

MEXICO IN 1827.

BOOK I.

SECTION I.

BOUNDARIES.—GEOLOGICAL STRUCTURE.

CLIMATE.

THE Republic of Mexico, which comprises the whole of the vast territory formerly subject to the Vice-royalty of New Spain, is bounded to the East and South-east by the Gulph of Mexico and the Caribbean Sea; to the West by the Pacific; to the South by Guätēmälā, which occupies a part of the Isthmus of Darien; and to the North by the United States.

The exact line which separates the provinces of Las Chīpās and Tābāscō from the territory of Guätēmälā, has not yet been fixed, but is at present the subject of amicable discussion between the two governments. To the North, the frontier is defined, with sufficient exactness, by the treaty of Washing-

ton,* the validity of which, since the declaration of Independence, has been tacitly acknowledged both by Mexico, and the United States.

According to the third article of this treaty, the boundary line between Mexico and Louisiana (then ceded by Spain to the United States) commences with the River *Săbină*, which runs into the Gulph of Mexico, about lat. 29, West long. 94, and follows its course as far as its junction with the Red River of Natchitoches, which then serves to mark the frontier up to the 100th degree of West longitude, where the line runs directly North to the River Arkansas, which it follows to its source, in the 42d degree of North latitude, from whence another direct line is drawn (immediately upon the forty-second parallel) to the coast of the Pacific; thus dividing between the two rival republics the whole Northern continent of America, with the exception of the British Colonies.

A reference to the accompanying map will explain this seemingly complicated arrangement, which at present is of but little importance, except with regard to the Eastern coast; as between the frontier established, and the last settlements of the Americans and Mexicans to the North and West, a vast space intervenes, tenanted only by Indian tribes, who have never yet been subdued, and over whom

* This treaty was signed on the 22d February, 1819, by Mr. Adams and the Chevalier Onis, then Spanish Minister at Washington.

neither of the two governments possesses the slightest authority. With the exception of a narrow belt of missions in New California, on the Western coast, which terminates with the port of San Francisco in lat. 36, and the isolated province of New Mexico, the capital of which (Santa Fé) is situated in the same parallel as San Francisco, the whole country contained between 28° and 42° of North latitude, is unappropriated by any white population, and almost unknown; and centuries must elapse before the civilization of America can increase sufficiently to give it any value. It will, probably, be one of the last strong holds of man in a semibarbarous state; for it is in this direction that the Indians, who have been driven from the valley of the Mississippi by the rapid emigrations, which have taken place, during the last twenty years, from the old Atlantic Anglo-American states, are now retiring.*

On the North-eastern frontier the case is different, for there the rich and beautiful province of Texas might prove a source of contention, did not the two governments wisely determine to remove all motives of difference, by abiding by that arrange-

* Should any of my readers wish for information respecting the mode in which these Western settlements have been conducted, and the extraordinary manner in which they have thriven, I can refer them to Flint's "Journal of a Ten Years' Residence in the Valley of the Mississippi;" which, although written in a most uncouth style, is both an interesting and instructive work.

ment, to which (directly or indirectly) each has already given its consent.

It will be perceived, by this sketch of the Mexican territory, that, at the two most distant points of S.S.E. and N.N.W. (the southern extremity of Yucatan, and the boundary line, where it runs into the Pacific,) it extends over twenty-seven degrees of latitude, or $1876\frac{1}{2}$ English statute miles.* Its greatest breadth is in the parallel of 30 N. lat. where, from the Red River (Rio Colorado) of Texas, to the coast of Sönörä, Humboldt gives the distance at 364 leagues, of twenty-five to the degree.

Nothing can be more imperfect as yet, than our acquaintance with this vast country. Few even of the principal towns and rivers are correctly laid down, and consequently not even the elements of a good map exist. Humboldt has done much towards correcting the errors which prevailed before his time, but his personal observations were confined to a comparatively small circle, and upon those of others he could not rely. A little time, however, will now add considerably to our stock of information; for amongst the foreigners who are at present exploring the Mexican territory, there are some scientific men, who employ their leisure hours in taking observations, and tracing their route through the various parts of the country, which their avocations oblige them to visit.*

* I allude particularly to Captain Vetch, Director of the Real del Monte Company, and Mr. Glennie, one of the Commissioners

= *69 1/2 statute miles to a Degree of latitude

The result of their inquiries, when combined with the statistical information which the governments of the different States are labouring to collect, and the military surveys of the *Estado Mayor*, will be extremely valuable; and many years will, probably, not elapse, before the interior of Mexico will be as well known as that of most countries in the Old World.

