: "Dividends have been wrung out of the nitrate producers of Tarapaca by the infliction of excessively high rates, the directors of the Railways Company--directors at the same time of the producing companies--preferring the pecuniary benefit of the few to the welfare of the many."

profits without the appearance of having done so. In explaining the project to a meeting of stockholders, the close associate of Col. North, Robert Harvey, remarked that

. . . it will be of very great advantage to the shareholders. Unfortunately, our railway is not in England, and large dividends are not looked favorably upon there and I would rather not say anything on the subject; but it is really to the advantage of all the shareholders that the dividends shall not be so large apparently.¹³

When placed into effect, the reorganization plan added to the common shares of the company seven per cent preferred shares with a face value of £ 276,000. Since the preferred was distributed to each shareholder according to a ratio of one preferred share for each five shares of common stock, the new stock added nothing to the actual capital of the company.¹⁴ In spite of this measure, dividends remained at twenty per cent for two more years.

Neither Peru nor Chile fully respected the monopoly privilege granted the Montero interests. The government of Peru created the first potential competitor of Nitrate Railways by granting a concession to the Esperanza Sociedad.¹⁵

¹³South American Journal, XXX (Jan. 17, 1891), 74.

¹⁴Ibid., May 9, 1891, p. 582; Money Market Review, LIII (May 9, 1891), 1106; Ross, Relaciones entre Chile y la Gran Bretaña, Appendix No. 24, pp. 231-235 gives a copy of the law that authorized the reorganization.

¹⁵The Esperanza Sociedad received from the Peruvian government certificates to the value of S 990,000. See Valdes Vergara, Administración de Tarapacá, Appendix No.1, p. 140.

This concession called for the building of a railroad from the port of Patillos, south of Iquique, to the Lagunas nitrate fields. Although Montero and Brothers opposed the project on the grounds that it violated their monopoly privileges, their protests failed to halt its construction.¹⁶ However, the company was unable to finish laying track before the outbreak of the War of the Pacific; and apparently, resumption of work immediately following the war was impossible.¹⁷ But plans for completing the line were being made when Col. North became the guiding hand of Nitrate Railways. Realizing that additional protests would be useless, North personally bought a controlling interest in the Patillos enterprise. Later he sold his interest to Nitrate Rails.¹⁸ In this way the first major threat to the rail monopoly was successfully met.

While all challenges to the transportation monopoly of Nitrate Railways were stoutly fought by that company, its efforts were never entirely successful. Many nitrate producers and the Chilean government saw in the monopoly and in the company's policies a harmful influence on the industry, and they worked to lessen its great powers. The hostility toward Nitrate Railways was based on several considerations.

¹⁶Ibid.

¹⁷The delay in completing the Patillos railroad may have resulted from lack of funds.

¹⁸Railway Times, LXXV (Jan. 8, 1898), 38, 49f.

In the first place, producers of nitrate saw potential profits being siphoned off by the rail company as a result of its high freight charges. Secondly, the government believed that the high rates reduced the quantity of nitrate exported and consequently the revenues it collected from the tax on nitrate exports.¹⁹ Thirdly, since it was a foreign company, profits made by Nitrate Railways aroused resentment among Chileans. Many Chileans favored government action to curtail the monopoly: some supported the idea of allowing other railroads to be built either by the state or private interests in competition with Nitrate Railways, as was eventually done; still others sought to add the system to the state-owned railway network.²⁰

Thus, because of its high rates and large profits, Nitrate Railways became to Chileans the symbol of their failure to win the greatest profits from the industry and of British control over nitrates. President Balmaceda, being in agreement with this sentiment, inaugurated a policy designed to reduce foreign dominance of the nitrate fields by encouraging Chilean investment there.²¹ A beginning had already been made in the latter months of the preceding

¹⁹The export tax was, likewise, a burden on the nitrate trade.

²⁰South American Journal, XXXI (May 14, 1892), 542; Kennedy to Earl of Kimberley, No. 42 Sept. 3, 1894, F. O. 16/298.

²¹Russell, A Visit to the Nitrate Fields, p. 312.

administration when by executive decree President Santa María annulled the privileges of Nitrate Railways.²² Balmaceda supported this action over the protests of both the company and the British Foreign office.²³ He also took advantage of a bitter and vigorous controversy over rates between Nitrate Railways and the oficina Agua Santa to grant a concession for the building of a railroad to the oficina in competition with Nitrate Railways. The result was the formation of the Compañía de Salitre i Ferrocarril de Agua Santa in 1890.²⁴

The Agua Santa line became the first effective competitor of Nitrate Railway and it was owned by Chileans. Construction of its sixty-four miles of narrow gauge track began in 1890. Two years later it started operating. By 1896 the Agua Santa Railroad had tapped the freight of the central section of the Tarapacá fields so effectively that through its Port of Caleta Buena more than fifty per cent as much nitrate was shipped as passed through the Port of Iquique.²⁵ While the company was not an immediate success

²²Budd to Sanderson, Jan. 11, 1894, F. O. 16/298, Enclosure No. 1. Apparently the British government supported the company and protested the action.

²³See Kennedy to Salisbury, No. 41f, May 12, 1890, F. O. 16/259; and Budd to Sanderson, Jan. 11, 1894, F. O. 16/298.

²⁴Russell, A Visit to the Nitrate Fields, p. 197; Budd to Sanderson, Jan. 11, 1894, F. O. 16/298, Enclosure No. 1. The grant was made to J. Lira Errazuriz who subsequently transferred it to the Agua Santa Nitrate and Railroad Co.

²⁵South American Journal, XXXIV (Feb. 18, 1893), 189;

financially, it gave indications of becoming a profitable enterprise before the end of the century. Dividends declared on its £ 600,000 of common shares totalled twenty-two per cent by 1900.²⁶

In 1890, Balmaceda issued a concession for another competitive railroad to be built in Tarapacá. To exercise this privilege the Compañía de Salitre i Ferrocarril de Junín was formed. Like the Agua Santa Company it was controlled by Chileans. In operation by 1894, the Junín railway tapped the nitrate beds in the north of Tarapaca, just south of Pisagua. By 1896 it carried over its fifty-six mile line of narrow gauge track more nitrate than was exported from Pisagua.²⁷

Nitrate Railways was unceasing in its efforts to maintain its monopoly against these projects. The support of the Foreign Office was solicited and obtained for the fight. But in spite of official protests, the Chilean government refused to respect the monopoly privileges claimed by the

XXXIX (July 27, 1895), 102; Delegación de Salitreras, Memoria en 1897, p. 61; Luis Caldemas, Geografía Económica de Chile (Santiago: Universitaria, 1911), p. 81; See also J. P. Canto, Chile (New York: Rand-McNally, 1912), p. 196.

²⁶The Agua Santa Railroad was listed in the Stock Exchange Yearbook (1901). This probably indicates that English investments in the company had become either quite significant or the controlling ones.

²⁷C. A. Mason to J. H. Sadler, November 11, 1896, Encl. No. 6 in Sadler to F. O. No. 36, F. O. 16/296. Great Britain, Foreign Office, Diplomatic and Consular Reports, Annual Series (London, Harrison and Sons), 1897, No. 2287, p. 10.

company.²⁸ During most of Balmaceda administration Nitrate Railways even found it impossible to get a court hearing on the question. Nevertheless, in 1890 a suit was successfully initiated against the Agua Santa Railroad. It dragged on without a judgement being made for over four years, and no remedial action was obtained by the company from the Chilean courts.²⁹ In 1892, the Foreign Office was advised by its legal counsel to withhold any further protests until the Chilean courts rendered its decision.³⁰ Although the Foreign Office continued to support the Nitrate Railways, apparently it held no hope of preserving the rights of the company.³¹

Meanwhile, in 1884, the Chilean government was giving consideration to an application made by an English firm, Anthony Gibbs and Sons, for another railway concession in Tarapacá. Gibbs and Sons were successful in making it appear in Chile that the scheme had the support of the Foreign

²⁸Kennedy to Sanderson, May 27, 1890, F. O. 16/259;
Budd to Sanderson, Jan. 15, 1894, F. O. 16/298.

²⁹Budd to Sanderson, Jan. 11, 1894, F. O. 16/298.
Enclosed is a precis of the suit brought by Nitrate Railways against the Agua Santa Railroad. On one occasion, a representative of the Agua Santa called Nitrate Railways "an odious monopoly which attempts to destroy the national industry and the freedom of trade."

³⁰Law Officers to F. O., Jan. 16, 1894, F. O. 16/298.

³¹Budd to Sanderson, Jan. 18, 1894, F. O. 16/298.
Sanderson noted on the flap of this communication that "It is useless to plunge into controversy."

Office.³² The British Minister at Santiago, had previously advised Chile against granting the concession on the grounds that it infringed upon the rights of Nitrate Railways; however he was later instructed not to oppose the project but merely to "reserve the right of remonstrating against it."³³

For the next several days representatives of both Nitrate Railways and Gibbs and Sons exerted pressure on the Foreign Office. The lawyers for Nitrate Railways wrote:

"The Directors have learnt with some surprise-- I might almost add with dismay--that, in consequence of some telegram received by Mr. Kennedy from the Foreign Office, the Senate in Chili are under the impression that Her Majesty's Government favour the granting of concession to Messrs. Gibbs and Sons

We have always understood that Her Majesty's Government were satisfied as to the propriety of the position taken up by the Railway Company and were doing all in their power to prevent the granting of these concessions by Chili

The company is counting upon--and I trust not without reason--the strong support of Her Majesty's government.³⁴

On the other hand, Gibbs and Sons expressed its appreciation for the instructions directing Kennedy to abstain from opposing the proposed concession. Yet the refusal of Kennedy to retract previous statements, it was said, operated to the disadvantage of the company. A request was made,

³²Lord Rosebery to Kennedy, Tel. No. 2, Jan. 11, 1894, F. O. 16/298.

³³Lord Rosebery to Kennedy, Tel. No. 2, Jan. 11, 1894, F. O. 16/298.

³⁴Budd to Sanderson, Jan. 11, 1894, F. O. 16/298.

therefore, that Kennedy be instructed to withdraw his previous opposition to the project. If this were done, the company maintained, "Nitrate Railways and ourselves will have a free field with the Chilean authorities."³⁵

Congress adjourned late in January without taking action on the proposed concession, and the Foreign Office welcomed the opportunity to clarify its position.³⁶ While it was an established policy to maintain strict neutrality in the rivalries between English interests before a foreign government, the Foreign Office preferred that no action be taken regarding the proposed concession to Gibbs and Sons until the Chilean courts rendered their decision in the Agua Santa case. When further study revealed that once passed by Congress the concession could not be vetoed by the President, the Foreign Office changed its policy again. It reverted to its original position of unofficial opposition to the passage of the bill.³⁷

In the spring of 1894, at the suggestion of the Foreign Office, Gibbs and Sons initiated direct negotiations with Nitrate Railways for the purpose of making a satisfactory freight rate settlement. Had this been accomplished,

³⁵Gibbs to Sanderson, Jan. 11, 1894, F. O. 16/298.

³⁶Joel to Lord Rosebery, No. 3, Jan. 17, 1894, F. O. 16/298.

³⁷Law Officers to F. O., Jan. 16, 1894, F. O. 16/298. Their recommendations were carried out. See Sanderson to Kennedy, No. 32, May 24, 1894, F. O. 16/298.

Gibbs and Sons were willing to give up their attempt to obtain a railway concession. However, Nitrate Railways would go no lower than eight pennies per quintal while Gibbs wanted that rate reduced to six pennies when the monopoly rights expired in 1895.³⁸ The Foreign Office advised a second attempt at compromise but nothing was done.

As a matter of fact, by the summer of 1894 Nitrate Railways was not seriously concerned over possible competition by Gibbs and Sons. The outlook for the Gibbs concession had dimmed considerably. Minister Kennedy reported that opposition to the concession had increased. The reluctance to lessening the importance of Iquique as a port and the desire to respect the wishes of Her Majesty's government had constituted the basic reasons for past opposition to the concession. Added to these was the hostility toward Gibbs and Sons created by recent revelations of that firm's participation in currency speculations which adversely affected the rate of exchange. By September the Gibbs concession was almost a thing of the past.³⁹

At this time the Chilean government made an offer to Nitrate Railways. In a conversation with Minister Kennedy, the Chilean Minister of Interior noted that public opinion

³⁸Gibbs to Sanderson, June 14, 1894, F. O. 16/298. Also see enclosures.

³⁹Kennedy to Lord Kimberley, No. 11, May 12, 1894, F. O. 16/298; Kennedy to Kimberley, No. 41, Sept. 1, 1894, F. O. 16/298.

demanded something be done to curb the railroad monopoly in Tarapacá. After expressing the desire of doing as little injury as possible to vested interests, the Chilean minister proposed a plan whereby Nitrate Railways and the government might cooperate to mutual advantage. The plan provided for only a moderate reduction in rates and freedom from further competition. In return the railroad was to assume responsibility for making major improvements in the port of Iquique and building a railroad to La Paz, Bolivia. Although Nitrate Railways was informed of the proposal, it was apparently rejected.⁴⁰

Another point of controversy between the government of Chile and Nitrate Railways involved the latter's claims for damages incurred during the Revolution of 1891. Chile rejected these claims because of the clause in the original concession prohibiting foreign owners from having "recourse to any diplomatic remedy."⁴¹ Support given the railway by the Foreign Office engendered a spirited debate. The point was made that Chilean opposition to the claim for the reason stated above was incompatible with the revocation of the monopoly in 1886 and the subsequent concession to the Agua Santa Railroad. Still, Chile maintained her position and

⁴⁰Kennedy to Kimberley, No. 42, Sept. 3, 1894, F. O. 16/298.

⁴¹Budd to Kimberley, Dec. 12, 1894, F. O. 16/298.

Nitrate Railways collected no claims.⁴²

After 1895 Nitrate Railways underwent a period of readjustment, necessitated by a succession of events which altered the status of the company. These new factors were three in number: the complete loss of the monopolistic position; the spread of a depression affecting the entire nitrate industry; and the death of Col. North in 1896. The first two events required a revision of policies. The death of Col. North, who, with close associates, had ruled the company in an arbitrary and secretive manner, gave other stockholders an opportunity to exert an influence on company affairs.

The effective competition provided by the Agua Santa and Junín Railways forced the company to cut rates drastically. Rates that had averaged 9 3/4 pennies per quintal

⁴²Law Officers to F. O., Sept. 27, 1895, F. O. 16/298; Budd to Kimberley, Dec. 12, 1894, F. O. 16/298. See also note of W. E. Davidson on back of this communication. British claims arising out of the Revolution of 1891 involved many nitrate producing companies and railroads operating in the mining region of north Chile. Most of the claims, however, were disallowed. Marcial Martínez, Informe del Ajente de Chile ante el Tribunal Arbitral Anglo-Chileno (Santiago: Ercilla, 1896), pp. 126ff. A list of these claims can be found in Chile, Reclamaciones presentados al Tribunal Anglo-Chileno (1894-1896) (Santiago: Ercilla, 1896), III, Appendix No. 2. Claims submitted by nitrate enterprises totalled \$1,133,450. Of this sum the claim of Nitrate Railways equalled \$858,457. Chile paid only \$29,026 in claims to British companies.

dropped to an average of 4 1/2 pennies by 1903.⁴³ Constituting as this did a more than fifty per cent drop in freight rates, it largely explains the reduced earnings of the company after 1896.

Robert Harvey, who replaced Col. North as chairman of the company, stated in 1896 that he hoped Nitrate Rails could just hold its own,⁴⁴ but even this proved impossible. Net earnings, which had averaged £ 488,500 between 1888 and 1891, dropped over forty-two per cent between 1895 and 1898 to an average of £ 279,746.⁴⁵ Dividends disappeared altogether in 1896 and never did exceed five per cent thereafter.

Because of the sharp decline in dividends and in the market value of the stock of Nitrate Railways which occurred after North's death, stockholders became more insistent in their demands to have a knowledge of the actions of the directors. They realized that the financial position of the company was weak and that administrative costs had been high. Criticism grew until charges of mismanagement were put before the board in November, 1896. A committee was appointed by the board to investigate conditions; but because of the lack of confidence in its members, a new committee was created

⁴³South American Journal, XL (June 6, 1896), 642; XLIV (Jan. 8, 1898), 40; Journal of Finance, IV (July-Dec. 1898), 718; Semper and Michels, Industria del salitre, p. 108.

⁴⁴Investor's Review, VIII (July, 1896), 50.

⁴⁵South American Journal, KXXII (April 23, 1892), 474.

the following year.⁴⁶

Reporting late in 1897, the committee created a sensation with its revelations. It was charged that the board had entered into contracts with the Tarapaca Waterworks Company on such terms as could not have been entertained if the interests of the water company had not been largely represented on the board of the railway.⁴⁷ Another charge concerned an item of £ 93,615 listed in the books under the heading "legal expenses, losses, and compensation in Chile." Known as the secret service fund, the amount was expended between 1887 and 1895 at the direction of Col. North. Besides these funds, North received £ 156,693 between 1893 and 1896 for legal expenses.⁴⁸ Concerning these disclosures the South American Journal remarked: "The directors make no secret of the fact that they knew perfectly well for what purpose the sums paid were to be used, which was to oppose in the Chilean Legislature and Law Courts any scheme for rival lines threatening their alleged monopoly, and they claim that they were successful in so doing, and in putting off the evil day for some years." According to the report two lawyers in Chile were in charge of disbursing the

⁴⁶Letter, written by H. Allen (stockholder in Nitrate Railways) to the Economist, LIV (Nov. 28, 1896), 1576; see the issues of Nov. 21, 1896, p. 1531 and Dec. 12, 1896, p. 1642.

⁴⁷Railway Times, LXXV (Jan. 15, 1898), 86.

⁴⁸Ibid., May 15, 1898, p. 644; South American Journal, XLIV (Jan. 15, 1898), 70.

funds.⁴⁹ One of these, Julio Zegers, was a prominent member of the government party, but he denied that any money was used improperly or that he was paid excessively for his services.⁵⁰

The Chilean representative in London also denied the charges of corruption made against his government, pointing out that North's failure in maintaining the monopoly proved the integrity of his government. But he did estimate that £ 15,000 would have been sufficient to cover legitimate legal expenses, the implication being that North, perhaps, pocketed a large part of these funds. A Chilean investigation, although proposed, was never carried out.⁵¹ In all probability some of these funds were used in a manner that would not bear revealing; however, from the company's standpoint, an effective effort to preserve the monopoly was beneficial financially. Such expenditures by foreign firms operating in Latin America were not unusual; and furthermore, it is impossible to calculate the sums necessary to achieve the purposes for which this money was used.

Even though the report emphasized the fact that the past policy of the railroad had suited the interests of the North-Harvey group rather than the company, the board ably

⁴⁹Ibid., pp. 70f.

⁵⁰Ibid., March 16, 1898, p. 353; See also V. Figueroa, Diccionario Biográfico, III, 369.

⁵¹South American Journal, XLIV (Jan. 15, 1898), 67; Jan. 22, 1898, p. 103; May 7, 1898, pp. 505f.

defended its actions. Stressing the need for board members who had influence in producing companies, it pointed with pride to its past record. The statement issued by the board claimed that from 1887 through 1896, £ 2,586,392 had been paid to shareholders and that this represented 168 3/4ths per cent in dividends.⁵² Indeed, the company had returned large profits to investors; but because of past policies and competition from new railroads, prospects of dividends in the immediate future were not bright.

The investigation by the committee ended the dominance of the North-Harvey clique. Robert Harvey was ousted from his position as Chairman of the Board and another North-Harvey lieutenant also lost his position.⁵³ Criticism was levelled at North's policy of building the extension to Lagunas. Originally warranted on the supposition that the maximum freight rate would be charged, the plan did not materialize. Since the extension vastly increased the value of the property and because North held interests in that producing company, it was alleged that the welfare of the railroad was not adequately protected. Inasmuch as Lagunas sold one-third of its lands for £ 850,000--the original investment being £ 110,000--the charge seems to be well-founded.⁵⁴

⁵²Ibid., XLIII (July 31, 1897), 121.
24, 1896 quoted

⁵³Ibid., Aug. 14, 1897, 1896), 503.

⁵⁴Railway Times, Oct. 24, 1896 quoted in South American Journal, XLI (Nov. 7, 1896), 503.

