



Michoacan, and elsewhere; iron in immense masses in Michoacan and Jalisco, and in Durango, where the Cerro del Mercado is a solid mountain of magnetic iron ore: lead associated with silver, especially in Oajaca: tin in Michoacan and Jalisco; sulphur in many craters; platinum recently found in Tlaxcala and Hidalgo; cinnabar also recently in Morelos and Guerrero: "steppe salt" in the sandy districts of the north: "bitter salt" at Tepeyac; coal in limited quantities at various points: bismuth in many parts; marble, alabaster, gypsum, and rock-salt in great abundance throughout the plateau and the sierras. In 1882 there were open altogether 569 mines:—541 silver, 14 gold, 4 copper, 4 lead, 3 salt, 2 coal, and 1 mercury.<sup>1</sup>

Intersected about midway by the Tropic of Cancer, and stretching across seventeen parallels of latitude, Mexico, from its position alone, necessarily enjoys a great diversity of climate. But from its peculiar configuration this feature is affected far more by the relief of the land than by its distance from pole or equator. This is especially true of the more fertile and populous section lying within the torrid zone, where three distinct climatic regions are distinguished, not according to their horizontal, but according to their vertical position. The temperature falling steadily with the elevation of the land, which here rises rapidly from sea-level to nearly 18,000 feet above the surrounding waters, the low-lying coast-lands, up to about 3000 feet on the scarps and terraces of the central plateau, are comprised within the first zone of *tierras calientes*, or "hot lands." Within this zone are included all the sandy and marshy tracts fringing the Gulf of Mexico, the lower slopes facing eastwards and exposed to the hot and moist winds from the Caribbean Sea, and most of Yucatan and the Tehuantepec isthmus, besides the narrow strip between the uplands and the Pacific which broadens northwards along the east side of the Gulf of California. Here the mean temperature varies from 77° to 82° Fahr., seldom falling below 60°, but often rising to 105°, and in the sultry districts of Vera Cruz and Acapulco to 110°. The extreme north-western parts of this region come almost within the rainless zone, and the Californian peninsula itself is subject to excessive droughts, rendering it almost uninhabitable. But farther south the climate on both seaboard may be described as humid, hot, and extremely unhealthy, especially for Europeans. Yellow fever and black vomit are here endemic. But these scourges are at least compensated by a magnificent tropical vegetation and extensive virgin forests abounding in valuable timbers, dyewoods, and medicinal and other useful plants. Of the 114 species of trees and cabinet woods, 17 of oil-bearing plants, and over 60 of medicinal plants and dyewoods indigenous to Mexico, and often differing specifically from kindred varieties in Central and South America, by far the larger part are represented in the *tierras calientes*. Amongst the most important of these forest plants are mahogany, rosewood,

<sup>1</sup> Lorenzo Castro, *Mexico in 1882*. According to this authority the total yield of the Mexican mines between 1537 and 1880 was £776,276,000, while another estimate based on a report of the Mexican mint gives it at £930,786,000. Of this a large amount has been coined in Mexico, where there were eleven mints at work in 1876, with a total annual yield of about £5,000,000. The total coinage since the conquest has been estimated as high as £600,000,000, not more than 5 per cent. of this being gold. With regard to coal, the existence of which in Mexico has been recently denied by Mr Bigelow in *Harper's Magazine*, official returns for 1882 give a list of over twenty places where it has been found, though nowhere as yet in large quantities. Petroleum also appears to be very abundant in several localities. Amongst other natural products mention should be made of amber, found on the Yucatan coast. Mineral springs are very numerous everywhere on the plateaus and terrace-lands. The most famous are El Peñon and N. Señora de Guadalupe near the capital, and Aguas Calientes farther north.

copal, caucho (india-rubber), jalap, sarsaparilla, and vanilla. Here also maize, supplying the staple food of the people, yields prodigious returns, multiplying from two hundred to four hundred fold, and affording two, three, and even four successive crops within the year. Rice, indigo, cotton, tobacco, and coffee all thrive well, while sugar, cocoa, the banana, and several varieties of beans are largely cultivated. The tobacco of Vera Cruz and Tabasco, the coffee of Colima, and the cocoa of Oajaca and Chiapas are of unrivalled excellence.

