

(with the exception always of a hostile movement on the part of Spain,) that could again disorganise the great mass of the population; and it is this alone that the Companies in general have to apprehend. Partial disturbances indeed may, and probably will occur; but these are of little moment, and could hardly exercise any very prejudicial effect upon the Mining interests of the country, from which so large a portion of the Mexican community derives its subsistence at present, and to which, consequently, they are not less interested than the foreign Adventurers themselves, in affording protection.

The same observation holds good with regard to an increase of duties on the part of the Government, (of which I have heard great fears expressed here,) as soon as the mines begin to become productive anew. Upon this subject it is impossible to give the Adventurers any other security than that which they may derive from the reflection, that this increase of duties must weigh as heavily upon the Mexican proprietors, as upon themselves. The mines are private, not public, property; and the produce, (according to the terms of the contracts,) after the repayment of the capital invested by the Companies in the first instance, is to be divided equally between the Adventurers and the Mexican proprietors.

In order to favour the attempt to work the mines anew by the assistance of foreign capitals, the duties formerly paid on the Silver raised, (seventeen per cent.,) were reduced to about five and a half. There

was no pledge that, when the capitals were repaid, some increase would not be made in the duties: but there is also no reason to suppose that they will ever again be raised to their former standard, because the interests, not of the foreign capitalists, but of the very influential class of Mexican proprietors, require that they should not be so. The amount of duties was formerly fixed by the Mother-country. It now depends, not even upon the Executive of Mexico, but upon an assembly of native Mexicans, amongst whom the great Mining Districts are sure to be adequately represented. It is, therefore, hardly natural to suppose that they will give their sanction to a measure by which they themselves will be the first to suffer; nor can they, in any way, in a country which pays for all its Imports in bullion, impose a duty upon the Silver raised in such a manner as to bear upon Foreigners, without affecting themselves. I leave good faith entirely out of the question in this view of the case, because, though always appealed to, it is, I fear, of but little weight with any Government in discussions of this nature. But I cannot refrain from adding that, in the whole course of my residence in Mexico, I have seen nothing on the part of the Government to warrant the supposition, (which those who wish to regard American affairs in the most unfavourable light, so gratuitously make,) that it would violate all its engagements with Foreigners, merely on the score of their not being natives, or seek to deprive them of the fair

fruits of their labours. I believe, on the contrary, that a conviction of the advantages which Mexico derives from her intercourse with Europe, has been gradually taking root during the last four years; that many of the exaggerated ideas which were entertained in 1824, of the importance of the New World to us, have given way to a belief that this importance is (to say the least) reciprocal; and that a disposition to cultivate a good understanding with the commercial nations of Europe has increased in proportion to the increased wants which Europe is called upon to supply. I have given in the Third Book some instances of the existence of this feeling, as well as of the ameliorations to which it has already led with regard to Trade: why then should its existence be assumed as impossible, and its operation supposed not to extend to the mines, in which the interests of the Mexican and British Adventurers are much more closely interwoven with each other, than they can be in any other species of international intercourse?

The above observations are merely matters of private opinion, but as such I leave them to the consideration of my readers, who will give them as much, or as little importance, as they may seem to deserve.

I come now to the probability "of the annual average produce ultimately *exceeding* the Twenty-four millions of dollars, which were drawn from the mines before 1810."

This probability depends, in my opinion, in a great measure, upon the time at which the attention of the Adventurers in the Mines of Mexico is directed towards the North.

It seems, at first sight, a singular fact, in the history of a country so celebrated for a spirit of mining enterprise as Mexico, that, during three centuries, that spirit should have been confined to a comparatively small circle; and that, with some few exceptions, the richer ores of the Internal Provinces, should have been neglected for the poorer districts in the vicinity of the Capital.

But this fact admits of one simple explanation.

As long as the monopoly of the Mint of Mexico continued, it was absolutely impossible, in the Interior of the country, to obtain a sufficiency of the circulating medium to carry on any great mining enterprise; and, even to commence one, a triple capital was required, as six months elapsed before silver, sent in bars from the North, could be brought back converted into specie.

Dollars were often at a premium in Guanajuato itself; but in the North, they became an article of trade, the price of which, like that of all other articles, increased in proportion to the scarcity of the supply; so that both the Mine-owner, and the Rescatador, (amalgamater on his own account,) were obliged to convert their silver into specie at a loss of one-third of its legal value; while, for every article consumed in the mines, for which they exchanged

Plata Pasta, or silver in a raw state, they paid at least double the market price.

