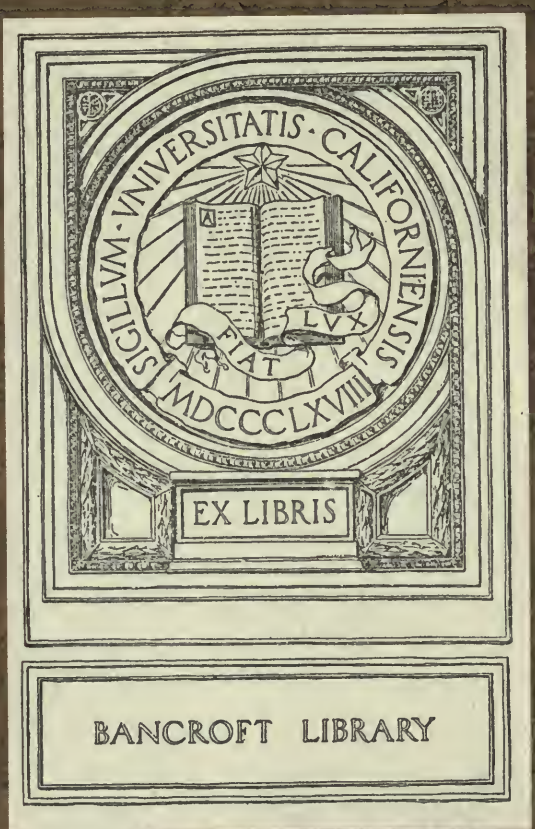

VENEZUELA

AGRICULTURAL, FOREST, MINING, AND PASTORAL ZONES
NATURAL WEALTH, ACTUAL DEVELOPMENT
VENEZUELAN CURRENCY AND MONETARY SYSTEM
MANUFACTURING AND OTHER INDUSTRIES
PROSPECTS OF IMMEDIATE GROWTH
MEANS TO ATTAIN IT
ECONOMIC CONDITIONS OF VENEZUELA.

BY
N. VELOZ GOITICOA,
VENEZUELAN DIPLOMAT,
Charter Member of the Venezuelan Society of International Law,
Charter Member of the International High Commission
(Venezuelan Section),
Member of the American Academy of Political and Social Science
(Philadelphia),
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etc., etc.

OFFICIALLY EDITED
BY
THE DEPARTMENT OF FOMENTO
OF
VENEZUELA

ENGLISH TEXT

1919.

PRICE Bs. 3.50

CARACAS
TIPOGRAFIA CENTRAL

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TIPOGRAFIA CENTRAL

UNITED STATES OF VENEZUELA

Department of Fomento,—Section on Public Land, Industries and Commerce.—Caracas, October 15, 1919.—110 th. and 61 st.

RESOLVED:

The present edition of the work of citizen Nicholas Veloz-Goiticoa, entitled "VENEZUELA 1919, the ownership of which work has been acquired by the National Government and made by direction of the Provisional President of the Republic, consists of two thousand copies, in size 16: one thousand in the Spanish and one thousand n the English language, printed at the «TIPOGRAFIA CENTRAL», and its sale price is three and one half bolivares (Bs. 3.50) per copy.

For the Federal Executive.

G. TORRES.

CONTENTS

ERRATA

PAGE	LINE	READS	SHOULD READ
7	22	in	into
12	5	anual	annual
12	15	of	for
16	5	6	10
16	5	1,2000,000.	2 million
17	29	coton	cotton
19	13	in	on
20	20	bing	being
22	8	sugar	sugar cane
24	25	in	to
24	33	en	in
26	33	tan	than
27	24	a	as
29	28	tho	to
29	31	29	24
29	34	73	78
30	14	lead	of lead
31	29	Departament	Department
32	6	Departament	Department
32	12	Departament	Department
32	27	In pursuance to	Pursuant to
32	28	Departament	Department
37	7	course	coarse
40	.23	due to	due to the
40	29	most	the most
41	11	in	into
41	29	in	to
44	9	ahows	shows
45	1	in	of
48	17	are	have been
49	24	is	is there
52	27	bolivates	bolivares
65	7	cerdit	credit

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AGRICULTURAL ZONE

The Agricultural Zone of Venezuela, according to recent statistics, covers in round numbers an area of 300,000. square kilometers, extending from the Atlantic Ocean to Colombia and embracing the territory between the Caribbean seacoast and the plains of the Orinoco, towards the south of the Republic.

The fertility of the soil; its perfect adaptability to the growth and maturity of everything that is essential to the existence of man and beast; the mild climate, with different temperatures according to the elevation of the locality above the sea level, and its geographical position,—all these favorable conditions designate Venezuela as one of the most attractive and advantageous regions for agricultural pursuits.

Twenty per cent of the population of Venezuela is engaged in agricultural work. This pro-

portion, however, is not sufficient for an extensive development of the natural resources of this vast zone, due to the fact that a population one hundred fold greater could derive a comfortable subsistence from the agricultural region in question.

Therefore, with an increase in population, with greater transportation facilities, the introduction of new methods of cultivation and more general application of modern machinery and implements, this region, covering such a great number of square kilometers of Venezuelan territory, will then become one of the most prosperous, richest and most accessible agricultural fields of the world.

The principal agricultural products of Venezuela are coffee, cacao, sugar, tobacco, India rubber, tonka beans, cotton, corn, vanilla, wheat, etc. The vegetable seeds consist of wetches, bene seed, pease, beans, peanuts, okra and many others. The chief vegetable plants are cabbage, cauliflower, melons, asparagus, turnips, radishes, beets, egg plants, garlic, pepper, celery, carrots, cresses, onions, spinach, lettuce, artichokes, etc.

The fruits of Venezuela, many of which are of considerable size and delicate flavor, include oranges, large sweet lemons, limes, plantains, pineapples pomegranates, figs, grapes, strawberries, plums, breadfruit, chestnuts, mangoes, mameyes. zapotes, parchas, medlars, tamarinds, cactus fruit, mandarines and a great variety of bananas of a better quality than those exported in large quantities from Central America; nevertheless the vast region available for the raising of bananas in Venezuela has not been used, as the sum invested now in their cultivation amounts only to half a million bolivares ($ 100,000. American Gold).

COFFEE

The cultivation of Coffee in Venezuela began in the year 1784. The first seeds were brought from Martinique by the priest Mohedano, who founded the first coffee plantation in Blandin (neighborhood of Caracas). The number of coffee trees existing in Venezuela, according to the opinion of experts on the subject, may be approximately reckoned at 260 million trees.

Recent statistics place Venezuela in the second rank among coffee growing countries. Coffee is produced in its regions of temperate climate, from five hundred to two thousand meters above the sea level, and it is estimated that a coffee tree lasts fifty years in good condition, yielding at each crop an average of one eighth of a kilogram of coffee beans per coffee tree. Everything pertaining to the cultivation of coffee trees is extensively discussed by the great Venezuelan specialist on coffee, Don Federico de la Madriz, in his work on the subject.

In the cultivation of coffee trees in Venezuela it is estimated that more than Bs. 80 millions ($ 16 millions Am. Gold) are invested.

CACAO

The natural product (*Theobroma edendo*) meaning «Edible Food of the Gods», is a seed from a tree indigenous to the soil of Venezuela, which possesses one of the choicest cacao zones of the world. With this seed the chocolate of commerce is made. The cacao tree requires for full development and remunerative crops a temperature of 80º F. (27 degrees Centigrade). Besides these conditions cacao needs a moist air, therefore the Venezuelan lands along the Caribbean coast, sloping from the mountain tops to the shore,

which are bedewed by the exhalations of the sea and irrigated by the numerous rivers and rivulets coursing down the valleys, are found to be well adapted in all respects to the profitable cultivation of cacao. However, this natural product is likewise found and cultivated in other parts of Venezuela.

As the cacao yielding region in the world is comparatively restricted, the planters of this staple need not fear the steady competition which has been met in the cultivation of other staple products.

About 200 trees may be planted in one hectare. They must be protected from the sun by shade trees until they have acquired normal size. Five years after having been planted, the trees begin to bear two crops a year, ripening in June and December. Generally all trees produce throughout the year, but in a small quantity. The average life of a tree is about forty years. During this time the crops will yield from 550 to 675 kilograms per hectare. The seed is similar in appearance to a shelled almond. About 16 of these seeds are inclosed in an elongated pod ribbed like the muskmelon. The pods are of a yellow and red color and when they become ripe turn purple. When they are gathered and heaped in piles on the ground, after a few days they ferment and burst, and the seeds are shelled, washed out and housed.

Two grades of cacao are grown in Venezuela, namely the *criollo*, which is the native cacao, and the *trinitario*, which was originally imported from the Island of Trinidad. The *criollo* grows well in the valleys situated near the sea, where the temperature is warm and moist, This kind of cacao is of a very high grade. The *Chuao Plantation*

produces a still finer grade of cacao, which on account of its sweetness and other qualities always comands an exceptionally high market price. It is exported principally to France.

The demand for cacao in Europe before the war, which has now come to an end, was regular and very large. Cacao is mostly used in the form of chocolate in Spain and Italy. In France, England and the former German Confederation it is chiefly employed in the manufacture of sweets and confections, and its use is becoming so varied and large that it will soon be a staple article of consumption, as universally needed as coffee or tea. Venezuelan cacao also finds a ready market in the United States, where it is known, like coffee, by the names of Caracas and Maracaibo Cacao.

In the cultivation of cacao more than Bs. 62 millions ($ 12,400,000. Am. Gold) are invested in Venezuela.

TOBACCO

Tobacco, discovered by the Spaniards in Yucatan, was introduced from there in the West Indies and then planted in Venezuela, where it is most successfully cultivated in Capadare, Yaritagua, Merida, Cumanacoa, Guanape, Guaribe and Barinas. Excellent tobacco is also grown near Cumana, that from Guacharo being considered exceptionally good. In Maturin and Barinas, likewise in the vicinity of the Federal District and Quebrada Seca, State of Aragua, also in Guacara and near Valencia, State of Carabobo, a great quantity of excellent tobacco is grown.

The plant thrives best in humid and fertile soil. The cultivation of tobacco requires about

six months in Venezuela before it is ready for the market, and while the cost of cultivation is not large, great care is required.

Some tobacco is exported from Venezuela, chiefly to Havana, where it is mixed in the manufacture of Havana cigarettes.

The principal classes of tobacco grown in Venezuela are distinguished according to the regions where they are produced. These regions are: Maturin, Capadare, Salon, Golfero, Guaribe, Cocorote, Cumana, Quebrada Seca and Guacharo.