The territory of Mexico presents, according to Humboldt, a surface of 118,478 square leagues, of twenty-five to the degree; but this estimate does not include the space between the Northern extremity of New Mexico and Sönörä, and the boundary line, as fixed more recently by the treaty of Washington, the extent of which is not yet well ascertained. Thirty-six thousand five hundred square leagues, comprising the states of Zäcätēcäs, Guädälajärä, Guänäjuatö, Vallädölid, Mëxicö, La Pueblä, Vëräcrüz, Oäxäcä, and Mëridä, are within the Tropics, or, what is usually denominated, the torrid zone; while New Mexico, Dürängö, New and Old California, Sönörä, and a great part of the old Intendancy of San Luis Pötösī, containing, in all,

of the United Mexican Association, both of whom have been indefatigable in their researches. Captain Vetch has nearly completed a very valuable map of the interior of the country; and Mr. Glennie possesses a series of observations, taken by himself, which extend from Öäxäcä, (100 leagues to the S.W. of Mexico,) to Chihuahuä, and Guäymäs, a port on the northern extremity of the Gulph of California.

82,000 square leagues, are without the Tropics, or under the temperate zone. The whole extent of the Republic is equal to one-fourth of Europe, or to France, Austria, Spain, Portugal, and Great Britain, put together; and the difference of latitude alone, on so enormous a surface, would naturally have the effect of causing considerable changes in the temperature of the more distant points.

It is not, however, to this circumstance, so much as to the peculiarity of its geological structure, that Mexico owes that singular variety of climate, by which it is distinguished from most other countries of the world.

To this I must call the particular attention of my readers, as, without a right understanding of its causes, a great part of the present sketch would prove unintelligible.

The Cordillera of the Andes, after traversing the whole of South America and the Isthmus of Pännāmā, separates into two branches on entering the Northern continent, which, diverging to the East and West, but still preserving their direction towards the North, leave in the centre an immense platform, or Table-land, intersected by the higher points and ridges of the great mountain chain by which it is supported, but raised, in the more central parts, to the enormous height of seven thousand feet above the level of the sea.

This elevation it loses, in part, on its approach

to the North, by the gradual disappearance of the Eastern branch of the Andes, which sinks nearly to a level with the ocean, about the 26th parallel of North latitude, as if to make way for those mighty rivers by which Tēxās, Louisiana, and the Flōrīdās are watered: but to the West, the Cordillera continues in an almost uninterrupted line, through Dūrāngō and Sōnōrā, towards the frontiers of the United States, where it splits into various ramifications, until its course is lost in the unknown regions of the North.

Upon the whole of this Table-land, the effect of geographical position is neutralized by the extreme rarification of the air; while upon the Eastern and Western declivities it resumes its natural influence as it approaches the level of the sea, until the strip or belt of flat country which extends from the base of the Cordillera to the ocean, is subject to the same degree of heat as that which prevails in the East or West Indies, or any other country similarly exposed to the rays of a tropical sun.

Thus Mēxīcō, Guāñajuātō, Zācātēcās, and the other great towns upon the central plateau, enjoy a temperature entirely different from that of Vērācrūz, Tāmpīcō, Ācāpūlcō, and Sān Blās, which are situated nearly in the same parallels on the Eastern and Western coasts; while the intervening space is filled up with almost every possible modification of heat.

On the ascent from Vērācrūz, climates (to use

Humboldt's expression) succeed each other in layers, (*se suivent par couches*;) and the traveller passes in review, in the course of two days, the whole scale of vegetation.

The parasitic plants of the Tropics are exchanged at a very early period for the evergreen oak, and the deadly atmosphere of Vērācrūz, for the sweet, mild air of Jālāpā: a little farther, the oak gives place to the fir; the air becomes more piercing; the sun, though it scorches, has no longer the same deleterious effect upon the human frame; and nature assumes a new and peculiar aspect. With a cloudless sky, and a brilliantly pure atmosphere, there is a great want of moisture, and little luxuriance of vegetation: vast plains follow each other in endless succession, each separated from the rest by a little ridge of hills, which intersect the country at regular intervals, and appear to have formed, at some distant period, the basins of an immense chain of lakes. Such, with some slight variations, is the character of the Table-land from Mexico to Chīhūāhuā. Wherever there is water, there is fertility; but the rivers are few, and insignificant, in comparison with the majestic streams of the United States; and, in the intervals, the sun parches, in lieu of enriching the soil. High and barren plains occupy but too large a portion of the centre of the country, between Zācātēcās, Dūrāngō, and Sāltillō; nor does nature recover her wonted vigour, until the streams, which gradually filter from the Cordillera,

are sufficiently formed to dispense moisture on their passage to the ocean. As the Eastern branch of the Cordillera disappears, or rather recedes towards the West, the space fertilized by these streams becomes more extensive; until in Texas, a country low, but well wooded, and rich in beautiful rivers, takes the place of the dreary *Steppes* of the interior.