It will hardly be believed that silver of the finest quality has been sold, (and currently sold) in the Northern provinces, at four dollars two reals, and four dollars four reals per marc, the Mint price being eight dollars.*

Few mines, however rich, could be worked under these disadvantages, and they sufficiently account for the preference, which was given by the old miners to ores, that yielded seven and eight marcs of Silver on the Monton of thirty-six quintals, if within seventy or one hundred leagues of the Capital, in lieu of exploring the tantalizing wealth of the North, where, although fifteen and twenty marcs were yielded by the same quantity of ore, the whole profit was absorbed by usurious charges on every thing else.

These reasons became only more cogent after 1810; for, although Mints were established at Durango, and Chihuahua, quicksilver rose in price, during the Revolution, from forty-one dollars to one hundred and forty, and one hundred and fifty dollars per quintal; while the general want of confidence, and capital, rendered it impossible for the miners to obtain advances, (*Avios*,) even by the greatest sacrifices.

The whole country, therefore, North of Durango,

* *Vide* Reports of Tribunal de Minería.

remains almost unexplored. That it will long continue so, I do not believe, for public attention has already been turned in this direction, and should the first adventurers succeed, an extraordinary change may be expected to take place in the Mining interests of New Spain in the course of the next twenty years.

That the great mineral treasures of Mexico commence exactly at the point where Humboldt rightly states the labours of the Spaniards to have terminated, (about Latitude 24°,) is a fact now universally admitted by the native miners, although, hitherto, but little known in Europe.

In order the better to illustrate it, I shall beg to subjoin some details, which I was enabled to collect during my journey into the Interior, premising, that I have the evidence of Registers of produce, and official documents, for every fact that I submit to my readers, (some of the least voluminous of which I subjoin,) and that I have adopted nothing upon mere verbal report.

The States of Durango, Sonora, Chihuahua, and Sinaloa, contain an infinity of mines hitherto but little known, but holding out, wherever they have been tried, a promise of riches superior to any thing that Mexico has yet produced.

The Districts, a list, or sketch of the principal of which will be found in Table IV., are distinguished, not less by the superior quality of their ores, than by the circumstance of their beginning to be

productive within a very little distance from the surface (usually from ten to fifteen yards); whereas the Veta Madre of Guāñajuatō yields little or nothing until the depth of eighty yards is attained. The metals seem to increase in richness as you approach the North; insomuch that in the Real, or District, of Jesus Maria, in that great branch of the Sierra Madre, which separates the States of Durango and Chihuahua, from those of Sonora and Sinaloa, to the North and West,—the ores of the mine of Santa Juliana (which does not exceed seventy yards in depth) appear, by a certified Report from the Diputacion de Minería, now before me, to average seven and eight marcs of silver per carga, of (300 lbs.) which is the average produce of ten cargas of good ore in Guāñajuatō; while ores of the best quality yield as much as from four to ten marcs per Arroba, (of 25lbs.) or forty marcs per carga.

At Bātōpīlās, (in the State of Chīhuāhuā,) where the matrix is, in general, quartz, the pure malleable silver intermixed with it often exceeds in proportion one half; and masses of this description, of the weight of eleven Arrobas, (270 lbs.,) have been raised. One of five Arrobas in weight, (125 lbs.,) was in existence at Chīhuāhuā during my visit to the North, and I was even solicited to purchase it for the British Museum.

Only three Districts in the North have been, hitherto, worked with any sort of regularity, Santa Eulālīā, Bātōpīlās, and Guārīsāmēy.

The first, (Santa Eulalia,) from its vicinity to the town of Chihuahua, was worked as early as 1705.

Its registered produce, from that time to 1737, was 55,959,750 dollars, or an average of 1,748,742 dollars per annum. From 1737 to 1791, it yielded something more than Forty-four millions, making a total of One hundred millions of dollars during a period of Eighty-six years.

The district was gradually abandoned during the last years of the last century, on account of the incursions of the savage Indian tribes; but in 1791, it possessed a population of 6,000 inhabitants, with seventy-three Haciendas for reducing metals, and one hundred and eighty smelting furnaces. All these are now in ruins, and the produce, during the last thirty years, has been little or nothing; the whole receipts of the Provincial Treasury of Chihuahua having only amounted to 10,769,096 dollars from 1791 to 1825; but the possibility of restoring the mines to what they were, is, in the opinion of the natives, undoubted.*

From Bātōpīlās, and Guārīsāmēy, I have been unable to obtain returns as exact as those from Santa Eulalia; a great part of the wealth derived from the first, by the Marquis of Bustamante, having been