The Antofagasta fields had been the second nitrate area to obtain access to the sea via rail. Here, both the fields and the railroad were operated by the same company, the Compañía de Salitre i Ferrocarril de Antofagasta, whose organization has been treated elsewhere.⁵⁵ Just prior to and during the War of the Pacific, production in Antofagasta rose sharply as a result of the diminution of exports from Tarapacá where the monopolization policy of Peru and the war had led to a partial paralysis of production. Maximum exportation from Antofagasta was reached in 1879 when over a million quintals were shipped. But by the end of the war and with the revival of the Tarapacá fields, the freight carried over the Ferrocarril Antofagasta fell to one-quarter of a million quintals--a level it maintained throughout the remainder of the century. This railroad, however, served other interests in addition to that of nitrates, and in 1884 it received permission to build its lines to the Bolivian border.⁵⁶ In 1888, the nitrate and railroad activities of the company were divided into two separate and independent organizations. The railroad became known as the Compañía de Ferrocarril de Antofagasta.

The Taltal region was the next to obtain rail

⁵⁵The Antofagasta Railway was an Anglo-Chilean enterprise established as a result of a concession issued by the Bolivian government in 1868. See Chapter I, pp. 23ff.

⁵⁶South American Journal, XXVI (June 5, 1889), 748.

TABLE IX
Railroads in the Nitrate Region

Railroad	Length ^a (kilometers)	Field Served	Nitrate Ship- ments, ^b 1900 (Metric Quintals)
Nitrate Railways Co., Ltd.	529	Tarapacá	7,392,236
<u>Compañía de Salitre y</u> <u>Ferrocarril de Agua</u> <u>Santa</u>	122	Tarapacá	3,688,355
<u>Compañía de Salitre y</u> <u>Ferrocarril de Junín</u>	105	Tarapacá	688,760
Anglo-Chilean Nitrate and Railway Co., Ltd.	112	Tecopilla	1,691,611
<u>Compañía de Ferrocarril</u> <u>de Antofagasta</u>	442	Antofagasta	253,935
<u>Empresa del Ferrocarril</u> <u>de Caleta Colosa</u>	90	Aguas Blancas	(Not completed until 1903)
Taltal Railways Co., Ltd.	212	Taltal	886,087

^aDelegación Fiscal de Salitreras, Memoria en 1901, p. 58.

^bIbid., p. 84.

transportation. An English concern, Taltal Railways Company, Ltd., began constructing lines in 1882 and completed the major portion by the middle of 1888. Its one hundred thirty miles of track made possible a vast increase in nitrate production in Taltal; and by 1896 that region exported over two million quintals, approximately eight per cent of the nitrate exported in that year.⁵⁷ The profits reaped by

⁵⁷Burdett's Official Intelligencer, 1896, p. 777;

Taltal Railways never reached the lucrative levels of Nitrate Railways. From 1882 through 1896 total dividends equalled only $4\frac{1}{2}$ per cent and never exceeded seven per cent in any one year.

The rail facilities of Tocopilla were built by an English firm organized in 1887, the Anglo-Chilean Nitrate and Railway Company, Ltd., and were completed in 1890. By 1900, that rail line was carrying about the same quantity of nitrate as the Taltal line. By 1895, its capitalization had reached £ 500,000. No dividends for common stockholders were declared but most of the stock of the company was in seven per cent preferred shares.⁵⁸ While noting that the building of this railroad was of immense significance in permitting an increase in over-all production, Billinghamurst charged that the company, like others created in 1888-89, was over capitalized.⁵⁹

The Aguas Blancas field was the last major nitrate region to acquire rail transportation. Until 1903 its output had to be transported by mule-pulled carts. Its railroad which was built by the Spanish nitrate firm of Granja y Compañía led to the port of Caleta Colosa, just south of

Delegación de Salitreras, Memoria en 1897, p. 78; Memoria en 1901, p. 58.

⁵⁸Ibid., p. 57; Great Britain, Consular Reports, Annual Series, 1899, No. 2287, p. 28.

⁵⁹Billinghamurst, Los capitales salitreros, p. 96.

TABLE X
Capitalization and Dividend Statistics
for Nitrate Railroads^a

Company	Date Organized	Total Capital, 1900	to 1890	to 1896	to 1901
Anglo-Chilean Nitrate and Rail- way Co., Ltd.	1888	\$1,047,100	nil ^b	nil	nil
<u>Compañía de Ferro- carril de Anto- fagasta.</u>	1888				
<u>Compañía de Sal- itre i Ferrocarril de Agua Santa</u>	1890	600,000	---	nil	22%
<u>Compañía de Sal- itre i Ferrocarril de Junín</u>	1890	265,000			
Nitrate Railways Co., Ltd.	1882	3,938,010	60%	108 3/4%	16%
Taltal Railways Co., Ltd.	1882	600,000	17%	24 1/2%	

^aStatistics compiled from Stock Exchange Yearbook, 1891-1901, passim.

^bMost of the shares of this company were in 7 per cent preferred stock.

Antofagasta.⁶⁰

The organization of the Taltal and Anglo-Chilean railways, like those that directly competed with Nitrate Rails, met with loud but unsuccessful opposition from Col. North. His purpose was to disparage these enterprises by

⁶⁰Semper and Michels, Industria del salitre, p. 108.

raising doubts regarding the productivity of the fields upon which their prosperity would be based, thereby preventing them from obtaining capital in England.⁶¹

These seven railroads, which served the nitrate industry almost exclusively, comprised an important portion of the railroads of Chile. In 1903, their main line tracks accounted for approximately twenty-three per cent of the railroads of Chile and forty-four per cent of the private railroads. When branch lines are included, they represent thirty and sixty per cent respectively.⁶²

⁶¹Billinghurst, Los capitales salitreros, p. 96, footnote.

⁶²Chile, Statistical Abstract for the Republic of Chile, 1917 (Santiago, 1918), p. 143. See also Table No. IX on p. 148.

CHAPTER V

PRODUCTION AND CONSUMPTION

After the first successful shipment of nitrate to Europe was made in 1831, the nitrate industry gradually expanded its output. However, it was not until the decade of the 1860's that the rate of expansion increased significantly. The rapid growth of the industry at this time was brought about by the opening of additional markets and by improving the technique of production. Since nitrate was used principally as a fertilizer it had to compete with guano in the markets of America and Europe. In the contest for markets nitrate was at a disadvantage because guano had appeared earlier and farmers were accustomed to using it. However, the depletion of the guano deposits early in the decade of the 1870's simultaneously reduced competition in the fertilizer market and enlarged the demand for nitrate.¹ Thus, with their position greatly improved, nitrate producers began to expand their production facilities.

The improvement of the technique of processing caliche, however, was necessary before productive capacity could be expanded sufficiently. The really important changes

¹Hutchinson, Two Years in Peru, I, 57. See also Chapter I, pp. 5ff.

along this line came during the latter half of the nineteenth century, a period characterized by advancements in technical knowledge in many other industries. Before that time, production of nitrate on a large scale had been impossible because the procedure used in elaborating caliche was time-consuming and expensive. In addition, this early method could process only caliche containing a high percentage of nitrate.² Beginning in 1853, major technical advances were made. The use of steam in the processing method was introduced; and between 1876 and 1880, a new method of elaborating caliche based upon the use of steam was perfected and introduced.³ The new procedure, called the Shanks Process, permitted greater economy in production and made possible the use of lower grade caliche.⁴ While the older process required caliche having at least twenty-five per cent nitrate, the Shanks Process could refine caliche having only thirteen per cent.⁵ Consequently, producers could utilize

²Apparently the process in use was introduced early in the nineteenth century by a German immigrant named Otto Harnecker. See V. Figueroa, Diccionario biográfico, III, 429.

³Semper and Michels, Industria del Salitre, pp. 61f.

⁴For a description of the Shanks process see Ibid., pp. 62ff. Although no precise date for the introduction of the Shanks process can be given, it was in use at least by 1884. The development of the process seems to have been a gradual one for which no one individual was responsible.

⁵The Shanks process also made possible the utilization of iodine found in the caliche. While iodine became the most important by-product of the industry, even its production was limited by agreement among producers. The

a larger amount of the nitrate deposits found on their property.

The growth in nitrate production, resulting from the increased demand and the improved processing techniques, can be followed in Table XI below.⁶ For most years when the increase in output declined, the reason lay in the formation of a combination.⁷ Moreover since the productive capacity of the industry was usually much larger than actual production, output could have been increased even more if the demand for nitrate had warranted.

The expansion of production was brought about by enlarging existing oficinas as well as by the creation of new ones. Statistics indicate, however, that the number of oficinas in operation month by month varied widely, and that rarely were all running simultaneously.⁸ Even with a number of establishments closed temporarily, because of the war,

iodine combination made agreements with producers of iodine in other countries beginning in 1886. At that time, Chilean iodine was allotted almost sixty per cent of the world market. Some form of restriction was necessary because of the limited market for iodine. See Billinghamurst, Los capitales salitreros, pp. 72ff; Delegación de Salitrera, Memoria en 1901, pp. 54f.

⁶The figures given for nitrate exports can be considered equal to production since only a small amount of nitrate was consumed on the oficinas.

⁷Combinations operated during the following periods: 1885-1886; 1891-1893; 1896-1897.

⁸Asoc. de Propaganda, Circular Trimestral, No. 9 (July 25, 1896), p. xxi, and No. 17 (Jan. 31, 1899), p. xviii.

TABLE XI

The Production, Consumption, and Price of Nitrate

Year	Nitrate Exports ^a (in Spanish Quintals)	Nitrate ^a Consumption (in Spanish Quintals)	Average ^b Prices/ton
1830-34	361,386	• • • • •	• • • • •
1835-39	716,349	• • • • •	• • • • •
1840-44	1,592,306	• • • • •	• • • • •
1845-49	2,060,592	• • • • •	• • • • •
1850-54	3,260,492	• • • • •	• • • • •
1855-59	5,638,763	• • • • •	• • • • •
1860-64	6,979,208	• • • • •	• • • • •
1865-69	10,594,026	• • • • •	• • • • •
1869	2,507,000	• • • • •	• • • • •
1870	3,943,000	• • • • •	• • • • •
1871	3,607,000	• • • • •	• • • • •
1872	4,421,000	• • • • •	• • • • •
1873	6,624,000	• • • • •	• • • • •
1874	5,583,000	• • • • •	• • • • •
1875	7,191,000	• • • • •	• • • • •
1876	7,317,000	• • • • •	• • • • •
1877	4,991,000	• • • • •	• • • • •
1878	7,023,000	• • • • •	• • • • •
1879	10,161,000	• • • • •	• • • • •
1880	4,869,000	• • • • •	15 5 3/4
1881	7,739,000	• • • • •	14 4 1/2
1882	10,701,000	• • • • •	12 11
1883	12,820,000	• • • • •	11 2
1884	12,152,000	• • • • •	9 7 1/4
1885	9,478,000	• • • • •	10 2 1/2
1886	9,805,000	• • • • •	9 8 3/4
1887	15,495,000	• • • • •	9 6 1/2
1888	16,682,000	• • • • •	9 10 1/2
1889	20,682,000	• • • • •	9 3
1890	23,373,000	• • • • •	8 2 1/4
1891	18,739,000	20,960,785	8 8 3/4
1892	17,478,000	20,248,000	8 9
1893	21,076,354	20,453,406	9 5 1/2
1894	23,978,983	22,750,901	9 4 1/2
1895	27,401,297	23,858,193	8 2 1/4
1896	25,175,832	24,604,150	7 11 1/2
1897	24,971,648	25,225,829	7 9 1/4
1898	27,903,553	27,683,222	7 6 3/4
1899	30,213,532	30,712,192	7 11 3/4
1900	31,741,293	30,443,020	8 5 1/2

^aDelegación de Salitreras, Memoria en 1901, p. x.^bChile, Statistical Abstract for 1917 (Santiago: Universo, 1918), p. 115.

there were twenty-seven oficinas working in 1880. By 1884, the number reached forty-four. Continued expansion brought new concerns into operation until 1897 when seventy-two oficinas were operating. Many of these new oficinas were created as a result of the selling of state-owned lands in 1894 and 1895. However, a decline resulting from the nitrate depression of the late 1890's brought the number of working oficinas down to sixty-one by 1900.⁹

Because oficinas operated under a wide variety of conditions, there was no uniformity in the cost of production. This was true even though the same type of equipment was used in all oficinas. The chief factors responsible for variations in production costs were the quality and location of caliche worked, the size of the processing establishment, and the cost of administration.¹⁰ Oficinas with high grade caliche located in shallow veins near the processing plant had an advantage over those whose deposits lay deeper in the earth and farther from the plant. Then too, the larger plants could process nitrate for a lower unit cost. Most of the more efficient oficinas were located in Tarapacá where the quality of caliche was highest, and practically all were

⁹Cruchaga, Organización económica de Chile, II, Appendix No. 2, p. 19; Memorandum del Comité Salitre, 1884, Iquique quoted in Semper and Michels, Industria del salitre, p. 139; See also Delegación de Salitreras, Memoria en 1897, pp. 56f, and Memoria en 1901, p. 20.

¹⁰Semper and Michels, Industria del salitre, pp. 95ff.

owned by foreigners.¹¹

Comprehensive studies of the cost of production in the nitrate industry are wanting for the nineteenth century. However, a study based on data accumulated around 1900 placed the minimum cost of producing a spanish quintal of nitrate at 14.4 pence, the maximum at 36 pence, and the average cost at 21.1 pence.¹² The fact that slightly in excess of fifty per cent of production costs went for wages indicates that the Shanks Process was largely a manual one.¹³ After transporting the nitrate to port, placing it at boatside, and paying the export tax, the cost was greatly increased. Calculations made in the study referred to above place the minimum cost of nitrate at boatside at 48.9 pence, the maximum at 74 pence, and the average cost at 57.6 pence.¹⁴ Since the export tax was 27.9 pence, it represented from 37.7 to 57 per cent of the cost of nitrate at boatside. Another important aspect was the tendency of costs to increase. Producers were responsible for this trend because they followed the practice of elaborating the caliche of highest quality first, and left the poorer grades until last.¹⁵

¹¹Ibid., pp. 96, 112.

¹²Ibid., p. 96.

¹³Ibid., p. 95.

¹⁴Ibid., p. 96.

¹⁵Ibid., p. 97. In this same work it is estimated that the average cost of production between 1880 and 1892 was from thirteen to twenty pennies per quintal. See pp. 96f.

Throughout the nineteenth century Tarapaca maintained its position as the center of the nitrate industry. Under normal conditions exports from that province equalled eighty per cent of all nitrate shipments. During the War of the Pacific, however, when operations in Tarapaca were unsettled, those districts to the south became significant temporarily. In 1880, forty-eight per cent of all nitrate exports came from the southern fields; but by 1883, this proportion fell to sixteen per cent. Two of the southern fields--Taltal and Tocopilla--rose in importance again after 1890, yet together they accounted for only eighteen per cent of production by 1902.¹⁶

The pattern of nitrate consumption in the late nineteenth century changed only slightly in spite of the fact that total consumption increased significantly. The great market for nitrate was Europe, especially in Germany and France where the cultivation of sugar beets was undertaken on a large scale.¹⁷ Although accurate statistics on consumption are not available before the 1890's, they portray the distribution of consumption before 1890. Until 1900, Europe accounted for no less than eighty-six per cent of annual consumption and sometimes more. With an average of

¹⁶Ibid., pp. 136f.

¹⁷For the growth of the sugar beet industry in Germany and France see J. H. Clapham, The Economic Development of France and Germany, 1815-1914 (3rd edition, Cambridge: University Press, 1928), pp. 177, 217.

thirty-five per cent, Germany constituted the chief user throughout the entire period. Other European countries in the order of their importance to the nitrate trade were France, Belgium, England, and Holland.¹⁸ The demand for nitrate in the United States began to expand quite rapidly after 1897, so that in the following century approximately one quarter of the world's consumption was represented by that country. In addition, the Hawaiian Islands and South Africa consumed a good quantity of nitrate. However, Chile and other Latin American states provided insignificant markets. Of the nitrate sold during this era over eighty per cent was used as fertilizer while the remaining portion went mainly to the manufacturers of explosives.¹⁹

The rapid expansion of the world's consumption of nitrate was in part due to the efforts made by producers to enlarge the market for their product. The first such attempt was promoted by the combination of producers organized in 1884 as the Comité Salitre. Aside from its connection with the activities of the combination in restricting production, it was given the responsibility of devising means to promote nitrate consumption. The committee developed a comprehensive program which it carried out with apparent success. Its

¹⁸Delegación de Salitrera, Memoria en 1897, Appendix No. 8, pp. 65ff; Chile, Comision Salitrera, 1909, pp. 168f; Semper and Michels, Industria del salitre, Appendix No. 21, pp. 330-332.

¹⁹Ibid., p. 332.

activities were financed by funds collected from producers for that purpose. The committee sponsored an essay contest in which seventy-nine papers were entered, and also published pamphlets designed to explain the benefits and illustrate the use of nitrate as a fertilizer. Representatives were sent to important agricultural centers and to agricultural colleges both in the United States and in Europe. These individuals held conferences and gave demonstrations. Support was also given to those desiring to make scientific studies and to conduct experiments in which the qualities of nitrate as a fertilizer were tested. Of equal importance, too, were the efforts made to establish new distributors of nitrate.²⁰ With the exception of the essay contest, these techniques were the major ones used in later years after promotion activities had been expanded.

With the collapse of the first combination, all promotion efforts of the producers lapsed until the formation of the second combination in 1891. Then, the policy was initiated of levying a small contribution based upon exports --one-half cent per quintal--to obtain funds for the support of measures designed to stimulate consumption. This exaction was eventually lowered in 1894 to one-eighth of a cent.²¹

²⁰Ibid., p. 141; J. W. Merriam to Dept. of State, No. 310, Iquique, II, pp. 37-41.

²¹Chile, Comisión salitrera, 1909, pp. 33f.

In 1892, the Chilean government and Nitrate Railways made contributions to this work, and the latter consistently gave financial support from that time onward.²²

When the second combination dissolved, the permanence of the sales promotion activity was assured by the creation of the Asociación Salitrera de Propaganda. This organization had its headquarters in Iquique, and although its governing body was drawn chiefly from the Tarapacá producers, other fields had representation. It published reports and data connected with the nitrate trade and through the Permanent Nitrate Committee in London sent representatives to major nitrate consuming regions.²³ The Asociación issued tri-
mestrial circulars and published other information when the occasion required. In these circulars the statistical position of the industry is revealed, and news of current interest to producers reported. In the appendices of the trimestrial circulars voluminous reports from propaganda agents overseas were reprinted. These frequently comprise as much as ninety pages of small type and indicate the various activities undertaken by the Asociación.²⁴

Its work was directed by a manager who for most of

²²South American Journal, XXXIII (Nov. 5, 1892), 511.

²³Delegación de Salitrera, Memoria en 1901, p. 39. Judging from the list of officers of the Asociación, English interests seem to have dominated its activities.

²⁴The distribution of propaganda funds can be ascertained from any of the trimestrial circulars.

the period was Eduardo Vijil. Vijil was a consistent supporter of combinations and of the propaganda activities that he directed. According to figures quoted by Senor Vijil, the propaganda work from 1891 to 1896 had produced quite beneficial results. He states that for the \$841,215 spent during the period, the total value of nitrate consumed increased by sixteen million pesos while the revenues of the government were increased by seven million pesos.²⁵

Since any expansion of nitrate exports would bring greater revenues, promotion activities were in tune with the interests of the Chilean government. Therefore, the government gradually adopted the policy of cooperating with

TABLE XII

Expenditures for Sales Promotion, 1885-1908^a

Year	Amount	Year	Amount
1885	£ 5,000	1900	£ 32,920
1891	2,500	1901	36,000
1892	2,084	1902	33,000
1893	7,500	1903	36,027
1894	7,600	1904	35,550
1895	10,500	1905	35,500
1896	11,500	1906	67,800
1897	12,650	1907	75,000
1898	29,250	1908	87,700
1899	32,250		

^aChile, Comisión salitrera en 1909, p. 42.

²⁵Asoc. de Propaganda, Circular Trimestral, No. 11 (May 8, 1897), p. xii.

producers in promoting the sale of nitrate. Through her consular corps, meanwhile, Chile became increasingly active in furthering the nitrate trade. By the time close cooperation had developed between producers and the government, these agents were devoting much of their energy to propaganda activities chiefly in Europe.²⁶ In 1897, the government gave its official approval to the work of the Asociación, and from that date begins full-scale participation by Chile in the effort to promote consumption.²⁷ Public funds were henceforth contributed to the work and after 1901, the original authorization of twenty thousand pounds annually was increased significantly.²⁸

The table on expenditures for sales promotion indicates the increase in activity that resulted from government support. Of the total sum of £ 560,331 spent during the years indicated in the table, £ 194,726 had been contributed by the government.²⁹ Most of this money was spent in western Europe and in the United States, but some was expended in Canada, the West Indies, Russia, and elsewhere. The

²⁶See Chile, Delegación Fiscal de Salitreras y Guaneras, Informes Consulares sobre Propaganda Salitrera (Iquique: El Nacional, 1897).

