



A FORD NEAR ANTON

either side, broken only here and there by small clearings made by some native with the indispensable machete. These in the main are less than four acres. The average Panamanian farmer will never incur the scriptural curse laid upon them that lay field unto field. He farms just enough for his daily needs, no more. The ambition that leads our northern farmer to always covet the lands on the other side of his boundary fence does not operate in Panama. One reason is, of course, the aggressiveness of the jungle. Stubborn to clear away, it is determined in its efforts to regain the land from which it has been ousted. Such a thing as allowing a field to lie fallow for two or three years is unknown in Panama. There would be no field visible for the new jungle growth.

Agriculture therefore is conducted in a small way only, except for the great corporations that have just begun the exploitation of Panama. Whether the country affords a hopeful field for the individual settler is at least doubtful. Its climate is excellent. The days are warm but never scorchingly

hot as are customary in Washington and frequent in New York. The nights are cool. From December to May a steady trade wind blows over the Isthmus from north to south, carrying away the clouds so that there is no rain. In this dry season the fruits mature, so that it corresponds to the northern summer; on the other hand such vegetation as sheds its leaves, or dies down annually, does so at this season, giving it a seeming correspondence to the northern winter. In a temperature sense there is neither summer nor winter, and the variation of the thermometer is within narrow limits. The highest temperature in years at Culebra, a typical inland point, was 96 degrees; the lowest 61.

The list of natural products of the Isthmus is impressive in its length and variety, but for most of them even the home demand is not met or supplied by the production. Only where some stimulating force from the outside has intervened, like the United Fruit Company with the banana, has production been brought up to anything like its possibility. In the Chiriquí country you can see sugar cane fields that



OLD BANANA TREES

have gone on producing practically without attention for fifteen seasons. Cornfields have been worked for half a century without fertilizing or rotation of crops. The soil there is volcanic detritus washed down during past ages from the mountainsides, and lies from six to twenty feet thick. It will grow anything that needs no frost, but the province supports less than four

people to the square mile, nine-tenths of the land is unbroken and Panama imports fruit from Jamaica, sugar from Cuba and tobacco and food stuffs from the United States.

The fruits of Panama are the orange, which grows wild and for the proper cultivation of which no effort has been made, which is equally the case with the lemon and the lime; the banana, which plays so large a part in the economic development of the country that I shall treat of it at length later; the pineapple, cultivated in a haphazard way, still attains so high an order of excellence that Taboga pines are the standard for lusciousness; the mango, which grows in clusters so dense that the very trees bend under their weight, but for which as yet little market has been found, as they require an acquired taste; the mamei, hard to ship and difficult to eat because of its construction but withal a toothsome fruit; the paypaya, a melon not unlike our cantaloupe which has the eccentricity of growing on trees; the sapodillo, a fruit of excellent flavor tasting not unlike a ripe persimmon, but containing no pit. With cultivation all of these fruits could be grown in great quantities in all parts of the Republic, but to give them any economic importance some special arrangement for their regular and speedy marketing would have to be made, as with the banana, most of them being by nature extremely perishable.



PINEAPPLES IN THE FIELD

Northern companies are finding some profit in exploiting such natural resources of Panama as are available in their wild state. Of these the most promising is rubber, the tree being found in practically every part of the country. One

concern, the Boston-Panama Company, has an estate approximating 400 square miles on which are about 100,000 wild rubber trees, and which



COUNTRY HOUSE OF A CACAO PLANTER AT CHORIA

This industry is in its infancy in Panama, but promises to be a considerable resource

is being further developed by the planting of bananas, pineapples, cocoanuts and other tropical fruits.

Coffee, sugar and cacao are raised on the Isthmus, but of the two former not enough to supply the local demand. The development of the cacao industry to large proportions seems probable, as several foreign corporations are experimenting on a considerable scale. Cocoanuts are easily grown along both coasts of the Isthmus. A new grove takes about five years to come into bearing, costing an average of about three dollars a tree. Once established the trees bring in a revenue of about one dollar each at present prices and, as the demand for Panama cocoanuts is steady, the industry seems to offer attractive possibilities. The groves must be near the coast, as the coconut tree needs salt air to reach its best estate. Given the right atmospheric conditions they will thrive where no other plant will take root. Growing at the edge of the sea, water transportation is easy.

