

Report of San Domingo Commission.

[Continued from inside of to-day's paper.]

sea, and character of soil present a variation of circumstances, adapting particular districts to many different classes of growths and branches of agricultural industry.

On the rich lowlands and valleys sugar-cane yields the most profitable returns. The extent and average richness of the tracts suited to this purpose are unsurpassed in the West Indies. The evidence shows that the average quality of soil in Santo Domingo, especially the plains of the Vega and portions of the country on the north shore, are better adapted to raising sugar cane than the sugar-growing districts of the adjacent islands. This is corroborated by the observation of the commissioners.

They and their agents inspected several of the principal sugar plantations in Jamaica. The production of these is very great where irrigation is practiced. In some cases it is said to exceed two tons per acre. But in many of the circumstances conducive to the most profitable manufacture, Jamaica is less favored than Santo Domingo. A much larger portion of the latter is naturally watered to a degree suitable for this and other agricultural purposes. In many parts of Santo Domingo the canes do not need replanting for many years. Fifteen successive annual cuttings from the original root are common, and upon the richest land excellent cane is found of much greater age. This is due partly to the greater frequency and abundance of rain resulting from the easterly or windward position of Santo Domingo, which gives it freer access to the trade winds than the islands further within the Gulf, and partly, also, to the rich vegetable mold which covers the surface of extensive plains and valleys—the result of centuries of forest growth and decay. The greater abundance of fuel would appear to give Santo Domingo an additional advantage over adjoining islands in this branch of industry.

The mountain regions are especially suited to the culture of coffee and cacao. The soil of the hills is usually rich; even where too steep and strong to be plowed, they can be cultivated with the hoe. The salubrity of the climate and the beauty of the scenery make them exceedingly attractive. To persons unaccustomed and accustomed to the northern temperature the mountain regions offer peculiar inducements. At present these high lands, which form more than one half the area of the island, are generally uninhabited, and almost unvisited by man. In Jamaica are many fine plantations of coffee in similar situations, at an altitude of 3,500 to 4,000 feet above the level of the sea. The culture of coffee and cacao requires much less labor and capital than that of sugar, and is peculiarly adapted to families of moderate means. The coffee tree begins to bear at the age of four years, and continues to yield an annual crop for more than fifty years. The cacao is equally productive and easy of culture. Native chocolate prepared from the cacao bean is of excellent quality and in general use. Both these trees have become thoroughly naturalized, and are found growing wild in the woods, and seem free from diseases and enemies.

There are a number of plants, varieties of the genus agave, which produce valuable fibres, already employed to some extent in Santo Domingo for domestic purposes. The "cabaña" is the most common; it grows wild in the driest and most arid districts. It is susceptible of easy cultivation. The Dominicans make it into ropes, halters, hammock fastenings, &c. By the rough process of extracting the fibre by hand, now used, it could not be profitably manufactured; but with suitable machinery it would form an important article of export.

The product of wax and honey is surprisingly large. In many places the rocks and hollow trees abound in bees. The honey is so cheap and plentiful that comparatively little of it is saved. Thousands of hives are destroyed for the sake of the wax alone. Wax candles are in general use among the poorest classes.

Wild ginger and indigo grow everywhere in profusion. The tree cotton grows even on the dry lands, and bears abundantly. The American cotton shrub is also raised successfully near Azua. Almost every tropical production would seem possible in a soil so rich and climate so genial.

At a still higher point upon these mountains, the culture of cinchona, or Peruvian bark, can be made a profitable branch of industry. This valuable plant requires an equable climate, free from excessive heat and frost. It has recently been introduced into the neighboring island of Jamaica, and flourishes at an elevation of from four thousand to six thousand feet. The stems of the trees, only four years old, are

already six inches in circumference, and they are about eleven feet in height. At the age of ten years they will have attained sufficient size to be cut down, and will spring up again from the roots without replanting. The British Government seem to have considered this production a matter of national importance, and have carefully fostered it. Upon these mountains many of the vegetables and fruits of the temperate zone can be successfully cultivated. Potatoes, cabbages, cauliflowers, celery, lettuce and radishes were seen in perfection. In Port-au-Prince peaches were found, raised on the neighboring mountains. Pine-apples grow luxuriantly in many parts of the island. In the valley of Cotacaza, southwest of Santiago, at an elevation of 4,000 feet, wheat has been raised.

As an evidence of the present undeveloped condition of Dominican agriculture, may be cited the fact that the commission, during their expeditions through the interior of the island, often met with beet sugar raised and refined in France, butter and cheese imported from Denmark, and milk condensed in the United States, but seldom with similar articles manufactured on the island. Even native indigo—a common weed by the roadside—is supplanted by an adulterated foreign article. So far as known, no agricultural implements of any value are used. Not even a plow was anywhere to be seen. The country is everywhere adapted to the culture of tobacco. Almost every garden contains enough for the use of the family, and it furnishes the principal article of export. There seems no reason why it should not equal the quality raised in Cuba, if equal skill and industry were applied. At present both are wanting. It is raised carelessly, cured imperfectly, packed roughly in casks of palm leaf and transported over mountains upon the backs of donkeys to the sea-board, where it is sold at about six cents per pound to foreign merchants, and exported principally to Germany.