* In this they are probably misled by their attachment to a place, which, during so long a period, was the source of the prosperity of the State; for with so many virgin districts in every direction around them, it can never be advisable for Foreign Capitalists to attempt the regeneration of Santa Eulalia

sent out of the country unregistered, during the Revolution, by the ports of Mázatlán, and Guāymás. But it is upon record, at Durango, that Zāmbrāñō, who was the proprietor of all the principal mines of Guārisāmēy and Sān Dīmās, paid, as the King's fifth, upon the Silver raised from the mines, between the period of their discovery, (in 1783,) and 1807, when he died, Eleven millions of dollars. These immense riches were derived principally from five great mines, La Candelaria, (at San Dimas,) San Juan Nepomuceno, Cinco Señores, La Abra, and Tapia; of one of which, (La Candelaria,) I possess the regular returns for five years, which prove the annual profits never to have been less than 124,000 dollars, while in some years they amounted to 223,082*. The ores of the mine, during the whole of this period, appear to have produced from five to six marcs per carga, (of 300 lbs.) and often to have yielded twenty, and even thirty marcs. Indeed, nothing of a quality inferior to the first could have covered the expence of extraction; as, when the Candelaria had attained its greatest depth, (300 Varas,) the water was still brought up from the bottom of the mine in leathern buckets upon men's shoulders. The Ley de Oro (or proportions of gold) in the ores of Guārisāmēy, is very great, amounting sometimes to 2,100 grains to the marc. But, notwithstanding all these advantages, the mines are now going fast to

* *Vide* Table, No. V.

ruin, the works having been suspended during the Revolution, and the possibility of re-opening them, at present, to any extent, being impeded by a law-suit between the heirs and executors of the former proprietor.

Without entering into similar details, respecting each of the other districts mentioned in the Table of the Northern Mines, (No IV.) it will be sufficient to state that, with some few exceptions,* they all possess, in a greater or less degree, the same advantages; (richness of ores, and veins productive almost at the surface;) that few have been worked to any extent; and, consequently, that the risk of making the necessary experiments there is trifling, in comparison with the immense outlay required by the old mines of the Southern districts, which have, in general, attained an enormous depth. The money which has been invested in the Valenciana, or in Rayas, or in the Biscaina vein, would be sufficient to make a trial of half the Mining districts of the North at once; for no expensive works need be commenced there, until the character of the veins, which it might be in contemplation to work, was sufficiently ascertained. The undertaking would, indeed, require an

* The ores of El Parral, Măpimī, and Cuēncāmē, are amongst these exceptions, being poor, and abundant. But it is worthy of remark, that none of these districts are included within the range of the Sierra Madre. They all lie in the flat country to the East of it, and partake more of the character of the Central and Southern districts.

adventurous spirit, and a determination to submit to every privation, at first, in order to ensure success: but if these qualities were combined with a sufficient knowledge of the country, and some personal influence, I am inclined to think that, with a very small capital, success would be undoubted.

In the present state of discouragement with regard to all Transatlantic speculations, it is not probable that any experiment of this kind will be attempted upon a large scale, for some time; but I am convinced that, when once it is fairly made, an enormous addition to the mineral wealth of Mexico will be the result. To what extent this may ultimately be carried, it would be useless now to inquire; for, without the assistance of Foreign Capitalists, years will probably elapse before the gradual spread of population facilitates discoveries in those rich districts, where the want of inhabitants now presents a serious obstacle to commercial enterprise.

Population, however, in Mexico, has always followed the course and progress of the mines; and that too with astonishing rapidity. The Mexican miners are proverbially inconstant in their tastes, and roam from one district to another, whenever there is a new discovery, or Bonanza, to attract them.

Of this, Catorce furnished a memorable instance, in the year 1773. It is impossible to conceive a more bleak and desolate spot than that upon which these famous mines are situated,—the very summit of a mountain ridge, inaccessible, even at the pre-

sent day, to any thing but mules, without provisions, or water, or resources of any kind; yet, in three years after the discovery, it had a population of five thousand souls, and the town now contains sixteen thousand inhabitants. The fame of its riches brought crowds of settlers from Guănăjuatō, Zăcătēcăs, and Sōmbrērētē; and, notwithstanding all the local disadvantages which I have enumerated, these settlers have remained. But the mines of Catorce possessed all the properties which characterise those of the North: they all began to be productive almost at the surface, and all yielded ores of a quality unknown in the neighbouring districts of Zacatecas and Guanajuato.

The metalliferous dust of the famous mine of "Zăvălă," which produced Four millions of dollars in two years, was eagerly bought up, at the mouth of the mine, by Rescatadores, (proprietors of Amalgamation works,) who came from Pinos, and even from Guanajuato, (distances of fifty and eighty leagues,) for the purpose, at the price of one dollar for the pound of ore, (three hundred dollars per carga.)

The owner of the mines of Santa Ana and San Geronimo, (Captain Zūnigă,) after living upon their produce during his whole life, bequeathed, by his will, (of which I have an authentic copy,) Four millions of dollars, the greatest proportion of which was left to pious institutions. The mine of La Luz, which was denounced in 1804, and is still in full