

CHAPTER VI.

REFLECTIONS ON EMIGRATION—ADVANTAGES OF AMERICA—LAND AND LABOR.—MINES WROUGHT BY AZTECS—MINING DISTRICTS AND EXTENT IN MEXICO.—ERRORS AS TO EARLY SUPPLY OF METALS FROM AMERICA—TRUE PERIOD OF ABUNDANCE—MINES NOT EXHAUSTED—CONDITION—FAMILIES ENRICHED.—EFFECT OF MINING ON AGRICULTURE.—RELATIVE PRODUCT OF SILVER FOR TEN YEARS—TABLE OF PRODUCT—YIELD OF THE MINES SINCE THE CONQUEST.—COINAGE 1844—TOTAL COINAGE 1535 to 1850.

MEXICAN MINES, MINERAL WEALTH AND COINAGE.

It is generally supposed that the mineral wealth of America was one of the most powerful stimulants of the Spanish conquest and subsequent emigration; nor is the idea erroneous if we recollect the manner in which the Castilian power was founded on this continent and the colonial policy it originated. It will be seen by the tables annexed to this section, that the results have largely fulfilled the hopes of the European adventurers, and that the wealth of the world has been immensely augmented and sustained, by the discovery of our Continent. In the order of the earth's gradual development, under the intellectual enterprise or bodily labor of man, we find the most beautiful system of accommodation to the growing wants or capacities of our race. Space is required for the crowded population of the Old World, and a new continent is suddenly opened, into which the cramped and burdened millions may find room for industry and independent existence. The political institutions of Europe decay in consequence of the encroachments of power, the social degradation of large masses by unjust or unwise systems, or the enforced operation of oppressive laws, and a virgin country is forthwith assigned to man in which the principle of self government may be tried without the necessity of casting off by violence the old fetters of feudalism. The increasing industry or invention of the largely augmented populations of the earth, exacts either a larger amount or a new standard of value for the precious metals, and regions are discovered among the frosts and forests of a far off continent, in which the fable of the golden sands of Pactolus is realized. The labor of men and the flight of time

strip commercial countries of their trees, yet, in order to support the required supply of fuel, not only for the comfort and preservation but also for the industry of the race, the heart of the earth beneath the soil which is required for cultivation, is found to be veined with inexhaustible supplies of mineral coal.

The bounty and the protective forethought of God for his creatures is not only intimated but proved by these benevolent storehouses of treasure, comfort and freedom; and whilst we acknowledge them with proper gratitude, we should not forget that their acquirement and enduring possession are only to be paid for by labor, economy, and social as well as political forbearance.

We do not think these observations out of place in a chapter devoted to the mineral wealth of Mexico. The subject of property and its representative metals, should be approached in a reflective and christian spirit, in an age in which the political and personal misery of the overcrowded masses of Europe, is forcing them to regard all who are better provided for, or more fortunate by thrift or the accident of birth, as enemies of the poor. The demagogue leaders of these wretched classes, pushing the principle of just equalization to a ridiculous and hideous extreme, have not hesitated to declare in France, since the revolution of February, 1848, that "property is robbery."¹ We shall not pause to examine or refute the false dogma of a dangerous incendiary. The common sense as well as the common feeling of mankind revolts at it. Property, as the world is constituted by God, is the *source* of new industry, because it is, under the laws of all civilized nations, the original *result* of industry. "It makes the meat it feeds on." Without it there would be no duty of labor, no exercise of human ingenuity or talent, no responsibility, no reward. The mind and body would stagnate under such a monstrous contradiction of all our physical and intellectual laws. The race would degenerate into its former savage condition; and force, instead of its antagonists, industry and honest competition, would usurp the dominion of the world and end this vicious circle of bastard civilization.

And yet it is the duty of an American, — who, from his superior position, both in regard to space in which he can find employment and equal political laws by which that employment is protected, stands on a vantage ground above the confined and badly governed masses of Europe, — to regard the present position of the European masses not only with humane compassion, but to sympathize with that natural feeling that revolts against a state of society

¹ "La propriete c'est le vol." Prudhon.

which it seems impossible to ameliorate, and yet whose wants or luxuries do not afford them support. It is hard to suffer hunger and to see our dependants die of starvation, when we are both able and willing to work for wages but can obtain no work upon which to exercise our ingenuity or our hands. It is frightful to reflect, says Mr. Carlyle, in one of his admirable essays, that there is hardly an English horse, in a condition to labor for his owner, that is deprived of food and lodging, whilst thousands of human beings rise daily from their obscure and comfortless dens in the British isles, who do not know how they shall obtain employment for the day by which they may purchase a meal.