Maize or Indian corn is raised easily, but is of inferior quality, and does not flourish as in the United States. Three crops a year can be raised. The summer crop is said to be the best in quality. Only the winter crop was seen. The most valuable native grain is a species of rice, which grows upon the uplands. It is darker and smaller than the rice of commerce, but of excellent quality, and it enters largely into the food of the inhabitants.

Tropical fruits are numerous and excellent. More than forty distinct species have been found growing wild. Oranges, bananas, limes, citrons, pine-apples, mangoes, tamarinds, guavas, melons, bread-fruit, &c., abound. With cheap and rapid communication, the markets of the United States could be supplied with these more perishable fruits in great quantities and at very low prices. At present they are unsaleable.

Vegetables of many varieties are found at all seasons in the markets of the principal cities of Santo Domingo. They are tomatoes, sweet potatoes, corn, peas, beans, squashes, egg-plants, peppers, &c.; also, yams, cassava, plantains, and many other products unknown in the north.

Santo Domingo has always been noted for the comparative variety and abundance of its grasses, which adds greatly to its agricultural capabilities. The "grama," as it is commonly called, a broad leaved grass which takes root at every joint, grows abundantly and becomes thicker in proportion as it is cropped. A still more valuable grass, called "grama del pais," or grass of the country, furnishes forage. The guinea grass, which has proved so precious in Jamaica, does well. The prairie grass of the savannas is said not to bear close cropping, but gives place to others. To the abundance of these grasses is owing the pre-eminence of Santo Domingo over the adjacent islands in the raising of cattle. For centuries the neighboring agricultural colonies have depended upon the Spanish portion of this island for their supplies of horses, cattle and hogs.

The vast savannas called Llanos on the eastern end of the island are intersected in all directions by belts of timber with a luxuriant undergrowth. Traveling over these savannas at mid-day, the commission found what seemed to be a solitary prairie, with no signs of human habitation or animal life; but as the sun declined, there came out from the groves on all sides thousands of cattle, spreading themselves over the plain. These cattle are in size a little less than a good grade in our own country. They are mostly of a tawny or Alderney color, well made up, and long-horned. As their food is perennial, and as they require no shelter in winter, the chief business of the herdsman is to brand and to count them. They can be bought for about a cent a pound on hoof. Vast as are the herds on the eastern Llanos, they do not excel in number or quality those in other

parts of the island. But were they multiplied tenfold, they could not exhaust the abundant pasturage. In the more arid districts goats abound, and in the forests swine thrive in great numbers. Sheep are now very few. Poultry is plentiful. Flocks of wild guinea fowls may be seen in many parts of the island.

For traveling and transportation, horses are generally used. They are raised in great numbers. They are smaller than those common in our own country, but are strong and docile, of great endurance, and thrive upon a scanty subsistence. The great drawback to stock-raising has arisen from marauding expeditions during various insurrections and revolutions. Only the frequency of these has prevented an immense development of this branch of national wealth.

One of the most remarkable agricultural features of Santo Domingo is the diversity of natural growths in different localities. This arises from differences of soil, humidity and temperature. The landscapes of Maine and Louisiana scarcely differ more widely to the eye than do the lower portions of the adjacent valleys of the Yuma and Yaqui, flowing respectively into the bays of Samana and Manzanillo between the same ranges of mountains. The palms and plantains of the one bear little resemblance to the cactus and acacias of the other. The high mountain slopes and plateaus of the interior differ equally from both of these, and have a flora of their own. It is safe to predict that when culture and civilization have developed the various capabilities of each, these contrasts of climate and productions will be still more pronounced. This diversity will give rise to an active internal commerce, and will prove beneficial to the health of the inhabitants. The commissioners expected to find abundance of those insect and reptile pests which constitute such a serious drawback to comfort in most tropical countries; but they were agreeably disappointed. Snakes seemed to be about as common as in the interior of our old States, but no venomous ones were heard of. Scorpions and tarantulas are found, but they are not common, and the effects of their bite are seldom serious. The testimony of the heads of a thrifty New England family, who had resided in the neighborhood of Samana bay nearly two years, was to the effect that there was as little difficulty in keeping a house clear from troublesome insects as in our Northern States.

PRODUCTS OF THE FORESTS.

The most striking characteristics of Santo Domingo, at first sight, is the wonderful luxuriance of its forests. In many parts, and especially in the neighborhood of Samana bay, although there are abrupt ridges, perpendicular cliffs and bold headlands, no bare rocks can be seen. All are hidden by a mass of strong vegetation. But on close observation another and not less striking characteristic is revealed—an astonishing variety in forest products. The cause of this variety is to be found, doubtless, in the great difference in elevation of the surface, exposure, and character of soil. Near the coast various species of palm are abundant and very valuable in constructing such houses as have been generally found best suited to the climate.

