

silver in the "horno," (furnace,) than in the patio, (amalgamation court,) and the difference, in Mr. Anitua's opinion, is more than sufficient to cover the additional expence. The question has never yet been fairly brought to an issue, as, in the different districts, the choice of the process was usually determined, in the first instance, by the greater or less facility with which the ingredients required in each could be procured. Very rich ores are, however, always smelted; and as those of the Pävällön are remarkable for the quantity of silver which they contain, this circumstance is perhaps sufficient to account for the general preference now given in Sömbrerete to reduction by fire, although in the neighbouring districts of Zäcätēcäs and Guänäjüatö, it is very little in use.

#### SECTION IV.

JOURNEY FROM SOMBRERETE TO DURANGO.—  
ACCOUNT OF THAT STATE.—MINES OF GUARISAMEY, AND THE SIERRA MADRE IN GENERAL.—EASTERN FRONTIER, TEXAS.—STATES OF SONORA AND CINALOA.—GULF OF CALAFORNIA.—MAZATLAN AND GUAYMAS.—MINES OF ARISPE, ALAMOS, MULATOS, AND COSALA.—GENERAL OBSERVATIONS UPON THE NORTH OF MEXICO.

IT was our intention, on leaving Mexico, to have extended our journey North as far as Durango, but so much time had been consumed by the first part of our tour, and so much was still requisite for the return by Zacatecas, Guadalajära, and Välladolid, that both Mr. Martin and I thought it inexpedient to prolong our absence from the Capital by adhering to our original plan. With the coach, a visit to Dürängö from Sombrerete, and the return, would have occupied nine days; the road being bad, and the dis-



tance thirty or thirty-five leagues; and this was a sacrifice of time which, as there were no French or English establishments to visit, we did not conceive ourselves justified in making. It was therefore determined that the party should take at once the road to the South, by Zacatecas, from whence we were to branch off, through Aguas Calientes, to the Western States.

My anxiety to visit Durango was, however, too great to allow me to be satisfied with this arrangement. My curiosity had been much excited with regard to the Northern Provinces, by the praises lavished upon them by General Victoria, who is a native of Tămăsülă, (called, in commemoration of his birth, Villa Feliz de Tămăsülă,) upon the frontiers of the two States of Dŭrāngö and Sönöră; and I was determined to reach at least the threshold of this forbidden ground, into which so few foreigners have hitherto penetrated, and from which all who have done so have brought back such favourable reports. I therefore consulted Mr. Anitua upon the subject, and, finding that I might ride post to Durango in one day, and after passing eight-and-forty hours there, by returning in the same manner, still reach Zacatecas as soon as the rest of my party, I resolved to undertake the journey. Mr. Anitua provided me with horses, relays of which he stationed at the different Haciendas upon the way, and gave me a guide well acquainted with the bridle-roads, by whom alone I was accompanied.

I left Sombrerete a little before seven, on the

morning of the 16th December, and being admirably mounted, I reached the Hacienda del Călăbăzäl, (my first stage,) at half-past eight.

The State of Zacatecas terminates with the ridge of hills immediately above the valley of the Calabazal; the bajada, (descent,) which is very precipitous, and covered with fragments of rock, is almost impassable for carriages, and even on horseback, occasions considerable delay. Below, a plain commences, which extends, with little interruption, as far as Mŭlērös, (seven leagues,) one of the most valuable Haciendas in the State of Durango. Its "Estancias" (stations) for breeding cattle are very extensive, and it possesses upon the banks of a river never entirely dry,\* tierras de labor, which, from the command of water, might be rendered extremely productive. The "Ranchos de Mescal" alone are let for fifteen and twenty thousand dollars per annum; and from the Mezquite woods belonging to the estate, the town of Sombrerete is supplied almost entirely with fuel. But the system of management is bad; the breed of horses and mules, for which the Hacienda was once famous, has been allowed to go

\* Englishmen will probably be amused at this being pointed out as a remarkable quality in a river; but those of Mexico are even more uncertain than the rivers of Spain, and there, I recollect, that on the morning when the present Queen entered Madrid, an order was issued for watering the bed of the Manzanares, lest Her Majesty should be incommoded by the dust.



to decay ; and not half the quantity of grain is raised that might be produced.