To this dismal account of European suffering, the condition of the American continent affords the best reply. The answer and the remedy are both displayed in the social and political institutions, as well as in the boundless unoccupied and prolific tracts of our country. Labor cries out for work and recompense from the Old World, whilst the New displays her soil, her mines, her commerce and her trades, as the best *alms* that one nation can bestow on another, because they come direct from God and are the reward of meritorious *industry*. Before such a tribunal the modern demagogue of continental Europe shrinks into insignificance, and the laws of labor are effectually vindicated.

The MINES OF MEXICO have been wrought from the earliest periods. Long before the advent of the Spaniards, the natives of Mexico, like those of Peru, were acquainted with the use of metals. Nor were they contented with such specimens as they found scattered at random on the surface of the earth or in the ravines of mountain torrents, but had already learned to dig shafts, pierce galleries, form needful implements, and trace the metallic veins in the hearts of mountains. We know that they possessed gold, silver, lead, tin, copper and cinnabar. Beautiful samples of jewelry were wrought by them, and gold and silver vases, constructed in Mexico, were sent to Spain by the conquerors, as testimonials of the mineral wealth of the country. The dependant tribes paid their tributes to the sovereign in a species of metallic currency, which though not stamped by royal order, was yet the representative of a standard value. The exact position of all the mines from which these treasures were derived by the Aztecs is not certainly known at the present day, but as the natives were often compelled to indicate some of the sources of their riches to the conquerors there is little doubt that the present mineral district of the republic is that from which they procured their chief supplies.

The mines of Mexico may be classed in eight groups, nearly all of which are placed on the top or on the western slope of the great *Cordillera*.

The *first* of these groups has been the most productive, and embraces the districts contiguous to Guanajuato, San Luis Potosi, Charcas, Catorce, Zacatecas, Asientos de Ybarra, Fresnillo and Sombrerete.

The *second* comprises the mines situated west of the city of Durango as well as those in Sinaloa, for the labors of engineers have brought them so close to each other by their works that they may be united in the same geological division.

The *third* group is the northernmost in Mexico, and is that which embraces the mines of Chihuahua and Cosiguiriachi. It extends from the 27th° to the 29th° of north latitude.

The *fourth* and *fifth* clusters are found north-east of Mexico, and are formed by the mines of Real del Monte or Pachuca, and Zimapan, or, El Doctor.

Bolaños, in Guadalajara, and Tasco in Oajaca, are the central points of the *sixth*, *seventh* and *eighth*.¹

The reader who will cast his eye over the map of Mexico, will at once perceive that the geographical space covered by this metalliferous region, is small when compared with the great extent of the whole country. The eight groups into which the mining districts are divided occupy a space of twelve thousand square leagues, or one tenth only of the whole extent of the Mexican republic as it existed previous to the treaty of 1848 and before the mineral wealth of California and probably of New Mexico was known to the world. But as that treaty confirmed and ceded to the United States more than one half of the ancient territory of Mexico, we may estimate the mining region as covering fully one fifth of the remainder.

Before the discovery and conquest of the West Indies and the American continent, Europe had looked to the east for her chief supplies of treasure. America was discovered by Columbus, not as was so long imagined, because he foresaw the existence of another continent, but because he sought a shorter route to the rich and golden Zipangou, and to the spice regions of eastern Asia. Columbus and Vespuccius both died believing that they had reached eastern Asia, and thus a geographical mistake led to the greatest discovery that has ever been made. In proof of these assertions we may state that Columbus designed delivering *at Cuba*, the missives of the Spanish king to the great Kahn of the Mongols,

¹ Humboldt, Essai Politique, Book iv., chap. ii. — Paris, 1811.

and that he imagined himself in Mangi the capital of the southern region of Cathay or China! "The Island of Hispaniola," (Hayti) he declares to Pope Alexander VI., in a letter found in the archives of the Duke of Varaguas, — "is Tarshish, Ophir, and Zipangou. In my second voyage, I have discovered fourteen hundred islands, and a shore of three hundred and thirty-three miles, belonging to the continent of Asia." This *West Indian* Zipangou produced golden fragments or spangles, weighing eight, ten and even twenty pounds.¹