There is still much land available for coconut planting, though but little of it is government land. Both coasts are fit for this industry, unlike the banana industry, which thrives only on the Atlantic shore. Panama is outside of the hurricane belt, which gives an added advantage to the coconut planter. Elsewhere in the Caribbean the trees suffer severely from the high winds.

The lumber of Panama will in time come to be



WAITING FOR THE BOAT



STARTED FOR MARKET

one of its richest assets. In the dense forests hardwoods of a dozen varieties or more are to be found, but as yet the cost of getting it out is prohibitive in most sections. Only those forests adjacent to streams are economically valuable and such activity as is shown is mainly along the Bayano, Chucunaque, and Tuyra Rivers. The list of woods is almost interminable. The prospectus of one of the companies with an extended territory on the Bayano River notes eighteen varieties of timber, commercially valuable on its territory. Among those the names of which are unfamiliar are the espavé (sometimes spelled espevé), the cocobolo, the espinosa cedar, the zoro and the sangre. All are hard woods serviceable in cabinet making. The espavé is as hard as mahogany and of similar color and marking. The trees will run four to five feet thick at the stump with saw timber 60 to 70 feet in length. Espinosa trees are of the cedar type, growing to enormous size, frequently exceeding 16 feet in circumference. The cocobolo is a hard wood, but without the beauty to fit it for cabinet work. The sangre derives its name from its red sap which exudes from a gash like blood. It takes a high polish, and is in its general characteristics not unlike our cherry.

For the casual tourist the lumber district most easy of access is that along the Bayano River reached by a motor boat or steam launch in a few hours from Panama. The trip is frequently made by pleasure seekers, for perhaps nowhere in the world is the beauty of a phosphorescent sea at night so marvelously shown, and few places easily found by man show such a horde of alligators or crocodiles, as are seen in Crocodile Creek, one of the affluents of the Bayano. This river, which empties into the Gulf

of Panama, is in its lower reaches a tide-water stream and perhaps because of the mingling of the salt and the fresh the water is densely filled with the microscopic infusoria which at night blaze forth in coldly phosphorescent gleams suggestive of the sparkling of a spray of diamonds. Put your hand into the stream, lift it and let the water trickle through your fingers. Every drop gleams and glistens as it falls with a radiance comparable with nothing in nature unless it be the great fire-flies of the tropics. Even diamonds have to pass through the hands of the cutter before they will blaze with any such effulgence as the trickling waters of this tropical stream. One who has passed a night upon it may well feel that he has lived with one of the world's marvels, and can but wonder at the matter-of-fact manner in which the natives go about their tasks unmoved by the contact with so much shining glory.

There is always controversy on the Isthmus over the question whether the gigantic saurians of Crocodile Creek are in fact crocodiles or alligators. Wheth-



LOADING CATTLE AT AGUADULCE

er expert scientific opinion has ever been called upon to settle the problem I do not know, but I rather suspect that crocodile was determined upon because it gave to the name of Crocodile Creek in which they are so plentifully found

"apt alliteration's artful aid" to make it picturesque. Whatever the precise zoological classification given to the huge lizards may be is likely to be relatively unimportant



DOLEGA IN THE CHIRIQUI PROVINCE



MAHOGANY TREES WITH ORCHIDS

before long, because the greatest joy of every tourist is found in killing them. The fascination which slaughter possesses for men is always hard to understand, but just what gives the killing of alligators its peculiar zest I could never understand. The beasts are slow, torpid and do not afford a peculiarly difficult test of marksmanship, even though the vulnerable part of their bodies is small. They are timid and will not fight for their lives. There is nothing of the sporting proposition in pursuing them that is to be found in hunting the tiger or the grizzly. They are practically harmless, and in the Bayano region wholly so, as there are no domestic animals upon which they can prey. It is true their teeth and skins have a certain value in the market, but it is not for these the tourist kills them. Most of those slain for "sport" sink instantly and cannot be recovered.

However if you visit Crocodile Creek with a typical party you will be given a very fair imitation of a lively skirmish in actual war. From every part of the deck, from the roof of the cabin, and from the pilot house shots ring out from repeating rifles in a fierce desire to kill. The Emersonian doctrine of compensation is often given illustration by the killing of one of the hunters in the eagerness to get at the quarry. In fact that is one of the commonest accidents of the tourist season in Panama.