The wood, or "Monte" of Muleros, consists exclusively of three species of trees, called Tăscătě, Guisăchě, and Mězquītě, the last of which grows there to a size such as I had not before seen.

I left the Calabazal twenty minutes before nine, and reached Graseros, (an Estancia, or Rancho, belonging to Muleros,) at a quarter-past ten.

From thence to the Hacienda of San Qũintĩn, the stage is long, and the latter part very fatiguing. For some leagues the road runs through a continuation of the Mezquite forest, which commences near Mũlěrõs, but traverses the lands of several other Haciendas. In this the country is level, and the road good ; but about three leagues from San Quintin our progress was interrupted by an immense mass of volcanic remains, forming an elevated ridge or bank, and stretching across the plain towards the North-east, with arms or branches extending in every direction. Towards the West, it terminates abruptly in a mass of black vesicular lava, overgrown with cactus and mezquite, and totally unconnected with the sandy soil around. Indeed it was curious to observe how completely each little patch or accumulation of lava stood isolated in the plain, following the course of the principal bank, but looking as if it had just dropped from the clouds into its present situation.

After threading our way with difficulty through

this volcanic labyrinth, where we were forced to check our horses every hundred yards, we at last came in sight of the Hacienda, the situation of which is very pleasing. It is surrounded by trees, the poplar, the willow, and the beech, and possesses a supply of water sufficient for the irrigation of an extensive tract of land. The rivers in the North are in general bordered by two lines of cypresses, (Sabinos,) which, from the red tinge of their foliage during the winter months, are visible at a considerable distance. The trees, however, are not so lofty as those of the South, nor do they ever attain the dimensions of the cypresses in the valley of the Mississippi, to the East, where the heat and moisture combined seem to be particularly favourable to their growth. In the very midst of the bank of lava, to the South of San Quintin, I passed a barranca (ravine) composed of rocks, apparently of quite a different formation, full of these cypresses, with a beautiful stream running through it, and a waterfall, the very sound of which, after my hot ride, was delightful. Immediately around the Hacienda there are enclosures filled with cattle, and vast fields both of maize and wheat, to all appearance admirably cultivated. I was sorry to observe, however, the same wretched hovels serving as abodes for the tenantry, which had struck us, by creating so unpleasant an impression, in the vicinity of the Jărăl, and other great Haciendas.

I did not reach San Quintin till past one o'clock.



From thence to Chächämöllī, where I arrived at half-past two, we found the same difficulty in advancing, on account of several ramifications of the great bank of lava. The Hacienda is situated near a river, the course of which, designated by a double line of Sabinos, we had traced for a long time winding along the foot of the hills which surround the valley. It is the same stream that traverses the plain of Durango, and runs from thence, by the Villa del Nombre de Dios, and the Mēzquītāl, towards the rivers of Jäliscö, with one of which it is supposed to incorporate itself, and to continue its course towards the Pacific.

In one hour after leaving Chächämöllī I reached the Rancho del Ārēnāl, where my last relay of horses was stationed. From thence to Durango the road is excellent. It runs almost uninterruptedly across a level plain, which, if supplied with water, would be equal in fertility to the richest portions of the Mexican territory. The corn-lands, (*fields*, from their extent, I cannot call them,) of the Hacienda of Nābācōyān, close to which you again cross the river on a bridge of stone with high narrow arches, are really beautiful; and, on the opposite side, the maize crops of Santa Ana, and other Haciendas, are equally luxuriant. Nābācōyān is supplied with water from a "presa," or dam, constructed at a considerable distance up the river by the former proprietors of the Hacienda, from whence it is conducted

by canals to every part of the estate. The whole establishment for irrigation is said to have cost 100,000 dollars.