There are other classes of lesser importance such as Urachiche, Guanape, Orituco, Paya and Tovar, which on account of being similar to some of those already mentioned, need not be especially classified.

Maturin.—This class of tobacco is the one which is mostly produced in Venezuela. In this region (Maturin) and in that of Barinas, the cultivation of tobacco was started during the Spanish rule. For several reasons the cultivation of tobacco has steadily declined in Barinas while in Maturin it has considerably increased. Tobacco from Maturin is mostly used to manufacture Venezuelan cigarettes and is the better known class in foreign markets, where some time ago it could easily be sold.

The persons who gather the Venezuelan tobacco crops, class this tobacco as Principal or Covering, Half-tree and Sprouts, and pack each class separately in banana leaves bound with agave cord.

Each package weighs from 25 to 35 kilograms.

This class of tobacco has:

1st.—Leaves which are light in relation to their bulk;

2nd.—Medium strength, agreeable aroma and

3rdly.—Keeps in good condition for a maximum of two years and then begins to rot and completely loses its strength.

Capadare.—This class of tobacco is better than that from Maturin. It maintains its strength and does not rot until three or more years after it has been gathered. It has a very good taste, especially so the kind called. «*Mirimire*» (from a certain locality) which has a really superior aroma. Its weight, as compared with its bulk, is greater than that of the Maturin tobacco and does not burn so fast as the latter.

The gatherers classify the Capadare tobacco in class one and class two, and pack them apart in yute packages weighing about 46 kilograms.

Salon.—This kind of tobacco has an exquisite aroma, very fine leaves, which are mostly used as the outer leaf of fine cigars. This tobacco burns well, is light in relation to its bulk and is classed by the gatherers as Cover, Inner–cover and Core. These clases are packed apart in yute cloth and the packages weigh about 40 kilograms each.

Golfero.—This region (on the shores of the Gulf of Cariaco) has but recently been planted with Havana–tobacco seeds and has begun to produce a superior quality. It has strength, aroma of an exquisite flavor and burns very well, and is light as compared with its bulk. It lasts two years without rotting. It is packed in banana leaves, in packages weighing from 20 to 35 kil-

ograms. It is subdivided as follows: Principal, Half-tree and Sprouts. This tobacco has considerable demand from the cigarette manufacturers because of its steady strength and agreeable aroma, and, besides, due to the fact that it is bulky in comparison with its weight.

Guaribe.—This tobacco is pretty strong, heavy in relation to its volume and of agreeable taste and aroma. It is not much used to make cigarettes, but only in small quantities, in order to maintain their stength for some time. As a general rule this tobacco does not burn well. It is divided in three classes: Principal, Half-tree and Sprouts, and separately packed in yute packages weighing about 40 kilograms each.

Cocorote.—This class of tobacco has a delicate leaf, is light in weight, has considerable stength and a good taste. It is mostly used to manufacture cigars and burns well. It is packed in an agave covering, in packages weighing about 40 kilograms. It is classified in three denominations, to wit: Cover, Inner Cover and Core. It begins to rot two years after having been gathered.

Cumana.—This kind of tobacco may be considered as a subdivision of the golfero class and has its same conditions as hereinbefore mentioned.

Quebrada Seca.—This class of tobacco has little weight and strength. It is scarcely used in the manufacture of cigarettes, due to its somewhat disagreeable taste. It is used to manufacture common cigars.

Guacharo.—It is produced near the Golfo de Cariaco region, precisely around the Guacharo Caves. The soil there is formed by several bat-manure strata. Due to this fact, this kind of tobacco has an exceptional and superior strength, has a

better taste and a finer aroma than any kind of tobacco grown not only in Venezuela, but in any place in the world where tobacco is cultivated.

The leaf is small and delicate and there is great demand for it from cigar manufacturers, to add a small quantity of this tobacco to impart to the best class of cigars an exceptionally fine flavor. Cigarette manufacturers cannot make use of it because the quantity produced is too small. The whole crop of Guacharo tobacco is packed without being classified in 20 kilogram-packages, wrapped up in banana leaves covered with yute cloth.

PRODUCTION

The annual production of the different above mentioned classes of tobacco varies a great deal according to the conditions of the season and the demand of the producct.

The data in regard to production of Venezuelan tobacco given below are approximate and comprise in the last five years (1914 to 1919) the average output which amounts to more than three thousand tons from the following regions:

Maturin.—1,000. tons of Principal, Half-tree and Core in the following proportion: Principal 20 p %, Half-tree 30 p %, Core 50 p %.

Capadare.—700 tons. First quality 40 p %, Second quality 60 p %.

Salon.—250 tons: Outer leaf 20 p %, Inner leaf 30 p %, Core 50 p %.

Golfero.—700 tons: Principal 20 p %, Half-tree 30 p %, Core 50 p %.

Guaribe.—100 tons: Equal proportion of the three classes.

Cocorote.—300 tons: Principal 20 p %, Half-tree 30 p %, Core 50 p %.

Cumana.—This class is included in the Golfero.

Quebrada Seca.—25 tons: Equal proportion of the 3 classes.

Guacharo.—2 tons: One sole class.

Therefore the anual production of tobacco in Venezuela is now of 3,077. tons.

The classes of lesser importance, such as Urachiche and Guanape, are comprised in the respective amounts of Cocorote and Guaribe. Those of Orinoco, Paya and Tovar, due to the small amount of production, are not taken into consideration.

The average production above referred to is liable to increase in a considerable manner provided the demand of the article should so require it, because soil fit for tobacco cultivation and labor are plentiful.

PRICES

Admitting as standard the price obtained during the last five years (1914 to 1919) for each of the different classes taken into consideration, the corresponding price of each is as follows:

Maturin.....	Principal.....	Bs.	1.75	per kilogram
	Half-tree.....	«	1.30	«
	Core.....	«	1.09	«
Capadare.....	First class.....	«	2.60	«
	Second.....	«	1.09	«
Salon.....	Principal.....	«	2.80	«
	Inner leaf.....	«	1.75	«
	Core.....	«	1.30	«
Golfero.....	Principal.....	«	2.00	«
	Half-tree.....	«	1.30	«
	Core.....	«	1.09	«
Guaribe.....	Principal.....	«	1.75	«
	Half--tree.	«	1.30	«
	Core.....	«	1.09	«

Cocorote.....	Outer leaf.....	Bs.	2.80	per kilogram
	Inner leaf.....	«	1.75	«
	Core.....	«	1.30	«
Quebrada Seca...	Principal.....	«	1.75	«
	Hal-tree.....	«	1.30	«
	Core.....	«	1.09	«
Guacharo.....	Up to.....	«	8.00	«

The above mentioned prices are merely based upon national consumption and it is logical to suppose that the latter will considerably increase when tobacco shall be exported upon a larger scale from Venezuela.

The total value of tobacco exported from Venezuela in 1917 amounted to more than Bs. 237,000. and in 1918 said exportation was of more than four million bolivares ($ 800,000. Am. gold).

The total amount of capital invested in Venezuela in the cultivation of the tobacco plant to-day is estimated by experts at ten million bolivares ($ 2.000,000. Am. gold).

INDIA RUBBER

The technical name of the India rubber tree is according to Linnaeus, *jathropa elastica:* Person calls it *siphonia elastica;* Screber, *siphonia cahucha;* Aublet, *hebea guianensis*, and Codazzi *goma elastica.* Rubber is called *caucho* or *goma elastica* in Venezuela.

Rubber was discovered in French Guiana in 1758. According to Buscaloni, Ackerman and Brown, who have made a special study of the cultivation of the rubber tree, the varieties of *hevea* produced in Venezuela, in the upper Orinoco, the Rio Negro and the rivers Cassiquiare and Siapa, are of the same quality as those found in the region of the Amazon river and the latter's

affluents. The rubber which is produced in the Orinoco, Cassiquiare and Rio Negro sections of Venezuela, comes from forests of *heveas* which belong to the family of the *euforbiaceas*. Other gutiferous trees of the same family are indigenous to Venezuela but their sap is less elastic and much thicker.

Besides the rubber forests existing, in the above mentioned region, which covers an area of many million hectares, the rubber tree is indigenous to and is found in plentiful quantities throughout the Guiana section and the Andes range, and in some States of the East, West and South of the Venezuelan territory.

In «El Caucho en Venezuela», 1913, by Tavero Acosta and other publications on the subject, the cultivation of rubber trees, the smoking and coagulation of the juice, and other data regarding this industry in Venezuela are discussed at length.

In 1837 the rubber tree was known in the Venezuelan section of Rio Negro. In 1860 a French merchant settled first at Solano and later in other places of the Cassiquiare, where the rubber forests are thickest. More than twenty tribes of Indians inhabiting the Amazon territory of Venezuela gather rubber and prepare it, as a general rule, in a primitive manner.

In the Orinoco region the *hevea* tree produces from 40 to 50 grams of juice; in that of the Rio Negro from 80 to 100 grams and in that of the Cassiquare from 125 to 150 grams per tree.

In December and January 200 trees produce 12 to 14 kilograms of juice, which represent 6 to 7 kilograms of rubber. In April the juice contains more water and yields but 4 to 5 kilograms of rubber.

In the Cassiquiare and Rio Negro regions, in December and January, the yield of 200 *hevea* trees reaches from 13 to 15 kilograms of juice or 6 to 7 kilograms of rubber, as a general rule.

The crop of 1901 in the Amazon territory of Venezuela (gathered in three to four months) produced 135,000. kilograms of rubber, and that of 1902 (gathered in two months) 101,287. kilograms. The rubber crop in the Yuruary territory for 1901 amounted to 1,840,000. kilograms. However the aggregate rubber crop of Venezuela must have been much larger, due to the fact that this product, as well as many others of the country, which are gathered within the vast territory bordering on Brazil, are exported through the Brazilian port of Para and reach American and European markets as of Brazilian origin.

Rubber trees are cultivated with good results although not to a great extent in many places situated near Ocumare and yield an average of 95 % of pure rubber, each tree producing about 460 grams of juice.

The exploitation of rubber in Venezuela may be considered to be restricted merely to the gathering of the natural product on a very small scale, as the many million hectares which produce rubber, in the above mentioned region of Venezuela, would require several million people to exploit it.

Therefore the investment of capital on a large scale is required to develop this important industry. Labor from abroad, of the proper kind and in sufficient number, must be induced to come to Venezuela, in order to exploit this immense natural resource, now scarcely touched. It has a great demand abroad, and would increase in a

considerable manner the revenue of the country. At the same time it would be a profitable investment for capitalists, if undertaken in a systematic and technical way.