To the "hot lands" succeed in vertical position the *tierras templadas*, or "temperate lands," which comprise all the higher terraces and the central plateaus themselves between about 3000 and 8000 feet. With a mean temperature of from 62° to 70° Fahr., and oscillating between such moderate extremes as 50° and 86°, this region enjoys one of the very finest climates on the globe. The Puebla and Anahuac table-lands are described by enthusiastic travellers as "terrestrial Edens," with a perennial spring symbolized by the evergreen oak, cedars, and many analogous plants, which here attain their greatest perfection. The transition from the lower zone is often very gradual; and, while endemic fevers cease altogether at altitudes of 2700 and 2800 feet, the tropical flora invades many parts of the terrace lands, and even of the plateaus to heights of 4000 and 5000 feet.<sup>2</sup> A certain uniformity is thus imparted to the Mexican landscape by the wide range of the maize, wheat, tobacco, vine, coffee, and other plantations, as well as by the palms, evergreens, mango, olive, orange, lemon, yucca, and an endless variety of the cactus family, one species of which forms hedges 20 feet high on the Anahuac uplands. The central zone is on the whole drier than the southern lowlands, although the scarps facing seawards are often wrapped in the fogs and mists of the intercepted moisture-charged atmospheric currents. The heaviest recorded rainfall (90 to 100 inches) occurs in the healthy Huatusco district of Vera Cruz, at an altitude of 4380 feet.

In the highest zone of *tierras frias*, or "cold lands," embracing all the highlands from about 8000 feet upwards, the rainfall is five times less than on the *tierras templadas*. Hence snow rests throughout the year only on the four most elevated peaks of Popocatepetl, Orizaba, Nevada de Toluca (15,000 feet), and Ixtaccihuatl. Characteristic both of the *tierras frias* and *templadas* is the maguey (*Agave mexicana*), whose fruit is edible, and whose fermented juice has from time immemorial supplied the famous *pulque*, or national beverage of the Mexicans. From the fibre of the heniquen, an allied species, is produced the "Sisal hemp" of commerce, which has in recent years become the staple export of Yucatan.

Speaking generally, the four seasons are clearly marked north of 28° N. lat. only. South of that parallel they merge in the *estacion de las aguas*, or rainy season, from May to October, and the *estacion seca*, or dry season, which prevails for the rest of the year. The rains generally begin on the east coast, gradually moving westwards. In the Pacific the moist atmospheric currents are deflected northwards, whence the striking contrast between the

<sup>2</sup> On the Amilpas plateau, which stretches south of Popocatepetl at a mean height of 5000 to 5400 feet, "coffee, sugar, and indigo are cultivated, and most of the tropical fruits grow luxuriantly" (Egloffstein, p. 17). The same authority gives the limits of vegetation in this region at 12,614 feet, and the snow-line at 14,960 feet. He observes that "nothing is more surprising to the traveller than the varieties of climate under this zone, which vary according to the different elevations above the sea. In a few hours we descended from the cold regions of the fir and the oak, on the heights of Ozumba, to a hot climate, *tierra caliente*, where we found the most luxuriant vegetation, passing in that short time through successive changes of the most diversified species of trees, plants, birds, insects" (p. 22).

wooded slopes of British Columbia and the treeless crests of the arid Lower Californian peninsula.

In its fauna no less than in its flora Mexico forms a land of transition between North and Central America. In common with the north it has several varieties of the bear, the wolf, coyote, skunk, bison, squirrel, beaver, marten, otter, rattlesnake, heloderm,<sup>1</sup> mocking-bird, and many wild fowl; while its monkeys (five species), puma, jaguar, ocelot, sloth, tapir, alligators (two species), iguana, boa, scorpions, tarantulas, and numerous brilliantly coloured parrots, trogons, and humming-birds connect it with the southern regions. Peculiar to Mexico, and distinguishing it from most tropical and subtropical lands, are its songsters, of which, besides the mocking-bird (*seuzonit*), as many as twenty species have been enumerated. The coasts are well supplied with fish and turtles, while the pearl fisheries of the Gulf of California continue to be a source of wealth to that otherwise unproductive territory, yielding in 1875 pearls to the value of £16,000, and £28,000 worth of shells. All the European domestic animals thrive well, and vast herds of cattle, horses, and sheep are found on the well-stocked ranchos of the northern states. Here some of the more prosperous breeders own from twenty to thirty thousand head of oxen, and next to the precious metals hides and cattle are among the chief articles of export.