²⁷An investigation conducted by the government in 1898 concerning the operations of the European branches of the Asociación resulted in a favorable report. See Asoc. de Propaganda, Circular Trimestral, No. 16 (Aug. 18, 1898), p. xi and p. 84.

²⁸Semper and Michels, Industria del salitre, pp. 142f.

²⁹Chile, Comisión Salitrera, 1909, p. 43.

effectiveness of the propaganda efforts is best attested by the increasing emphasis placed upon them.³⁰

³⁰In 1900, according to the report of the Delegado de Salitreras, propaganda funds were expended as follows: British Isles--£ 6,450; Germany--£ 6,450; France and French Switzerland--£ 7,000; The Low Countries--£ 3,000; Italy--£ 1,100; Spain and Portugal--£ 2,250; South Russia--£ 1,750; United States, Canada, and West Indies--£ 8,000. Since the total sum equals £ 36,000, the preceding table may give only approximately accurate figures. Delegación de Salitreras, Memoria en 1901, pp. 71f.

CHAPTER VI

THE ATTEMPTS TO CONTROL PRODUCTION

Producers of nitrate were and are today deeply affected by the competitive nature of the industry and by the economic changes that result from fluxions of supply and demand. Although in the nineteenth century the industry faced only minor competition from other fertilizers in world markets, there was a great deal of internal competition among the growing number of enterprises engaged in the industry.¹ This, coupled with the tendency of production to outstrip consumption after 1880, led to a lowering of the level of prices. During the period between 1880 and 1900, three sharp price drops occurred. Nitrate interests considered the resulting conditions calamitous; and they tried to combat them by forming combinations. Basically, the theory behind the nitrate combinations was to restrict production in order to bring supply into line with demand--thus raising the price of the product--while simultaneously preserving to each producer his share of the market by allotting to each, according

¹R. H. Whitbeck and Frank E. Williams, Economic Geography of South America (New York: McGraw-Hill, 1940), p. 179.

to a fixed standard, his share of production.² In most cases, when there was a fall in nitrate exports for a given year, the cause lay in the formation of one of these combinations.³ Had no such organization in the industry appeared during the nineteenth century, the production and exportation of nitrate would have steadily increased.⁴

The first sharp price decline affecting the nitrate industry was brought about by rapid increases in production in the few years after Chile gained possession of the provinces of Antofagasta and Tarapacá. Exports that had been 7,700,000 quintals in 1881, increased by three million quintals in 1882, and almost reached the thirteen million mark by the end of 1883. Advances in production such as occurred in these years were unprecedented. While consumption expanded simultaneously, it did not keep pace with the increases in productive capacity. Because of the new relationship between the supply of nitrate and the demand for it, the price received by producers for nitrate declined continuously. In 1884, the drop measured at least twenty-five per cent when compared with the level of 1881. Valdés

²Miguel Cruchaga, Salitre y Guano (Madrid: Reus, 1929), p. 197.

³See the Table on Production, Chapter V, p. 155. Compare the drop in production for the years when combinations were operating; i.e., 1885-1886, 1891-1893, 1896-1897. All statistics on production, consumption, and prices referred to in this chapter are based on this table.

⁴Delegación de Salitreras, Memoria en 1897, pp. 25-28.

Vergara, who was Jefe Político of Tarapacá during these years, asserted that these changes disrupted not only the normal commerce in nitrates but the entire Chilean economy and that the effect was equally ruinous on both.⁵

Although Valdés Vergara probably exaggerated the ill effects of this decline in price, many nitrate producers were dissatisfied and sought means to restore the higher price level of past years. Some method of limiting production was deemed necessary to achieve the goal that producers considered essential if they were to continue to operate profitably: the restoration of prices to their "normal" level-- which was a very high one.

Their opinions illustrate the characteristic reluctance that producers frequently manifest toward re-orienting their enterprises to vastly altered conditions. The high price levels that had prevailed in the past caused producers to believe that the lowering of prices deprived them unjustly of profits to be gained from their enterprises. New producers of nitrate were looked upon with dismay and criticized as the agents of ruination by established interests. The new producers, however, charged their critics with misrepresenting the status of the industry and asserted that, in reality, profits were attractive.⁶ Excepting the

⁵Francisco Valdés Vergara, La crisis salitrera y las medidas que se proponen para remediarle (Santiago, 1884), p. 5.

⁶Semper and Michels, Industria del salitre, p. 176; see also U. S. Cons. Reports, LXX, No. 264, May 22, 1902, R. G. Mansfield to Dept. of State.

natural advantages new producers possessed, such must have been the case for rarely is capital attracted on a large scale to an industry in which chances of gain are slim. However, as new producers solidified their interests, their attitude veered into line with the opinions of those they had previously censured. Undoubtedly, change in attitude proceeded mainly from their new, established position in the industry.

When in 1884, all indications pointed to a continuance of the distressing economic situation, nitrate producers in Tarapaca began to realize that relief would be forthcoming only if they organized for the purpose of bringing about immediate and drastic curtailment of production. Although the idea gained almost unanimous acceptance, it was not an easy task for producers to decide on the exact method of carrying out their plan. What seemed reasonable to one set of operators, appeared unjust to another. Thus, producers engaged in considerable discussion and controversy before even a majority could reach an agreement on the procedure to be followed.⁷

Even then, only producers in Tarapaca¹ co-operated. In the plan adopted in June, 1884, it was agreed to establish a committee, headed by a president, to administer the process of determining the productive capacity of producers in Tarapaca¹. This committee was empowered to set up a production

⁷Valdés Vergara, La crisis salitrera, p. 10.

quota for each oficina on the basis of its established capacity. The committee also had the responsibility of constantly evaluating market conditions. When it considered that market conditions warranted a change in production, it had the authority to vary the quota.⁸ The quota method, established by the first combination, was adopted by succeeding combinations as the most practical basis for allocating production. However, the procedure was not entirely satisfactory or just, since some oficinas normally produced a much smaller per cent of their theoretical capacity than others. Consequently, the quotas gave them a relatively more favorable position than they had enjoyed under free production. At a later time, means to correct this flaw were adopted.⁹

Even though the operation of the first combination commenced on August 1, 1884, it produced no tangible benefits before 1885. Based upon estimated productive capacity, which was approximately seventeen million quintals per year, the committee established an initial quota of forty-five per cent. In September the quota was reduced to forty per cent and on November 1 was lowered again to thirty per cent.¹⁰ Nevertheless, the lessening of production during these months did not affect the price structure, since large shipments

⁸J. W. Merriam to Dept. of State, No. 310, April 8, 1886, Iquique, II, pp. 28-32.

⁹See below, pp. 185f.

¹⁰J. W. Merriam to Dept. of State, No. 310, April 8, 1886, Iquique, II, pp. 32-34.

made early in the year--before restriction took effect--kept exports at about the same level they had been the year previous.

In the following year, however, a concerted effort to achieve results was made. At a general meeting of operators held in February, 1885, the production goal was set at seven million quintals. This level would have meant a forty per cent quota in 1884. Actually the quota was closer to twenty-five per cent, because in the intervening months productive capacity had increased.¹¹ Thus, nitrate producers planned a precipitate drop in exports for 1885.

But the combination could not attain these goals. For one thing, the executive committee found it difficult to enforce the quota regulations. While one company made no pretense of co-operating, others who had accepted the plan did not keep within their allotments.¹² Therefore, at the general meeting in February the President was authorized to take legal action against those producers who did not abide by the agreement.¹³ But this threat was unsuccessful, since the rules of the nitrate combination, like those of the "pools" organized in the United States at the same time, were

¹¹J. W. Merriam to Dept. of State, No. 310, April 8, 1886, Iquique, II, p. 35.

¹²J. W. Merriam to Dept. of State, No. 310, April 8, 1886, Iquique, II, p. 38. South American Journal, XXII (July 11, 1885), 320.

¹³J. W. Merriam to Dept. of State, No. 310, April 8, 1886, Iquique, II, pp. 34f.

effective only so long as its members chose to honor the stipulations of the agreement. The general meeting, likewise, sought in other ways to make its organization more effective. It tried to discourage the creation of new oficinas and the expansion of those already in operation; moreover, it strove a second time to gain the co-operation of producers in other nitrate districts. None of these designs, however, were accomplished.¹⁴

In spite of the difficulties, the combination began to produce results. While the goals for 1885 and 1886 were exceeded, the actual decline in exports, which was about half that contemplated, proved to be sufficient to affect the nitrate markets. Prices rose to "a desirable level," and remained there into 1886; but never did the price of nitrate approach the level of 1880 and 1881.¹⁵

Even though prices dropped slowly during the remainder of 1886, it proved to be a monumental task to hold the combination together. Low-cost producers became restive under the restrictions which they felt essentially favored others whose costs of production exceeded their own.¹⁶ Then, too, since certificates permitting the acquisition of land were being redeemed, new companies, to over-haul or build nitrate works,

¹⁴Ibid.

¹⁵Ibid.; See also Table XI on p. 155.

¹⁶Semper and Michels, Industria del salitre, p. 141.

were forming. Unless the combination could absorb the new producers, it could not continue to function. Because their lands were of high quality and frequently not previously exploited, the new producers insisted upon high quotas for their adherence to the combination. Even then, some refused to agree to restrain production. The new companies that were basically well-situated to produce on a competitive basis saw evidences of an increasing demand for nitrate at the reduced prices and wished to take advantage of the greater total profits that could be garnered under free production.¹⁷ These conditions made the demise of the combination merely a matter of time.

In reality, the continuance of the combination was not required by any adverse economic condition. Producers who had foreseen more favorable times saw their predictions materialize even beyond their most optimistic hopes in the three years following the first combination. A sharp increase in demand kept prices stable while nitrate exports doubled. The resulting prosperity, as has been noted, attracted much foreign capital and made the corporate form of business organization dominant in the industry. These new factors affected the reaction of the industry to the nitrate crisis that loomed ahead.

By the middle of 1889, nitrate groups noted with uneasiness the growing surpluses of nitrate that filled the

¹⁷Ibid.; South American Journal, XXIV (Jan. 8, 1887),

warehouses and the lower market prices. With shipments continuing to exceed the rate of consumption during the summer months, by fall the decline was so insistent that talk among producers of reviving the combination became commonplace. By the beginning of the year 1890, there was no longer any doubt but that the nitrate slump was a reality. Although a periodically depressed market arose out of the nature of the industry and was characteristic of it to a degree that made effective preventive action impossible for individual producers, a part of the distress felt by operators at this time can be attributed to their own doings. Because of the fear prevalent among producers that the period from October to December, 1889 would be the basis for assigning quotas when a combination was organized, an exceptionally high rate of export prevailed during those months.¹⁸ Thus, the disparity between supply and demand was heightened and aggravated.

Furthermore, it was principally the British nitrate companies in the North-Harvey group that favored the formation of a second combination. Rapidly organized with excessive capitalizations, they were not prepared to operate profitably under the conditions that faced producers in 1890. In the prosperous period they might have been able to declare respectable dividends, but on their inflated capital their future in a free market held only small profits and, perhaps, no dividends at all. So British nitrate capitalists took the

¹⁸Ibid., XXVIII (April 12, 1890), 462.

lead in bringing to fruition the second combination.¹⁹

The major problem they encountered in this endeavor was the reluctance to co-operate manifested by the West Coast producers, a heterogeneous group composed of Chileans and resident foreigners--chiefly Germans, Spaniards, and Italians. For the most part West Coast producers were family enterprises, unencumbered by high capitalizations and large overheads, and able to produce with adequate even if not large profits at the low prices British producers considered insufficient.²⁰ Furthermore, the reluctance manifested by some Chilean entrepreneurs to enter a combination dominated by British producers might well have been created by the widespread antagonism toward British supremacy in the industry then current in Chile. But it is far more likely that disagreement between British and West Coast producers over the system to be adopted and the allocation of production provided the main divisive force and the chief obstacle to an early conclusion of an agreement of combination.

The formation of the second combination was accomplished in 1891 only after months of arduous negotiations between English and West Coast producers during which the nitrate depression deepened. If limitation of production had been initiated early in the year 1890, it might well have effectively cushioned the decline and prevented the slump

¹⁹Journal of Finance, IV, (August, 1898), 716.

²⁰Ross, Relaciones comerciales entre Chile y la Gran Bretaña, pp. 80f.

from becoming so grave. Certainly, as the year 1890 proceeded, a majority of producers showed a willingness to cooperate, but none of the various plans gained wide enough acceptance to warrant implementation. In August all of the London companies agreed upon a plan that did not involve the difficult process of establishing quotas and allocating production. Instead, it was based upon the complete stoppage of productive operations for three selected months out of each year. West Coast producers, however, were not attracted by the plan, which made necessary a return to the quota method.²¹ The quota plan supported by the English companies late in 1890 allocated thirty per cent of production to West Coast producers and aimed at a total output one-tenth below the prevailing rate of consumption. The latter group now refused to endorse this proposal unless they were granted forty per cent of production and unless total output was set at the level of consumption prevailing in 1890.²² Final arrangements, when concluded some months later, appeared to have been brought about by English acceptance of the higher quota for West Coast interests, with the latter acquiescing in the lower rate of production favored by the English. A delay in bringing limitations into force was caused by six West Coast and three English producers, all of whom wished

²¹South American Journal, XXIX (Aug. 9, 1890), 157.

²²Ibid., Nov. 22, 1890, p. 628; Dec. 13, 1890, p. 711; Dec. 20, 1890, p. 765.

for higher quotas. When restriction went into effect, one important West Coast producer--the German firm of Folsch and Martin--did not co-operate.²³ The second combination in an attempt to eliminate the troublesome process of assigning quotas abandoned, for the first year, the productive power basis and relied upon limiting production to seven months each year. This new time basis, however, was unsatisfactory to many; and after a year's trial, the older quota system was re-adopted.²⁴

Even though the negotiations leading to the creation of the second combination had to be carried over into 1891, a curtailment of production began in January of that year. This limitation was brought about not by producers, but as a result of the outbreak of the Revolution of 1891, which centered during the early months of that year in the nitrate provinces. A complete stoppage of work occurred in many oficinas; and for a time, no cargoes of nitrate left Chilean ports.²⁵ After fighting ceased in the nitrate region, exports continued to fall below normal levels because the continuance of the revolution elsewhere disrupted shipping and created a scarcity of labor.²⁶ Thus, even with the combination

²³Ibid., XXX (Jan. 10, 1891), 35; Ross, Relaciones comerciales entre Chile y la Gran Bretaña, p. 83.

²⁴Asoc. de Propaganda, Circular Trimestral, No. 15 (May 13, 1898), p. iv.

²⁵South American Journal, XXXV (July 25, 1895), 95.

²⁶Ibid., XXVII (April 23, 1892), 469.

operating for only a part of the year, production in 1891 fell four and one-half million quintals below the mark reached in 1890 and approached the limit established by the combination.

Production at a reduced rate continued through the year 1893 and brought the benefits that had been expected from it. Exports remained within the bounds of the established quotas, and consumption in 1891 and 1892 exceeded them sufficiently to reduce the stocks of surplus nitrate that had plagued the market in previous years. This condition was reflected in steady rises in the price level. A measure of the effectiveness of these improvements can be discerned in the dividend reports of English corporations. In 1892, they increased their dividends over the proceeding year, and with a fairly well stabilized price, did at least as well if not better in 1893.

Even while these improvements were being made, however, several forces developed which strained the ties that held together the combination and, eventually, brought about its disruption. One of the most influential of these was the attitude of the Chilean government--a factor not significant earlier. The government under Balmaceda had been strongly opposed to the formation of the second combination.²⁷ With his downfall, nitrate producers looked for better co-operation from the government. However, nothing

²⁷Ibid., XXVIII (Jan. 4, 1890), supplement, p. 6.

could annul the fact that any government at that time would have carefully scrutinized restrictions of nitrate exports.²⁸ If these restrictions appeared detrimental to the interests of the country, the government would naturally oppose them. Actually, because of growing financial troubles, two such measures were adopted in 1893.²⁹ Although these difficulties were not caused by the loss of revenue incident to the curtailment of nitrate exports, they were undoubtedly aggravated by restriction. The first official indication of the governmental attitude was a "polite warning" issued by President Montt to English interests "not to go too far" in limiting exports.³⁰ The second step was the announcement that in the following year the practice of offering state-owned nitrate lands for sale would be revived.

The attitude of the government would have been an appropriate one regardless of whether native or foreign

²⁸"Operaciones de la combinacion salitrera," editorial in La Patria (Valparaiso) in 1892, published in Charles Le Grand, ed., Cuestiones Salitreras (Santiago: Gutenberg, 1892), pp. 46-48.

²⁹The South American Journal noted that in "high official circles" there was developing a hostile attitude towards foreign capital with the nitrate interests being singled out for "direct attack" because the forming of a combination, from the Chilean view-point, constituted an attempt to create a monopoly "against public well-being." It was also observed that this Chilean attitude was of recent origin, since in times past, "the Chileans were conspicuous amongst South American nations for the adoption of an enlightened policy in their treatment of foreigners. . . ." South American Journal, XXXV (Sept. 30, 1893), 331.

³⁰Ibid., July 29, 1893, p. 95.

capital had been instrumental in bringing about restriction of production. However, it is clear that the second combination--unlike the first--was considered by Chileans as primarily an English project which was promoted by over-capitalized English concerns and which unfairly prejudiced the interests of the state by reducing its revenues. The fact that Col. North had been a leader in the formation of this combination gave credence to this view. Chileans believed that not only the combination but British companies as well would be seriously affected by the sale of nitrate lands. A sale would result in a great increase in productive power. Moreover, if Chileans became the chief purchasers, the British would find it more difficult to form an effective combination in the future.³¹

In addition to the attitude of the Chilean government, several factors that had brought the first combination to an end also affected the duration of the second. Thus, the improvement in the status of the nitrate market in 1892 and 1893 hastened dissolution, just as a similar improvement had done during the later months of the first combination when restriction proved disadvantageous to low-cost producers. Another parallel existed in the immediate and impending entrance of new nitrate producing companies into the field. In 1893, a group headed by Col. North was completing a new

³¹Chilean Times, June 10, 1893, as quoted in the South American Journal, XXXV (July 29, 1893), 104f.

oficina--the Lagunas--which had good lands and a high capacity. He demanded a high quota for bringing this unit into the combination.³² The prospect of new works being brought into production after the sale of 1894 was an additional incentive to established producers to return to free production immediately. They wanted to gain the full benefits expected in the few months following the break-up of the combination that would come from full productivity at the high price level then prevailing. For these reasons, no renewal of the combination agreement was made when it lapsed early in 1894.

With the return of free production in 1894, the industry experienced its most profitable year since 1889, but as in the past, prosperity was impermanent. An increase in exports of three million quintals for the year 1895 failed to raise the total value of the product.³³ Moreover, indications that another slump was beginning multiplied as that year drew to a close.³⁴

With a decline in consumption and persistent surpluses continuing the following year, the formation of a third combination was inevitable. Attempts made in 1895 were unsuccessful. The opposition of Chilean firms to the for-

³²Ross, Relaciones comerciales entre Chile y la Gran Bretaña, p. 83.

³³South American Journal, XLIII (Sept. 26, 1896), 336.

³⁴Ibid., XXXIX (Nov. 23, 1895), 541, 543.

mation of a combination was a major obstacle.³⁵ Many oficinas were expanding their capacity, and this, according to the manager of the Asociación, Eduardo Vijil, made it extremely difficult to obtain agreement on quotas.³⁶ But when they were given special consideration, along with one English firm, in the allocation of production, an agreement was reached on April 1, 1896. The production goal for that year was set at forty-seven per cent of capacity--or slightly over twenty-one million quintals. The third combination was to be maintained for a period of three years.³⁷

This third combination was a total failure. Production limits during the first year were far from met. For the most part, this was due to the exceptions made in the original agreement and to the provision permitting all companies to produce freely, if they so desired, in the three months following the conclusion of the agreement.³⁸ Perhaps this latter concession had been necessary in order to obtain the co-operation of some producers, but it prevented the drastic

³⁵Letter written by M. Nicholson to the Economist, LIII (Aug. 24, 1895), 1118.