More than Bs. 6 million ($ 1,200,000. Am. gold) are invested in Venezuela in the rubber industry.

WHEAT

This product (*triticum vulgare*) was introduced into Venezuela by the Spaniards at the beginning of the conquest and was cultivated in Aragua, Barquisimeto, Trujillo, Merida and the Tachira. The high table lands and valleys in the mountainous regions of Western Venezuela are available for the cultivation of wheat and fine crops are raised now of this grain, which, after being made into bread, is the chief breadstuff of all the classes of the country.

In the neighboring Republic of Colombia wheat is cultivated on a large scale with good results both in the cold, temperate and hot zones. Venezuela has similar zones, therefore sowing the proper kind of grain in each zone, as practiced in Colombia, and adopting the same or similar systems of cultivation as are used there, wheat could easily be raised here not only for home consumption, but for export in great quantity. This would be a source of revenue for Venezuela and a profitable investment for capital if carried on in a systematic manner, and would develop a home industry barely exploited now, due to lack of system, labor and capital. Therefore with improved methods, implements and machinery for wheat farming, and greater transportation facilities to the seaboard, this industry in Venezuela could, in the near future, become one of its staple exports because under all condi-

tions it has always a ready market in foreign countries.

COTTON

Cotton, although a natural product of Venezuela, was not cutivated until 1782. Its output became important during the Civil War of the United States (1861 to 1865), but ater that event and the subsequent great decline in the prices of this staple product, the industry was gradually abandoned.

The cotton tree attains the heigth of a shrub and under the usual cultivation produces in Venezuela more than in the United States.

At the beginning of 1800 the average exportation of cotton was of 450,000. kilograms a year.

In 1850 the exports of cotton were of K. 300,000. and in 1888 of K. 57,000.

According to the Statistical Year Book of Venezuela 267,300. kilograms of cotton with a commercial value of Bs. 280,600. were exported in 1913.

Cotton grows in nearly the whole territory of Venezuela but where the best results have been obtained are in the States of Aragua and Carabobo, which States produce 54 per cent of the total production of cotton in Venezuela.

The farmers sow cotton at the same time as corn or beans, during the month of July and the crop of coton begins to be gathered at the end of the month of November or the beginning of December. This depends upon the time that rains permit the sowing.

The crops of corn or beans, etc, pay the expense of the whole cultivation of the cotton and the only outlay in the raising of cotton is the gathering.

At present it is estimated that the production of cotton in Venezuela, in normal times, excepting droughts, locusts, etc, amounts to seven million kilograms *in the seed.*

Two and three quarters quintals (of 46 kilograms) are required to obtain one quintal of cotton without seeds. This represents an average of 28.5 p % of the cotton in the seed.

Therefore 28.5 p % of 7,000,000. kilograms of cotton in the seed gives 1,995,000. kilograms of seeded cotton.

The cotton seeds which were sown in the month of June 1918 began to give a crop in the month of December of the same year, and the gathering of said crop ended in the month of March 1919.

It has been estimated that this crop produced a total of 7 million kilograms of cotton in the seed or 1,995,000. kilograms of seeded coton, grown in the following States of the Venezuelan Federal Union; viz:

States of Aragua and Carabobo produced	54 p %	K.	1,077,300
" " Lara and Portuguesa "	14 p %	"	279,300
State " Zulia "	18 p %	"	359,100
Eastern States of Venezuela "	14 p %	"	279,300
Total production of cotton...		K.	1,995,000

The price of cotton in Venezuela during the last eight years (1911 to 1919) has fluctuated between Bs. 70 and Bs. 150. per 46 kilograms.

The last price of Bs. 150 per 46 kilograms, was the one paid at the end of the 1919 crop due to the high price that cotton has in the United States, which is the country producing the greatest amount of cotton in the world.

As Venezuela produced in 1919 a total of 1,995,000. kilograms of cotton which were sold at an average of Bs. 3.25. per kilogram, the total value of the Venezuelan cotton crop amounted to Bs. 6,483,750. ($1,296,750. Am. gold.)

The price of cotton in the United States has never been higher than $ 14 per 46 kilograms, but due to the European war, its quotations to-day are from 34 to 38 dollars per 46 kilograms.

Venezuelan cotton, is classified as cotton Number 2. Egypt produces cotton Number one.

However, due to the difference in seeds, soil, cultivation in a small scale, etc., Venezuelan cotton is mixed in such a manner, that a standard quality of uniform length of fibre is not obtainable in a given lot of cotton from Venezuela. For this reason the price of Venezuelan cotton is always somewhat less than that of the medium class cotton from the United States.

The State of Zulia produces the best quality of Venezuelan cotton, due to the length of its fibre and because it is more advantageous when manufactured, but as the cloth industry in Venezuela is not intensive enough to warrant, the classification of fibres, this advantage is unavailable in the aggregate cotton trade of Venezuela.

The cotton plant gives but one crop a year and requires to be replanted every year.

In the cultivation of cotton a capital of more than one million bolivares ($ 200.000. Am. gold) is invested in Venezuela.

TONKA BEANS

The almond of the sarrapia (*dipterix odorata*) is exported from Venezuela on a large scale. This almond has the shape of a large black almond and gives out a delicious perfume. When it is dry its peculiar perfume develops still more and is used as an odorous basis to make high grade perfumes, and to flavor tobacco. Being a native product it is not cultivated, as a general rule, but gathered in the *sarrapiales* or tonka forests existing in the Amazon territory and District of Cedeño in the Venezuelan Guiana. Tonka beans are a staple of great value of the regions watered by the Orinoco river and its affluents, and almost the entire crop of Venezuelan *sarrapia* is exported by way of Ciudad Bolivar.

The process formerly in use brought about the destruction of the trees, but the Venezuelan Government has taken the necessary measures to prevent the trees bing felled, as formerly done. Therefore the large *sarrapiales* still in existence are now perfectly protected.

The few concessions which have been granted for the cultivation of tonka trees, are located in public lands of the Caura district.

According to official data published in the Statistical Yearbook of Venezuela for 1913, in that year Venezuela exported more than half a million kilograms, in round numbers, of tonka beans, having a commercial value of Bs. 3,639,000. ($ 727,800. Am. gold). Therefore one or several well organized compaines with the necessary capital at their command, enjoying all the franchises granted by the Venezuelan Government, would derive great profit as well as the Republic from such exploitation.

VANILLA

Venezuela produces an uncultivated vanilla plant called *vanilla lutescens*, but that commonly known to commerce is the more aromatic kind designated as *vanilla planifola*. The cultivation of this product has not yet been fostered to a great extent. However vanilla grows readily in the rich black soil of the States of Falcon, Lara, Bolivar, Anzoategui and Zamora. Official statistics do not furnish figures either on the production, cultivation or export of this product, although it is liable to be considerably developed.

SUGAR CANE

Sugar cane (*saccharum officinarum*) is indigenous in Venezuela and cultivated with good results. Lately, Sugar Cane Central Factories have been established to manufacture the products of the sugar cane. They are equipped with the best modern improvements as to buildings and machinery and have at their disposal sufficient capital to enable them not only to supply the home consumption but to export their products in a considerable quantity.

The climate and the fertile soil of Venezuela are the principal factors in the production of sugar cane. It grows everywhere in Venezuela except in mountainous parts lacking irrigation.

Four species of sugar cane are cultivated in Venezuela, viz: The indigenous, called *Criolla*, the *Otati*, the *Batavian* and the *Salangore*. The *Criolla*, however, is the one that is cultivated to the largest extent on account of its sweetness and good results.

The planting and cutting of the sugar cane is effected in such a manner, that there is always

in the plantations sufficient sugar cane reaped and ready, in order to produce no interruption in the grinding during the whole year round. For this purpose the soil has to be kept well irrigated.

The region near the lake of Valencia produces longer and thicker canes having more juice, but they contain less sweetness.

Sugar plantations are divided into *tablones* covering 90 meters square, each lot separated by a road. Such lots, when they are well manured, irrigated and sown with sugar cane, produce 60 to 80 loads of *papelon* (brown sugar) or 160 loads of alcohol; that is to say: 5,120. cones of brown sugar, wheighing 8,129. kilograms or 9,600. liters of alcohol.

Every plantation of some importance has a special building with the necessary machinery and equipment for manufacturing the different sugar products. These are sugar, brown sugar, alcohol and rum.

In the vicinity of Caracas there is a plantation which produces a considerable quantity of alcohol and another in the Libertador department producing about the same quantity.

Brown sugar is offered for sale moulded in different forms. For instance in the Federal District, States of Miranda and Aragua it is moulded in cones weighing each, one kilogram and 600 grams. In Los Andes section and States of Zulia, Falcon and Lara, brown sugar is shaped in square bricks weighing also one kilogram and 600 grams. In Carabobo the cones weigh 500 grams.

The best quality of sugar produced in Venezuela is manufactued near Guatire, a town at

three hours distance from Caracas by motor truck or automobile.

The largest quantity of sugar is produced in a plantation near the city of Maracaibo. There is also a plantation near La Guaira which produces granulated sugar.

The largest quantity of brown sugar is produced in a plantation near Caracas, having 2,700. hectares of sugar cane under cultivation.

Rum is manufactured with sugar cane alcohol.

The principal Sugar Central Factories in Venezuela are the following:

Sucre, Sugar Central, Maracaibo, capital Bs. 7 million ($ 1,400,000. Am. gold), 1500. hectres cultivated, 800 Metric Tons daily output of sugar.

Venezuela, Sugar Company, Maracaibo, incorporated capital Bs. 25 million ($ 5 million Am. gold), 2,000 hectares under cultivation, 800 M. T. daily output of sugar. These two plants are situated at Bobures.

La Ceiba, State of Trujillo, Office in Caracas, capital Bs. 3 millions ($ 600,000. Am. gold), 1,000 hectares cutivated, 400 M. T. daily output of sugar.

Tacarigua, near the lake of Valencia, capital Bs. 3 millions ($ 600,000. Am. gold.), 1.500 hectares cultivated, 500 M. T. daily output of sugar.

Petare, Sugar Company, valley of Caracas, capital Bs. 500,000. ($ 100,000. Am. gold), 600 hectares cultivated, 100 M. T. daily output of sugar.

There are other sugar factories throughout the country with first rate modern plants, for

instance that of Juan Diaz, in Macuto, with a daily output of 80 metric tons of sugar.