But in the south stock-breeding yields everywhere to agriculture as the chief occupation of the people. Being largely volcanic, the soil is here extremely fertile wherever water can be had in sufficient quantities for irrigation purposes. Next to maize, which with beans and chilli forms the almost exclusive food of the Indians, the most important crop is probably sugar, of which over 60 million pounds are annually produced in the state of Morelos alone. Coffee is extensively cultivated on the lower slopes, and now exported in considerable quantities, especially to the United States. The tobacco and cotton crops are yearly increasing in importance, while from the maguery is extracted, besides pulque, a spirit called mezcal to the annual value of about £750,000. The aborigines are partly employed as free labourers on the plantations, and partly hold small plots liable to a light Government tax. The food crops thus raised were valued in 1873 at £14,500,000, the agricultural produce at £30,000,000, and the landed property at £85,000,000, but the last item was estimated by the minister of finance at fully three times that sum. The value of arable freehold land was stated in 1882 to be from £1 to £3 per acre, according to its proximity to or remoteness from rivers.

Of the industries strictly so called, those directly connected with agricultural interests have alone acquired any considerable development. Such are sugar refining, carried on a vast scale, especially in Morelos; brewing and distilling, chiefly from maguery; paper-making from various pulps and fibres; grist-mills and saw-mills, especially in Puebla, Querétaro, Guadalajara, and Saltillo. A few iron foundries have been at work for some years, and stout hand-woven cotton and woollen fabrics are produced in many of the large towns. The rebozos (shawls) of Leon and Salvatierra have a wide repute, while Texcoco and Puebla are noted for their porcelain and glass-ware. Among the petty industries are clay and rag figures, artificial flowers, wooden toys, and gold filigree work, in the production of which the natives often display remarkable taste and skill.

But all these manufactured wares are solely intended to supply the local wants, so that the exports have hitherto been restricted almost exclusively to the produce of the land and of the mines. Of the former the chief items are coffee, Sisal hemp, tobacco, hides, lumber, cochineal, indigo, and other dyes, sarsaparilla, vanilla, orchil, india-rubber. But the precious metals still continue to constitute fully two-thirds of all the exports, which in 1882 had a total estimated value of about £6,000,000. In the same year an

<sup>1</sup> A specimen of this curious creature, the only known venomous lizard (*Heloderma suspectum*), reached the London Zoological Gardens in 1882; its habitat is the north of Mexico, and New Mexico, Arizona, and Texas.

equal sum represented the imports, the leading items of which were cotton, linen, silk, and woollen goods, metals, hardware, machinery, and provisions. Although diplomatic and consular relations with Great Britain have been suspended since 1867, that country still continues to enjoy by far the largest share of the foreign trade, taking about £2,000,000 of the exports, and sending in return about two-thirds of all the imports, for 1882. Next in importance, in descending order, is the trade with the United States, France, Germany, Spain, and Columbia.

Probably four-fifths of the exchanges now pass through Vera Cruz which, since the opening of the railway to the Anahuac plateau, has become the natural out-port of the capital and all the central states. It is connected by several lines of ocean steamers with Liverpool, Southampton, St Nazaire, and the Atlantic States of North America. On the Pacific seaboard, where the trade is largely in German hands, Acapulco and the other ports also enjoy regular steam communication with San Francisco and Panama. No accurate returns are available of the shipping; but the yearly arrivals in all the Mexican ports are stated to average about five thousand,—not more than one-fifth under the national flag.

Till recently the means of internal locomotion were mainly limited to the wretched bridle-paths from the central plateau over mountains, the sierras and terrace-lands down to a few points on both coasts, and to twenty-four regular lines of diligences under one management. But since the completion of the line from Vera Cruz to the capital, with a branch to Puebla, the Mexican railway system has acquired a considerable development. The Inter-Oceanic line across the Tehuantepec isthmus is in progress; the Great Central Trunk line running northwards through Chihuahua will ere long effect a junction with the North-American net-work; and at the end of 1882 there had been opened to traffic altogether 2219 miles. For that year the number of passengers carried was 8,250,000, and of merchandise 273 million tons, with net earnings £940,000, or £800 per mile. Still more developed is the telegraph system, which is now extended to all the state capitals, and through the Mexico-Matamoros line to the United States and the rest of the world. The 8150 miles open in 1882 forwarded 750,000 messages, or in the proportion of 8 per 100 inhabitants.