On the mountain slopes, at different heights, grow in abundance both the choice cabinet woods, as mahogany, satin-wood, &c., and a great variety of timber, especially valuable in house building and ship building. The noble or Dominican oak and a hard pitch-pine were found in abundance in various parts of the country. In the more dry districts flourish several valuable woods, the best known of which, perhaps, is the leguminiferous, of which the quantity is very great. There is also an apparently inexhaustible supply of the most valuable woods which enter manufactures, or which have medical value, as logwood, fustic, aloes, &c. Great as are the quantities of the woods that have been already cut, there remains an abundance. The mahogany trees have been cut off to some extent along the coast and the neighboring streams where they were accessible; but in the interior, where the simple methods of transportation in use were insufficient, wide forests still untouched await the construction of roads to render them available. In various places the commissioners saw houses constructed chiefly of mahogany. The want of roads has prevented any approach to an exhaustion of the products of the forest. A striking proof of this was noted by those who crossed the island. Within thirty miles of the principal northern seaport were frequently seen large logs of mahogany of the best qualities, evidently left to decay by the roadside for lack of means of transportation. The main transportation of these woods noted in these expeditions was by means of panniers slung upon the backs of horses and mules. Hence only small

pieces could be brought out. Notwithstanding the abundance of valuable timber, no saw-mill was found in the country. The details of forest products and botanical distribution will be found in the special accompanying reports.

FISHERIES.

The fisheries, once flourishing, have, during these latter years, fallen into neglect. At an earlier period in the history of the island more attention was paid to the marine resources, and the tunny fishery was carried on around all the shores of the island, supplying the home want for salt fish and allowing an export to the other colonies. This fishing is now discontinued, although great schools of fish are still abundant on the Southern shore. The efforts of fishermen are confined to meagly supplying the markets of the seaports, and their produce is brought in on two days in the week, although both the surrounding seas and the rivers of the island are well stocked with fishes of many kinds. The black-fish or grampus—a small member of the whale family—is somewhat abundant on the northern shore, where several scores are caught every year, and their blubber fried down for oil. The turtle, both the green edible species and the hawk's bill, whose chief commercial value is in its shell, are abundant in the deep sea a few miles from the land, quite around the island. Both are caught in moderate quantities. Several varieties of shell fish are brought into market in limited amount. A small oyster is very abundant in certain localities, growing attached to the mangrove bushes. They are eaten by the natives, but are not so palatable as the oyster of more northern latitudes. While an enumeration of the sea and river animals of the island, known to naturalists, would show a large number of kinds of great importance for food, little can be told of their distribution or abundance. The prostrate condition of industry is as marked in the neglect of the fisheries as in the decay of agriculture.

CLIMATE AND HEALTH.

The testimony of witnesses, the observation of the commissioners, and the report of special investigations show that it is generally a healthy country. Immigrants easily become accustomed to the climate. On the coast, where the hot weather prevails, care must be taken. Individuals from the Northern States now residing on the coast, and engaged in cultivating plantations there, say they can labor with their own hands, and that white men may work there under certain regulations as safely as in the United States. The interior of the island consists chiefly of elevated lands. The mountain slopes and valleys overlooked or surrounded by lofty ridges, are comparatively cool and are favorable to northern constitutions. Within a few hours ride inland farms were visited where the temperature, cooled by the neighboring peaks, was bracing, and in the fields could be seen growing cabbages and bananas, potatoes and plantains, Indian corn, and sugar cane, &c. Effective labor can be prosecuted by white men in such regions and general good health maintained. The process of acclimation to strangers coming in was so slight as to be scarcely an inconvenience. It may be said, generally, that this process presents no greater obstacle to immigration than does the similar process in several of our new States.

The physical configuration of the island is such that a decided difference exists between its eastern and western ends in regard to health. In the eastern or windward portion of the island, occupied by the Dominican Republic, the principal mountain chains run in lines approaching an east and west direction. The valleys of them are therefore swept, during the greater portion of the year, by the trade winds, which in that latitude come from directions east and northeast. These valleys are thus constantly supplied with pure air from the sea, and malarious influences are rapidly dissipated. On the other hand, the west end of the island, occupied by Hayti, is walled in on its eastern or leeward side by chains of high mountains running in irregular curves from north to south. It would appear that these act to some extent, as barriers to the trade winds, and to this fact coupled with the influence of neighboring marshes and mangrove swamps, it is due in great measure, that Port-au-Prince and the country around it have so bad a reputation in regard to health.

As to the large towns there can be no doubt that the want at present of any practical application of sanitary knowledge causes them to rank far lower in regard to health than they otherwise would. Among the leading historical events connected with the islands of Hayti and San Domingo, which have stamped themselves upon the public mind, are the dreadful epidemics, principally yellow fever, which ravished the English, the French, and the Spanish armies successively landed upon the coast. The victims were Europeans, and their sad fate interested millions, so that in the public mind Santa Domingo and yellow fever became almost synonymous. It is a matter of history that the most fatal of these, that of the French, at the beginning of the century, conducted its operations mainly in the Haytian part of the island. The English expedition to Santa Domingo, which is sometimes referred to, so far as can be ascertained was not attended by any greater