The above mentioned Sugar Central Factories, about which precise data were obtainable, command an aggregate capital of Bs. 38,500.000. ($ 7,700,000. Am. gold), have a total of 12,800. hectares of sugar cane under cutivation and can produce 2,600 metric tons of sugar per day.

This product at present commands a high price abroad, therefore, with good management, these plants begin to offer a Venezuelan product for exportation in a certain quantity and of a very good quality, and without much difficulty they will be able to establish a market for it and increase their output. Therefore these enterprises and Venezuela will derive considerable benefit therefrom.

According to the Résumé of the Farmers Directory of Venezuela in 1913, there existed 600 individuals and companies devoted to the cultivation of sugar cane, with an aggregate total capital of more than Bs. 53 millions ($ 10,600,000. American gold) invested in this industry.

COCOANUTS

The cocoanut tree is indigenous in Venezuela, and there are extensive plantations of them in the Zulia,Carabobo, Bolivar, Barcelona and Cumana regions. Cocoanuts are used for various purposes abroad, therefore the cultivation of this natural product could be fostered so as to make it an article of export on a large scale and it would become a profitable investment not requiring a large capital.

En 1913 there were invested in Venezuela in the cultivation of cocoanut trees Bs. 5,476,000. ($ 1,095,200. American gold).

INDIAN CORN

Indian corn is successfully cultivated in all the States of Venezuela, where it grows in every kind of soil, from the level of the sea to 2,800. meters above it. However it thrives best at an altitude of 500 to 1,000 meters. There are in Venezuela about 30 thousand hectares of land (74,131. acres) devoted to the production of corn, and the total amount raised is estimated at 150,000. metric tons.

Special attention has lately been paid to the cultivation of corn, which is the real breadplant in Venezuela, especially in the interior of the country, and a considerable quantity of Indian corn has been exported.

BEANS

Beans are successfully grown in all the States of Venezuela and a great variety of them is produced. Those having the greatest demand are the black beans. Their production not only meets the domestic demand but they have lately been exported in considerable quatities. They readily grow at all times of the year and are one of the principal articles of domestic commerce in Venezuela.

INDIGO

This product was introduced in Venezuela in 1777 and planted near La Victoria, and later in many places. The best quality was produced at San Sebastian. Due to the high price attained by coffee many years ago the cultivation of indigo was abandoned. However, in 1802 the exportation of indigo amounted to 1,876,510. pounds (851,170. kilograms) worth, in present Venezuelan currency, Bs. 12,250,000. ($ 2,450,000. Am. gold).

This product has now sufficient demand in foreign markets to warrant the revival of its cultivation and the investigation of the ways and means to make it a remunerative export article of Venezuela.

The natural resources of Venezuela, open to exploitation on a large scale, taken into consideration in the foregoing brief description amount only to fourteen, because the quantity of products of the Agricultural zone of Venezuela is too numerous to be discussed separately within the bounds of a concise statement like the present one.

More space would be required to elucidate the methods of fostering their exploitation, in order to transform them into profitable industries for Venezuela, as well as for those who would be willing to devote their efforts to develop them.

More than Bs. 52 million ($ 10,400,000. Am. gold), of products of the Agricultural zone of Venezuela were exported in 1917–1918.

In this zone more than Bs. 230 million ($ 46,000,000. Am. gold) are in vested in Venezuela.

FOREST ZONE

This vast region extends from the gulf of Maracaibo over the mountains of Yaracuy, San Felipe, Aroa, Tucacas, Turen, San Camilo, Guiana and its territories, and from the untouched forests which cover the slopes of the Trujillo and Barquisimeto mountains, to the fertile woodlands of the State of Zamora.

The Forest zone comprises about half of the Venezuelan territory, of which more tan 98% *is still virgin land.*

From this immense region Venezuela can derive natural resources of unlimited wealth, when sufficient labor and capital are available; better means of transportation are established, and more modern machinery and implements employed. Therefore this zone is one of the principal prospects of the future progress and natural growth which Venezuela will undoubtedly attain in a near future.

The following table shows the division of the Forest zone of Venezuela.

DIVISION	SQUARE KILOMETERS
Public forest lands.....	295,400.
Private forest lands..... ..	125,000.

Of the 600 species of woods to be found in the Forest zone of Venezuela, 2070 samples were exhibited at the National Exposition held in Caracas in 1883 in commemoration of the centenary of the birth of Bolivar, the Liberator.

At the World's Columbian Exposition held in Chicago in 1893, Venezuela exhibited 145 kinds of woods for ornamental purposes and 20 kinds of woods and barks suitable for dyeing and tanning.

The Venezuelan flora produces likewise many dyeing and tanning substances that are not exploited, as well as gums, resins and different drugs.

Fiber plants exist in a great variety, in considerable quantity and of superior quality, such a the cocuiza sisal, cucui, gamelote, jipijapa, flax, majagua, ramie, sibiera and sanseviera, etc.—The

latters's fibers are several meters long, very flexible and of great resistence.

Different kinds of palm trees are to be found principally in the States of Anzoategui and Monagas, and in the Guiana section. They produce saps from which the native Indians manufacture wine, vinegar, oil, soap, starch, etc., and use their leaves, especially prepared, to make hats, cloths, hammocks, baskets, mats, etc.

Venezuela produces different kinds of starches and vegetable oils, and the Venezuelan Fauna valuable skins.

The dried bodies of the females of a homopterous insect, called *cochineal*, which lives on several species of prickly pear, principally on the tuna (*opuntia cactus*), are used to make carmine.

Animal oils, wax and honey are abundant in Venezuela.

A considerable industry has already been established for gathering aigrettes or heron feathers, of which the rarest and most beautiful are those shed by a species of heron called *chumita.*

As the National Government has taken stringent measures to prevent the killing of the birds to secure the crop of feathers and guards the *garceros* or places where the herons flock together and roost, the ban established in certain countries on the importation of aigrettes, based upon the destruction of defenseless birds, has no reason to hold good as to aigrettes exported from Venezuela. Therefore the obstacle which has prevented the development of this industry ought to be removed by means of special conventions so as to open without delay the closed markets to this Venezuelan natural product.

The value of the products of the Forest zone of Venezuela exported during 1917-1918 was of more than 9 million bolivares ($ 1,800,000. Am. gold).

The capital invested in the cultivation of this Zone amounts to more than ten million bolivares ($ 2 million Am. gold) in Venezuela.

MINING ZONE

There is scarcely a mining product known that cannot be found in some part of the vast expanse of territory of Venezuela, whose principal mineral resources consist of gold, silver, copper, iron, tin, lead, quicksilver, asphalt, petroleum, coal, sulphur, asbestos, diamonds, platinum and different kinds of precious stones.

About the year 1550 various expeditions prospected the different sections of Western Venezuela in search of precious metals. In 1551 the San Pedro mine was discovered and actively worked but abandoned in 1552, when the properties were destroyed by an earthquake. In 1560 Fajardo discovered the mines of Los Teques and was obliged to stop their exploitation on account of the hostility of the Indians. In 1584 the mines of Apa, Carapa and other mines in Baruta were discovered, as likewise those of Aroa, Chacao, Mariches, Pao de Zarate, Cipe, Cocorote, etc.

According tho the Venezuelan Yearbook of 1896, published by the Government, there are in the territory of Venezuela 226 mining deposits, of which 62 are gold nines, 29 coal mines, 14 copper ore, 10 iron ore, 9 silver, 7 sulphur 7 lead, 6 asphalt, 6 rock crystal, one diamond, 2 platinum and the remaining 73 deposits contain many other metals.

Gold exists in all the States and Territories of Venezuela, but the larger deposits which have been discovered are located in the Yuruary region.

Copper is exploited in the rich Aroa mines, at some distance from Puerto Cabello. There are likewise many unexploited copper mines in Coro, Carabobo, Barquisimeto, Merida, etc.

Iron of the magnetic kind, exists in the range of mountains near Coro, Barinas, Barcelona and Cumana.

Lead is found in a mine near the Tocuyo, whence very good samples have been taken. In the neighborhood of Caracas there is a lead mine which appears to contain a great quantity lead, according to recent explorations.

Asphalt exists and is exploited near Pedernales to a considerable extent. Near Guanta and along the lake of Maracaibo many asphalt mines or asphalt lakes are under exploitation.

Petroleum abounds in many sections of Venezuela and several companies having at their disposal the necessary capital are exploiting this natural product.

Coal is found at a few kilometers from Barcelona and some of these deposits are exploited. There are also rich deposits along the Venezuelan coast and the coal mines found in the Zulia section are reputed as being first class.

The present research would become diffuse should more than the seven foregoing mining products be taken into consideration with reference to the Mining zone of Venezuela, therefore let us confine our efforts here to examine what has been officially published by the Ven-

ezuelan Fomento Department in its Annual Report submitted to Congress in 1918.

The Department begins by declaring that it considers Venezuela as essentially agricultural and has therefore made efforts to develop this important branch of Venezuelan progress.

The total *mining revenue* of Venezuela for the fiscal year 1916-1917 is given as amounting to Bs. 946,156. ($ 189,231. Am. gold).

The revenue from *pearl fisheries* amounted during the same period to Bs. 247,900. ($ 49,580. Am. gold).

Notwithstanding the abnormal conditions due then to the world war, in 1917 Venezuela *exploited* 958 kilograms and 304 grams of *gold*, 42,270. metric tons of *copper*, 54,071. metric tons of *asphalt*, 18,248. metric tons of *petroleum* and 20,164. metric tons of *coal*.

Exports of *gold* amounted to 902 kilograms and 501 grams valued at Bs. 2,669,599. ($ 533,919. Am. gold), those of *copper* to 43,701. metric tons, of *asphalt* 47,124. metric tons, and of *petroleum* 8,650. metric tons.

The number of enterprises in activity were 16 exploiting gold, 9 copper, 8 asphalt, 3 tar and 97 prospecting petroleum, of which 45 were being exploited.

The Official Trade Statistics of the Finance Departament for 1916–1917 show that during that budget year, Venezuela exported, in round figures, Bs. 9 million ($ 1,800,000. Am. gold) of gold, more than Bs. 64 million ($ 12,800,000. Am. gold) of magnesite, more than Bs. 1 million ($ 200,000. Am. gold) of copper and the same value of asphalt.

Foregoing figures show that an aggregate total of over Bs. 75 millions ($ 15 millions Am. gold) of Venezuelan mining products was exported in 1917.

The Annual Report submitted to the Venezuelan Congress by the Fomento Departament in 1919 states, that as Venezuela contains in its soil many useful and valuable mineral deposits, it is bound to be selected as a country where foreign capital can be profitably invested, and that for some time representatives of powerful enterprises frequently apply to the Fomento Departament for information regarding the regions where they may make good investments.