Crocodile Creek is a deep, sluggish black stream, almost arched over by the boughs of the thick forest along the shores. Here and there the jungle is broken by a broad shelving beach on which the ungainly beasts love to sun themselves, and to which the females resort to deposit their eggs. At the sound of a voice or a paddle in the stream the awkward brutes take to the water in terror, for there



IN THE BANANA COUNTRY

who ship them north to be made into buttons and other articles of general use. Nobody has yet experimented with the cultivation of the tree, and there is reason to believe that with cultivation larger nuts could be obtained, and, by planting, considerable groves established. The trees grow well in every part of the Darien, and the demand, with the rapid diminution in the supply of real ivory, should be a growing one.

Indeed, the more one studies Panama and its resources the more one is convinced that all that is necessary to make the country a rich and prosperous one, or at any rate to cause it to create riches and prosperity for investors, is the application of capital, labor and systematic management to the resources it already possesses. In its 400 years of Spanish and mestizo control these three factors have been continuously lacking. There are men in Panama, of native birth and of Spanish origin, who have undertaken to develop certain of the land's resources and have moderately enriched themselves. But the most striking evidence of the

success to be obtained from attacking the industrial problem in Panama systematically and in a big way is that furnished by the operations of the United Fruit Company, the biggest business fact in the tropics.



MARKET PLACE AT ANCON

Panama is, of course, only one link in the colossal chain of the operations of this company in the tropics. The rapidly increasing prosperity of many of the Central Republics is due largely to the sweeping scope of the United Fruit Company, and its impress is in evidence all along the north coast of South America and throughout the West Indies. Its interests in Jamaica are enormous. Cuba put Jamaica off the sugar map, but the United Fruit Company came to her rescue with an offer to purchase all the bananas her planters could furnish, and Jamaica now leads the

American tropics with 17,000,000 bunches annually, of which the United Fruit Company obtains nearly half, the balance being handled by its competitors. The company also owns the famous Titchfield Hotel of Port Antonio, and operates the Myrtle Bank Hotel of Kingston. In Cuba the company owns



FRUIT COMPANY STEAMER AT WHARF

60,000 acres of sugar plantations and its two great sugar mills will this year add to the world's product an

United Fruit Company made gardens of the low Caribbean coast lands and created from the virgin wilderness such ports as Barrios, Cortez, Limon and Bocas del Toro.

This Yankee enterprise has erected and maintains at its own expense many of the lighthouses which serve its own great fleet and the ships of all the world. It has dredged new channels and marked them with buoys. It has installed along the Central and South American coasts a wireless telegraph service of the highest power and efficiency. It has constructed hundreds of miles of public roads, maintains public schools, and in other ways renders at its own expense the services which are presumed to fall on governments. The American financiers associated with it are now pushing to completion the Pan-American railroad which soon will connect New



UNITED FRUIT COMPANY TRAIN

This narrow gauge railroad carries no freight except bananas. Nearly 1000 miles of such road are maintained

amount with a market value in excess of \$10,000,000. Its scores of white steamships, amazingly well contrived and fitted for tropical service, constitute one of the pleasantest features of travel on these sunlit seas.

The United Fruit Company is by far the greatest agricultural enterprise the world has ever known. Its fruit plantations constitute a farm half a mile wide and more than seven hundred miles long. All of its farm lands exceed in area the 1332 square miles which constitute the sovereign State of Rhode Island. On these farms are more than 25,000 head of live stock. This agricultural empire is traversed by nearly 1000 miles of railroad. To carry the fruits from the plantations to the seaports there are employed 100 locomotives and 3000 freight cars. An army of nearly 40,000 men is employed in this new and mammoth industry. The republics of Central America were inland nations before the

York with Panama by an all-rail route, and thus realize what once was esteemed an impractical dream.