The central parts of the valley, (La Vega,) to which water cannot be conveyed, are abandoned to the Meezquite, which extends almost to the gates of the town, in the immediate vicinity of which there is a little cultivation. Durango, or, as it has been more recently entitled, in honour of the President, "La Ciudad de Victoria," (the city of Victoria,) is seen to great advantage from the road. It is situated nearer to the Northern than the Southern extremity of the valley, with a little line of hills in the background, and the famous Iron Mountain, called El Cerro del Mērcādō, at a little distance from the gates. I arrived in sight of the town at half-past four o'clock, and should have reached it at five, by continuing at the same pace; but I was met two leagues from the gates by the Governor of the State, Don Santiago Vācā y Ōrtiz, and the military commandant, Don Joaquin Ayestaran, to both of whom I had been furnished with letters of introduction by General Victoria, and in their coach we proceeded slowly, and did not reach the Governor's house till dusk.

Of the hospitality and kindness of this gentleman, whose guest I became for two days, I cannot easily say enough. Gratified by my curiosity respecting the North, of which he is a native, he gave me every



assistance in acquiring information, and introduced me, during my stay, at his own table, to almost every person at all calculated to afford it.

Durango may be considered as the first place in the Mexican territories in which the importance of this most valuable portion of the Republic is duly appreciated. To the inhabitants of the Southern and Central Provinces, every thing north of Zacatecas is a *terra incognita*; and the traveller is surprised, after passing this Ultima Thule of civilization, (well deserving the appellation in as far as its own merits are concerned,) to find an improvement in the manners and character of the inhabitants, for which, from the prejudices of their countrymen, he is perfectly unprepared. Durango, where this change first becomes visible, may be regarded as the key to the whole of the North, which is peopled by the descendants of a race of settlers from the most industrious provinces of Spain, (Biscay, Navarre, and Catalonia,) who have preserved their blood uncontaminated by any cross with the aborigines; and who, with this purity of descent, (of which they are justly proud,) retain most of the primitive habits and feelings of their forefathers. They have much of the loyalty and generous frankness for which the old Spanish character was formerly celebrated; great natural politeness, and considerable activity both of mind and body, with a spirit of enterprise, which, now that the bonds are removed by which it has hitherto been confined, will, in a very few years, give to the North

of Mexico a great and preponderating influence. These characteristics extend, with some local modifications, to the inhabitants of the whole country formerly denominated the Western Internal Provinces (Provincias Internas Occidentales), which now comprise the States of Durango, Chihuahua, and Sonora and Cinaloa (forming one State), with the "Territories" of New Mexico and Californias. In all of these the white population predominates, and the Indians, where any remain (as in Sonora), continue unmixed with their conquerors, residing in towns and villages of their own (as the Mayo tribes), or hovering (like the Apaches and other barbarous nations) around the settled lands, seeking a precarious livelihood by the chase.

South of Chihuāhūa few of the aborigines are to be found, except in the Bölsön de Mäpimī, which communicates with the Indian hunting-lands in Cö-hähūila and Texas, tenanted by the Cömañchës, and other Indios Bravos,\* who occupy the whole of the unsettled country between the Rio Bravo del Norte and the frontiers of the United States. In Durango there is hardly a single individual of the copper-coloured race. At the time of the Conquest they all retired North upon the advance of the whites; and although some tribes of more settled habits remained in Sonora and Cinaloa, the great mass of the Indian

\* All the tribes which held no communication with the missionaries on the frontier, but maintained an independent existence, were thus designated.



population took refuge in the vicinity of the river Gila, where it still retains possession of a country, which, during three centuries, has remained almost entirely unexplored. Of the lands formerly tenanted by them, distinguished both by their mineral riches, and by the rapidly increasing trade with China and the East Indies, of which the ports of Māzātlān and Guaymas are the seat, I shall endeavour to give some description under their new territorial division, referring my readers for many highly interesting details to a journal with which I have been furnished by a gentleman who has very recently returned from the North of Mexico, and who is almost the only foreigner, with the exception of Lieutenant Hardy, who has hitherto visited the interior of Upper Sonora, or at least resided a sufficient time there to acquire a knowledge of the resources and peculiarities of the country.

I shall commence with Durango, the most southern of the Internal Provinces, and the only one to which my own observations extended, much as I should have rejoiced to give them a wider range.