Petroleum and similar substances, which are now so vastly used in industries, undoubtedly exist in enormous quantity in Venezuelan soil and invite the investment of the required capital to become the source of immense wealth.

The decree regulating the exploitation of coal, petroleum and similar substances, dated October 9, 1918, establishes the conditions required to explore and exploit these natural products and grants prospectors all the necessary facilities, and secures for Venezuela the efficient and profitable exploitation of said deposits.

In pursuance to said decree, the Fomento Departament has passed several Resolutions and opened for bids the zones which are free in the States of Zulia, Tachira, Trujillo, Merida, Falcon and Sucre.

The New York and Bermudez Company and the Caribbean Petroleum Company exploit considerable quantity of asphalt and petroleum.

The first named Company exploited in 1918 a total of 46,453. metric tons and exported 43,347. metric tons of asphalt.

The second exploited in 1918 a total of 48,306,000. metric tons and exported 22,201,343. metric tons of petroleum.

The public revenue derived from this branch of income, up to March 19, 1919 produced the sum of Bs. 1,053,900. ($ 210,780. Am. gold).

The exploitation of alluvion gold amounted to 712,007. grams of gold. Of copper 29,708,195. kilograms were exploited and the tax collected up to March 19, 1919 in this regard was of Bs. 129,317. ($ 25,863. Am. gold).

The aggregate total of public revenue from mining taxes amounted to Bs. 821,935. ($ 164,387. Am. gold).

The historic copper mines of Aroa, situated in the valley of San Francisco de Cocorote, in the vicinity of the Yaracuy river, were granted in guaranty by Royal Spanish Schedule of 1663 to Martin Narvaez and were inherited by the family of the Liberator Simon Bolivar.

In 1828 they were sold by Bolivar to the Dent family and in 1864 were revalidated in the two portions according to which they had been sold, that is to say: Block N° 1. and Block N° 2.

At present Block N° 1. belongs to The South American Copper Syndicate and Block N° 2. to the Bolivar Railway Company Limited.

The fishing for pearls along the Venezuelan coast was interrupted because the pearl oysters were suffering form the so-called *turbio* ailment. Form January lst. 1918 to January lst. 1919 pearls were

fished only during the first three months of 1918. The oyster beds were reproduced and fishing for pearls was begun in January 1919. The revenue from permits for pearl fishing amounted to Bs. 142,680. ($ 28,536. Am. gold).

The National Collieries in the State of Anzoategui are a great natural resource and the Fomento Department is endeavoring to establish an intensive exploitation in order to utilize the coal dust and to manufacture coke.

In order to demonstrate the mining resources of Venezuela and show how to exploit them carefully, the Fomento Department intends to exhibit samples of the mineral products of Venezuela.

GOLD DEPOSITS IN VENEZUELA (*)

Sir Walter Raleigh in one of his Western voyages in search of El Dorado, headed an expedition to the Orinoco in 1595 and explored the river in small boats as far as Angostura, now Ciudad Bolivar. He collected samples of gold and diamonds, brought to him by the Indians, but failed to find the source of either.

This part of Venezuela is of large extent, almost one-third the entire area of the country.

The interior is best reached by means of the Orinoco river, which is navigable during most of the year for ocean-going steamers as far as Ciudad Bolivar. The nearest part of the gold district lies 150 miles Southeast from the port of San Felix on the Orinoco, whence a wagonroad connects with the mining town of El Callao and

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(*) Abstract from "The Gold District of Venezuela." by H. Huntington Miller, in the "Mining & Scientific Press" San Francisco, Cal.—Pan American Bulletin—Jan. 1919.

extends to the lower part of the district 100 miles Southeast.

The distribution of gold is general throughout this extensive area and its occurrence can be divided into three types: true alluvials, belts or zones of shale and quartz veins.

The alluvial deposits are mainly confined to the extreme South Eastern portion, close to the border of British Guiana.

Some placer gold is found along the Caroni and especially in the smaller tributaries of the Orinoco just above Ciudad Bolivar, although these parts are as yet little explored.

A study of the rock formation indicates that gold is contained within stingers and crystalline grains of arsenical pyrite. The oxidation and decomposition of this mineral and of the friable schist that encloses it, has resulted in the formation of the dry pockets for which some portions of the district are famous. The gradual weathering of the schist and the washing out and concentration of the gold in the beds and banks of the streams have originated the placers of the lower country.

The gold-bearing quartz veins so far discovered are mainly confined to the more Northerly portions of the district around the old town of El Callao, which, during its period of maximum production, ranked among the notable mining ventures of the world and is reputed to have produced $ 50,000,000. in thiry-odd years of its life.

The three companies still operating in Venezuela are the following:

"*Gold Fields of Venezuela (Ltd)*".—This is an English corporation with headquarters at El Peru,

owning a large group of mining claims about 4 miles West of El Callao. The ore, after being crushed, is ground with addition of quicksilver. The discharged pulp is passed over amalgamation plates and the tailing from the plates is treated in steel tanks by cyanidation. The ore yields from one to four ounces of gold per ton.

"*El Amparo Mine (Ltd)*".—This is also an English corporation owning the majority of stock in another company of similar name incorporated in Venezuela to work the famous La Paz Bonanza, from one of the surface pockets of which 10,000. ounces of gold were taken by crude methods, from a series of rich veinlets and pockets almost at the surface. The exploitation is carried on in the same way as in the former mine just described.

"*Compañia Anonima Lo Increible*".—This is a Venezuelan corporation with headquarters at Caracas. The mines, 8 miles Northeast from El Callao, are the result of a comparatively recent discovery. The hard quartz ore is crushed in a 20 stamp mill through 20--mesh diagonal slots--screens, the free gold being extracted by amalgamation. The average extraction from over 40,000. tons crushed to date is slightly in excess of half an ounce per ton, about ¼ ounce remaining in the tailing. About 25,000. tons of tailing is now ready for cyanidation and the company is preparing to erect a plant to treat this residue as well as to handle the new tailing. Several veins are in process of exploitation and the future of the property is good.

"*New Callao Mining C°*".—This is the successor of the original El Callao, which was an English Company. The present corporation being a French organization, has been in trouble due to the war,

as the necessary capital has been impossible to obtain.

The Cicapra district which is situated about 25 miles Northeast from El Callao, made a sensation some 10 or 15 years ago on account of the discovery of a succession of rich surface pockets of course gold, found almost under the grass roots in the low hills bordering the banks of the Cicapra river, a branch of the upper Yuruari. The gold is decomposed schist. A portion of this zone, including the bed and banks of the Cicapra river, is being explored by the Yuruari Cº, a Venezuelan corporation, with headquarters at Caracas. The operations which are as yet of a preliminary character, are being carried on by means of a small clamshell dredge, with a capacity of 200 cubic yards per day. The entire property of several hundred acres has been fairly well prospected by churn-drilling, and several million cubic yards is estimated to be availabie, with an average yield of $ 1 per yard, at a cost of 50 cents per yard.

The Cuyuni and El Dorado districts of Venezuelan Guiana, embrace the extreme South Eastern part of Venezuela, extending to the frontier of British Guiana. The production is mainly from alluvial washings, although some gold is now being won from quartz veins.

Two French Companies are operating in the district. They are known locally as the Cuyuni Cº and the Perseverancia or El Dorado Cº. In addition to these two ventures, a considerable quantity of gold, amounting to several thousand ounces, is produced by primitive hand washing in bateas and hand rockers, from concessions belonging to private individuals.

Altogether, this is a rich and promising district and may become of much greater importance.

With better facilities in the shape of dredges and other modern gold-saving machinery, as well as the construction of better roads from the Orinoco river, South Eastern Venezuela may easily take its place in the front rank as one of the most productive gold–mining districts of South America.

The entire district, with the exception of the immediate vicinity of El Callao, is fairly well timbered. The rivers and larger streams abound in water-power sites, and the country presents no unusual difficulties to the construction of good roads.

This applies in equal proportion to the Northern part, around El Callao.

The climate, while hot and damp in the rainy season, is not unhealthy for white men who observe the usual precautions necessary in all tropical countries.

The following table gives the names of the Mining Companies established in Venezuela and their capitals.

Names of the Mining Companies	Capital in Bolivares
Caribbean Petroleum Co,.....	20,782,482.
New Callao Mining Co.....	20,000,000.
New York and Bermudez Co.....	8,914,932.
Colon Development Co. Ltd.....	4,747,000.
Bermudez Co.....	4,319,820.
El Dorado Rubber, Balata & Gold Mining Co...	3,380,000.
Venezuelan Oil Concessions Ltd.....	2,316,996.
Lo Increible Mining Stock Co.....	2,000,000.
La Cumaragua Mining Stock Co.....	1,616,354.
El Diamante, El Marne, La Salvacion, etc.....	800,000.
Cara al Sol, Sol en el Cenit, Mi Fortuna, etc....	660,000.
Amparo Mine Ltd.....	149,022.
Totals.....	69,686,966.
Am. gold.....	13,937,393.

In 1917--1918 more than 8 million bolivares ($ 1,600,000. Am. gold) of mining products of Venezuela were exported.

PASTORAL ZONE

This great zone covers, in round mimbers, an area of 300,000. square kilometers and extends, from East to West, from Barrancas, on the vertex of the delta of the Orinoco, to the wide plains of Sarare on the frontier of Colombia, and, from South to North, from the Vichada river to the mountains of El Pao, State of Carabobo.

Like this region there is no other where the animals feed the entire year exclusively on a great variety of green grass, growing naturally on the

fertile soil which does not need any tilling, as otherwise the case in other countries.

This region looks like an immense sea of grass, which, as far as the eye can reach, is bounded by the horizon, whose background is inclosed by the mountain ranges and forests of Guiana.

This is the region where live stock is born, raised and fattened entirely on the prairie without need of artificial shelter or much care of man. It is the great breeding section which furnishes the Agricultural zone with all the cattle necessary for its labor and the meat, milk and milk products requisite for the subsistence of its habitants.

Live stock was introduced in Venezuela by the Spaniards and brought from Andalucia. In 1804 there existed in Venezuela 1,200,000. head of horned cattle, but the war of Independence reduced this number to 256,000. In 1901 there existed two million head and now it is estimated that there are 2,600,000. head of horned cattle throughout the Venezuelan territory.

However, Venezuela is well adapted to stock raising on a much larger scale than now, due to fact that she is second only to the Argentine Republic in possessing so vast an area of rich land covered with natural pasture.