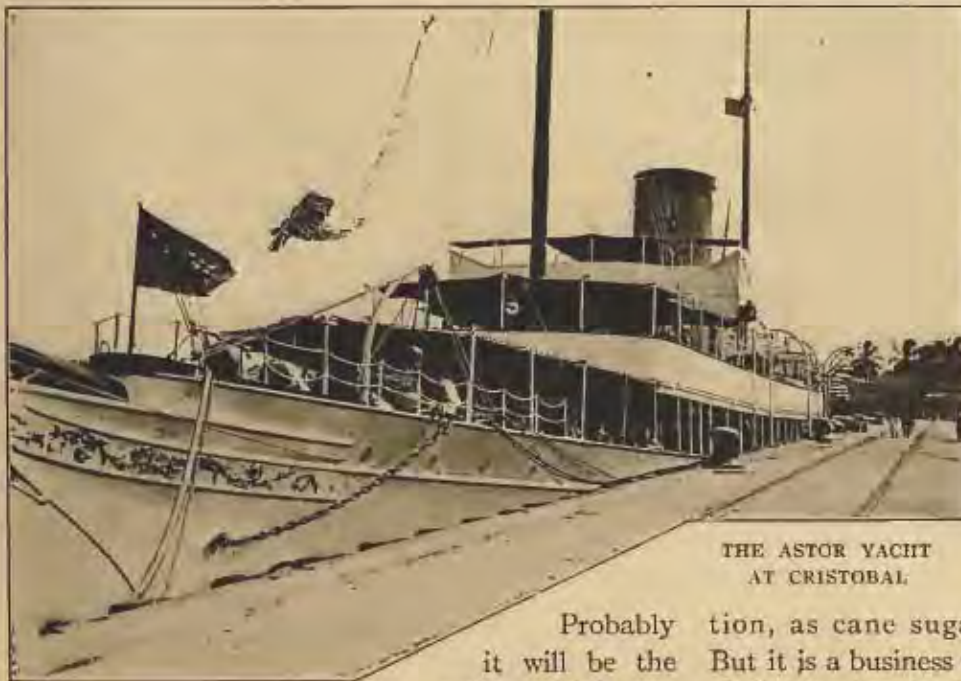
SANITARY OFFICE, BOCAS DEL TORO

the business and has brought it to its highest development. At this Panama town, and for that matter in the other territories it controls, the company has established and enforces the sanitary reforms which Col. Gorgas applied so effectively in Colon and Panama. Its officials proudly claim that they were the pioneers in inventing and applying the methods which have conquered tropical diseases. At Bocas del Toro the company maintains a hospital which lacks nothing of the equipment of the Ancon Hospital, though of course not so large. It has successfully adopted the commissary system established on the Canal Zone. Labor has always been the troublesome factor in industrial enterprises in Central America. The Fruit Company has joined with the Isthmian Commission in the systematic endeavor to keep labor contented and therefore efficient.



THE BAY OF BOCAS

This harbor of the chief banana port of Panama would accommodate a navy

THE ASTOR YACHT
AT CRISTOBAL

Probably it will be the policy which any corporation attempting to do work on a large scale will be compelled to adopt.

To my mind the United Fruit Company, next to the Panama Canal, is the great phenomenon of the Caribbean world today. Some day some one with knowledge will write a book about it as men have written the history of the British East India Company, or the Worshipful Company of Hudson Bay Adventurers,

for this distinctly American enterprise has accomplished a creative work so wonderful and so romantic as to entitle it to equal literary consideration. Its coöperation with the Republic of Panama and the manner in which it has followed the plans formulated by the Isthmian Commission entitles it to attention in a book treating of Panama.

The banana business is the great trade of the tropics, and one that cannot be reduced in volume by new competition, as cane sugar was checked by beet sugar. But it is a business which requires special machinery of distribution for its success. From the time the banana is picked until it is in the stomach of the ultimate consumer should not exceed three weeks.



BRINGING HOME THE CROCODILE.

The fruit must be picked green, as, if allowed to ripen on the trees, it splits open and the tropical insects infect it. This same condition, by the way, affects all tropical fruits. All must be gathered while still unripe. The nearest wholesale market for bananas is New Orleans, five days' steaming. New York is seven days away. That means that once landed the fruit must be distributed to commission houses and agents all over the United States with the utmost expedition lest it spoil in transit. There can be no holding it in storage, cold or otherwise, for a stronger demand or a higher market. This means that the corporation must deal with agents who can be relied

upon to absorb the cargoes of the ships as regularly as they arrive. From its budding near the Panama Canal to its finish in the alimentary canal of its final purchaser the banana has to be handled systematically and swiftly.