The Rio Grande de Sāntiāgō, which traverses the Bāxiō, and empties itself into the Pacific, near San Blas, and the Rio Bravo del Norte, which enters the Gulph of Mexico in 26 North lat., are the two principal rivers of the Table-land: the last, indeed, hardly merits that title, as it pursues its course over a part of the country where the Eastern Cordillera is lost;* but the first rises in the very centre of Mexico, and the district through which it passes is amongst the richest of the known world.

Humboldt gives 25 degrees of the centigrade thermometer (or 76 of Farenheit) as the mean heat of the coast, and 17° centigrade (64 Farenheit) as that of the Table-land. But, in a country so extensive as Mexico, any general theory upon this subject must be liable to great exceptions. A situation, so sheltered as to give additional force to the reflected rays of the sun, or too much exposed to the winds of the North-west, which sweep the country, at times, with incredible violence; a

* It rises at the foot of the mountains of Sierra Verde, and traverses a space of 512 leagues before it reaches the Gulph.

nearer approach to the Pacific side, (where the air is perceptibly milder;) the want, or abundance, of water; all these are circumstances which affect the temperature in the most opposite manner, even at the same height, and in the same parallel; and thus render it impossible, by the standard of elevation alone, to form any exact idea of the climate of the Table-land. Humboldt mentions the valley of Rio Verde, where sugar is raised with success at near four thousand feet above the degree of elevation which previous experiments had induced him to fix, as productive of the *minimum* of heat requisite for its cultivation; and I have myself seen a little spot, in the vicinity of Guädäläjärä, which presents a similar phenomenon.* In addition to these local peculiarities, which occur without there being any sensible difference in point of elevation to occasion them, every little break or descent in the surface of the Table-land, leads as naturally to an increase of heat, as the ascent from the coast does to a diminution of it. The transition is sometimes extremely sudden, for a deep ravine, or cãñädä, is sufficient to occasion it. Thus, in the Cãñädä of Qüerëtärö, and in the famous Barranca of Rēglä, at Real del Monte, both of which are situated in the centre of the Table-land, and nearly upon the same level as the Capital, a few hundred yards change the face of nature entirely.

* The village of Zăpötlănējö; for an account of which, *vide* Personal Narrative, Book 5.

The luxuriancy of Tropical vegetation replaces the stunted growth peculiar to the central plateau; the birds assume a more variegated plumage; the inhabitants a more relaxed and indolent expression; and the whole scene the characteristics of another world.

The same effects are produced wherever the same causes occur; and as, on a mountain chain, the inequalities of the surface are naturally very great, it is hardly possible to proceed to any distance, either to the East, or to the West of the Capital, without experiencing these transitions, which sometimes are met with repeatedly in the course of a single day. The natives, without inquiring into their origin, express the fact, by designating these hot, low ravines, as *Tierra Caliente*; a term which always implies a portion of the country, in which (from whatever causes) there is a sufficiency of heat to produce the fruits, and with the fruits, the diseases of the Tropics. *Tierra fria* (the cold country) is applied to the mountainous districts which rise above the level of the Capital, up to the limits of eternal snow; while *Tierra templada* (the temperate region) embraces, in its most general acceptation, all that is not included under one of the other two divisions. By many, however, it is thought to apply more particularly to a climate such as that of Jäläpä and Chïlpänzïngö, (on the Eastern and Western ascent from the coast,) both of which are very much below the level of the Table-land: and I have myself found,

that whenever applied by the inhabitant of any one place to the temperature of any other, it implied an increase, and not a diminution, of heat. Thus, Jālāpā would certainly be called *Tierra templada*, by a native of Mexico, although Mexico might not perhaps be so termed by a native of Jalapa; while both would be designated in the same way by an inhabitant of *Tierra fria*, to whose district nature has assigned a degree of warmth much inferior to that of either of the other two.