For the same year the estimated revenue was £6,140,000, Finance. and expenditure £6,300,000. The foreign debt is stated to be £19,600,000, and the internal about £10,000,000, or altogether at the rate of £3 per head of the population. Most of the foreign debt is owned in England, but the British claims had long been practically repudiated by the Mexican Government. At the end of 1882, however, a semi-official suggestion was made that a settlement might be effected by Mexico paying 1 per cent. on the capital for the first ten years, 2 for the second, and 3 thereafter, the whole sum, amounting to £13,000,000, to be liquidated in fifty years.<sup>2</sup> The revenue is chiefly derived from the customs, and about £1,750,000 of the expenditure is absorbed by the army, the peace footing of which is 22,500 men of all arms. Beyond a few coastguard steamers maintained mainly for revenue purposes, there is no navy. An indication of financial improvement is afforded by the establishment in 1882 of the Mexican National Bank by a French company with a capital of £4,000,000. This bank is privileged to issue paper money up to £12,000,000, in return allowing the supreme executive to overdraw their account up to £2,000,000. A further symptom of revival is presented by the increasing business of the general post-office, which in 1880 forwarded 4,406,000 letters and packages through 873 offices.

Education also has made marked progress since the final separation of church and state in 1857. In that year the old university of Mexico, a purely ecclesiastical institution after the model of Salamanca and the Sorbonne, was abolished, or rather was replaced by special schools of law, medicine, letters, agriculture, mines, sciences, fine arts, and commerce, and a military college. These, as well as numerous lower schools, including two hundred in the capital alone, are all maintained by the state, while national schools are supported by public grants in all the large towns, and higher institutions in the capitals of the several states. There are in all nearly five thousand public schools, besides establishments for the deaf and dumb, the blind, and juvenile delinquents, and numerous charitable foundations maintained by voluntary contributions.

Roman Catholicism, which under the Spanish rule was alone tolerated, continued after the separation to be the state religion till 1857. Since then, while all churches enjoy equal protection, none are officially recognized. The great majority of the *Indios* *fideles*, mestizoes, and creoles still adhere at least outwardly to the Roman Church, which is administered by a hierarchy of three archbishops (Mexico, Morelia, and Guadalajara) and twelve bishops. But by the organic laws of 1856 and 1859 all ecclesiastical estates, at one time comprising over one-third of the soil, were nationalized,

<sup>2</sup> This advance towards a settlement was put forward in the *Tico Republic* of December 5, 1882, a Mexican journal which reflects the views of the Government on all matters of foreign policy.

the regular clergy suppressed, and their monasteries, together with all other superfluous ecclesiastical structures, appropriated by the state. During the last few years American Protestant missions have claimed some partial success, and the so-called "Church of Jesus," an undenominational body of a somewhat original type, has found a number of adherents, especially on the Anahuac table-land. But the *Indios bravos*, or uncivilized aborigines, everywhere follow the old spirit worship, while the Christianity of the Fideles is little more than a cloak for the continuous practice of the former Aztec heathenism. The pomp of the Roman ritual is supplemented by the feasts of the national worship, and the Pagan deities of the old cult are still represented by the saints of the Roman calendar.<sup>1</sup>

Mexico constitutes at present a confederation of states modelled on that of the North-American Union, and administered according to the constitution of 1857 as amended in 1873-74. By popular suffrage are chosen the president, the upper house (fifty-two members), and the supreme judiciary for four years, and the lower house (two hundred and twenty-seven members) for two years. The senate, abolished in 1853, was restored in 1874, and the chief justice is *ex officio* vice-president. The federal states, which are divided into a number of administrative districts, enjoy full autonomy in all local matters. The several constitutions are modelled on that of the central government, and like it comprise three departments—legislative, executive, and judicial. Each state is represented in the federal congress in the proportion of one member for every 80,000 inhabitants, and in the federal senate by two members elected by suffrage in the local congress. All external affairs and questions of general interest are reserved for the central government. The constitution as now established thus represents in theory the complete overthrow of mediævalism, and the absolute triumph of the new ideas which in the Old World are still in so many places struggling for the ascendancy.

It is this struggle between privilege and popular rights that lends its human interest to the otherwise monotonous record of unresisted oppression and apparently aimless revolutions which characterize the early and the later periods of Mexican history, from the overthrow of the native rule down to the present day. The early or colonial period covers exactly three hundred years,—from the death in 1521 of Guatemozin, last of the Aztec emperors, to the withdrawal of the last Spanish viceroy, Don Juan O'Donoju, in 1821. During these three centuries the attitude of the masses was one rather of sullen submission than of active resistance to grinding oppression. By the Spanish Government Mexico was looked on merely as a vast metalliferous region, to be jealously guarded against foreign intrusion and worked exclusively for the benefit of the crown. The natives were evangelized chiefly for the purpose of being employed as slaves above and below ground, and thus was introduced from the West Indies the system of *repartimientos*, or distribution of the aborigines on the plantations and in the mines. But, while this system proved fatal to the natives of Cuba and Hayti, where it had to be replaced by negro labour, the hardier populations of the Anahuac plateau successfully resisted its blighting influences. It proved in fact more disastrous to the oppressor than to the oppressed. In those days Spain was commonly compared to a sieve, never the richer for all the boundless wealth drawn from the New World. But the aborigines derived at least some advantage from contact and partial fusion