The capital of the State of Durango, is situated sixty-five leagues to the north-west of Zacatecas. The population of the town is 22,000; that of the State 175,000. Both the city of Victoria and most of the other towns of Durango, (Tāmāsūlā, Sīānōrī, Māpīmī, San Dimas, Canelas, Cuencame, &c.) take their origin from the mines. Before the discovery of those of Gūārīsāmēy, Victoria was a mere village

(Pueblo Ranchero), which, as late as 1783, contained only 8,000 inhabitants. The great streets, the Plaza Mayor, the theatre, and all the principal public edifices, were built by Zāmbrānō, who is supposed to have drawn from his mines at San Dimas and Guārīsāmēy, upwards of thirty millions of dollars.

The towns of Villa del Nombre de Dios, San Juan del Rio, and Cinco Señores de Nāzās, are almost the only cities in the State unconnected with mines. The two first are supported by an extensive trade in vino Mescal, (a sort of brandy, distilled from the Maguey, or American aloe;) the last, by the large cotton plantations, upon the banks of the river Nazas, from which the manufacturers of Saltillo, San Luis, and Zacatecas, draw their supplies. The cotton, according to the slovenly practice of the country, is not picked and cleaned upon the spot, but is brought, when gathered, to Durango, where it is separated from the seeds. It sells there, however, notwithstanding this addition to the freight, for one dollar the arroba, of 25lbs.

Durango has no manufactures. Its riches consist entirely in mines and agricultural produce, which last is so considerable, that the lands already brought into cultivation are supposed to be sufficient for the support of a population five times as large as that of the State now is. The Haciendas, however, are, at present, upon too extensive a scale to be well managed; an evil, for which the Congress, by abolishing entails, hopes to provide a remedy.



Most of the estates of Durango are devoted to breeding horned cattle, mules, and sheep, of which last 150,000 are sent every year to the Mexican market. The Hacienda de la Sarca alone possesses a stock of 200,000 sheep, and 40,000 mules and horses. That of Ramos, (which consists of four hundred sitios,) has 80,000 sheep; that of Gūatīmāpe 40,000 oxen and cows. The valley of Pōānās, again, (about fifteen leagues East of the capital,) contains nothing but corn-lands. It is watered by a river which runs through the centre of the valley, and on the banks of this river are nine *Haciendas de trigo*, (corn estates,) in immediate succession, which supply the capital with flour, of the very best quality, at from six to eight dollars the fanega.

The natural advantages of Durango are not yet fully turned to account. Sugar might be cultivated to any extent in the valleys of the Sierra Madre, where water abounds, and climate might almost be selected at pleasure; but it is, at present, brought from the valley of Cūernāvācā, at a distance of 250 leagues. It sells, of course, at an enormous price, five dollars per arroba, and, in a moment of scarcity, often rises to ten.

Indigo and coffee might likewise be reckoned amongst the natural productions of the soil. They are found wild in the barrancas of the Sierra Madre, but no attention is paid to them.

Iron abounds within a quarter of a league of the

gates of Durango. The Cerro del Mercado is entirely composed of iron ores, of two distinct qualities, (crystallized and magnetic,) but almost equally rich, as they both contain from sixty to seventy-five per cent. of pure iron. The operation of smelting these ores is attended with considerable difficulty. It is not understood in the United States, in England, or Silesia, where ores of from twenty to twenty-five per cent. are those in common use; and an iron-foundry lately set up by two natives of Biscay, (Messrs. Ūrquīāgā and Ārēchēvālā,) upon the banks of the river, twenty leagues from Durango, has failed from the want of a knowledge of the proper mode of treating the ores. The adventurers are likewise cramped in their operations by the smallness of their capital. A Hacienda has been built in a situation where there is both water for machinery, and an abundant supply of timber and charcoal; but as the proprietors do not possess the means of constructing a road for carts, (although, from the nature of the ground, it might be accomplished with a very inconsiderable outlay,) the conveyance of the ores on mules to the reduction works materially diminishes the profits of the speculation. With regard to the difficulty of working them, it might undoubtedly be overcome, as, from the affinity of the iron of El Mercado to that of Danemora, Swedish forgers would understand the nature of the process at once.

The Constitution of Durango is framed in a very