In order to establish comparisons let us take into consideration, that the three countries possessing most horned cattle are the United States which has 72 million head, Russia (European and Asiatic) 48 million and the Argentine Republic over 30 million.

The latter country, after having brought about the production at a minimum cost of the proper class of cattle to export meat in a *chilled* but not

frozen state (because in the former condition it commands a much better price in England), has passed stringent laws and exerted the greatest care to prevent the importation of cattle having contagious diseases, injurious to public health or which might lower the standard of cattle obtained.

The systems and methods adopted in the Argentine Republic, in the United States and in certain European countries to improve the breed of their cattle, are worthy of being studied in order to introduce in Venezuela those which have not yet been adopted, because there are here 1300 cattle raisers and dealers whose investments in this industry amount to more than Bs. 110 million ($ 22 million Am. gold).

The majority of the stock raisers in Venezuela for a long time had limited their efforts to simply exploit the industry without giving attention to its improvement, with the exception of Generals Guzman Blanco and Crespo who initiated the betterment of our live stock.

At present there are some stock raisers of importance who are devoting great attention to this question, especially General Gomez who makes a great effort to solve it, and for several years has been methodically crossing specimens of full blooded horned cattle of several species imported for that purpose, in order to produce a better kind of cattle perfectly acclimated in Venezuela.

A group of cattle owners have lately adopted modern methods to this effect and obtained considerable improvement in their live stock, as well as in the choice of pastures. For instance, in the cultivated meadows of the valley of Maracay a considerable quantity of live stock is fattened and kept in good condition in order to have constantly on hand a sufficient number to supply the 300 oxen

killed daily at Puerto Cabello for the Frozen Meat Company which exports them. In this valley, sheep, hogs and horses are raised, and acclimated specimens of special breeds have already been obtained for reproduction in other parts of the country.

The following table shows the totals of horned cattle, horses, mules, sheep, goats, asses and hogs existing in Venezuela in each of the 12 years about which approximate data have been obtainable.

Years	Total Heads of Cattle.	Years	Total Heads of Cattle.
1804	1,200,000.	1858	12,000,000.
1812	4,500,000.	1864	5,800,000.
1823	256,000.	1873	3,302,670.
1833	2,437,150.	1883	8,591,860.
1839	4,617,560.	1894	6,345,560.
1847	5,503,000.	1899	6,059,480.

Live Stock on the hoof exported from Venezuela from 1831 to 1904.

Years	Number of Heads of Cattle	Years	Number of Heads of Cattle
1831	1,825.	1898	24,000.
1847	15,976.	1901	60,000.
1852	13,316.	1903	60,000.
1882	5,929.	1904	60,000.

Live Stock on the hoof exported from Venezuela from 1915 to 1918.

Years	Number of Horned Cattle	Weight in Kilograms	Value in Bolivares
1915	18,339.	5,415,000.	1,499,000.
1916	18,267.	5,115,000.	1,430,000.
1917	18,333.	5,195,000.	1,620,000.
1918	19,020.	5,343,678.	1,540,000.

Frozen Meat exported from Venezuela from 1915 to 1918.

Years	Number of Carcasses	Weight of Frozen Meat in Kilograms	Value in Bolivares
1915	17,847.	2,197,240.	983,317.
1916	18,267.	3,315,990.	1,671,080.
1917	18,335.	4,978,420.	1,991,368.
1918	— —	5,867,770.	2,339,335.

The sum of Bs. 5 million ($ 1,000,000. Am. gold) was invested in pastures in Venezuela in 1913, according to official statistics.

The foregoing brief statement about live stock raising in Venezuela shows that this industry has

commenced to be exploited in a systematic manner and is liable to be greatly developed in the near future.

The value of the products of the Pastoral zone of Venezuela exported in 1917-1918 amounted to more than Bs. 12 million ($ 2,400,000. Am. gold).

In the following table the amount of capital invested in Venezuela in the cultivation of its eight principal agricultural products is shown.

CAPITAL INVESTED IN THE CULTIVATION OF								Aggregate
Cofee trees	Cacao	Sugar Cane	Balata & Rubber	Cocoa-nut Trees	Tobacco	Bananas	Cotton	Total
Million Bs.	Million Bs.	Million Bs.	Million Bs.	Million Bs.	Million Bs.	Bs.	Million Bs.	Bs.
80	65	57	10	10	10	500,000.	2	230,500,000.

The above table ahows that more than Bs. 230 millions ($ 46,000,000. Am. gold) are invested in the exploitation of the eight principal agricultural industries in Venezuela.

The following table shows the capital now invested in Venezuela in its Agriculture, Industries, Stockraising, Pastures and Commerce.

Agriculture	Industries	Stock Raising and Pastures	Commerce	Aggregate Total
Million Bs.	Million Bs.	Million Bs.	Million Bs.	Thousand Bs.
230,5	350	115	400	1,095,500.

The above table shows that the aggregate capital invested in Venezuela in the exploitation

in the four principal branches of systematic and profitable work amounts to Bs. 1,095,500,000. ($ 219,100,000. Am. gold).

The aggregate weight in Kilograms and value in Bolivares of the principal products of the Agricultural, Forest, Mining and Pastoral Zones of Venezuela, exported during the fiscal year 1917–1918, taken from the Trade Statistics officially published by the Department of Finance, amount to 201,316,460. Kilograms and 82,227,274. Bolivares.

The following four tables show the principal products exported from the Agricultural, Forest, Mining and Pastoral Zones of Venezuela in 1917–1918, their weight in Kilograms and values in Bolivares.

AGRICULTURAL ZONE

Products	Weight in Kilograms	Values in Bolivares
Cotton	3,067.	4,930.
Starch	248,801.	104,307.
Sugar	13,260,562.	5,526,798.
Cacao	20,280,865.	10,603,372.
Coffee	34,123,145.	29,190,622.
Bananas	377,636.	58,205.
Indian corn	21,360,191.	4,878,173.
Brown sugar	5,440,551.	1,427,161.
Tobacco	297,579.	324,436.
Total	95,392,397.	52,118,004.

FOREST ZONE

Products	Weight in Kilograms	Values in Bolivares
Balata	1,120,716.	6,464,857.
Rubber	108,051.	708,711.
Cocoanuts	998,692.	113,135.
Copaiba	34,420.	167,880.
Chicle	204,540.	520,814.
Copra	82,611.	48,169.
Dividive	7,556,563.	751,433.
Woods	3,312,412.	225,800.
Sarrapia (tonka-beans)	92,625.	132,671.
Total	13,510,630.	9,132,520.

MINING ZONE

Products	Weight in Kilograms	Values in Bolivares
Gold bearing sands	41,328.	26,866.
Asphalt	46,773,149.	1,828,552.
Coal	865,047.	24,595.
Copper	4,514,609.	1,975,464.
Gasoline	11,045.	9,775.
Magnesite	1,000,000.	20,000.
Gold	1,353,370.	2,650,732.
Pearls	133,450.	762,325.
Crude petroleum	22,182,682.	889,898.
Total	76,874,980.	8,188,207.

PASTORAL ZONE

Products	Weight in Kilograms	Values in Bolivares
Salted meat	22,543.	16,990.
Frozen meat	5,867,770.	2,339,335.
Animal hair	352.	499.
Horns	27,647.	8,843.
Skins	3,617,826.	8,366,152.
Frozen residues of horned cattle	508,615.	54,910.
Horses, goats, sheep and hogs.	100,830.	122,687.
Horned cattle	5,343,678.	1,540,940.
Wool	1,895.	775.
Soles	77,307.	337,212.
Total	15,538,463.	12,788,343.

SUMMARY

Products by Zones	Weight in Kilograms	Values in Bolivares
Agricultural Zone	95,392,397.	52,118,004.
Forest Zone	13,510,630.	9,132,520.
Mining Zone	76,874,980.	8,188,207.
Pastoral Zone	15,538,463.	12,788,343.
Totals	201,316,460.	82,227,074.

VENEZUELAN CURRENCY

STOCK OF GOLD

The following table shows the stock of coined gold existing in Venezuela from December 31st, 1915 to December 31st, 1918.

Years	Gold Imported Bolivares	Gold Exported Bolivares	Stock of gold Bolivares
1915	———	———	30,340,822.
1916	9,229,885.	1,613,676.	7,616,209.
1917	18,448,511.	26,617.	18,421,894.
1918	6,149,131.	———	6,149,131.
Totals	33,827,527.	1,640,293.	62,528,056.

Therefore the stock of coined gold existing at present in Venezuela amounts to Bs. 62,528,056. ($ 12,505,611. Am. gold).

The actual population of Venezuela, in default of a recent National Census, reckoned at 2,700,000. inhabitants gives in relation to the stock of coined gold existing in the country Bs. 23.$\frac{16}{}$ in gold ($ 4.$\frac{63}{}$. Am. gold), per unit of population.

STOCK OF SILVER

The respective law only allows national silver coins to circulate.

Silver coins of any foreign country are of forbidden importation and circulation since 1886.

The stock of silver existing in Venezuela is estimated at Bs. 40 million. ($ 8 millon Am. gold).

As the population of Venezuela is estimated at 2,700,000. inhabitants therefore the per capita in silver is Bs. 14.$\frac{82}{-}$ ($ 2.$\frac{96}{-}$. Am. gold).

Consequently the per capita in gold of Venezuela is Bs, 23.$\frac{16}{-}$ and the per capita in silver Bs. 14.$\frac{82}{-}$.

GOLD STANDARD

Every value in Venezuela is based and calculated in gold, therefore gold is the monetary standard of Venezuela.

The only paper money which circulates in Venezuela is the bank note. Bank notes are issued by the four National Banks, to wit: Banco de Venezuela, Banco Caracas, Banco de Maracaibo, and Banco Comercial of the latter city.

The issuance of said bank notes is limited and completely guaranteed, according to the respective law of Venezuela.

SOUNDNESS OF THE MONETARY SYSTEM OF VENEZUELA

Never before has there existed in Venezuela nor is there at present in existence any kind of depreciated monetary or fiduciary currency. Likewise there has never circulated before nor is at present in circulation any such depreciated currency, therefore Venezuela occupies in this respect a very favorable position in comparison with any of the other Latin American Republics.

MANUFACTURING AND OTHER INDUSTRIES

There exist in Venezuela many industries producing articles of food and other necessities of civilized life which use steam and electricity as motive power.