Notwithstanding the arbitrary manner in which these terms are used, I shall frequently employ them in the course of this work; for, until a barometrical survey of the whole country has been executed, and the relative height of the principal points fixed, it would require a tedious explanation to give the ideas which the words *Tierra caliente*, and *Tierra templada*, are sure to convey. In order to illustrate still farther the peculiar character of the country, of which I fear that no words can furnish an adequate idea, I subjoin a sketch of Mexico, which, supposing it a bird's-eye-view, without any pretensions to geographical accuracy, may serve to show the relative position of the *Tierra caliente* and the Table-land, and to explain the variety of climate in the intermediate space.

The former division of New Spain into what was denominated the "Kingdom of Mexico," and the Eastern and Western Internal provinces, was never very distinct, and is now of little importance;

as the Republic is distributed, under the present system, into States, of which the Federal government is composed. These states are nineteen in number, and commence to the South, with the Peninsula of Yūcātān or Mēridā to the East; and Tābāscō, Las Chiāpās, and Ōāxācā to the South and West; which are followed in regular succession towards the North by Vērācrūz, Tāmāulipās, San Luis Pōtōsī, New Lēōn, Cōhāhūilā, and Tēxās, which comprise the whole territory to the frontiers of the United States, on the Gulph side: La Pūēblā, Mēxicō, Vāllādōlid, Gūadālājārā, Sōnōrā, and Cīnāloā, the Western extremities of which border on the Pacific; and Qūerētārō, Gūanājūatō, Zācātēcās, Dūrāngō, Chīhuahuā, and New Mexico, which occupy the centre of the country, and extend, between the two oceans, towards the Northern frontier. Beyond these again, are Old and New California, (which in some maps is called New Albion,) and the Indian territory, the extent and inhabitants of which are almost equally unknown. The two Californias and New Mexico are not yet admitted to the rank of independent States, their population not entitling them to be represented in the Congress. Each of the others returns a quota of deputies, in proportion to the number of its inhabitants.

As it is the general character of the country, and not that of particular States, that forms the subject under consideration in the present chapter, I shall reserve for another part of my work the statistical

details which I collected during my visit to the Interior, and proceed to point out here a few of the circumstances, by which the fate of Mexico, as a country, is most likely to be influenced.

Nature has bestowed upon her a soil teeming with fertility, and a climate, under which almost every production of the Old, and the New World finds the exact degree of heat necessary in order to bring it to perfection. But the peculiarity of structure, in which this variety of climate originates, neutralizes, in some measure, the advantages which the country might otherwise derive from it, by rendering the communication between the Table-land and the coast extremely difficult, and confining, within very narrow limits, the intercourse of the States in the interior with each other. On the Table-land there are no canals, (with the exception of that from Chalco to Mexico, about seven leagues in extent,) and no navigable rivers; nor does the nature of the roads allow of a general use of wheel-carriages; every thing is therefore conveyed on mules, from one point to another, and this mode of carriage, when applied to the more bulky agricultural produce of the country, increases, enormously, the price of the articles of most general consumption, before they can reach the principal markets. Thus, in the Capital, which draws its supplies from a circle of perhaps sixty leagues, comprising the valley of Mexico, and the fertile plains of Tōlucă, as well as the great corn lands of the Băxiō and La Pueblă, wheat,

barley, straw, maize, and wood, are not only dear, but the supply is uncertain*; while in the districts immediately beyond this circle, but which, from their distance, are excluded from the market, the same articles are a mere drug, and may be purchased at a fraction of the price.

The same effect is produced in the vicinity of each of the great towns of the interior, and more particularly of the mining districts, where, from the number of animals employed, the demand is very great. But for the mass of the produce of the country there is no home-market, and therefore no encouragement for industry, beyond the production of the mere necessaries of life.

On the Table-land, there is no doubt that this disadvantage may, to a certain extent, be removed, and distant points be brought more into contact, by the establishment of lines of road, traversing the country from North to South, or even of canals, as soon as the civilization and population of the Republic are sufficiently advanced for the attempt. The nature of the ground would rather favour than oppose the project; but to the East, and West, the obstacles to be overcome are very serious. On the Eastern side, particularly, the descent from the Table-land is so precipitous, that it appears to me very questionable whether it be

* Wheat sells for fourteen and sixteen dollars the carga (300 lbs.); barley for four or five dollars, according to the season; charcoal for one dollar, and, in the rainy season, for one and a-half dollar per arroba (of 25 lbs.)

possible to construct a road sufficiently good to open a communication with the coast to the land-owners of the Table-land; I mean, *such* a communication as would enable them to bring their produce into the West Indian, or even the European market, at the same price as the flour from the United States. It is true, that from the extraordinary ratio of increase, and the lowness of wages in Mexico, a greater expense in conveyance might be borne; but as the Americans are already in possession of the market, that expense must be so far reduced, as to lower the price of Mexican wheat, in the first instance, to something *below* that, at which it can be offered by the farmers of Kentucky, and the Anglo-American Western States.