To establish this machinery the United Fruit Company has invested more than \$190,000,000 in the tropics—doubtless the greatest investment next to the Panama Canal made in that Zone. How much of this is properly a Panama investment can hardly be told, since for example the Fruit Company's ships which ply to Colon and Bocas del Toro call at other banana ports as well. These ships are peculiarly attractive in

design and in their clothing of snowy white, and I do not think there is any American who, seeing them in a Caribbean port, fails to resent the sight of the British flag flying at the stern. His discontent is not allayed when he learns that the company has in all more than 100 ships of various sizes, and



A MORNING'S SHOOTING

nearly all of British registry. The transfer of that fleet alone to American registry would be a notable and most desirable step.

From officials of the company I learned that they would welcome the opportunity to transfer their ships to American registry, except for certain requirements of the navigation laws which make such a change hazardous. Practically all the ownership of the ships is vested in Americans and to fly the British flag is to them an offensive necessity. Chief among the objections is the clause which would give the United States authority to seize the vessels in time of war. It is quite evident that this power might be employed to the complete destruction of the Fruit Company's trade; in fact to its practical extinction as a business concern. A like power existing in England or Germany would not be of equal menace to any single company flying the flag of that nation, for there the government's needs could be fully supplied by a proper apportionment of requisitions for ships among the many companies. But with the exceedingly restricted merchant marine of the United



Photo by Carl Hayden

THE END OF THE CROCODILE

States the danger of the enforcement of this right would be an ever-present menace. It is for this reason that the Fruit Company steamers fly the British flag, and the American in Colon may see, as I did one day, nine great ocean ships in the port with only one flying the stars and stripes. The opening of the canal

will not wholly remedy this.

In all respects save the registry of its ships, however, the Fruit Company is a thoroughly American concern and to its operations in the Caribbean is due much of the good feeling toward the United States which is observable there. In 1912 it carried 1,113,741 tons of freight, of which 359,686 was general freight, carried for the public



ON CROCODILE CREEK

Each spot looking like a leaf on the water is the nose of a submerged saurian



ABOVE THE CLOUDS, CHIRIQUI VOLCANO

in addition to company freight. This is a notable public service, profitable no doubt but vital to the interests of the American tropics. It owns or holds under leases 852,650 acres, and in 1912 carried to the United States about 25,000,000 bunches of bananas, and 16,000,000 bunches to Great Britain and the Continent. Viewed from the standpoint of the consumer its work certainly has operated to cheapen bananas and to place them on sale at points where they were never before seen. The banana has not participated in the high cost of living nor has one company monopolized the market, for the trade statistics show 17,000,000 bunches of bananas imported by rival companies in 1912. As for its stimulation of the business of the ports of New Orleans, Galveston and Mobile, and its revivifying of

trade along the Caribbean, both are matters of common knowledge.

The banana thrives best in rich soil covered with alluvial deposits and in a climate of great humidity where the temperature never falls below 75 degrees Fahrenheit. Once established the plantation needs little attention, the plant being self-propagat-

ing from suckers which shoot off from the "mat," the tangled roots of the mother plant. It begins to bear fruit at the age of ten or eleven months, and with the maturing of one bunch of fruit the parent plant is at once cut down so that the strength of the soil may go into the suckers that succeed it. Per-



THE CHIRIQUI VOLCANO

haps the most technical work of the cultivator is to select the suckers so that the plantation will not bring all its fruit to maturity in one season, but rather yield a regular succession of crops, month after month. It was interesting to learn from a representative of the United Fruit Company at Bocas del Toro, that the banana has its dull season—not in production but in the demand for it which falls off heavily in winter, though one would suppose that summer, when our own fruits are in the market, would be the period of its eclipse.

While most of the fruit gathered in the neighborhood of Bocas del Toro is grown on land owned and tilled by the Company, there are hundreds of small individual growers with plantations of from half an acre to fifty acres or even more. All fruit is delivered along the railway lines, and the larger growers

have tramways, the cars drawn by oxen or mules, to carry their fruit to the stipulated point. Notice is given the growers of the date on which the fruit will be called for, and within twelve to eighteen hours after it has been cut it is in the hold of the vessel.

It is subjected to a rigid inspection at the docks, and the flaws for which whole bunches are rejected would often be quite undiscernible to the ordinary observer.