³⁶Asoc. de Propaganda, Circular Trimestral, No. 8 (May 4, 1896), pp. vi-vii. See also appendix, pp. 1-2 for a brief resume of the difficulties encountered in forming the third combination from the English view-point.

³⁷Money Market Review, LXXII (March 14, 1896), 544. The Financial Times asserted that eight firms in the North group were almost ruined by the slump. See extract published in South American Journal, XLI (Sept. 5, 1896), 266.

³⁸Ibid., XL (June 6, 1896), 629, 642; XLI (Sept. 5, 1896), 266.

curtailment of production that had been planned. This gave the combination a bad start from which it never recovered.³⁹ Even in 1897 when restriction was somewhat more effective in reducing exports, prices continued to drop. The combine was not producing the results that had been forthcoming under earlier combinations.⁴⁰ By this time, too, a number of new concerns and older ones whose position in the industry had improved by the purchase of additional properties became dissatisfied with the quotas allotted to them.⁴¹ When they began producing beyond their fixed quotas in October, 1897, the third combination collapsed--eighteen months before the date that had been set for dissolution in the original agreement.⁴²

All efforts to reorganize the combination following its collapse proved futile. Eduardo Vijil urged producers to agree to a drastic curtailment of production, but his ceaseless efforts could not revive the combination.⁴³ Those concerns that had destroyed the combination in 1897 refused to resume "nursing their competitors" by cutting their production to maintain a price below which the poorer enterprises

³⁹Ibid., XLII (May 29, 1897), 598.

⁴⁰Delegación de Salitreras, Memoria en 1897, pp. 25-28.

⁴¹South American Journal, XLIV (Jan. 29, 1898), 115.

⁴²Asoc. de Propaganda, Circular Trimestral, No. 13 (Nov. 25, 1897), p. iii.

⁴³Journal of Finance, IV (Aug., 1898), 716f.

could not produce profitably.⁴⁴ Actually, a slight improvement in the nitrate market occurred in 1898; yet during the remainder of the century the upswing in nitrate affairs remained slight. Because of lessened demand, many companies continued to operate on a part-time basis.⁴⁵

In the absence of a combination, English interests sought to control prices in another way. In the fall of 1899, they revived a plan that had been suggested a decade earlier when proposals were being made to alleviate another period of depressed prices. At that time it had gained no supporters. The project involved the formation of a marketing organization which would possess the exclusive right to permit nitrate shipments, determine their destination, and organize and control their sale. The latter objective was to be attained by apportioning sales among various consignment companies--those already in the business. The English firm of Anthony Gibbs and Company, which had earlier engaged in the same type of activity for the Peruvian guano industry, was to direct the operations of the consignment companies and to head the entire organization. However, the refusal of West Coast producers and the nitrate merchants of Valparaíso to participate prevented fulfillment of the design.⁴⁶ Had it succeeded, the plan might have constituted

⁴⁴See Asoc. de Propaganda, Circular Trimestral, No. 16 (Aug. 8, 1898), pp. vi ff.

⁴⁵South American Journal, XLV (Oct. 1, 1898), 367.

⁴⁶Asoc. de Propaganda, Circular Trimestral, No. 12

a revival of Peru's monopolization of nitrate sales policy in a more effective form.⁴⁷

The failure of this scheme indicates the growing strength of the West Coast producers and the decline of British influence in the nitrate industry. Although the British interests remained the most important group, their control over productive capacity had dropped from fifty-nine to forty-two per cent between 1895 and 1897.⁴⁸ This decline continued in the twentieth century.

A favorable climate of opinion among producers had developed by the turn of the century which made possible a renewal of the combination. Realizing eventually that productive capacity would always be in excess of consumption,

(Aug. 21, 1897), p. vi. On p. 2 in the appendix a West Coast producer suggests bounties be given poorer companies to keep them from producing. See also Semper and Michels, Industria del salitre, p. 144.

⁴⁷At a meeting of the shareholders of the Santa Rita Nitrate Company in 1899 the chairman was asked if "some form of amalgamation" of the producing companies was possible. The chairman replied: "There is no doubt that if we had the 'go' of the Americans, a trust would be formed of the entire nitrate interest, and we should see the price of nitrate placed at about £ 2 or even more above the present price. Shareholders would be receiving enormous dividends, the people handling the trust would make enormous profits, and the trade would not be any worse off than at present I guarantee to say that if this nitrate interest were in America a trust would be formed within 48 hours, . . . [and] we should go away for our holidays having thousands of pounds in our pockets, instead of pence. South American Journal, XLVI (May 27, 1899), 597.

⁴⁸Asoc. de Propaganda, Circular Trimestral, No. 13 (Nov. 25, 1897), p. IV.

nitrate interests began to see that some type of regulated production on a permanent basis was the only solution to the maintenance of price levels. Thus a combination was the only practical means of bringing this about. If such an organization could be formed free of the flaws that had crushed previous attempts of this nature, producing companies would in all probability enjoy a greater measure of stability than at any time in the past. To a large extent those pitfalls of past combinations were surmounted when the fourth combine was established in 1900.

The following policies, incorporated by the fourth combination in its regulations, did much to preserve the integrity and increase the workability of the association.⁴⁹ The provisions established a set standard for calculating the productive capacity of oficinas and a procedure for appeals by operators who desired a re-evaluation. In addition, another article of the agreement defined what constituted grounds for allowing increases in quotas so that controversy over this point was minimized. The quota of each oficina was also to be affected by the output of the previous year. In the event an oficina did not fill its quota, it would not be allowed to produce in excess of the lesser amount. The adoption of this principle was motivated in part by the desire to prevent more favorable conditions being

⁴⁹Asoc. de Propaganda, Escrituras Publicas de la Combinacion Salitrera de 1901 a 1906 (Iquique: La Patria, 1900), pp. 3-12.

established for weaker producing units than for others; and in part, so that errors in the original estimate of productive capacity could be corrected. Another article provided severe penalties for exceeding assigned quotas. Finally, producers were protected from having to acquiesce against their wishes in a limitation greater than twenty-five per cent of the output of the preceding year.

Of great importance to the success of the fourth combination was the improved relationship between the government and nitrate interests. Co-operation in sales promotion activities led to a more harmonious relationship between the producers and the government, as did the strengthening of Chilean nitrate interests. Furthermore, in drawing up the regulations of the association, the members of the combine did not overlook the interests of the government. Those provisions which assured a level of production at least equal to the consumption of the previous year and which limited quota reductions to twenty-five per cent, minimized the effects such restrictions would have on the government's nitrate revenues. Moreover, the purpose of the association was to allow a moderate yearly increase in production, enough to keep pace with growing consumption without outstripping it and sufficient to permit an increase in nitrate revenues, without endangering an orderly development of the industry.⁵⁰

⁵⁰ Semper and Michels, Industria del salitre, pp. 145-147.

In this way, it was hoped, the interest of both producers and government would be protected.

The fourth combination met with immediate and continuous success. Within one year the price of nitrate rose significantly and thereafter maintained a perceptible increase. Even the sale of nitrate properties by the government in 1901 and 1903 did not disrupt these well-laid plans. The companies created as a result of the sales were absorbed by the combine. Thus, the formation of powerful new companies did not result, as they had in the past, in the collapse of the organization nor in excessive production. In effect, this combination was renewed immediately upon the expiration of the five year term originally agreed upon.⁵¹ With occasional exceptions, the prosperity of the industry lasted until the close of World War I.

Thus, the earlier combinations were unsuccessful in bringing stability to the industry. They had, at times, brought temporary benefits to producers, but for no significant period could the downward price trend be halted. Undoubtedly, that trend created unfavorable conditions for the industry which could be ameliorated only by the imposition of permanent production controls. This fact was seen as early as 1884 when a Chilean economist explored the various ways of achieving stability. As he foresaw then, the divergent interests of the government and producers and the

⁵¹The combination was not renewed, however, in 1910.

existence of a large number of nitrate operators were obstacles that virtually precluded the establishment of effective controls.⁵² The achievement of an organization that had the necessary permanence, however, came with the formation of the fourth combination. Later on in the history of the industry the formation of a nitrate trust was more widely suggested and eventually, brought into being.⁵³ Yet that development required not only the co-operation but the leadership of the government of Chile.

⁵²Valdés Vergara, Crisis salitrera, pp. 13-26.

⁵³Bertrand, Crisis salitrera, pp. 70, 46-47, 53ff. For a review of the history of the nitrate industry in the twentieth century see Karl Falk, "Chile's 'white gold' Stages A Comeback", Foreign Commerce Weekly, VIII, No. 10 (Sept. 5, 1942), 3-7, 30-31.

CHAPTER VII

THE LABOR FORCE

The enlargement and expansion of operations by nitrate producers in the period following 1880 attracted increasing numbers of workers to the nitrate provinces. They came from the agricultural areas in the neighboring countries of Peru and Bolivia as well as from Chile. In 1880, the majority of laborers in the fields of Tarapacá were Peruvians. In the fields to the south Chileans comprised the majority.¹ However, this relationship was considerably altered as the size of the labor force increased. The number of Bolivians and Peruvians working in the nitrate fields grew slowly in comparison to the number of Chileans; thus, by 1902, Chileans accounted for seventy-one per cent of the labor force. Together, Peruvians and Bolivians comprised one-quarter of the workers. As had been the case in 1880, the preponderance of Chilean labor increased according to the proximity of the field to the center of the country.²

¹Guillermo E. Billinghamurst, Condición Legal de los Peruanos Nacidos en Tarapacá (Santiago: El Progreso, 1887), pp. 29f; Bulnes, Chile and Peru, p. 43.

²Simón B. Rodríguez, La Estadística del Trabajo (Santiago: Cervantes, 1908-1909), II, Appendix No. C, p. 28.

Nitrate producers found a permanent source of cheap labor in the populous central region of Chile. There, an agricultural economy existed in which the immense haciendas of the Chilean aristocracy constituted the characteristic economic unit. The peons, or inquillinos, who worked on these large estates were poorly paid and had almost no opportunity to improve their status by becoming independent farmers.³ They were, therefore, attracted by the higher wages obtainable in the mining regions of northern Chile, especially in the nitrate districts. Many of the peons who left their haciendas to work in the industry did so with the intention of remaining only a few years; however, some settled permanently in the nitrate region. Others eventually returned to their homes with their savings. Because of this practice there occurred a constant shuffling of laborers between central and northern Chile.

The supply of labor was sufficient to meet the normal requirements of the industry. Occasionally, however, the bargaining position of the workers was enhanced by a temporary scarcity of manpower. This condition existed several times before the turn of the century. The first recorded shortage occurred in 1887 and during the early months of

³Robert E. Mansfield, Progressive Chile (New York: T. Y. Crowell Co., 1913), pp. 93-146. Inquillino is the name given to an illiterate agricultural worker in Chile. The word roto is used to describe inquillinos who have left the rural areas to work in industry, particularly in the mining region of northern Chile. However, the two words are frequently used interchangeably.

1888. The shortage was attributed to two causes: an increase in the demand for workers in the copper industry which attracted some nitrate laborers, and an epidemic of cholera along the west coast of South America.⁴ Although a slight increase in wages resulted, nitrate producers were not adversely affected. Their prosperity was said to have been promoted by the shortage since it prevented an excessive expansion of production.

Nevertheless, with the beginning of the nitrate boom late in the year 1888, a serious need for more workers did occur. Promoters of nitrate companies being organized at that time were predicting immediate profits for their enterprises. For that reason and because nitrate was bringing a high price in the European markets, the promoters felt obliged to hasten the process of bringing new oficinas into production. To do this it was necessary to import into the region a large number of additional laborers. In their rush for results nitrate promoters sent agents to central Chile who offered attractive inducements to the agricultural workers there. An Englishman described the situation and its outcome as follows:

It was necessary to show dividends with the least possible delay. Labour on the spot being all employed, it was obligatory to obtain men from any quarter and at any price. The 60 or 70 cents per day labourers of the south leaped at the

⁴South American Journal, XXV (April 28, 1888), 230; Grt. Br., Consular Reports, Misc. Series, (1889), No. 122.

enhanced offers from the sunny north, where the price of labour rapidly advanced with the increasing demand of the new companies, until 5 dollars, and even as high as 7 dollars, per day was paid in their desperate need and rush for results.⁵

Peons from central Chile flocked to the nitrate provinces in numbers sufficient almost to double the size of the labor force by 1890. But with the collapse of the boom in that year, the demand for labor began to decline.

In 1891, a few oficinas found it difficult to maintain a full crew of workers, because the revolution drew some of them into the army. Even so, no benefits were gained by workers. The market for nitrate was depressed and a cutback in production with a consequent reduction of the number of employed, would have been inevitable. Finally, toward the close of the 1890's it was reported that the revitalization of the copper industry was giving "the nitrate producers a good deal of anxiety," since they saw many of their workers leave for jobs in the copper industry and feared the competition for labor would necessitate wage increases.⁶ After 1890, however, nitrate workers did not realize much improvement in wages or working conditions as a result of these temporary scarcities of labor.

Actually, the presence of an excessive supply of labor had more effect on the well-being of the nitrate

⁵W. Anderson Smith, Temperate Chile, A Progressive Spain (London: Adam and Charles Black, 1899), p. 53.

⁶South American Journal, XLVI (June 17, 1899), 667.

workers. The over-supply of labor was most apparent during the periods when producers formed combinations. These organizations curtailed production; and that, naturally, limited employment opportunities and caused distress among the workers. At these times, efforts were made by the government to re-settle unemployed nitrate workers in the country's agricultural areas, but the results of this policy were slight.⁷ Nevertheless, the flow of labor both to and from the nitrate fields had an important affect upon the labor situation in central Chile.⁸

Statistics presented in Table XIII below illustrate the affect these combinations had on the size of the labor force. As a result of the formation of the first combination, one-third of the workers lost their jobs. While the effect of the second period of restriction is difficult to assess, since it coincided with the advent of the Revolution of 1891, it probably retarded the expansion of the labor force. The most serious and precipitous decline in the employment of nitrate workers set in with the organization of the third combination. Over six and a half thousand workers lost their jobs between 1895 and 1898. However, some unemployment at this time would have been unavoidable even without the formation of a combination inasmuch as the depression in the nitrate industry during these years was quite severe and a

⁷Ibid., XLI (Sept. 19, 1896), 307.

⁸Smith, Temperate Chile, pp. 53f.

number of oficinas ceased operating.

TABLE XIII

The Growth of the Nitrate Labor Force,
1880-1903^a

Year	Number of Workers	Year	Number of Workers
1880	2,848	1892	13,510
1881	4,906	1893	14,756
1882	7,124	1894	18,092
1883	7,077	1895	22,485
1884	5,505	1896	19,345
1885	4,571	1897	16,727
1886	4,534	1898	15,955
1887	7,201	1899	18,914
1888	9,180	1900	19,672
1889	11,422	1901	20,264
1890	13,060	1902	24,538
1891	11,675	1903	24,445

^aDelegación Fiscal de Salitreras, Memoria en 1901, p. 86. Figures for the years 1901-1903 were taken from Semper and Michels, Industria del salitre, p. 333; likewise, based on later reports of the Delegación.

Even though the wages of labor in the nitrate fields exceeded wages paid workers in the agricultural areas, all reports and observations made concerning the status of the nitrate workers indicate that their way of life was considerably degraded. Shortly after he visited the nitrate region, Reginald Enoch, an Englishman familiar with most countries in Latin America, reported the following:

. . . It cannot be said that . . . [the Chilean nitrate worker] represents any growing standard of civilization. His work is hard, his life semi-bestial and illiterate, his dress and habitation primitive, his customs semi-savage, his surroundings dreary, sterile, and lacking in amenities which might make for social betterment; and he is

a hard drinker, due largely to the arduous nature of the work.⁹

Thus, for nitrate workers the cost of living was high, living conditions were poor, and working conditions left much to be desired. No apparent difference in this regard existed between Chilean and foreign producers; and with a few exceptions, reported after 1900, the situation was general.¹⁰

Basically, the high cost of living in the nitrate region was caused by the lack of a near-by agricultural region and the consequent necessity of importing all food-stuffs as well as other supplies and merchandise. But, the situation was aggravated by the practice of the nitrate companies of seeking to monopolize the sale of food, liquor, and other products consumed by the workers. The method employed to obtain this end was known as the truck system. Each oficina established a company store for the purpose of selling goods to its workers, and rules prohibiting sales by peddlers and other merchants on company property were strictly enforced.¹¹ Except in a few sections of Tarapacá, most oficinas were sufficiently isolated from one another

⁹C. Reginald Enoch, The Republics of Central and South America (London: J. M. Dent and Sons, 1913), p. 325.

¹⁰Cornejo, El Salitre, p. 147. Among the few firms that provided better working conditions one was German, another Peruvian, and a third a Chilean enterprise managed by an Englishman.

¹¹J. W. Merriam to Dept. of State, No. 310, April 8, 1886, Iquique, II, p. 45; Theodore Child, The Spanish-American Republics (New York: Harper, 1891), p. 178.

and from other villages to assure the effectiveness of the monopoly. As a result, workers spent at least sixty per cent of their earnings in such establishments. Because of this system and the high prices charged by the company stores, each oficina was able to regain a portion of the wages paid to workers. It has been estimated that on the average, one and two-tenths pennies of the cost of producing a quintal of nitrate was restored to the companies from the profits of their stores.¹²

In spite of the attraction the nitrate industry had for agricultural laborers in central Chile, the wages, hours of labor, and other working conditions in the oficinas were at a low standard. It is impossible to present an accurate account of wage levels in the industry before 1900, because of the differences existing between oficinas, the lack of reliable statistics, and the varied mode of wage payments. Some worked on an hourly basis while others were paid according to the task system.¹³ There were at least fifteen different types of jobs--blasters, miners, cart drivers, blacksmiths, common laborers, etc.--and the remuneration for each varied.¹⁴ Moreover, higher wages were paid in Tarapacá than in the other nitrate districts.

¹²Semper and Michels, Industria del salitre, p. 92.

¹³Ibid., pp. 103-106.

¹⁴Rodriguez, Estadística del Trabajo, II, Appendix No. C, pp. 36f.

Nevertheless, there appears to have been a gradual increase in money wages. It was reported that wages in 1886 varied between \$0.75 and \$2.00; in 1891, from \$3.00 to \$5.00; and after 1900, from \$4.00 to \$6.00 per day.¹⁵ With these increases, however, there was a simultaneous decline in the value of the Chilean paper peso, the monetary unit in which workers were paid. For instance, the average annual value of the Chilean peso in 1890 was 24 1/16th pence; by 1894, the peso was worth only 12 9/16th pence; during the remainder of the century, the value of the peso fluxuated between 17 9/16th pence and 14 1/2 pence.¹⁶ In the light of this development, the money wage increases gained by the nitrate workers, perhaps, were sufficient only to offset the depreciation of the peso. In any case, the increase in real wages, if any, was slight.¹⁷

Many nitrate workers, it seems, experienced an added disadvantage because some oficinas issued wages in company tokens. Since the tokens could be spent only at the company store, the practice was designed to aid operators in

¹⁵ Ibid.; Child, South American Republics, p. 173; Galdames, Geografia de Chile, p. 128; J. W. Merriam to Dept. of State, No. 310, April 8, 1886, Iquique, II, p. 45.

¹⁶ Fetter, Monetary Inflation in Chile, pp. 13f.

¹⁷ South American Journal, XXIX (Nov. 8, 1890), 580f. This report observes that the decline in the rate of exchange of the Chilean paper peso meant lower wages for labor and benefits for the producers.

maintaining that monopoly. While workers could redeem their tokens for cash at the end of every month, the system undoubtedly served the end for which it was contrived.¹⁸ The practice was severely criticized by the Nitrate Commission established by the government early in the twentieth century on the grounds that it limited the economic freedom of the workers and because the tokens constituted an unauthorized currency. The Commission's recommendation that the use of tokens be declared illegal, like many of its other enlightened recommendations, was ignored by the government.¹⁹

Working conditions were also at a low standard. The usual work-day began at six A.M. and ended at six P.M. A lunch period of an hour or less was allowed all workers, and some oficinas also permitted a short rest period in the afternoon. Variations in working hours, however, did exist since the task system prevailed in a few types of employment and because the processing schedule required the completion of certain tasks regardless of the length of time it took. Safety devices were inadequate and slow in being adopted. While medical care was available for the worker and his family (and this was probably a great advance over medical opportunities for Chilean agricultural laborers), only

¹⁸J. W. Merriam to Dept. of State, No. 310, Iquique, II, p. 46.