Before the discovery of the *silver* mines of Tasco, on the western slope of the Mexican Cordillera, in the year 1522, America supplied only *gold* to the Old World, and consequently, Isabella of Castile was obliged, already in 1497, to modify greatly, the relative value of the two precious metals used for currency. This was doubtless the origin of the Medina edict — which changes the old legal ratio of 1 : 10.7. Yet Humboldt has shown that, from 1492 to 1500, the quantity of gold drawn from the parts of the New World then known, did not amount, annually, to more than about one thousand pounds avoirdupois; — and the Pope Alexander VI., who, by his famous Bull, bestowed one half the earth upon the Spanish kings, only received in return, from Ferdinand the Catholic, some small fragments of gold from Hayti, to gild a portion of the dome of the Basilica of Santa Maria Maggiore; — a gift that was suitably acknowledged in a Latin inscription in which the offering is set forth as the first that had been received by the Catholic sovereigns from India.

Although the income of treasure must have increased somewhat, yet the working of the American mines did not yield three millions of dollars yearly until 1545. The ransom of Atahualpa amounted, according to Gomara, to about four hundred and twenty-five thousand dollars of our standard, or fifty-two thousand marks of silver, whilst, the pillage of the Temples at Cuzco, if Herrera is to be credited, did not produce more than twenty-five thousand seven hundred marks, or a little more than a quarter of a million of our currency.²

It has been generally imagined that the wealth of the New World immediately and largely enriched the Spanish kings or their people; and that the sovereigns, under whose auspices the discovery was

¹ See Humboldt's essay on the production of gold and silver in the *Journal des Economistes* for March, April and May, 1838.

² See Humboldt's *Essay on Precious Metals*, *ut antea* — in note — in the American translation, given in vol. iii., of the *Banker's Magazine*, p. 509.

made, participated, at once, in the treasures that were found in the possession of the Indian rulers. Such, however, was not the case. The historian Ranke, in his essay on the Spanish finances, has shown, by new documents and official vouchers, the small quantity of the precious metals which the American mines, and the supposed treasures of the Incas yielded.¹ It is probable that the conquerors did not make exact returns to the court of their acquisitions, or that the revenue officers, appointed at an early period of American history, were not remarkable for the fidelity with which they transmitted the sums that came into their possession as servants of the crown; and thus it happened that neither the king of Spain nor his kingdom, was speedily enriched by the New World. Baron Humboldt, in one of his late publications, gives an interesting extract from a letter written by a friend of Ferdinand the Catholic a few days after his death, which exhibits the finances of that king in a different light from that in which they have been hitherto viewed. In an epistle to the bishop of Tuy, Peter Martyr says, that this "Lord of many realms, — this wearer of so many laurels, — this diffuser of the Christian faith and vanquisher of its enemies, — died *poor*, in a rustic hut. Whilst he lived no one imagined that after his death it would be discovered that he possessed scarcely money enough either to defray the ceremony of his sepulture, or to furnish his few retainers with suitable mourning!"² The adventurers in *America*, were doubtless enriched, and duly reported their gains to friends at home; but Spain itself was not speedily improved by their acquisitions.

The rise in the prices of grain and other products of agriculture or human industry, about the middle of the sixteenth century, and especially from 1570 to 1595, indicates the true beginning of the plentiful flow of the precious metals to the Old World, in consequence of which their value diminished and the results of European industry increased in price. This is accounted for by the commencement of the beneficial working of the American mines about that period. The real opening of the mines of Potosi, by the Spanish conquerors, dates from the year 1545; and it was between this epoch and 1595, that the splendid masses of silver from Tasco, Zacatecas, and Pachuca, in New Spain; and from Potosi, Porco and Oruro, in the chain of Peruvian Andes, began to be distributed more uniformly over Europe, and to affect the price of its produc-

¹ See Ranke : *Fursten and Volker*, vol. i., pp. 347, 355.