The banana is one of the few fruits which are free from insect pests, being protected by its thick, bitter skin. If allowed to ripen in the open, however, it speedily falls a prey to a multitude of egg-laying insects. The tree itself is not so immune. Lately a small rodent, something like the gopher



NATIVE MARKET BOAT AT CHORRERA



IN BOUQUETTE VALLEY, THE MOST FERTILE PART OF CHIRIQUI



COFFEE PLANT AT BOUQUETTE

of our American states, has discovered that banana roots are good to eat. From time immemorial he lived in the jungle, burrowing and nibbling the roots of the plants there, but in an unlucky moment for the fruit companies he discovered that tunneling in soil that had been worked was easier and the roots of the cultivated banana more succulent than his normal diet. Therefore a large importation of scientists from Europe and the United States to find some way of eradicating the industrious pest that has attacked the chief industry of the tropics at the root, so to speak.

Baron Humboldt is said to have first called the attention of civilized people to the food value of the banana, but it was one of the founders of the United Fruit Company, a New England sea captain trading to Colon, who first introduced it to the general market in the United States. For a time he carried home a few bunches in the cabin of his schooner for his family and friends, but, finding a certain demand for the fruit, later began to import it systematically. From this casual start the United Fruit Company and its hustling competitors have grown. The whole business is the development of a few decades and people still young can remember when bananas were sold, each wrapped in tissue paper, for five or ten cents, while today ten or fifteen cents a dozen is a fair price. The fruit can be prepared in a multitude of fashions, particularly the coarser varieties of plantains, and the Fruit Company has compiled a banana cook book but has taken little pains to circulate it, the demand for the fruit being at times still in excess of the supply. There seems every indication that the demand is constant and new banana territory is being steadily developed.

Several companies share with the United Fruit Company the Panama market. The methods of gathering and marketing the crop employed by all are practically the same, but the United Fruit Company is used as an illustration here because its business is the largest and because it has so closely followed the Isthmian Canal Commission in its welfare work.

The banana country lies close to the ocean and



DRYING THE COFFEE BEANS



DRYING CLOTHS FOR COFFEE

Where the planter has no regular drying floor, cloths are spread on which the berries are exposed

mainly on the Atlantic side of the Isthmus. The lumber industry nestles close to the rivers, mainly in the Bayano region. Cocoanuts need the beaches and the sea breezes. Native rubber is found in every part of the Republic, though at present it is collected mainly in the Darien, which is true also of vegetable ivory. The only gold which is mined on a large scale is taken from the neighborhood of the Tuyra River in the Darien. But for products requiring cultivation like cacao and coffee the high lands in the Chiriqui province offer the best opportunity.

David is really the center of this territory. It is a typical Central American town of about 15,000 people, with a plaza, a cathedral, a hotel and all the appurtenances of metropolitan life in Panama. The place is attractive in its way, with its streets of white-walled, red-tiled dwellings, with blue or green doors and shutters. It seems to have grown with some steadiness, for though the Panama census for 1912 gave it 15,000 inhabitants, travelers like Mr. Forbes Lindsay and Albert Edwards, who visited it only a year or two earlier, gave it only from 5000 to 8000 people. Its growth, however, is natural and healthy, for the country round it is developing rapidly. You reach David now by boats of the Pacific Mail and the National Navigation Company from Panama. The quickest trip

takes thirty hours. When the government railroad is built, about which there is some slight doubt, the whole country will be opened and should be quickly settled. The road in all probability will be continued to Bocas del Toro on the Atlantic coast.

While the cattle business of the Chiriqui region is its chief mainstay, it is far from being developed to its natural extent. The Commissary officials of the Canal organization tried to interest cattle growers to the extent of raising enough beef for the need of the Canal workers, but failed. Practically all of the meat thus used is furnished by the so-called "Beef Trust" of the United States. It is believed that there are not more than 50,000 head of cattle all told in

Panama. I was told on the Isthmus that agents of a large Chicago firm had traveled through Chiriqui



Photo by Underwood & Underwood

BREADFRUIT TREE



PRIMITIVE SUGAR MILL.

with a view to establishing a packing house there, but reported that the supply of cattle was inadequate for even the smallest establishment. Yet the country is admirably adapted for cattle raising.

The climate of this region is equable, both as to temperature and humidity. Epidemic diseases are practically unknown among either men or beasts. Should irrigation in future seem needful to agriculture the multitude of streams furnish an ample water supply and innumerable sites for reservoirs.