¹⁹Semper and Michels, Industria del salitre, Appendix No. 29, p. 402.

routine treatment was given. One doctor would serve several oficinas, and for his services he received weekly from each worker a required payment amounting to several pence.²⁰

Until the development of the nitrate industry, the region in which it is located was considered so inhospitable that few people resided there. When the oficinas were built, rows of small dwellings constructed of corrugated iron were erected by the companies as housing for the workers. These crude structures housed from one to three thousand persons. Together with the manager's house and the company store, they formed a little village whose existence depended upon the near-by nitrate plant.²¹ Life in the nitrate region has been aptly described by a British journalist who travelled in the area shortly after the turn of the century.

Profitable though the working of nitrates may be, it is a deadly dull occupation There is nothing more depressing or gloomy in appearance than a nitrate-field, the whole country in which it is situated being of the most dreary nature--sand, sand, sand everywhere, except where the bare, brown, cruel-looking mountains intervene. Most people who go up to the nitrate-fields feel at first the greatest depression of spirits, and invariably look forward to the time when they are to be released from their voluntary but trying imprisonment.²²

²⁰Ibid., pp. 103-106; Percy F. Martin, Through Five Republics of South America (London: Wm. Heinemann, 1906), p. 344 makes the following comment: The attitude of the average nitrate worker was "that he would require neither medical advice nor medicine if he had nothing to do with nitrates."

²¹Child, South American Republics, p. 177.

²²Martin, Through Five Republics, p. 342.

These people had no recreational facilities for none were provided by the nitrate companies. Neither did the few scattered hamlets in the area offer the workers much in the way of diversions. Only the port cities of Iquique and Pisagua provided entertainment facilities in the nitrate region, and they were not accessible to the nitrate workers except occasionally.

Thus, there were no wholesome activities available for relieving the monotony of life in the nitrate desert. A renowned Chilean historian, noting the status of the nitrate workers, has written that among them "gambling and alcohol consume all of the time dedicated to rest."²³ While others have recorded the presence of these vices among the nitrate workers too, it is nonetheless true that "the propensity of Chileans for getting blind drunk every pay-day" prevailed to an equal degree in other areas of the country.²⁴

In criticizing, on one occasion, the demand for higher wages made by the nitrate workers, an Englishman observed that it would be foolish to grant their requests since "they don't have restraint, decency, or knowledge about how to live," and a Chilean asserted that "the worker is not able to save and the high wages come to be for most a

²³Galdames, Jeografía de Chile, p. 128.

²⁴Semper and Michels, Industria del salitre, Appendix No. 29, pp. 401f; Martin, Through Five Republics, p. 292.

temptation rather than a benefit."²⁵ However true that might have been, the poor living conditions made even more unsatisfactory by the oppressive climate, were major obstacles for the development of such desirable qualities. Those who denounced the type of life led by the nitrate workers, however, did nothing to alter or improve the environment in which they worked.

In this regard both the producers and the government of Chile were negligent in their responsibilities. Since capitalists the world over during this period failed to recognize an obligation toward labor, nitrate producers need not be singled out for special criticism. However, the Chilean government--whose major source of revenue was derived from nitrate exports--was seriously remiss in providing public services for the people of the northern provinces. After 1900, a growing recognition of the distressing condition of these people led to the establishment of a few schools, hospitals, and entertainment facilities by the government in the nitrate region. But even then it could "not be said that much benefit accrues to the immediate community that produced this wealth."²⁶

Beginning in 1890, journals and newspapers which followed nitrate developments periodically noted "labour

²⁵ South American Journal, XXXVI (Jan. 13, 1894), 36f; Galdames, Geografia de Chile, p. 128.

²⁶ Enock, Central and South America, p. 325.

outbreaks" or "labour riots" occurring in the nitrate fields. Nitrate workers were considered much more unruly than any other type of laborer in Chile. According to Percy F. Martin, an English historian and traveller in South America, the "wretchedly desolate" way of life of the nitrate workers was the major reason for their "feeling of unrest and disquiet."²⁷ However, the strikes engaged in by nitrate workers in the nineteenth century did not achieve permanent success, because there was no organization to protect and preserve the few concessions occasionally won from producers.

The most successful and widespread effort of nitrate labor to obtain higher wages before the twentieth century was made in 1890. Since it occurred shortly after the nitrate boom had collapsed, the fundamental cause of the strike lay in the circumstances attending that event. The expansion of nitrate production during the boom, it will be remembered, led to wholesale additions to the labor force and an increase in wages.²⁸ However, the subsequent decline in the price of nitrate reduced the amount of profit for producers and required a lowering of production costs.²⁹ Producers generally reduced wages in their effort to cut costs. They achieved this in an indirect manner--by increasing the prices of

²⁷Martin, Through Five Republics, p. 344.

²⁸Smith, Temperate Chile, pp. 2-3, 53.

²⁹See Table XI, Chapter V, p.155 . The average price of nitrate from 1889 to 1890 declined from 9/3d to 8/2¹/₄d.

articles sold at the company stores.³⁰ For the workers, this unexpected rise in the cost of living not only seemed unfair but also meant a decline in real wages. With inflation undermining their standard of living simultaneously, the workers felt acutely the effects of the rise in prices.³¹ While this was the basic grievance of the strikers, their animosity toward foreigners was probably a factor of secondary importance.³²

The walk-out in 1890 extended from Antofagasta through Tarapaca and affected the port cities as well as the oficinas. In effect the workers asked for a sixty per cent increase in wages when they demanded that they be paid in silver currency instead of in the depreciated paper money.³³ To support their demands demonstrations were organized in the oficinas. These degenerated into riots, however, and in several nitrate establishments the workers sacked the company stores, provision depots, and the house of the manager.³⁴ In the port cities the stevedores and boatmen joined in the strike. Because of their demonstrations many foreign residents took

³⁰Chilean Times as quoted in the South American Journal, XXIX (Sept. 6, 1890), 279.

³¹Petter, Monetary Inflation in Chile, pp. 75f.

³²South American Journal, XXIX (July 19, 1890), 65. See also J. W. Merriam to Dept. of State, No. 507, July 23, 1890, Iquique, II.

³³South American Journal, XXIX (July 19, 1890), 65.

³⁴Ibid., July 12, 1890, p. 34.

refuge on the ships in the harbor.³⁵

The producers, naturally, strongly opposed the demand for higher wages made by the workers and called upon the Chilean government to provide adequate protection for their lives and property.³⁶ Since the Intendant had too few troops to attempt the suppression to the strike, he advised acceptance of the strikers' terms. While that advice was accepted reluctantly, the consular corps in Iquique protested and the British minister in Santiago urged that adequate protection be given to British interests.³⁷

The Chilean Times, a British newspaper published in Valparaiso, blamed President Balmaceda for instigating the riots, while the complaint of nitrate manufacturers was voiced by the South American Journal which said: "Assuredly the Chilean government which benefits so largely by the nitrate industry might spare some troops to protect life and property."³⁸ In an editorial published by the same source,

³⁵J. W. Merriam to Dept. of State, No. 507, July 23, 1890, Iquique, II.

³⁶The American consul in Iquique denied that the workers had legitimate complaints, stating that there was no need for wage increases. His reasons for holding this opinion were as follows: the workers were improvident; their houses were small and had little furniture; their clothing was cheap; the climate made heating unnecessary. Thus, since the workers had relatively nothing, they didn't require much in wages to live on! See J. W. Merriam to Dept. of State, No. 507, July 23, 1890, Iquique, II.

³⁷Ibid.; South American Journal, XXIX (July 19, 1890), 65; See also F. O. to Kennedy, Tel. No. 11, July 9, 1890, F. O. 16/259.

³⁸Chilean Times as quoted in South American Journal, XXIX (Sept. 6, 1890), 279; See also July 12, 1890, pp. 35f.

it was stated that "the owners of the nitrate oficinas are well entitled to some compensation;" to obtain this, the government "might fairly be expected to reduce their present excessive impost on nitrate."³⁹

The established policy of the Chilean government in regard to labor disturbances in the nitrate region was to use troops to quell disorder and to coerce workers into returning to their jobs. The basis for this policy rested mainly in the understandable desire of the government to assure a steady flow of revenue into its treasury from the nitrate export tax. Although only a few soldiers were stationed in the nitrate region at the outset of the strike of 1890, it was not long before reenforcements arrived. They quickly restored order, but not without some bloodshed. When protection was assured, producers planned to withdraw most of the wage advances won by the strikers.⁴⁰

Intervention on behalf of the producers was the major type of action taken by the Chilean government in regard to the nitrate workers before the twentieth century. Sporadic disturbances and strikes occurred following 1890, but none reached as serious a stage as that attained by the strike of 1890. Actually, the stationing of troops at oficinas seems not to have been an unusual occurrence. A description of a representative incident is provided by a report originally

³⁹Ibid., July 19, 1890, p. 77.

⁴⁰Ibid., p. 65.

published in the Chilean Times:

The North Lagunas Nitrate Works was the scene of a serious riot on the 2nd instant [August 27], 100 or more of the workmen having made a demonstration in front of the manager's residence. Missiles, and even it is said dynamite cartridges, were freely used against the building. The ring leaders were arrested, and brought here, and a force of cavalry remains on duty at the works.⁴¹

While efforts were made to form unions among the workers in the oficinas, on the railways, and in the port cities, little was accomplished toward this end before the turn of the century. There is one exception to this statement. A government-sponsored union of stevedores, called the Gremio de Jornalados, existed until 1890. This group had been organized while Peru still ruled Tarapacá and was continued in operation by the Chilean government.⁴² By 1890, it was composed of some three hundred laborers who worked ten hours a day and were paid by the task system. The rules and practices established by the union were in effect decreed by the government. The issue of reforming the Gremio de Jornalados was precipitated in 1883 by the Jefe Político of Tarapacá, Francisco Valdés Vergara; but according to his statement, action was prevented by the opposition of the nitrate producers who wanted to abolish the union.⁴³ In spite of this opposition, the Jefe Político did carry out

⁴¹Chilean Times as quoted in South American Journal, XXXIX (Oct. 5, 1895), 346.

⁴²Valdés Vergara, Administración de Tarapacá, p. 91.

⁴³Ibid., p. 95.

a few changes in the union's organization designed to permit the workers to retain a larger proportion of their earnings.⁴⁴ The Gremio continued in operation until 1890 when it was abolished, probably because it cooperated in the strike occurring in that year.⁴⁵

After 1900, labor unions began to achieve strength among workers in the nitrate region. The strikes they engaged in, while frequently marked by violence, were consistently fought by nitrate producers, merchants, and the owners of the railroads. Employers relied upon strike-breakers, the lockout, and probably government troops to resist the advance of unionism among their workers.⁴⁶

The operation of a nitrate plant required the employment of trained engineers to maintain and operate the processing machinery and chemists to conduct the necessary analysis of the nitrate solutions. These technical positions and the managerial staffs as well were filled almost entirely by Europeans, most of whom were Englishmen. By 1900, approximately one thousand Europeans were employed by the nitrate producers.⁴⁷

⁴⁴Ibid., p. 92.

⁴⁵Martner, Política comercial de Chile, II, 475.

⁴⁶See Semper and Michels, Industria del salitre, p. 105; A. F. Brodie James, Nitrate Facts and Figures, pp. 11f; U. S. Cons. Reports, LXVIII, No. 259, pp. 491f.

⁴⁷Delegación de Salitreras, Memoria en 1901, p. 21.

⁴⁷Delegación de Salitreras, Memoria en 1901, p. 21.

CHAPTER VIII

THE NITRATE INDUSTRY AND THE REVOLUTION OF 1891

While the significance of the territory acquired by Chile during the War of the Pacific rests in part upon the changes it effected in the Chilean economy and in the organization of her public finances, the acquisition of the nitrate region also hastened, perhaps even made possible, her first successful revolution in over half a century. This was the Revolution of 1891, and its outcome determined a constitutional question of fundamental significance: whether presidential power would be preserved or whether Congress would enforce the parliamentary principle of ministerial responsibility.

For several decades preceding 1891, the presidents of Chile had striven to maintain the powers of their office. These powers, granted by the Constitution of 1833, made it possible for the chief executive to choose and elect his successor and to dominate the legislature. This "autocratic" power remained intact until 1861; but thereafter, sentiment in favor of limiting presidential power began to grow. The feeling was reflected in Congress, which gradually assumed a

more influential and independent role in the government.¹ Chilean presidents opposed this trend but they could not stop it.

During the presidency of Jose Manuel Balmaceda (1886-1891), the relationship between the executive and congress was considerably altered. Rampant factionalism within the President's own Liberal party, along with his attempt to maintain an harmonious relationship with Congress by choosing ministers acceptable to it, led to cabinet instability and political confusion.² Moreover, presidential interference in elections could no longer assure a tractable Congress. In fact, Congress "criticized governmental acts with uncontrollable persistence."³

As in the past, Congress represented the dominant landholding aristocrats. By 1890 the majority had turned against Balmaceda; because in spite of his many concessions to congressional wishes, he planned to name his successor in 1891.⁴ In the eyes of Congress this constituted a perpetuation of presidential power which it was unwilling to accept. In addition, many aristocrats feared Balmaceda's democratic electoral reforms might result in their loss of political power. So to them, the establishment of congressional

¹Galdames, History of Chile, pp. 240-243, 255ff.

²Ibid., pp. 342, 344.

³Ibid., p. 345.

⁴Ibid.

control over the government became a pressing necessity.⁵

Congress used its power over appropriations in an effort to compel Balmaceda to give up his attempted perpetuation of presidential power. After much controversy a temporary compromise was arranged. A ministry acceptable to Congress was appointed and the appropriations bill for 1890 was passed. But no action was taken on the appropriations bill for 1891. Then, following the adjournment of Congress in October, 1890, Balmaceda replaced the cabinet of compromise with one of his own choosing. On January 1st, he announced that the appropriation bill for the previous year would be enforced in 1891. Congress considered this an unconstitutional act and deposed Balmaceda on January 7th. With this event a revolution was started.⁶

The revolution was organized by the congressional majority and it received the support of the Chilean navy. The army, however, remained loyal to the President, who was thereby able to preserve his authority in the populous sections of the country where the majority of the troops were stationed.⁷ Meanwhile, the revolutionists took to the sea. Being deprived of the opportunity to organize a resistance

⁵Ibid., pp. 344f; Some historians consider Balmaceda the champion of a more popular government in Chile. See Osgood Hardy, "The Itata Incident," Hispanic American Historical Review, V (May, 1922), p. 200 and notes.

⁶Galdames, History of Chile, pp. 345ff.

⁷Ibid., p. 346.

force in the major provinces and with only a small contingent of soldiers at its command, Congress saw that its future success depended upon the establishment of a base in Chilean territory where an army could be formed and trained free from the danger of harassment. Since the nitrate region was virtually inaccessible by land, it provided an ideal nest for the revolutionaries. They quickly imposed their rule there. The navy won control of the nitrate ports in Tarapacá. Revolutionary forces drove Balmaceda's small garrisons inland, and after a brief struggle emerged victorious.⁸

Possession of northern Chile gave Congress not only an ideal base of operations, but also access to the immense revenues derived from the tax on nitrate exports. This became their chief source of funds for the support of the war. Another important aspect of the relationship between the nitrate industry and the Revolution of 1891 lies in the aid given that movement by the British nitrate capitalists. Without these advantages, it is highly improbable that the Congressional forces would have won the struggle in which they were engaged.

There are indications that foreign economic interests in Chile, especially the British nitrate capitalists, were involved in the political conflict preceding the revolution as partisans of the aristocrats. The open hostility of Balmaceda toward the British nitrate interests provides the

⁸Ibid.

major reason why they identified their welfare with the Congressional party.

Balmaceda's statements and actions pertaining to the nitrate industry were leading him to the formulation of a Chilean nitrate policy.⁹ There is no doubt that he hoped to return the industry to Chilean control. The President considered combinations the work of the British enterprises; and early in 1889, he proposed the prohibition of these organizations as a means of protecting Chilean interests. His influence may have been an important factor in forestalling the organization of the second combination in 1889 and 1890. At the same time, the President suggested that the expropriation of the Nitrate Railways Company and the nationalization of the entire nitrate industry might be necessary to achieve his goal.¹⁰ Balmaceda's opposition to Nitrate Railways rested upon his belief that the high rates it charged were detrimental to the welfare of the industry. Consequently, he sought to destroy the monopoly position that made these rates possible.¹¹ He also deplored the wholesale incorporation of large companies on the London stock exchange during the boom years. According to the President, corporate

⁹Cornejo, El Salitre, p. 133.

¹⁰Chile, Fomento de la industria salitrera, pp. 145ff; Billinghamurst, Los capitales salitreros, p. 113.

¹¹The British government supported Nitrate Railways before the government of Balmaceda. "I hope," wrote the British Minister to Chile, "after some settlement of the

enterprises, unlike personally owned nitrate works, did not promote either public or private interests.¹² His policy, in the words of an American consul, was to encourage "small and independent companies" in order to erect an "obstacle to the formation of a trust of English companies."¹³

While Balmaceda did not relent in his opposition to British domination of the nitrate industry, he did come to the conclusion that nationalization was not a practical course of action. "It is true," the President said, "that we should not exclude the free competition and manufacture of nitrate in Tarapacá; but we cannot consent that this rich and extensive region should become simply a foreign factory."¹⁴ Opposition from Chilean nitrate capitalists and the expense involved were, in all probability, the chief obstacles to the nationalization of the industry.

Although Congress, apparently, failed to echo Balmaceda's ideas concerning the nitrate industry, his view

Nitrate Railways question to get on a friendlier footing with the President for he really governs the country. So far he looks upon me as a disagreeable person because I bothered him in regard to Peruvian Bond-holders, thwarted his emigration designs upon Britishers and now attack him in regard to Nitrate Railways." Kennedy to Sanderson, May 27, 1890, F. O. 16/259. See also Chapter IV.

¹²Cornejo, El Salitre, pp. 131-133.

¹³U. S. Cons. Repts., XXXII (1889), 408.

¹⁴Russell, A Visit to the Nitrate Fields, p. 312; See also Billinghamst, Los capitales salitreros, p. 120 where Balmaceda is reported to have cited the anti-trust law of the United States as an example of what he wanted.

received popular support.¹⁵ A newspaper published in Santiago, the Libertad Electoral, voiced the fear that the entire nitrate region was in danger of being dominated by the British nitrate capitalists. The article containing this view, entitled "Tarapaca: Its Northization," noted with great apprehension the monopolistic activities of Col. North.¹⁶ In addition, a leading West Coast writer on nitrate affairs Guillermo Billinghurst, gave his support to Balma-
ceda's ideas when he declared that

these floatations in London, have (1) not increased the public riches of Chile, nor (2) the industrial riches with small exceptions, and they will produce bad effects upon the industry. More important is the effect on state revenues, especially their contraction due to the efforts of the combination.¹⁷

Moreover, in pointing to the important political and financial effects foreign ownership of the nitrate industry could have on Chile in the future, Billinghurst posed the question which many Chileans considered of fundamental importance. He wrote:

Is it prudent, for the state, whose principal financial resources come from the tax on nitrate exports, to remain passive, seeing that this industry is being concentrated in the hands of a determined group of foreigners?¹⁸

¹⁵Cornejo, El Salitre, p. 141.

¹⁶Quoted in the Nitrate Craze, pp. 15f.

¹⁷Billinghurst, Los capitales salitreros, p. 113.

¹⁸Ibid., p. 4.

Balmaceda continued his opposition to the British nitrate interests throughout the year 1890, and in the fall of that year he conducted a speaking tour during which he consistently evinced a hostile attitude toward British interests.¹⁹ He voiced his antipathy to British control over an industry that had been won by the shedding of Chilean blood and through the sacrifices of her citizens. Moreover, nitrate capitalists claimed that the president had instigated labor riots in the oficinas and that he supported and was largely responsible for the successful demands made by the workers for higher wages.²⁰ One of Col. North's friends, the journalist William Russell, commented that he "found the foreign communities much exercised by the declarations he [Balmaceda] had made in the course of his official journey."²¹

This anti-Balmaceda sentiment among British nitrate interests was essentially the outcome of the refusal of the President to make an agreement satisfactory to the English capitalists. An opportunity had been afforded him when the leading nitrate investor, Col. North, visited Chile in 1889.²² The British entrepreneur, apprehensive about the

¹⁹The Times (London), Jan. 19, 1891, p. 5.