The main industries of this kind are represented by factories of agricultural machinery, implements, carriages and wagons, pianos, furniture, aerated waters, blank books, stationery, ice, chocolate, matches, mirrors, soap, candles, electrotypes, glass, paper, wines, beer, butter, canned goods, electric light and power, cigars and cigarettes, cotton goods, fiber and rope, leather, shoes and many others.

Among factories special mention is due to the Dairy and Canning Establishment at Maracay supported by sufficient capital. It was put into operation six years ago in the outskirts of Maracay and owes its existence to the support which General Gomez has given it. This industry is housed in a building especially erected for the purpose and fitted out with all the modern machinery and latest appliances necessary to exploit the milk products.

Two kinds of butter are manufactured in this dairy; one with salt and another without it, and canned sterilized milk and cream are also produced. The selection of cattle breeds for the purpose has produced specimens of milch cows giving an average class of milk which enables the dairy to manufacture one kilogram of butter out of 18 liters of milk and the daily output amounts to about 500 kilograms of butter, giving an average of 180,000. kilograms of butter a year. In a separate section of the dairy, cheese is manufactured, moulded and dried in a refrigerating plant for this purpose.

The *Paper Factory* at Maracay makes use of domestic raw material and has begun to supply a considerable portion of the domestic demand for paper in Venezuela.

The most important *breweries* in Venezuela are the National brewery at Caracas, that of Mar-

acaibo and that of Maiquetia. The first named can produce 30,000. hectoliters of beer a year.

The manufacture of *leather* is an important industry in Venezuela.

There are several *tanneries* in Caracas, Valencia, La Guaira and other places in Venezuela. Great quantity of domestic cattle, sheep and goat skins are tanned. The *shoe factories* and *saddleries* have attained great development.

There are three principal *chocolate factories* in Caracas, the most important of which produces 25,000. kilograms of chocolate a year.

The Caracas chocolate is considered the best in the world.

The pricipal *cotton goods factories* are those of Caracas, Valencia and that of the Eastern part of Venezuela. These three plants have the finest machinery available for manufacturing cotton cloth, of which they produce a very good quality as well as drill, canvas, underwear, etc., which have a great domestic demand.

The cotton goods factories of Caracas and Valencia manufacture 21 thousand quintals (of 46 kilograms) of seeded raw cotton; the Carabobo factory 14 thousand quintals and the Eastern Looms and Spinneries 8 thousand quintals. This gives a total of 43 thousand quintals of seeded raw cotton used by the four principal cotton goods factories, which manufacture cotton cloth, etc., out of cotton grown in Venezuela.

These factories represent a capital of Bs. 10 million ($ 2 million Am. gold) and produce 80 % of the ordinary cloth consumed in Venezuela.

There is also a factory which manufactures only underwear.

All the cotton goods factories of Venezuela produce a total of 120 thousand dozen of underwear at an average wholesale price of Bs. 20 ($ 4 Am. gold) a dozen. Therefore the annual production of home-made underwear in Venezuela amounts to Bs. 2,400,000. ($ 480,000. Am. gold).

Cigar and cigarette factories are numerous and considerable quantity of them are manufactured in Venezuela.

The capital invested in cigarette factories in Venezuela amounts to Bs. 5 million ($ 1 million Am. gold).

The *glass factory* of Caracas produces crystal articles and glass ware for domestic consumption.

The *match industry* in Venezuela was granted some time ago as a Government concession and the factory meets the considerable domestic demand for matches.

The *fibre and rope company* is the only factory which manufactures *sisal-rope* at present in Venezuela. This company has a capital of 80 thousand dollars and can produce 300 quintals (Kilograms 13,800) a month of sisal-rope. Venezuela consumes 500 quintals (Kilograms 23,000.) of rope every month, (608,475.) pounds a year.

This company produces rope at an average cost of twenty bolivates ($ 4 Am. gold) per quintal of 46 kilograms. The average price of rope in the United States, in normal conditions, is seven cents per pound, therefore this Venezuelan industry is liable to be greatly developed, when it is in a condition to meet not only the home consumption of rope in Venezuela but as well to export its product.

The sisal plant belongs to the agave family of fibrous shrubs, readily grows in sandy soil and does not require irrigation.

Sisal began to be cultivated in Venezuela in 1910 and 1913 it was planted and successfully grown on both sides of the railway track of the Tucacas and Barquisimeto railway.

In 1916 the fibre and rope company bought a tract of land near Guacara in the State of Carabobo, and has planted there 200,000 sisal plants which within a short time may be harvested.

The land which said company has under cultivation is as good if not better for the cultivation of the sisal plant, than those devoted thereto in Yucatan, where said plant is grown in a great scale.

As a general rule sisal can be harvested four years after it has been planted, but in Venezuela, due to the better kind of soil, it can be gathered within three years or even before that time.

The fibre produced by the Venezuelan sisal is superior in quality to the best class of sisal obtained in Mexico.

Electric power plants in Venezuela are numerous. At present nearly all Venezuelan cities have electric light and power plants. Many are operated by waterfalls and produce the necessary power.

It is estimated that there are waterfalls in the vicinity of Caracas capable to generate 30,000. horse power. For some years these falls have been used to produce about 9,000. horse power daily. The most remarkable falls are those of Naiguata situated at 16 kilometres from Caracas. They have an available fall of 1,020 metres and supply 515 liters per second during the dry season. These falls

can produce 8,000. horse power daily, which might be utilized in Cararas and its neighborhood.

The Encantado electric plant is also situated at 16 kilometers from Caracas. When plentifully supplied with water, it generates 400 horse power daily and in the dry season only one hundred.

In Caracas, Valencia, Puerto Cabello, San Cristobal, etc., there are electric light and power plants which use steam as motive power.

The manufacturing industries in Venezuela, as a general rule, are enterprises having small capital at their disposal. However all are liable to be greatly developed. When they shall secure suffcient capital under favorable conditions to enable them to produce in a profitable manner and on a large scale, when they shall have enough labor at their disposal for their development, and better transportation facilities at low rates, they will be able to produce not only for home consumption but for export.

Under such conditions as the above mentioned, the manufacturing industries in Venezuela will reach the state of development which has been attained by those countries that possess these advantages.

The capital invested in manufacturing industries in Venezuela amounts to more than Bs. 350 millions ($ 70,000,000. Am. gold).

PROSPECTS OF IMMEDIATE GROWTH

With reference to means of fostering industries derived, in a general way, from agriculture in Venezuela let us take into consideration the following facts.

In normal conditions, 75% of the population of Europe depends for its subsistence on agriculture and those industries derived therefrom.

In Europe the problems of production become at times questions of considerable moment and the higher agricultural institutions are called upon to solve them. In those countries all the land available is already under cultivation, its area is relatively small and there the population is comparatively large. Consequently, it has been necessary to adopt measures in order to secure ever increasing crops under intensive systems of cultivation, otherwise those countries would have ceased to exist as nations, because only nomadic tribes can live where agriculture is no more a lucrative pursuit.

European Governments as well as that of the United States, have for more than a century been improving their methods of agricultural studies and have founded special colleges and schools for this purpose. In all institutions of learning the teaching of agriculture is compulsory. Traveling instructors are employed who remain two or three weeks in each agricultural centre where they give lectures on agriculture. They travel then to another centre where they repeat what they have taught elsewere.

There are high schools of agriculture and agronomy attended by farmers who have already acquired certain knowledge and are sufficiently prepared to profit by the courses of lectures given in such schools. They can also obtain practical and technical knowledge on every thing pertaining to agriculture at experimental stations and model farms establised for the purpose, which also distribute free of charge certain seeds and demonstrate how and when to sow them in order to secure the best results.

In Venezuela may be mentioned as measures adopted to foster the agricultural, forest and pastoral industries, the enactment by Excutive Decree dated March 12, 1917, of an Agricultural and Forest Experimental Station with an annexed Acclimatation Garden. Said decree provides that similar stations be established in different parts of the country. All are to follow the same plan of studying the best methods to produce the principal agricultural products of Venezuela. They have to select, import and distribute seeds; to replant trees on areas which have been deprived of them; to analyse lands and adapt the sowing of certain seeds to the proper soils; to teach in a practical way agricultural and forest matter, and to carry on scientific propaganda by means of lectures and the free distribution of literature on the subject.

The first Experimental Station was established in the vicinity of Caracas, had as Director a distinguished American agronomic engineer; has now a reputable Venezuelan agronomist, and has been in active work since it was created.

The development of Venezuelan industries is fostered by the Practical Guide Concerning New Industries in Venezuela by F. Miesse, who was Directing Engineer of the Agronomic Station and Laboratory. This booklet was edited by the Ven ezuelan Government in 1913. It points out how to cultivate eleven food plants, six pasture and nine industrial plants which grow in Venezuela.

The Law on Forests and Waters of 1915 is in force. It provides that it is a matter of *public utility* to preserve, improve and protect trees, and establishes the Forest Administration or Government plan to guard, foster, and utilize vegetable wealth in forests; to maintain, increase and make

use of the waters, as well in matters concerning the climate as to prevent that they be wasted, in order to fertilize the soil and to improve sanitation and public health. This law likewise provides that a Central Commission be appointed as an Advisory Board to the Fomento Department; it regulates the expropriation and exploitation of forests; prohibits certain fellings of trees and burning of underbrush, and provides that forests be replanted and guarded.

Such measures as the foregoing foster and develop the establishment of agricultural, forest and pastoral industries in Venezuela and protect those in existence.

A Central Board of Acclimatation and Industrial Improvement existed for some years in Venezuela. Twenty-two years ago it submitted a yearly report on its important work and on having established Agricultural Clubs in different Venezuelan cities. This Board suggested the foundation of Agricultural Colonies and mentioned a certain decree providing for every thing pertaining to the establishment of an Agronomic Station.

Fourteen years ago there existed in Venezuela the Agrarian Institute which advised the Venezuelan Government to establish an Agrarian Museum with a permanent exhibition for the practical study of agriculture by the students of the School of Agriculture.

The creation of the foregoing Boards and Institute are quoted as former efforts to foster Venezuelan industries.

MEANS TO ATTAIN IT

The credit systems suitable for the development of Venezuelan industries, are subjects which

cannot be discussed at length in a research of limited scope such as the present. Etablishing however mere brief comparisons concerning the methods which have been adopted in Europe, the United States and American Republics,—many of which latter countries have developed their industries to a considerable extent by means of credit systems,—and making but few comments, there is still ample matter for discussion, because there are many distinguished economists who have published text works on the subjet of industrial credit and stated their opinions according to the rules of induction or deduction as applied to one or the other school of political economy which they prefer.