² *Pet. Mart. Epist. lib. xxix.*, No. 556, 23d January, 1516.

tions. From the period of the administration of Cortéz to the year 1552, when the celebrated mines of Zacatecas were just opened, the export from Mexico, rarely reached in value, annually, 100,000 pesos de oro, or nearly \$1,165,000. But from that date it rose rapidly, and in the years 1569, 1578 and 1587, it was already, respectively—

931,564	Pesos de oro.	} The Peso de oro, is rated by Prescott, at \$11.65 cents, and by Ramirez, at \$2.93 cents.
1,111,202	“ “	
1,812,051	“ “	

During the last peaceful epoch of the Spanish domination, Baron Humboldt calculates the annual yield of the mines of Mexico at not more than \$23,000,000, or nearly 1,184,000 pounds, avoirdupois, of silver, and 3,500 pounds, avoirdupois, of gold. From 1690 to 1803—\$1,330,772,093 were coined in the *only* mint of Mexico; while, from the discovery of New Spain until its independence, about \$2,028,000,000, or two-fifths of all the precious metals which the whole of the New World has supplied during the same period, were furnished by Mexico alone.²

It appears from these data that the exhaustion of the mines of Mexico is contradicted by the geognostic facts of the country, and as we shall hereafter show, by the recent issues of Mexican mints. The mint of Zacatecas, alone, during the revolutionary epoch, from 1811 to 1833, struck more than \$66,332,766, and, in the eleven last years of this period, from four to five millions of dollars were coined by it every year uninterruptedly.

The general metallic production of the country, — which was of course impeded by the revolutionary state of New Spain between 1809 and 1826, — has arisen refreshed from its slumber, so that, according to the best accounts it has ascended to perhaps twenty millions annually in total production, in consequence of the prolific yield of the workings at Fresnillo, Chihuahua, and Sonora, independent of the abundant production at Zacatecas.

¹ See M. Ternaux-Compans' Original Memoirs of the discovery of America—(Conquest of Mexico, p. 451)—Compans publishes in this, for the first time, an official list sent between 1522 and 1587 by the viceroys of New Spain to the mother country. The pesos of gold, must be multiplied by a mean of eleven dollars and sixty-five cents in order to give their value in dollars. See Banker's Magazine, ut antea, p. 594, in note. See Prescott's History of the Conquest of Mexico, vol. i., 320. Ramirez, in his notes on the Spanish translation of Prescott's History of the Conquest rates the peso de oro at two dollars and ninety-three cents. This result is reached by a long financial calculation and course of reasoning. See La Conquista de Mejico, vol. ii., at p. 89 of the notes at the end of the volume.

² This is Humboldt's estimate in the essay cited in this section. We think it rather too large, yet give it upon such high authority. See our general table of Mexican coinage.

The Mexican mines were eagerly and even madly seized by the English, and even by the people of the United States, as objects of splendid speculation, as soon as the country became settled; but, in consequence of bad management, or the wild spirit of gambling which assumed the place of prudent commercial enterprise, the holders of stock were either disappointed or sometimes ruined. Subsequently, however, the proprietors have learned that prudence and the experience of old Mexican miners was better than the theoretical principles upon which they designed producing larger revenues than had ever been obtained by the original Spanish workmen. Their imported modern machinery and engines for voiding water from the shafts and galleries is the chief beneficial improvement introduced since the revolution; but the enormous cost of transporting the heavy materials, in a country where there are no navigable rivers extending into the heart of the land, and where the usual mode of carriage is on the backs of mules, by wretched roads over mountains and through ravines, has often absorbed large portions of the original capital before the proprietors even began to employ laborers to set up their foreign engines. Many of the first British and American adventurers or speculators have, thus, been ruined by unskilful enterprises in Mexican mines. Their successors, however, are beginning to reap the beneficial results of this expenditure, and, throughout the republic steam engines, together with the best kinds of hydraulic apparatus, have superseded the Spanish *malacates*.

“Whenever these superb countries which are so greatly favored by nature,” says Humboldt, in his essay on gold and silver, in the *Journal des Economistes*, “shall enjoy perfect peace after their deep and prolonged internal agitations, new metallic deposits will necessarily be opened and developed. In what region of the globe, except America, can be cited such abundant examples of wealth, in silver? Let it not be forgotten that near Sombrete, where mines were opened as far back as 1555, the family of Fagoaga, — Marquesses de Apartado, — derived, in the short space of five months, from a front of one hundred and two feet in the outcropping of a silver mine, a net profit of \$4,000,000; while, in the mining district of Catorce, in the space of two years and a half, between 1781 and the end of 1783, an ecclesiastic, named Juan Flores, gained \$3,500,000, on ground full of chloride of silver and of *colorados!*”

One of the most flourishing establishments in 1842, was the Zacatecano-Mejicano Mining Company of Fresnillo. Its 120