²⁰South American Journal, XXIX (July 12, 1890), 34; Sept. 6, 1890, p. 279.

²¹Russell, "The Troubles in Chile," p. 184.

²²Other implications of North's voyage to Chile in 1889 are discussed in Chapter III, pp. 106ff.

security of his investments, declared that the purpose of his voyage to Chile was "to solidify and extend [his] interests," and perhaps, even to conclude an agreement with the President.²³ But his journey proved fruitless. Although he reported to the press that his conversation with Balmaceda had been successful, his optimism was totally unfounded. Col. North's proposals received scant consideration, and the gifts that he had brought for the President were refused. The President went so far as to single out for attack North's most powerful company, the Nitrate Railways. He obtained a court decision nullifying that firm's monopoly privilege, and he granted concessions to others which led to the building of competing rail lines.²⁴ The unsatisfactory relations between Balmaceda and Col. North were confirmed by a consul of the United States, who happened to be in Santiago at the time. The latter described a "large and imposing representation" which had come to Chile from Great Britain to obtain "such concessions and changes in nitrate regulations as would render them masters of the situation and give them a virtual monopoly of the nitrate trade." The consul's conclusion regarding the result of the encounter is a precise summation of the reception that the delegation's requests received. "I am convinced," he wrote, "that the

²³Russell, A Visit to the Nitrate Fields, p. 81.

²⁴Ibid., p. 197; Budd to Sanderson, Jan. 11, 1894, Encl. No. 1.

impolicy of strengthening the hands of the would-be monopolists was fully appreciated at Santiago."²⁵

The continued estrangement between the government and the English nitrate capitalists is indicated by Col. North's close association with members of the Congressional opposition to Balmaceda. One leader of the opposition gave the visitor a banquet, and Col. North's chief legal advisor in Chile was Julio Zegers, a prominent member of the anti-Balmaceda group, who sided with the revolutionists in 1891.²⁶

Balmaceda's supporters both directly and indirectly identified British nitrate capitalists with the Congressional party. In a speech Julio Bañados Espinosa declared:

The . . . true source of the revolution . . . is that of personal interests What has been the influence of the Tarapacá nitrate kings in our parliamentary wranglings, and in our political affairs, for the last five years? The same interests, which have contributed to throw us into a revolution are, at the present time, knocking at every door in foreign countries to bring us into discredit, and to dishonor our foreign affairs.²⁷

More direct testimony is rendered by the special correspondent of the London Times, Maurice Hervey, one of the few Englishmen in Chile who favored the cause of the President:

²⁵U. S. Cons. Repts., XXXII (1889), 408.

²⁶Great Britain, Foreign Office, Correspondence Respecting the Revolution in Chile (London: Harrison and Sons, 1892), No. 48, p. 15; South American Journal, XLIV (March 26, 1898), 353; Russell, A Visit to the Nitrate Fields, p. 95.

²⁷Julio Bañados Espinosa was a writer and professor. He became an outspoken supporter of President Balmaceda. He

Without quoting names, some of which are as well known upon the London Stock Exchange as the cardinal points of the compass, the fact remains, beyond the possibility of contradiction, that the instigators, the wire-pullers, the financial supporters of the so-called revolution were, and are, the English or Anglo-Chilean owners of the vast nitrate deposits of Tarapaca The fact further remains that outside certain portions of these nitrate districts (and mostly of course, Iquique and Pisagua) the revolutionary appeal has proved a total failure.²⁸

The link between the British nitrate capitalists and the opposition prior to the revolution was strengthened after the revolt began. In the spring of 1891 and before the Congressional forces achieved any notable success outside their stronghold in the nitrate region, Col. North expressed his wholehearted support of the revolution and his belief that the "political difficulties" in Chile would soon be settled in such a manner that Nitrate Railways would attain a position more advantageous than heretofore.²⁹ In the columns of almost every English newspaper, periodical and journal, the revolutionists received unquestioned support. There are two major reasons for the prevalence of this attitude in the English press. In the first place, the welfare of English economic interests was identified with the cause of the revolutionists; and secondly, since the Congressional party favored the establishment in Chile of a parliamentary

held posts in cabinets during Balmaceda's presidency. See V., Figuerola Diccionario, II, 99-101.

²⁸South American Journal, XXX (May 23, 1891), 654.

²⁹The Times (London), May 6, 1891, p. 11.

form of government similar to the British political system, Englishmen naturally sympathized with their objective.³⁰

A few of the articles published in English periodicals were written by men identified with the nitrate interests, and they were uniformly pro-revolutionist in sentiment; and the London Times recalled its special correspondent in Chile, Maurice Hervey, because his dispatches were favorable to Balmaceda.³¹ When the civil war ended with the triumph of the revolutionists, the South American Journal, a consistent champion of the nitrate capitalists, stated editorially:

It is with great satisfaction that we have to record the realization, not only of our hopes, but of the expectations we have throughout ventured to express, in the complete overthrow of BALMACEDA and his servile supporters.³²

While the charges that the British nitrate capitalists contributed heavily to the financial resources of the revolutionists cannot be unreservedly substantiated, available evidence, however, points in that direction. One accusation, published by the San Francisco Daily Evening Bulletin, asserted that between three and four million pesos were contributed to the revolutionary regime by the nitrate

³⁰Hardy, "British Nitrates and the Balmaceda Revolution," pp. 165ff.

³¹Russell, "Troubles in Chile," p. 184; Edward Manby, "A Note on Chilean Affairs," The Fortnightly Review (London), New Series, L (July-Dec., 1891), 101-105; South American Journal, XXXI (Aug. 8, 1891), 147.

³²Ibid., Sept. 6, 1891, p. 277.

capitalists.³³ Although no source was cited, the allegation might be ascribed with probable validity to a Balmaceda supporter and a former Chilean consul in San Francisco named Cassanova. He believed that:

It will be found that British money is the mainstay of the insurgents against our government. The British want to obtain control of the nitrate deposits and President Balmaceda wished them to be worked for the benefit of the Chilean government.³⁴

The English journalist Hervey declared that the "English or Anglo-Chilean owners of the vast nitrate deposits in Tarapaca" are the "financial supporters of the so-called revolution."³⁵ Hervey was well-informed on the subject of Chilean politics, and his opinion was not only derived from his contacts with government officials of the Balmaceda administration but also through his association with members of the British community resident in Chile. That his declaration was sincere is indicated by the fact that he maintained his point of view even when it became evident that it would result in his recall.

The American Minister to Chile, Patrick Egan, was another who charged the British nitrate capitalists with aiding the revolutionists. In a dispatch to Secretary of

³³The San Francisco Daily Evening Bulletin, as quoted in Hardy, "British Nitrates and the Balmaceda Revolution," p. 180.

³⁴New York Daily Tribune, May 8, 1891), p. 1.

³⁵South American Journal, XXX (May 23, 1891), 654.

State James G. Blaine he wrote on one occasion the following: "I may mention as a feature of much interest the fact that the revolution has the undivided sympathy, and in many cases the active support, of the English residents in Chile." He continued, "it is known that many English houses have subscribed liberally to the revolutionary fund. Among others, it is openly stated by leaders of the revolution, Mr. John Thomas North contributed the sum of £ 100,000." Egan also recorded a report from Balmaeda's commander in Tarapaca that claimed the English managers of oficinas in the nitrate district were urging their workers to join the revolutionary army by offering bounties to them if they did, and threatening to fire them if they did not.³⁶

While Patrick Egan's career as American Minister to Chile has been the subject of much controversy, he, nevertheless, appears to have performed his duties with considerable ability.³⁷ Although he was undoubtedly in favor of the President's party in the revolution and believed they

³⁶United States, Department of State, Papers Relating to the Foreign Relations of the United States, 1891 (Washington: Government Printing Office, 1892), p. 107. Col. North, referred to by Egan as a contributor to the revolutionary fund, had ample resources and could well have given financial aid to the revolution. Not only was he a wealthy nitrate investor, but between the years 1887 and 1896 he expended £ 250,000 for expenses incurred in the attempt to maintain the monopoly of the Nitrate Railways company. A full accounting of these expenditures was never made.

³⁷Osgood Hardy, "Was Patrick Egan a 'blundering Minister,'" Hispanic American Historical Review, VIII (Feb., 1928), pp. 65-81.

would be the ultimate victors, Egan's record shows that he maintained, as he was expected to do, the officially neutral policy of the United States. In spite of this, however, the revolutionists considered him hostile to their cause, and the Balmacedists sought to identify the United States as one of their supporters.³⁸ Since the large and important English community in Chile and Egan were hostile toward each other, his testimony regarding English aid to the revolutionists must be evaluated with this relationship in mind. Still, his reports should be accepted as generally correct, even though the details may be in error. In Balmaceda's friendly attitude toward the United States, Egan saw an opportunity to promote American economic interests at the expense of the British. But though he talked with the President on the subject of employing American capital as a means of diminishing English preponderance in the nitrate industry, the victory of the revolutionists nullified his efforts.³⁹ It should be noted, however, that economic and financial conditions in the world and in the United States in particular at that time were not ripe for American investment on a large scale in Chile.

The interests of the English and the insurgents were

³⁸Henry Clay Evans, Chile and its Relations with the United States (Durham: Duke University Press, 1927), pp. 138-141.

³⁹Hardy, "Was Patrick Egan a 'blundering Minister,'" p. 74.

related in a manner similar to the connection existing between the Balmaceda government and the United States; and because English interests in Chile were stronger than those of the North American republic, they had a more important effect in determining the course of the revolution. We have already seen how the English identified themselves with the revolutionary movement. In their turn, leaders of the revolution urged the English to give them support because the success of their party would be, they claimed, advantageous to British interests. This does not mean, of course, that the revolutionists were fighting for British interests. Rather, the welfare of the latter, especially those interested in Chilean nitrates, was incidentally furthered by the attempt to overthrow President Balmaceda; and need for foreign assistance required the cultivation of those who could render aid in obtaining necessary supplies and arms.

British diplomatic reports record the attitude of leading insurgents towards the English. In reporting to the Foreign Office that many revolutionists had urged him to request British recognition of the revolution, the English Minister in Santiago remarked that they

. . . look to Great Britain for money and ships, manufactured goods, and all necessities of life; that they had relations with British capitalists and desired to encourage the investment of foreign capital in Chile.⁴⁰

⁴⁰Grt. Br., Correspondence Respecting the Revolution in Chile, p. 185.

The point of view expressed in this dispatch would undoubtedly appeal to the English nitrate capitalists who were anxious for an opportunity to make additional investments in new nitrate properties. They knew, as the insurgents had reminded the British minister, that Balmaceda was opposed to the introduction of additional English capital in the nitrate industry.⁴¹ Revolutionary agents in Europe, likewise, made direct representations to the Foreign Office. The British Foreign Secretary informed his minister in Santiago that Agustin Ross, one of the most important revolutionary agents in Europe, had told him that⁴²

⁴¹The policy of selling state-owned nitrate properties was resumed after the revolution. See Chapter II, pp. 61f. This action has been interpreted as a redemption of the pledge made during the revolt to promote foreign investments in Chile. (See Hardy, "British Nitrates and the Balmaceda Revolution," pp. 179f.) However, such was not the case. The real reasons for the sale were: (1) the need of additional funds to support the monetary conversion scheme; (2) the desire to increase Chilean investments in nitrates; and (3) the plan of undermining the nitrate combination by creating new producers. Apparently after achieving power, the congressional Party was no longer so anxious to stimulate British investments in the nitrate industry. As an Englishman wrote a few years later, " . . . the 'parvenus foreign nitrate adventurers' have lost caste as well as influence with all parties" Smith, Temperate Chile, p. 2.

⁴²Agustin Ross was a Chilean banker. He wrote numerous articles about the economic problems of Chile. Ross was in Europe when the revolution began. He became an agent for the Congressional Party; and with the triumph of his cause, Ross was appointed Minister to Great Britain. As a revolutionary agent, Ross worked with Augusto Matte. Matte was also a banker and diplomat. Both men had served in the Chilean Senate. See V. Figueroa, Diccionario, IV-V, pp. 221f, 1067.

it is very important to English commercial interests that the Congressional party should be speedily successful, and [he] stated that President Balmaceda was under the influence of Mr. Egan, the United States Minister, and hostile to British merchants.⁴³

This quotation shows how the revolutionists expanded their request for British support by associating the President with North American economic interests and by inferring that English and insurgent interests were in harmony with one another. According to Times correspondent Hervey, "still more indiscreet was the oft-heard boast of the revolutionists that they had the whole nitrate interest at their backs, as well as the moral support of the British Government, and of the British navy."⁴⁴

British policy during the revolution reflected the attitude of the English press, the English nitrate capitalists, and the English community in Chile. When Balmaceda issued decrees prohibiting exports of nitrate and closing the nitrate ports to all trade, the British refused to recognize their validity.⁴⁵

The British fleet cruised off the Chilean coast and protected British ships from molestation; however, their action was followed by the United States, which also sent a

⁴³Grt. Br., Correspondence Respecting the Revolution in Chile, p. 157.

⁴⁴Hervey, Dark Days in Chile, pp. 108f.

⁴⁵Grt. Br., Correspondence Respecting the Revolution in Chile, p. 94; House Executive Documents, 1st Session, 52nd Congress, Vol. 34, No. 91, p. 21.

naval squadron to Chilean waters. The major difference, apparently, was that the United States did not protest the action taken by Balmaceda while Great Britain did. At one time or another, both the British and American navies were accused of acting as messenger boys, the British for the revolutionists and the American for Balmaceda.⁴⁶

In addition, the British materially aided the insurgents' cause by refusing to give more than nominal support to Balmaceda's agents in England. Moreover, revolutionary agents were permitted to procure supplies and ship them from English ports without hindrance from the government. The ability of the Congressional party to obtain munitions and war materials in England (and elsewhere) was a determining factor in the revolution. The insurgents were in desperate need of arms and ammunition for until those supplies were at hand, no attack on Balmaceda could be made.

Efforts to procure war materials were made by revolutionary agents in the United States, England, and on the continent. In the United States the Chilean revolutionary agent Ricardo Trumbull obtained a large quantity of rifles and ammunition from a factory in New York.⁴⁷ These were

⁴⁶Ibid., pp. 61f; Evans, Chile and the United States, p. 142.

⁴⁷Ricardo Trumbull was an excellent choice as the revolutionary agent in the United States. He not only spoke English well but was also a distant relative of a well-known American, Lyman Trumbull. Hardy, "The Itata Incident", p. 202.

transported to California, then transferred to a schooner which finally delivered them to the insurgents' vessel, the Itata.⁴⁸ In obtaining this cargo Trumbull was probably aided by the New York commercial firm of W. R. Grace and Company, although proof of this is lacking. Nevertheless, Grace and Company admitted sending non-military supplies to the revolutionists, while his competitor, Charles R. Flint and Company, was shipping supplies to Balmaceda.⁴⁹ George A. Burt, who had charge of the Itata's cargo in California, denied that "the credits used to purchase these arms were from Europe."⁵⁰ At any rate, the arms carried by the Itata were not a decisive factor in the Chilean revolution because the United States forced the return of the ship with its cargo until the legality of the shipment could be determined judicially.

When a similar incident involving Great Britain occurred, the Foreign Office acted quite differently. The chief revolutionary agents in Europe, Augusto Matte and Agustin Ross, dispatched military supplies from the important nitrate commercial center of Liverpool aboard the English vessel Aconcagua. Labelled as a cargo of screws, these munitions were transferred to the insurgent's vessel Maipu

⁴⁸See Ibid. for the details of the Itata controversy.

⁴⁹New York Daily Tribune, May 10, 1891, p. 1.

⁵⁰Ibid., June 26, 1891, p. 1.

in the Straits of Magellan.⁵¹ Information to this effect was given the Foreign Office by the government of Balmaceda, but no action was taken to prevent the supplies reaching Iquique.⁵² According to a United States Naval Intelligence report, the Congressional army was at last adequately equipped as a result of the receipt of these supplies.⁵³

In one other instance the plans of Balmaceda to frustrate the efforts of the opposition aroused discord between his government and that of Great Britain. Early in the war, Balmaceda perceived the possibility of the Congressional forces establishing their rule in the nitrate region. In an attempt to prevent them from gaining control over the revenues derived from nitrate exports, the President ordered the destruction of the nitrate establishments. When the British, and German Minister too, entered a vigorous protest to this order, they received only the promise that compensation would be forthcoming for all damages incurred.⁵⁴ Balmaceda's project, however, was prevented from being carried out by the swift capture of the nitrate region by the revolutionaries.

⁵¹Grt. Br., Correspondence Respecting the Revolution in Chile, p. 269.

⁵²Ibid., pp. 152f; José M. Santa Cruz, "Chile and Her Civil War," North American Review, CLIII (Oct., 1891), 412.

⁵³United States, Office of Naval Intelligence, The Chilean Revolution of 1891, War Series No. IV (Washington: Government Printing Office, 1893), p. 26.

⁵⁴Cornejo, El Salitre, pp. 139f.

The conclusion that the English nitrate capitalists were an important factor in determining the outcome of the revolution seems valid. They had sufficient reasons for desiring the victory of the Congressional forces; their sympathies were clearly with the insurgents; and influential members of their group were closely associated with participants in the struggle. The extent of their aid, especially that of money or credit advanced, is impossible to estimate precisely. Even though the nitrate revenues probably afforded most of the funds needed by the Congressional party, at least one well-informed British nitrate investor wrote that these duties would not provide adequate support for the revolutionary cause.⁵⁵ In the light of that statement, the numerous indications that contributions were forthcoming from the foreign nitrate capitalists must be given serious consideration. Furthermore, it should be emphasized that the revolutionists never denied the charges that they received financial aid from this source.

⁵⁵Manby, "A Note on Chilean Affairs," p. 101.

CHAPTER IX

THE IMPACT OF NITRATES ON NINETEENTH CENTURY CHILE

It can be seen from a recapitulation of the previous chapters that the nitrate industry had an important effect on the course of Chilean history in the late nineteenth century. Many political and social trends as well as the Chilean economy were either directly or indirectly shaped by nitrate developments.

Even before Chile acquired complete control over the industry, nitrate affairs exerted an important influence on her economy, which was expanding and prosperous between the years 1866 and 1874. This prosperity was promoted in part by Chilean capitalists who developed valuable mining interests in territory belonging to Bolivia and Peru. The working of nitrate deposits was one of these enterprises.¹ After 1873, the mining boom collapsed, and investors suffered serious losses. Moreover, the difficulties of Chilean nitrate entrepreneurs were increased by the nationalization policy of Peru

¹Toward the close of this period of prosperity a Chilean economist observed that most Chileans believe the country's "life is tied up only with the development of riches, stock exchange dealings, mining ventures, and speculation in securities and corporations." Marcial Gonzales, "Las Negocios y las crisis," El Ferrocarril, July 5, 1873, as quoted in Fetter, Monetary Inflation in Chile, p. 16.

and by the hostile attitude of Bolivia.² As a result, Chilean nitrate interests in Tarapacá declined, and those in Bolivia operated in an atmosphere of uncertainty. A few Chileans who had lost their properties in Tarapacá transferred their activities to the Chilean fields of Aguas Blancas and Taltal. But even with the encouragement of the government, they failed to establish themselves as important producers because the deposits they worked were inferior and adequate transportation facilities were lacking.

Meanwhile, a depression hit Chile in 1873. The landholding aristocracy faced serious financial problems. They were heavily in debt; and since the markets for their products were depressed, the future outlook was dim. In addition, commerce was severely restricted; the banks were in a precarious status; and the government did not receive sufficient revenues to cover its expenses. The world-wide economic crisis of the 1870's added to Chile's difficulties.³ By 1878, hard times affected every significant section of the Chilean economy, and hope of recovery in the foreseeable future was small. Because of this situation, specie payments were suspended in 1878. With the outbreak of the War of the

²Guillermo Subercaseaux, Monetary and Banking Policy of Chile, Ed. by David Kinley (Oxford: Clarendon Press, 1922), p. 85. Actually, developments in copper and silver mining were more important than nitrates in producing the depression. During the depression, the price of copper declined by fifty per cent while the price of silver fell fifteen per cent.

³Fetter, Monetary Inflation in Chile, pp. 17, 26, 30f; Galdames, History of Chile, pp. 315, 320f.