Westward from David the face of the country rises gently until you come to the Caldera Valley which lies at the foot of the Chiriqui Peak, an extinct volcano perhaps 8000 feet high. Nowhere in Panama do the mountains rise very high, though the range is clearly a connection of the Cordilleras of North and South America. The Chiriqui Peak has not in the memory of man been in eruption, but the traces of its volcanic character are unmistakable. Its crater is a circular plain about half a mile in diameter surrounded by a densely wooded precipitous ridge. As the ascent is continued the woods give way to grass and rocks. While there is a distinct timber line, no snow line is attained. At the foot of the mountain is El Bouquette, much esteemed by the Panamanians as a health resort. Thither go Canal workers who, not being permitted to remain on the Zone during their vacations, wish to avoid the long voyage to North American ports.

This neighborhood is the center of the coffee-grow-

ing industry which should be profitable in Panama if a heavy protective tariff could make it so. But not even enough of the fragrant berries are grown to supply home needs, and the industry is as yet largely prosecuted in an unsystematic and haphazard manner. It is claimed that sample shipments of coffee brought high prices in New York, but as yet not enough is grown to permit exportation. Cacao, which thrives, is grown chiefly by English and German planters, but as yet in a small



CHIRIQUI NATIVES IN AN OX-CART

way only. Cotton, tobacco and fiber plants also grow readily in this region but are little cultivated.

A curious industry of the Chiriqui country, now nearly abandoned, was the collection of gold ornaments which the Guaymí Indians formerly buried with their dead. These images sometimes in human form, more often in that of a fish, sometimes like frogs

and alligators, jointed and flexible, were at one time found in great quantities and formed a conspicuous feature of the Panama curiosity shops. In seeking these the hunters walked back and forth over the grounds known to be Indian burial places, tapping the ground with rods. When the earth gave forth a hollow sound the spade was resorted to, and usually a grave was uncovered. Jars which had contained wine and food were usually found in the graves, which were in fact subterranean tombs care-



THE CATTLE RANGE NEAR DAVID

In Chiriqui province there is much of this open savanna or prairie land bordered by thick jungle

fully built with flat stones. The diggers tell of finding skulls perfectly preserved apparently but which crumbled to pieces at a touch. Evidently the burial places which can be identified through local tradition have been nearly exhausted, for the ancient trinkets cannot longer be readily found in the Panama shops.

Another Panamanian product which the tourists buy eagerly but which is rapidly becoming rare is the pearl. In the Gulf of Panama are a group of

islands which have been known as Las Islas des Perlas—the Pearl Islands. This archipelago is about thirty miles long, with sixteen big islands and a quantity of small ones, and lies about sixty miles south of Panama City. Balboa saw them from the shore and intended to visit them but never did. Pizarro stopped there on his way to Peru and plundered them to his heart's content. Otherwise their history has been uneventful. Saboga on the island of the same name is a beautiful little tropical village of about 300 huts, on



PROCLAIMING A LAW AT DAVID

There being a dearth of newspapers and readers, new laws are promulgated by being read aloud



DESPOILING OLD GUAYMI GRAVES

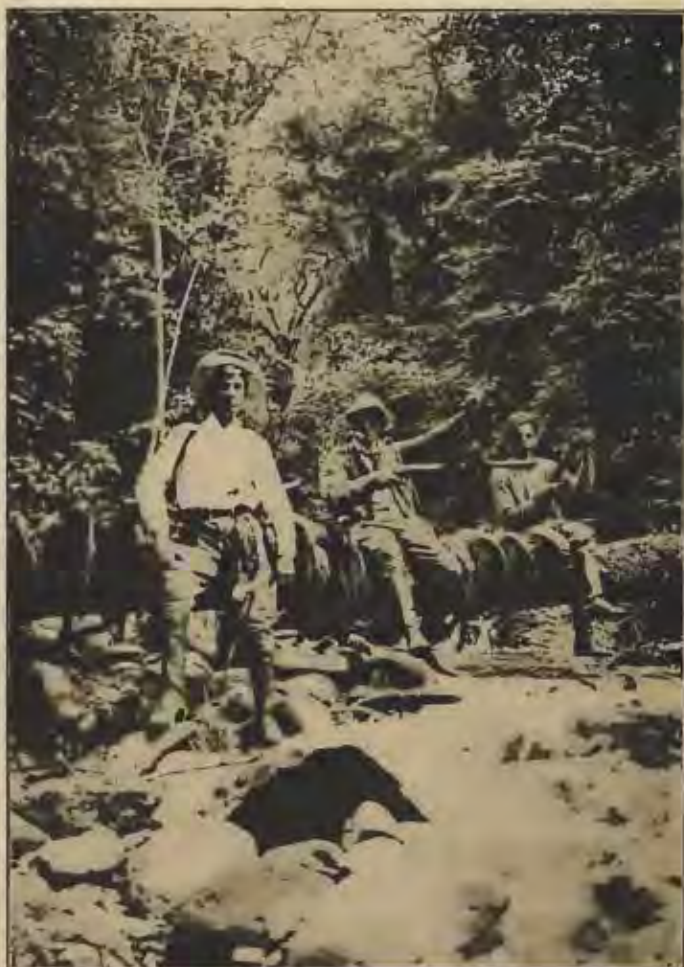
a high bluff bordering a bay that affords excellent anchorage. Whales are plentiful in these waters and Pacific whalers are often seen in port. San Miguel, the largest town of the archipelago, is on Rey Island and has about 1000 inhabitants. The tower of its old church is thickly inlaid with glistening, pearly shell.