To ascertain, and accomplish this, (if practicable,) should be the great object of the Mexican government; as nothing could have so immediate an effect upon the general interests of the country. The vessels by which Mexico is now supplied with European manufactures, return in ballast, or obtain, with difficulty, a cargo of Campeche wood, or coffee; in default of which, remittances are made in specie alone. Roads, if constructed with success, as Baron Humboldt, and many other scientific men, are of opinion that they may be, would give quite a different character to trade, by furnishing a mass of raw produce for exportation, which would, at once, increase the consumption of the country, (by giving a value to property, which has now, comparatively

none,) and the advantages of the foreign merchant, by enabling him to invest his profits immediately in a second venture. Towards this, as yet, nothing has been done. The proposals made by foreign houses of respectability, in 1825, for the establishment of a line of roads between Vera Cruz and the Capital, were not taken advantage of, because the government conceived that the mania for foreign investments in England would last for ever; and when, in 1826, it perceived its error, no foreign capitalist would advance a shilling towards the attempt. With the exception, therefore, of some temporary improvements, made by the Real del Monte Company for the conveyance of its steam-engines, the principal communication with the coast is now in the same state as in 1815, when the great stone-causeway, built by the merchants of Vera Cruz in 1803, was destroyed by the insurgents, in order to cut off the intercourse between the Peninsula, and the Spanish Authorities, and merchants, in the Capital. When this is thoroughly repaired, and continued across the Table-land into the vicinity of the corn lands of La Puebla, it may be expected to produce a great change in the agricultural prosperity of the country, if the opinions of those, who think it possible to bring Mexican flour into the Havanna market, at a lower price than that of the United States, prove to be correct. I am myself inclined to question the probability of Mexico ever finding a source of wealth in the exportation of her *Cerealia*, or, as it would be termed

in the United States, her *bread stuffs*; and this, not from any deficiency in the power of producing, to almost any extent, but from the want of a market for the produce when raised. The consumption of the West Indian Islands is extremely limited, and most European nations have been endeavouring, for some years, to render themselves independent of external supplies, by growing a sufficiency of corn for home consumption. The effects which have been produced already by this system upon the United States, prove how little reliance Mexico can place upon the foreign market. The exports of *bread stuffs* from the United States, amounted, in 1817, to 20,388,000 dollars; in 1821, to 5,296,000, (*vide* Mellish's United States;) and the consequence of this sudden falling off would have been inevitable ruin to the grain-growing states, had they not, instantly, turned to manufactures the capital, and the population, which agriculture had before employed. But the necessity for doing this, in a country where internal navigation afforded to the landowner every facility for disposing of his produce, holds out but little encouragement to the proprietors of a country, where no such facilities exist, to attempt to bring into the market produce of a similar description, however well adapted the nature of the soil may be for its growth.

I do not, therefore, conceive that the exportations of Mexico in corn will ever be very considerable; but in those articles, which we term Colonial pro-

duce, for which there is a constant demand in Europe, and which a large portion of her territory is so admirably qualified to produce, she has a source of wealth as inexhaustible as her mines themselves. The whole Eastern coast of Mexico, extending, in length, from the River Guásacualco to the Northern frontier, and, in breadth, from the ocean, to that point upon the slope of the Cordillera, at which Tropical fruits cease to thrive, is susceptible of the very highest cultivation; nor can any part of the now exhausted islands sustain a competition with the fertility of its virgin soil.

The state of Vera Cruz alone is capable of supplying all Europe with sugar. Humboldt estimates the produce of its richest mould at 2800 *kilogrammes* per *hectare*, while that of Cuba does not exceed 1400 *kilogrammes*; so that the balance is as two to one in favour of Vera Cruz.

Coffee is produced in a ratio almost equally extraordinary. Indigo and tobacco succeed as well, while, a little to the North, the state of Texas, which enjoys nearly the same climate as Louisiana, or South Carolina, is equally well adapted to the growth of cotton, the great staple of the United States. Mexico can never want a market for these more precious articles, to which the attention of the landowners is now much turned. Immense coffee plantations have been made, during the last four years, in the vicinity of Córdova and Orizáva; cotton has been planted, to a considerable extent, by the American