Pacific a few months later, the government began issuing paper money.⁴

During the period when economic distress in Chile was most acute, serious diplomatic differences between Chile and Bolivia were renewed. It is quite possible that the depression in Chile significantly influenced the outcome of the diplomatic crisis. The hostile action taken by the Bolivian government against Chilean nitrate interests near Antofagasta produced a firm protest from Chile.⁵ The controversy that ensued resulted in the revival of Chilean expansionism. Chilean statesmen were undoubtedly aware of the economic advantages to be gained by annexing the Bolivian littoral. In the first place, existing interests would be provided protection; secondly, new groups would have an opportunity to establish themselves there; and thirdly, new sources of revenue for the government would be opened up. Annexation of the littoral would mean war with Bolivia; and because of the alliance between Bolivia and Peru, the latter probably would be drawn into the struggle.

From the standpoint of the expansionists of Chile, war with Peru would provide the welcome opportunity to acquire the rich province of Tarapacá. Thus, through territorial expansion, the depression might be alleviated. The determination expressed by Chile on the first day of the war

⁴Fetter, Monetary Inflation in Chile, pp. 28-43.

⁵See Chapter I, pp. 27f.

to retain Antofagasta, and her obvious annexationist designs on Tarapacá, constitute evidence supporting the view that the depression strengthened the Chilean expansion movement.⁶

In any event, the victory of Chile in the War of the Pacific solved her major economic problems. With the conquest of Tarapacá, revenues obtained from the nitrate industry replaced issues of paper money as the main source for funds to carry on the war. In fact, there was no need for further issues of paper money at all. At the same time the distress of the landholding aristocracy was turned into prosperity by the opening of markets in the mining region for the products of the Chilean haciendas.⁷ In addition, Chilean capitalists and merchants benefited from Chilean control of the nitrate region.

From 1880 onward the nitrate industry continued to contribute to the economic growth of Chile. The rapid expansion of production facilities in Tarapacá, and later in the other nitrate fields, gave Chilean agriculture increasing markets for its produce. Services required by the industry

⁶Dennis, Tacna-Arica Dispute, pp. 83ff.

⁷Subercaseaux, Monetary Policy of Chile, p. 97. By the end of the war, writes Subercaseaux, "the economic and financial situation of the country had undergone a notable improvement The debtors were able to take advantage of the altered situation for the purpose of converting their old obligations into new ones carrying a lower rate of interest. The price of rural and urban properties rose considerably, so that many landowners, who shortly before would have been unable to pay their debts by selling their holdings, afterwards found themselves with a considerable balance in their favour."

gave rise to smaller businesses and stimulated the building of additional railroads. Moreover, the large volume of nitrate exported to Europe again gave Chile a favorable balance of trade and did much to provide her with a sufficient supply of foreign exchange.⁸

The large revenues collected by the government from the tax on nitrate exports gave Chile the means to restore her currency to a metallic basis. However, Chilean leaders failed to take advantage of the favorable situation. Instead, they gave priority to an extensive program of public works.⁹ For the most part the schools, public buildings, railroads, and harbor improvements constructed under this program were located in the central valley, where the politically dominant aristocracy lived. While the nitrate region benefited little from the program, the improvement of transportation facilities aided the growth of both domestic and foreign trade. This and the commerce in nitrates promoted the development of a wealthy commercial class that eventually exerted a strong influence in the Chilean government.

Possession of the nitrate fields also led to a growth of foreign investments in Chile. The trend can be discerned from statistics showing the amount of British capital placed in Chilean enterprises and securities. From 1880 to 1890

⁸Fetter, Monetary Inflation in Chile, pp. 22f lists Chilean imports and exports from 1870 to 1925.

⁹Ibid., pp. 45-47.

the total British investments in Chile rose from £ 8.4 millions to £ 24 millions.¹⁰ Of this latter sum nitrate producing companies and the major allied enterprises accounted for £ 9.8 millions or two-fifths of the total. For the next twenty years investments continued to increase substantially. Although these investments promoted economic development, the dominance of British capital in the nitrate industry was one reason for rise of anti-foreignism in Chile. As had been pointed out in Chapter Six, the policy of restricting nitrate production was largely a British scheme and was considered by the government detrimental to the interests of Chile.

The attitude taken by the Chilean government toward restriction points to one of the chief influences of nitrates on Chile. The revenues of the government, indeed the prosperity of the country depended upon the status of nitrate affairs. Depressions in the nitrate industry adversely affected all other phases of the economic life of Chile. Fortunately, in the nineteenth century nitrate depressions were relatively short-lived.¹¹

Finally, the nitrate industry had an important influence on political developments in Chile. Luis Galdames, a

¹⁰J. Fred Rippy, "Century of British Investments in Chile," Pacific Historical Review, XXI (Nov., 1952), 341.

¹¹However, after the first World War a prolonged depression in Chilean nitrates did occur. The development of processes for the manufacture of synthetic nitrates was responsible for this.

leading Chilean historian, points out that the history of Chile in the late nineteenth century was largely determined by two events: the War of the Pacific and the Revolution of 1891.¹² In both events, nitrate played a significant role.

¹²See Galdames, History of Chile, pp. 336, 361, 412.

SELECTED BIBLIOGRAPHY

UNPUBLISHED DOCUMENTS

Available unpublished documents have been restricted in number. Reports of Consuls of the United States in Chile do not form an important source for information on the nitrate industry. However, reports made by British diplomatic and consular officials appear to be of major importance. Access to those that are listed below was obtained through the aid of a research assistant who provided both transcriptions and microfilm. Altogether nine different files of Foreign Office records were perused in the search for information.

Public Record Office. Foreign Office, Chile 1889. 16/256.

Public Record Office. Foreign Office, Chile, Consular and Commercial 1889. 16/257.

Public Record Office. Foreign Office, Chile, 1890. 16/259.

Public Record Office. Foreign Office, Chile, Various Domestic. 16/262.

Public Record Office. Foreign Office, Chile, Consular 1896. 16/296.

Public Record Office. Foreign Office, Chile, Nitrate Railways 1894-96. 16/298.

United States, Department of State. Consular Reports, Iquique, Vols. I-IV (1877-1897). (In the National Archives, Washington, D. C.)

PUBLISHED DOCUMENTS

The documents published by the government of Chile are the most important public documents for a history of the nitrate industry. Documents issued by the governments of Great Britain and the United States are of considerably lesser significance. Relatively little space is given to Chilean economic developments in the consular reports of these nations, although occasional reports are of major importance.

Aldunate Solar, Carlos. Leves, Decretos i Documentos Relativos a Salitreras. Santiago: Cervantes, 1907.

This is the best collection of documents pertaining to the nitrate industry. It includes principally laws and decrees, although other documents, such as judicial proceedings, are included. Selections are taken from Peruvian and Bolivian sources as well as from Chilean. However, the period from 1885 to 1900 is given too little emphasis.

Asociación Salitrera de Propaganda. Circular Trimestral. Iquique, 1894-1899.

The Circular Trimestral was the regular publication of the agency established by producers to conduct advertising and to manage the affairs of the combinations. It contains brief items of current news about nitrate affairs, announcements, and statistics. Thorough reports concerning the work of advertising and other agents promoting the use of nitrate are made in each issue. In many instances matters of immediate concern are dealt with in special issues; consequently, the regular issues treat such incidents only briefly. These special issues were not available.

Asociación Salitrera de Propaganda. Escrituras Públicas de la Combinación Salitrera de 1901 a 1906. Iquique: La Patria, 1900.

The agreement organizing the fourth combination is all that is contained in this pamphlet.

Bañados Espinosa, Julio. The Chilean Revolution and the Balmaceda Revolution, a speech delivered in the House of Representatives, 28 April 1891. Washington: Gibson Bros., 1891.

The speech which comprises this pamphlet treats of the causes of the Revolution of 1891 from the point of view of a supporter of President Balmaceda.

Dennis, William Jefferson. Documentary History of the Tacna-Arica Dispute. Iowa City: Published by the University, 1927, Vol. VIII, No. 3 of University of Iowa Studies in the Social Sciences.

This collection contains the major documents pertaining to the issues leading up to and produced by the War of the Pacific. Each document is prefaced by an introductory statement.

Gobenes, Luis J. Documentos de los Ferro-carriles de la Pro-videncia de Tarapaca. Lima: El Nacional, 1873.

This work includes the Peruvian grants to build the railroads in Tarapaca.

Ibañez, Carlos E. Minas i Salitreras, contiene las Leyes, Decretos Supremos dictados i Jurisprudencia vijente sobre estas materias. Santiago: La Lira, 1906.

Because the collection made by Ibañez includes documents relating to all mining developments in Chile, it is not as complete a collection as the one made by Aldunate Solar. Nevertheless, it does contribute to the available material on the nitrate industry since it includes information not available in the Solar collection.

Martínez, Marcial. Informe del Aiente de Chile ante el Tribunal Arbitral Anglo-Chileno. Santiago: Ercilla, 1896.

This report of the Chilean representative on the Anglo-Chilean Claims Commission of 1894 constitutes a contributory source in that it reveals the attitude taken by Chile regarding claims for damages presented by nitrate enterprises.

Memorandum Presentado Por la Compañía de los Ferrocarriles Salitre a la Honorable Comisión. Santiago: La República, 1883.

This is a brief pamphlet constituting the report of Nitrate Railways to the Chilean government on its status.

Valdés Vergara, Francisco. Memoria sobre la Administración de Tarapaca. Santiago: La República, 1884.

This report constitutes a review from the point of view of the chief Chilean authority in Tarapaca, of events in the nitrate province from 1880 through 1883. It is a revealing source for these years.

PUBLIC DOCUMENTS

Chile, Comisión Consultiva del Norte. Trabajos y antecedentes presentados al Supremo Gobierno de Chile. Santiago: Cervantes, 1908. (Recopilados por Manuel Salas Lavaqui).

Since the committee making this report conducted its investigations after 1900 and studied prevailing conditions primarily, the information contained in this item provides only a small amount of data applicable to the present study.

Chile, Delegación Fiscal de Salitreras y Guaneras. Terrenos Salitreras del Estado en Tarapaca. Iquique: Tipografía y Litografía, 1900.

Chile, Delegación Fiscal de Salitreras y Guaneras. Memoria del Delegado Fiscal de Salitreras en 1897. Santiago: Nacional, 1897.

The reports of this official reveal the activities of the agency of the Chilean government in most continuous contact with nitrate affairs. They include reports on the activities of the Delegación, statistical information, and comments on the state of the industry.

Chile, Delegación Fiscal de Salitreras y Guaneras. Memoria del Delegado Fiscal de Salitreras en 1901. Iquique, 1901.

Chile, Delegación Fiscal de Salitreras y Guaneras. Informes Consulares sobre Propaganda Salitrera. Iquique: El Nacional, 1897.

Included in this publication are special reports from Chilean consular officials explaining their activities in promoting the consumption of nitrate.

Chile, Dirección General de Estadística. Estadística Minera de Chile en 1903. Santiago: Bracelona, 1905.

Some data on the nitrate industry is included in this statistical report on mining in Chile.

Chile, Ministerio de Hacienda. Fomento de la industria salitrera. Santiago: Debates, 1889.

This publication briefly reviews the development of the industry and indicates the nitrate policy of the Balmaceda administration.

Chile, Ministerio de Hacienda. La industria del salitrera de Chile. Santiago: La Nación, 1935. 2 vols.

Although the above work is an official history of the nitrate industry, relatively few pages are devoted to the nitrate industry in the nineteenth century.

Chile, Ministerio de Hacienda. Memoria del Ministro de Hacienda. Santiago: 1890-1901. 24 Vols.

Included in these annual reports are the reports of the Delegado de Salitreras.

Chile, Ministerio de Hacienda. Comisión Salitrera, Informes i Actas de la Comisión Salitrera. Santiago: Cervantes, 1909.

This official report reveals conditions in the nitrate industry in detail and presents recommendations. It is of little importance for the present study.

Chile. Reclamaciones presentados al Tribunal Anglo-Chileno (1894-1896). Santiago: Ercilla, 1896, 4 Vols.

Chile. Statistical Abstract for the Republic of Chile, 1917. Santiago, 1918.

Chile, Superintendencia de Aduanas. Memoria en 1902. Valparaiso: Guillermo Helfmann, 1903.

Great Britain, Foreign Office. British and Foreign State Papers. Vols. LXV-XCII (1873-1900).

Great Britain, Foreign Office. Correspondence Respecting the Revolution in Chile. London: Harrison and Sons, 1892.

This collection constitutes the most important printed source for Britain's relations with Chile during the Revolution of 1891.

Great Britain, Foreign Office. Diplomatic and Consular Reports. Annual Series, 1886-1900.

Great Britain, Foreign Office. Diplomatic and Consular Reports. Miscellaneous Series, 1886-1900.

United States, Department of State. Papers Relating to the Foreign Relations of the United States, 1891. Washington: Government Printing Office, 1892.

United States, Department of State. Consular Reports. Washington: Vols. XIX-LXXX (1886-1902).

United States, Office of Naval Intelligence. The Chilean Revolution of 1891. War Series No. 4, Washington, 1893.

House Executive Documents, Vol. 34, No. 91, 52nd Congress, 1st Session.

These papers concern American diplomatic correspondence regarding the Revolution of 1891.

Senate Executive Documents, No. 79, 47th Congress, 1st Session; No. 181, 47th Congress, 1st Session.

These papers relate to American diplomacy in the War of the Pacific.

BOOKS

In the list below, the more important books published in Spanish receive individual comments. Books by the following authors are travel accounts: Theodore Child, A. J. Diffield, C. Reginald Enoch, Maurice Hervey, Thomas J. Hutchinson, Robert E. Mansfield, Percy F. Martin, William H. Russell, and W. Anderson Smith.

Bertrand, Alejandro. La crisis Salitrera. Paris: Louis Michaud, 1910.

This is an economic study which proposed the formation of a trust to regulate the nitrate industry.

Billinghurst, Guillermo E. Condición legal de los Peruanos nacidos en Tarapacá. Santiago: El Progreso, 1887.

Billinghurst, Guillermo E. Los Capitales salitreros de Tarapacá. Santiago: El Progreso, 1889.

Although a Peruvian, Billinghurst lived in Chile for many years and was closely associated with Chilean businessmen. His book on the nitrate capitalists of Tarapacá contributes information about the early phases of the industry. Most of the facts he presents are not footnoted.

Billinghurst, Guillermo E. Legislación Sobre salitre y bórax en Tarapacá. Santiago: Cervantes, 1903.

This study is primarily concerned with the Peruvian and early Chilean policies toward nitrates. In it many documents and statistical summaries are transcribed. More than half of the book relates to nitrates.

Bowman, Isaiah. Desert Trails of Atacama. New York: American Geographical Society, 1924.

Cabero, Alberto. Chile y los Chilenos. Santiago: Nascimento, 1926.

Canto, J. B. Chile. New York: Rand-McNally, 1912.

Child, Theodore. The Spanish-American Republics. New York: Harper and Bros., 1891.

Clapham, J. H. The Economic Development of France and Germany, 1815-1914. 3rd edition, Cambridge: University Press, 1928.

Cornejo, Roberto H. El Salitre. Valparaíso: Fisher Bros., 1930.

Although published in 1930, El Salitre was actually written during the first world war. It slights the period following 1879 and has few footnotes. An important deficiency is the lack of continuity in the treatment of the subject matter.

Cruchaga, Miguel. Estudio sobre la Organización económica i la Hacienda Pública de Chile. Santiago: Gutenberg, 1880, 2 Vols.

Cruchaga, Miguel. Salitre y Guano. Madrid: Reus, 1929.

The above work was actually written during the decade of the 1880's. In spite of its title, it deals chiefly with the guano industry; the most important section on nitrates is a discussion of the first combination.

Cuevas, Enrique. The Nitrate Industry. New York: William S. Meyers, 1916.

Diffield, A. J. The Prospects of Peru. London: Newman and Co., 1881.

Enciña, Francisco A. Nuestra inferioridad económica. Santiago: Universitaria, 1912.

Knock, C. Reginald. The Republics of Central and South America. London: J. M. Dent and Sons, 1913.

Evans, Henry Clay. Chile and its Relations with the United States. Durham, N. C.: Duke University Press, 1927.

Fetter, Frank Whitson. Monetary Inflation in Chile. Princeton: Princeton University Press, 1931.

Feis, Hebert. Europe the World's Banker, 1870-1914. New Haven: Yale University Press, 1930.

Figueroa, Pedro Pablo. Diccionario biográfico de extranjeros en Chile. Santiago: Mederna, 1900.

Most of the entries refer to foreigners who played a role in the colonial and early national period of the history of Chile.

Figueroa, Virgilio. Diccionario Histórico, Biográfico de Chile. Santiago: Bolcello and Co., 1925-1931. 5 Vols.

This is the standard biographic dictionary for Chile.

Galdames, Luis. History of Chile. Trans. and ed. by I. J. Cox, Chapel Hill: University of North Carolina Press, 1941.

Galdames, Luis. Jeografía Económica de Chile. Santiago: Universitaria, 1911.

Gana, Henry Sewell. British Capital and Chilean Industry, Nitrates, Gold Mines, and Coal Mines. London, 1889.

Hervey, Maurice H. Dark Days in Chile. London: Edward Arnold, 1891-1892.

Hutchinson, Thomas J. Two Years in Peru. London: Sampson, Low and Co., 1873, 2 Vols.

James, A. F. Brodie. Nitrate Facts and Figures. London: F. C. Mathieson, 1904.

Le Grand, Charles, ed. Cuestiones Salitreras. 1892.

Printed in this work are articles having appeared previously in the newspaper La Patria (Valparaíso).

Mansfield, Robert E. Progressive Chile. New York: T. Y. Crowell and Co., 1913.

Markham, Clements R. A History of Peru. Chicago: Charles H. Sergel, 1928.

Martner, Daniel. Estudio de política comercial chilena y historia nacional. Santiago: Universitaria, 1923, 2 Vols.

Martner's work is the standard economic history of Chile.

Martin, Percy F. Through Five Republics of South America. London: William Heinemann, 1906.

Millington, Herbert. American Diplomacy and the War of the Pacific. New York: Columbia University Press, 1948.

Órtuzar, Adolfo. Chile of Today. New York: Tribune Association, 1907.

Ross, Agustín. Memoria sobre las Relaciones comerciales entre Chile y la Gran Bretaña. London, 1892.

In this study Ross attacks the English nitrate interests and seeks to prove that their activities are not entirely beneficial to the Chilean economy. For a time Ross was the Chilean minister to England.

Ruiz Bourgeois, Julio. Instituciones de Derecho Minero Chileno. Santiago: Jurídica, 1949, 2 Vols.

A recent history of the mining laws of Chile, this study devotes some attention to laws pertaining to the nitrate industry.

Russell, William H. A Visit to Chile and the Nitrate Fields of Tarapacá. London: J. S. Virtue and Co., 1890.

Semper, Erwin and Michels, Dr. La industria del salitre en Chile. Transl., edited, and enlarged by Javier Gandarillas and Orlando Ghiliotto Salas, Santiago: Barcelona, 1908.

Semper and Michels were engineers who came to Chile to study the nitrate industry. Semper was a German; Michels cannot be identified. Their original work was primarily concerned with the technical aspects of the industry and was written in German. This issue was translated and edited by two Chilean engineers who added notes and appendices which more than doubled the size of the volume. The appendices include statistics and other tables.

Smith, W. Anderson. Temperate Chile, A Progressive Spain. London: Adam and Charles Black, 1899.

Soto, Salvador. Notes on Some of the Principle Industrial Establishments in Chile. Santiago: Moderna, 1901.

Subercaseau, Guillermo. Monetary and Banking Policy in Chile. Oxford: Clarendon Press, 1922.

The Nitrate Craze, A Sketch by an Uncrowned King. London: Stralser & Sons, 1889.

Valdés Vergara, Francisco. La crisis salitrera y las medidas que se proponen para remediarle. Santiago: 1884.

This study is an exploration of the possible remedies for over-production.

Valdés Vergara, Francisco. Problemas económicos de Chile. Valparaíso: Universo, 1913.

Vicuña, Manuel José. Conferencia sobre la Industria Salitrera dada en el Congreso Minero de 1894. Santiago: Barcelona, 1894.

Practically all of this book is of a technical character.

Wiesse, Carlos. Historia del Perú. Lima: Francesa Científica, 1939.

Whitbeck, R. H. and Williams, Frank E. Economic Geography of America. New York: McGraw-Hill, 1940.

NEWSPAPERS AND JOURNALS

The important newspapers of Chile have not been available for consultation. Some information was found in one American and two British newspapers, but even then only special events attracted comment or reports. However, quite good coverage was given nitrate developments by several journals published in England. Full files of all of these have not been available. For those citations that give scant attention to nitrate affairs or for which only a few issues were available no comment has been made.