<sup>1</sup> On the general state of religion in Mexico Bates well remarks:—"The educated classes conform to the outward ceremonies and ordinances of the church, while inwardly believing little or nothing of its dogmas. The lower grades of society are, on the other hand, steeped in the most grovelling superstition, intensified by many traditional Indian reminiscences. This section of the community yields a blind obedience to the clergy, notwithstanding the severe laws with which the Government has endeavoured to counteract the influence of the priests. Even so recently as 1874 a genuine case of witch-burning occurred in Mexico."—*Central America*, p. 34.

with a people of superior culture. This fusion, which may be regarded as the chief outcome of the colonial administration, has contributed to the formation of the present exceedingly complex Mexican nationality, in which the Indian continues to be the predominating element. Taking the whole population at less than ten millions, its ethnical distribution appears to be at present as under:—

1. Full-blood Indians	5,000,000
2. Mestizoes (half-caste Indians and whites)	3,000,000
3. Creoles (whites of Spanish descent)	1,500,000
4. Gachupines <sup>2</sup> (Spaniards by birth)	50,000
5. Other Europeans and Americans	100,000
6. Full-blood negroes	10,000
7. Zambos or "Chinos" (Indo-Africans)	45,000
8. Mulattoes (Euro-Africans)	5,000

Under the Spanish administration, which was marked on the surface by few stirring events, such as warlike expeditions, civil strife, or serious internal troubles, Mexico, or New Spain, formed a viceroyalty at one time stretching from the isthmus of Panama to Vancouver's Island. Antonio de Mendoza, appointed in 1535 after government by *audiencias* had proved a signal failure, was the first of sixty-four viceroys who ruled with almost autocratic power, but scarcely any of whom has left a name in history. Don Juan de Acuña (1722-34) is mentioned as having been the only native American among them, and Don Juan V. G. Pacheco (1789-94) had at least the merit of betraying some regard for the social welfare of his subjects. Under him a regular police, the lighting and draining of towns, and other municipal improvements were introduced.

But down to the early years of the present century all emoluments in church and state, most of the large plantations, of the mines, and of the commerce of the country, continued to be monopolized by the privileged gachupines, whom the creoles and mestizoes had already begun to regard as aliens. Hence the first reactionary movements, stimulated by Napoleon's deposition of King Ferdinand and arrest of the viceroy Hurrigaray in 1808, were aimed rather against odious class distinctions and the intolerable oppression of these aliens than against the abstract rights of the Spanish crown. The long smouldering spirit of discontent at last broke into open revolt in 1810 at Guanajuato, under the leadership of Don Miguel Hidalgo. After his defeat and execution in 1811, the struggle was continued by Morelos, who, like Hidalgo, was a priest, and shared his fate in 1815. But he had already called a national assembly at Chilpanzincó, and by this body Mexican independence was for the first time proclaimed in 1813. A guerilla warfare kept the national spirit alive till a fresh stimulus was given to it by the Spanish revolution of 1820. Under the leadership of the "Liberator" Iturbide, Mexican independence was again proclaimed on February 24, 1821, and the same year the capital was surrendered by O'Donoju, the last of the viceroys. But even after the revolt had thus been crowned with success a change of *personnel* rather than of system was contemplated; nor was Iturbide proclaimed emperor until the Mexican crown had been declined by a royal prince of Spain.

Almost simultaneously with this event the republican standard had been raised by Santa Anna at Vera Cruz (December 1822). Thus the nation had no sooner got rid of foreign rule than it became torn by internal dissension. But henceforth the struggle is not so much against the privileged classes as between Conservative and Liberal principles,—the former represented chiefly by the church and the superstitious populace, the latter by the more enlightened but not less unscrupulous sections of the community. From both the *Indios Bravos*, that is, about a third of the whole population, hold entirely aloof, and take advantage of the public disorders to continue their aggres-

<sup>2</sup> From the Aztec *Gatzopin*, centaur; also known as *Chapetones*.