Consequently, in order to abbreviate, let us take into consideration, in a concrete manner, the practical measure lately adopted by the United States in order to give ample development to its rural credit.

This measure was The Federal Farm Loan Act, signed by President Wilson on July 17, 1917. This Act infused new life into the industries of the United States, particularly those depending upon agriculture, because due to this Act an immense amount of wealth in the United States, which could not be exploited in a profitable manner under former existing conditions, was put into circulation.

The Act divides the United States into 12 Rural Credit Districts and in each district a Rural Credit Bank was established with a capital of $ 750,000. Therefore a total of $ 9,000,000. was authorized to be set aside to establish the 12 Banks. These were alloved to issue First Mortgage Bonds for a sum equivalent to 20 times the value of their capital.

The terms of payment fixed for loans were from 5 to 40 years and the interest payable on the capital lent could not exeed 6% a year.

This measure enabled the United States to considerably increase its agricultural production so that, notwithstanding the abnormal conditions then prevailing (during the world war), the United States was amply provided at home and, from the surplus accumulated from its agricultural industries, was in a position to export very large quantities abroad.

ECONOMIC CONDITIONS OF VENEZUELA

Venezuela, of course, is not yet in such a position as would warrant the adoption of so ample a measure as is implied by the Rural Credit Law of the United States, but the Venezuelan Government might enact laws tending to facilitate the establishment in the country of Territorial and Industrial Credit Institutes for the express purpose of aiming at the progressive development of Venezuelan industries.

The majority of import and export houses in Venezuela used to engage in domestic and foreign banking business.

The four national banking institutions are now the Bank of Venezuela, that of Caracas, that of Maracaibo and the Commercial Bank of the latter city. These four banks issue banknotes.

The Bank of Venezuela has a contract with The National Government for certain cashing, transfer of Government funds and paying of the same to which this bank has to devote considerable attention, and acts as depositary of a large surplus sum in cash belonging to the Government. This bank does an exchange business but limited industrial credit transations.

The Bank of Caracas, besides its issue and exchange and some iudustrial business, conducts a warehouse for general merchandise.

The Bank of Maracaibo and the Commercial Bank of that city, besides their issue and exchange business attend to the large transations of Western Venezuela.

The two first named banks have numerous branches throughout the territory of the Republic, but no data are available as to any large rural or industrial transations made by these two banks.

Therefore, the owners of city or rural real estate in Venezuela, or the representatives of industrial concerns who wish to mortgage their landed property in a city or in the country, or who disire to secure more capital to develop their industries, find difficulty in obtaining a loan under conditions of easy repayment.

As a general rule, many of the export merchants in Venezuela who buy crops take in mortgage the land yielding them, at the rate of 12% interest per annum. This is too high an interest to allow the borrowers to improve their property or to prosper in their agricultural enterprises.

However, banking facilities have improved in the last three years in Venezuela, because in October 1916, the Royal Bank of Canada opened a branch in Caracas and other places in Venezuela. In 1917 the Mercantile Bank of the Americas and the National City Bank of New York opened branches in Caracas and Maracaibo. In addition to these an affiliation of the Anglo Spanish American Bank, Ltd., the Commercial Bank of Spanish America, has opened a branch office in Caracas and the Venezuela Commercial Company another, the latter being

a branch of the house of Grace & C° of New York, important bankers of that city.

During the war these foreign credit institutions were handicapped due to the fact that they could not obtain the necessary gold for banking transactions of importance and were compelled during that period to limit their business to the branch of circulation, but hereafter they will have better facilities for large credit transactions, as Territorial and Industrial Banks might be established with good results in Venezuela.

As illustrating what has already been enacted on the subject in Venezuela, a brief account is hereinafter given of the principal points of the law passed 14 years ago creating a Mortgage City and Rural Credit Bank, which was not carried into effect, but which might be taken as a guide to correct what at that time seemed desirable though it may not be so now.

Therefore from this standpoint let us consider that this Mortgage Credit Bank was authorized to grant loans payable in Venezuelan currency guaranteed by city and rural real estate, the Bank having the right to charge a maximum yearly interest of 7 %, which is too high a rate. The terms of payment were from 10 to 60 years, but terms from 5 to 40 years would better answer the purpose. The Bank could lend on city real estate a maximum of one half of the value at which the Bank would appraise such city property, but it would be fairer if the assessment were effected by common agreement. On rural property the Bank could lend one third of the value of said property.

The loans were repayable by depositing sums on account from Bs. 50 upwards, which sums earned 4 % interest a year.

The capital of the Bank was fixed at Bs. 25 millions ($ 5 million Am. gold), divided into shares of Bs. 500 ($ 100) and the Bank could open for business so soon as one fifth of its capital had been paid in.

The Bank could issue Mortgage Bonds for a sum equivalent to the value of the loans made, there being two kinds of Bonds viz: those of Bs. 5 ($ 1) which could not exceed 10 % of the total amount of each transaction. They did not earn interest and were repayable at the Bank on presentation, in Venezuelan currency, and the Bonds of 50, 100, 500, and 1,000. bolivares, could not exceed 90 % of the total amount of each loan and earned interest. The Bonds were not of cumpulsory acceptance as legal tender. Each issue of them was to be formally registered and those reverting to the Bank either as refunded by drawings or redeemed, were to be annulled in an official manner.

The Bank was required to have always in cash, as a guarantee fund for conversion or refunding, 10 % of its capital in Venezuelan currency, and had to set aside another 10 % as a reserve fund. The loss of one half of the Bank's capital compelled it to go into immediate liquidation. The duration of the Bank's charter was unlimited.

Venezuelan industries could be developed by means of a careful investigation and study of the measures which have been adopted in some Latin American countries to solve the problem of securing capital under favorable credit conditions to develop on a large scale their different industries.

With reference to the credit question and means to secure a prosperous future for Venezuelan industries, let us consider, from a broad point of

view, the general growth that can no longer delay in being acquired by the whole Western Hemisphere, of whose Southern Continent Venezuela forms a part, as a unit of the complicated political, social, commercial, industrial and financial structure of the New World.

Looking likewise into the future, in a very broad-minded way, let us take into consideration, that the element of Latin origin, as nations, in the Western Hemisphere, possess more than one half of its total area and represent a nucleus of nearly one half with reference both to population and language.

Having these same views in mind, let us consider that before the war broke out, 67 % of the exports of Latin America went to European markets and it received from there 87 % of its yearly imports. The United States imported, at that time, only 33 % of the yearly exports of Latin America to which countries the United States sold but 14 % of their yearly imports.

During the war which has just come to an end, all European markets were practically closed, but now conditions have completely changed, because the *monetary centre* of the world, which took centuries to journey from the Euphrates to the Thames, has been suddenly transferred to the Hudson.

This is due, among other reasons, to the fact that now more than one half of the world's aggregate stock of gold is owned by the United States and deposited in its Treasury and Banks, the total world's stock being estimated at more than $ 8,000 million Am. gold.

Another weighty reason is the fact that the United States has become a creditor nation in

Europe, as the European Powers alone owe the United States eight to nine thousand million dollars, and before the war the United States owed in foreign countries more than four thousand million dollars, of which it has already paid more than three thousand million dollars.

When the war broke out, England was the creditor nation of the world, and the United States was then confronted with a very dangerous financial difficulty, because it transacted all its important commercial and financial negotiations with foreign countries through the London market, and the latter remained closed for some time.

It is a well known fact that the financial structure of any country consists of the three well known credit systems; viz: First; Long term credits or obligations assumed by governments, municipalities or corporations, which obligations are based on Stock Exchange transactions; Second: Short term credits or individual obligations, which depend on the Discount markets and Deposit banks, and Third: The Banks of issue.

This fact was impressed on the ruling minds in the United States and they soon discovered the necessity for giving elasticity to the financial market, and the Government enacted the new Banking and Circulation Law which put the United States in a position to grant credits to Latin America, where in some countries, Branches of the Federal Reserve Banks have already been opened, for the express purpose of supplying the financial support needed in Latin America to foster the development of their natural resources.

In this connection let us bear in mind that it is a serious mistake to restrict to one single market

the commercial and especially the financial transactions of a country; that is to say: its long and short term obligations. Much has been written on the subject and the author of this research shares the opinion of those who affirm, that this is not advisable, because it might endanger the liberty of a country to act when obliged to settle cerdit obligations.

On the contrary, every country must divide the risk of its commercial and financial credit transactions, in as many equal parts as possible in the different markets where it carries on its business, because it is evident that a nation decreases its financial power when it is too dependent on a single market.

Even if the conditions in which it places its obligations there are very advantageous, it is not advisable, because it may happen that its bonds might become due at a moment of monetary crisis and place the debtor country in a precarious position, if it has not at its disposal another market where to find, without loss of time, the necessary means to meet its obligations.

This principle was advanced with reference to the United States at the Financial Congress held in Washington, D. C. from May 24 to 29, 1915, and may be applied to any Nation. For this reason it is suggested here as a future peril for Venezuela, from the point of view of the vast development that its commerce, industries and finances are expected to acquire.

It is also an acknowledged fact that European countries have greatly contributed, from several standpoints, to the development of the whole Western Hemisphere.

Before the war they cultivated commercial relations and effected considerable financial transactions with Latin America. It is logical to suppose that they will make efforts, now that the war is over, to renew their mercantile and financial relations with Latin America.

They will endeavor to grant us the same or even better terms of payment than before and adapt, even more, should that be possible, their articles and manufactured goods, which they will again produce, to the special conditions required by the demand in each locality.

Latin America will surely provide itself in those markets where it will find what it may need in the most advantageous conditions.

Therefore the directing minds in matters of finance, banking, manufacturing and other industries in the United States should endeavor to adopt methods in order to adapt its export products to the conditions required abroad and particularly in Latin American Countries. Otherwise the United States will be unable to compete on an equal footing with European markets in Latin America, because now that the war is over and when the European continent shall recover its normal condition, those countries will make strenuous efforts to regain our markets in order to be able to send us a considerable amount of their surplus production as heretofore.

On the other hand should something similar be adopted to what has hereinbefore been briefly suggested concerning credit systems to foster the greater development of Venezuelan industries, or

other measures be taken to attain this end, they will find encouragement under the above–mentioned favorable conditions, because they will permit the gradual progress of the labor activities of Venezuela and bring about an immediate increase, a larger consumption and a better distribution of the country's products and manufactures.

Therefore Venezuela has, under such favorable circunstances, fine prospects in store, in the near future, for a happy era of commercial growth, industrial evolution and financial prosperity.

N. Veloz-Goiticoa.

Caracas, 1919.

GENERAL INDEX