Burdett's Official Intelligence for 1896 (London), Vol. XIV (1896).

The Economist (London), Vols. XLIV-LIV (1890-1896).

Investor's Chronicle and Journal of Finance (London), Vols. I-II (Nov., 1899-Nov., 1900).

Investor's Monthly Manual (London), Vols. XIX-XXI (1889-1891).

Investor's Review (London), Vols. I-IX (1892-1897).

This publication gives good coverage to important nitrate affairs during the period from 1896 to 1897.

Journal of Finance (London), Vols. II-V (Sept., 1897-June, 1899).

Money Market Review (London), Vols. L-LIIII (1890-1891).

New York Daily Tribune, 1891, 1898.

Pall Mall Gazette (London), 1892, 1896, 1898.

El Pueblo Chileno (Antofagasta), 1879-1880.

This was the only Chilean newspaper for the period for which the Library of Congress had a file. It reveals attitudes held by nitrate interests during 1880.

Railway Times (London), Vols. LXXIII (1896), LXXV (1898).

The available issues indicate that this journal gives considerable treatment to the Nitrate Railways Company.

South American Journal and Brazil and River Plate Mail
(London), Vols. XX-XLIX (1883-1900).

Of all English publications this one is the most thorough in its coverage of nitrate affairs. Beginning in 1883 the space devoted to nitrate activities gradually increases. By 1889, news of nitrate developments forms a major portion of each issue.

The Statist (London), Vols. XXVIII-XXVIII (1891).

Stock Exchange Year-Book (London), Vols. XIII-XXVIII (1887-1901).

Accurate statistical information on British companies is provided by this manual.

The Times (London), 1891.

ARTICLES

Borne, Samuel Ossa. "Don José Santos Ossa," Revista Chilena de Historia y Geografía, LXIX, 186-214, LXXII, 176-228.

Falk, Karl. "Chile's White Gold Stages a Comeback," Foreign Commerce Weekly, VIII (Sept. 5, 1942), 3-7, 30-31.

Hardy, Osgood. "British Nitrates and the Balmaceda Revolution," Pacific Historical Review, XVII (May, 1948), 165-180.

Hardy, Osgood. "Los Intereses Salitreras y la revolución de Balmaceda," Revista Chilena de Historia y Geografía, No. 113, pp. 60-81.

Hardy, Osgood. "The Itata Incident," Hispanic American Historical Review, V (May, 1922), 195-226.

Hardy, Osgood. "Was Patrick Egan a 'blundering Minister,'" Hispanic American Historical Review, VIII (Feb., 1928), 65-81.

Hobson, C. K. "British Overseas Investments, Their Growth and Importance," Annals of the American Academy of Political and Social Science, LXVIII (Nov., 1916), 23-25.

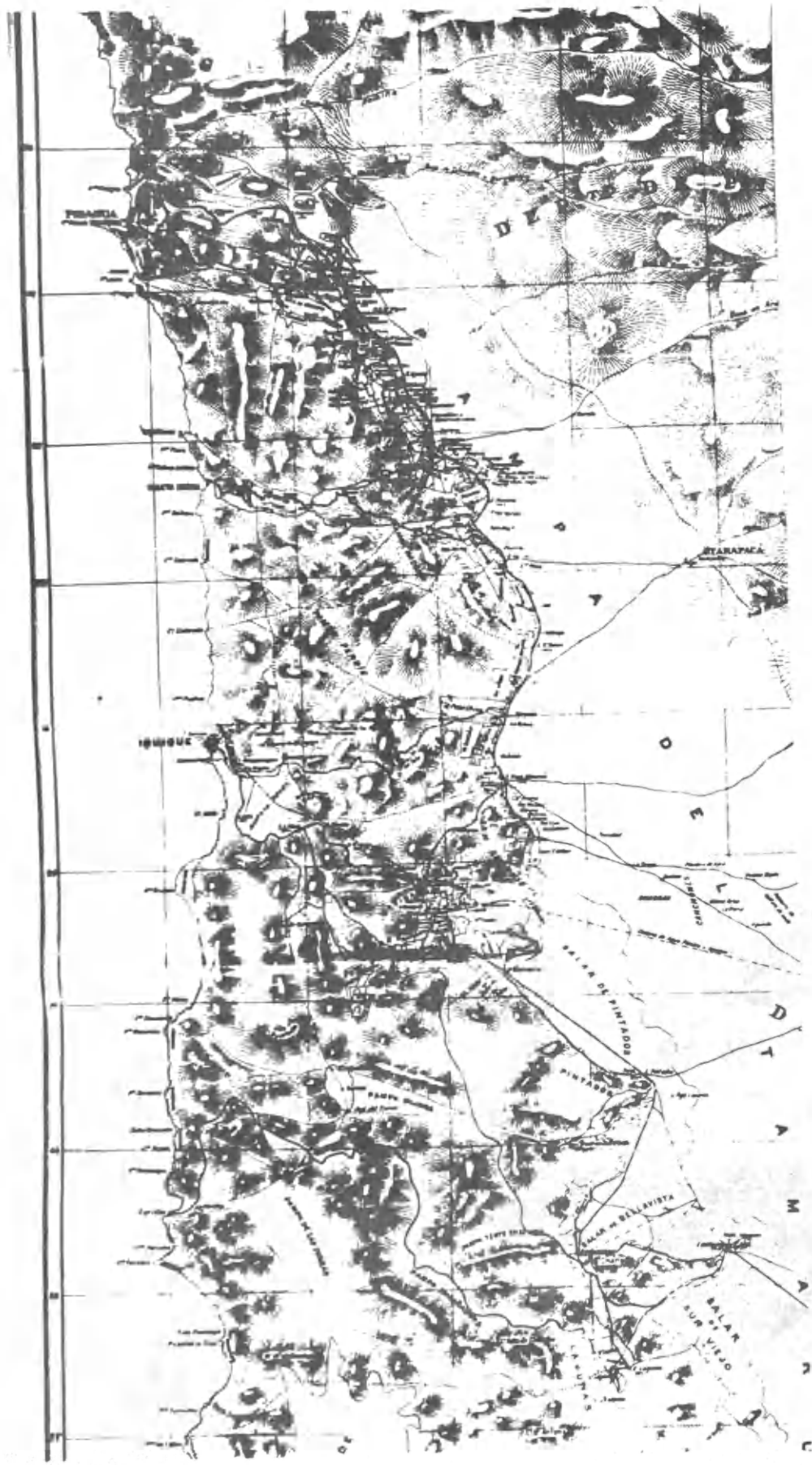
Julían, Gustavo. "Memoria sobre la explotación i beneficio del salitre i yodo," in University of Chile, Elaboración de salitre i yodo. Santiago: Nacional, 1889. pp. 67-96.

- Manby, Edward. "A Note on Chilean Affairs," The Fortnightly Review, L (July-Dec., 1891), 101-105.
- Rippy, James Fred. "Economic Enterprises of the nitrate king and his associates in Chile," Pacific Historical Review, XVII (Nov., 1948), 457-465.
- Rippy, James Fred. "Iniciativas económicas del 'Rey del Salitre' y sus socios en Chile," Revista Chilena de Historia y Geografía, No. 113,
- Rippy, James Fred. "The British Investment 'Boom' of the 1880's in Latin American Mines," Inter-American Economic Affairs, I (Mar., 1948), 71-78.
- Rippy, James Fred. "Latin America and the British Investment Boom," Journal of Modern History, XIX (1947), 122-129.
- Rippy, James Fred. "Century of British Investments in Chile," Pacific Historical Review, XXI (Nov., 1952), 341-348.
- Stevens, J. W. "Nitrate Railways," The Investor's Chronicle and Journal of Finance, II (May, 1900), 274-277.
- Ross, William. "The Origin of Nitrate Deposits," Popular Science Monthly, LXXXV (Oct., 1914), 134-145.
- Russell, William H. "The Troubles in Chile," The Graphic, (Feb., 1891), 184.
- Santa Cruz, José. "Chile and Her Civil War," North American Review, CLIII (Oct., 1891), 405-413.
- Tower, W. S. "The Nitrate Fields of Chile," Popular Science Monthly, LXXXIII (Sept., 1913), 209-230.

APPENDICES

APPENDIX

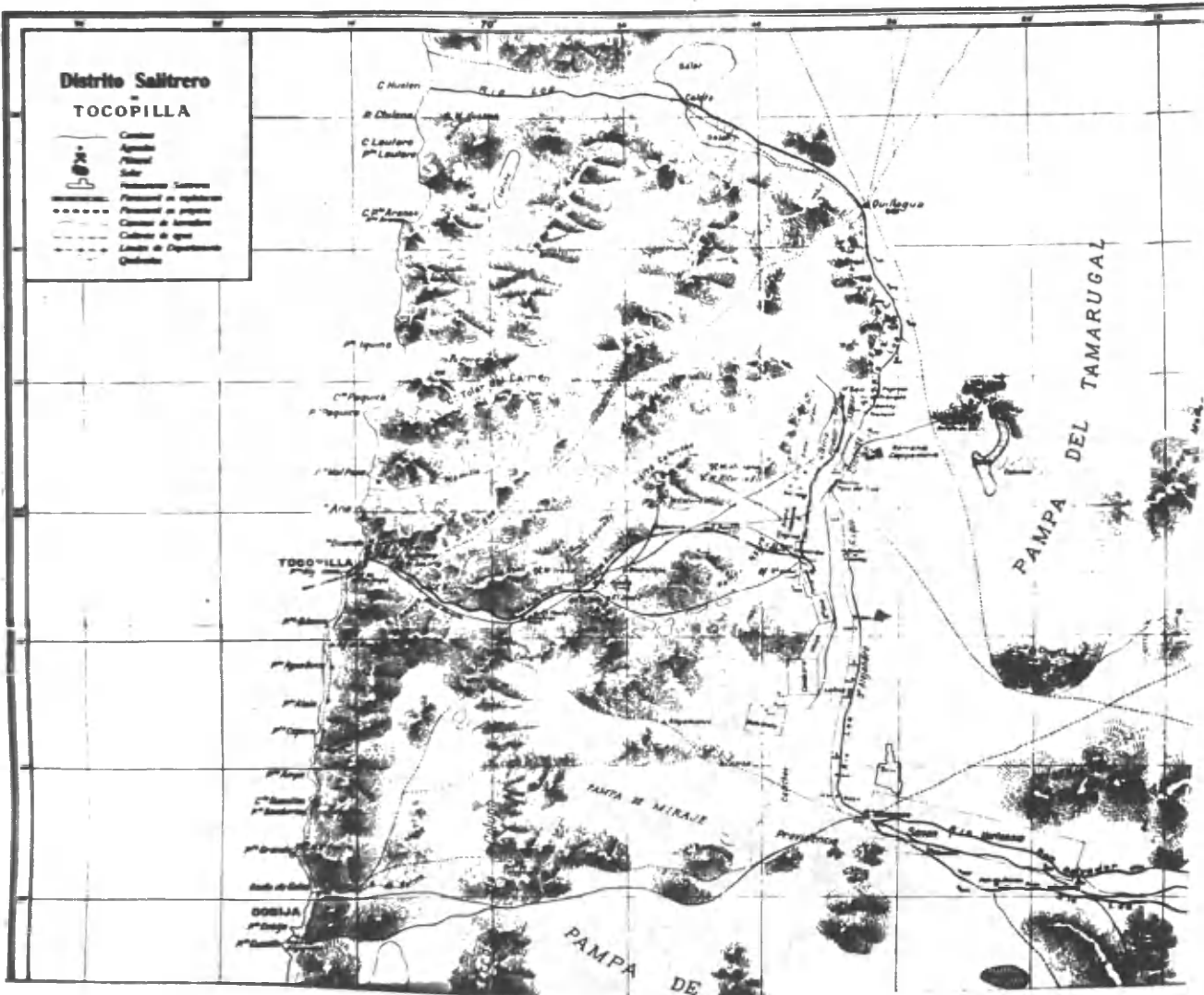
The following maps show the boundaries of oficinas, railroad lines, etc., as they existed in each of the five nitrate fields around 1900. Areas enclosed in lines represent oficinas. These maps originally appeared in Semper and Michels, Industria del Salitre.

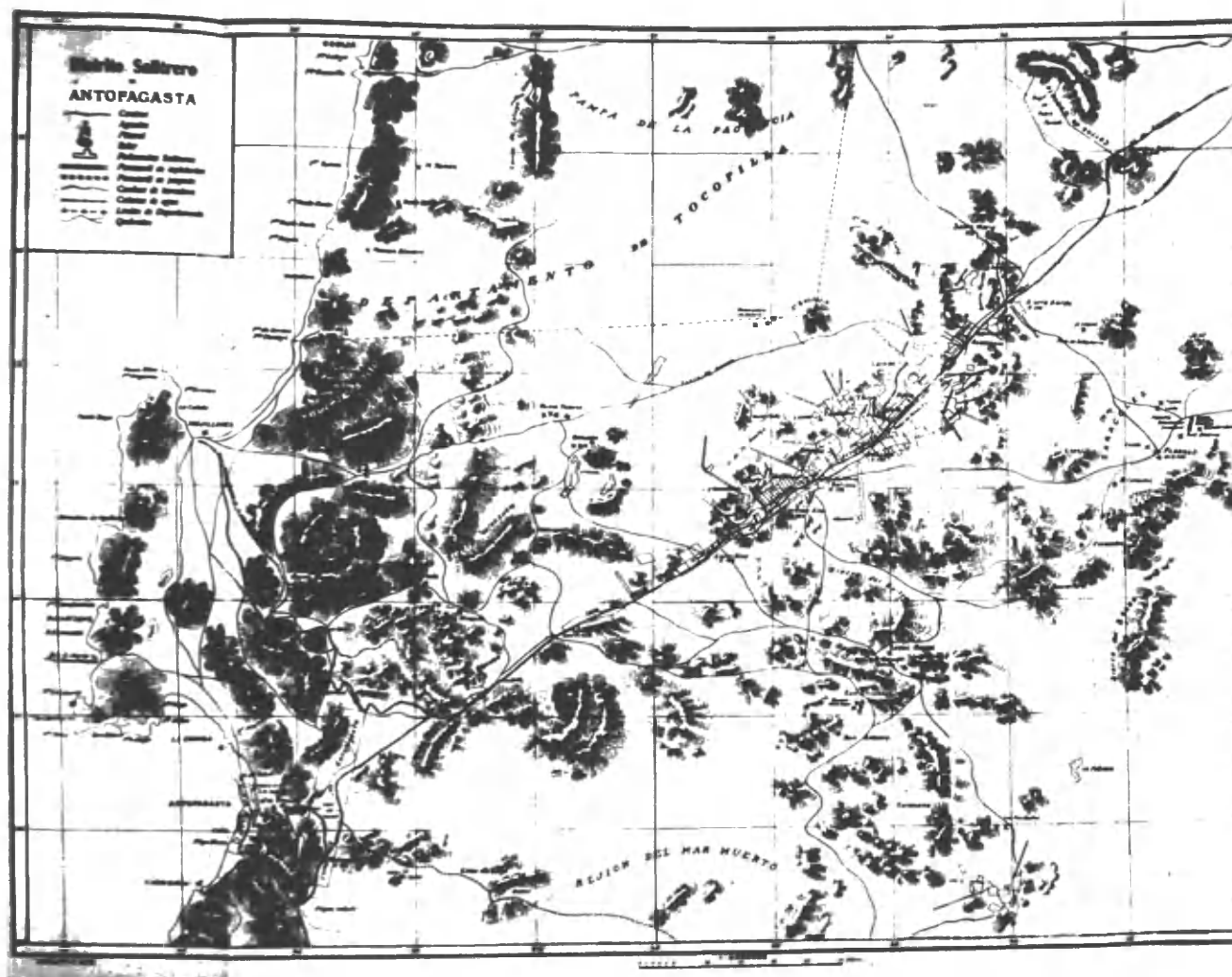


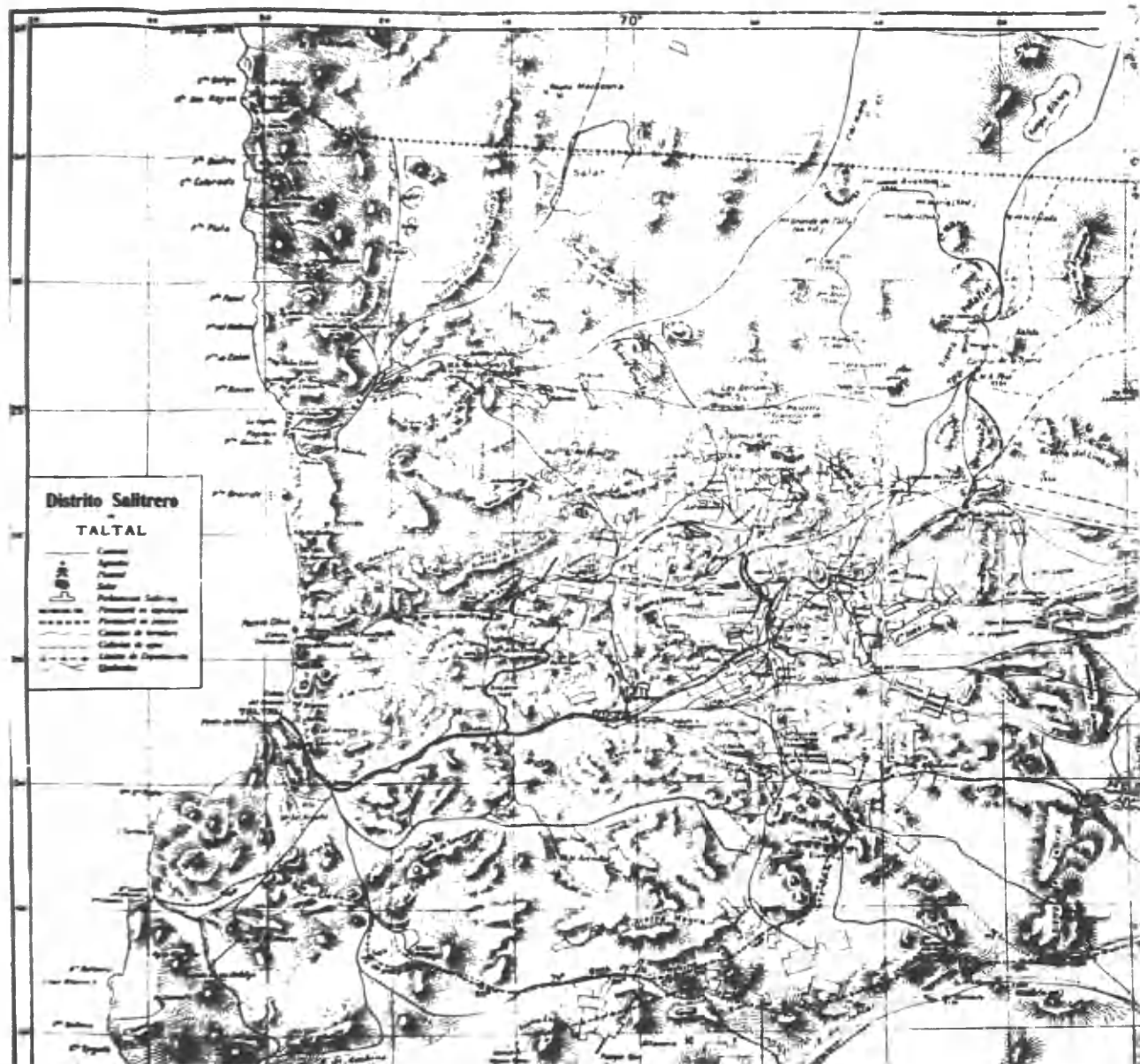
Nitrate
District
of
Tarapacá

1111

- | | |
|-------|-----------------------|
| | Financié en espèces |
| | Financié en propre |
| | Caisse de location |
| | Culture de soja |
| | Landes de Département |
| | Quelques |







EXAMINATION AND THESIS REPORT

Candidate: Joseph A. Brown

Major Field: History

Title of Thesis: The Chilean Nitrate Industry in the Nineteenth Century.

Approved:

Jane Lucas de Grummond
Major Professor and Chairman

Richard J. Russell
Dean of the Graduate School

EXAMINING COMMITTEE:

T. Brüllman

R. B. Holtman

Erz Voegelé

A. C. Richardson

G. A. Davis

A. B. Sandberg

Date of Examination:

April 27, 1954