The pearl fisheries have been overworked for years, perhaps centuries, and begin to show signs of being exhausted. Nevertheless the tourist who takes the trip to the islands from the City of Panama will find himself beset by children as he lands offering seed pearls in quantities. Occasionally real bargains may be had from "beach combers" not only at Rey Island, but even at Taboga, where I knew an American visitor to pick up for eleven dollars three pearls valued at ten or twelve times as much when shown in the United States. There are stories of lucky finds among divers that vie with the tales of nuggets among gold prospectors. Once a native boy diving for sport in one of the channels near Naos Island brought up an oyster in which was a black pearl that was sold in Panama for \$3000. The report does not say how much of this the boy got, but as the pearl was afterward sold in Paris for \$12,000 it is quite evident that the share of the middleman, of whom political economists just now talk so much, was heavy. The Panama pearls are sometimes of beautiful colors, green, pale blue and a delicate pink. On the Chiriqui coast a year or two ago a pearl weighing about forty-two carats, about the size and shape of a partridge egg, greenish black at the base and shading to a steel gray at the tip, was found. It was sold in Paris for \$5000.

It is a curious fact that the use of mussels from our

western rivers is one cause for the decadence of the Panama pearl industry. For years the actual expense of maintaining these fisheries was met by the sale of the shell for use in making buttons and mother-of-pearl ornaments. The pearls represented the profit of the enterprise, which was always therefore more or less of a gamble—but a game in which it was impossible to lose, though the winnings might be great or small according to luck. Now that the demand for pearl oyster shells has fallen off, owing to the competition of mussels, the chances in the game are rather against the player and the sport languishes.

The authorities of the Republic are making some effort to establish a system of industrial schools which may lead to the fuller utilization of the natural resources of the country. Every tourist who visits the Isthmus is immediately taught by one who has been there a day or two longer than he that Panama hats are not made in Panama. This seems to be



A DAY'S SHOOTING, GAME MOSTLY MONKEYS

the most precious information that anyone on the Zone has to impart. Most of the hats there sold are indeed made in Ecuador and the name "Panama" was first attached to them years ago, because their chief market was found in Panama City, whence they were distributed to more northern countries. The palm of which they are made however grows generally in Panama and the government has established in the Chiriqui province a school in which native boys are taught the art of hat making. In the National Institute at Panama City there is also a government trades school where boys are given a three years' course in the elements of the carpenters' and machinists' trades. Indeed the rulers of the Republic, which was so abruptly created, deserve great credit for the steps they are taking for the creation of a general system of public education, both literary and practical. The school system is not yet on a par with that of states of longer existence, nor will it in all probability ever quite conform to more northern ideas of an educational establishment. For example, the National Institute is closed to girls, who for their higher education are limited to the schools maintained by the church. A normal school, however, in which girls are prepared for teaching in the primary grades is maintained with about 125 students. The school system of Panama must be regarded merely as a nucleus from which a larger organism may grow. Yet when



BEGINNING A PANAMA HAT

one recalls the state of society which has resulted from revolutions in other Central American states, one is impelled to a certain admiration for the promptitude with which the men who erected the Republic of Panama gave thought to the educational needs of people. They were suddenly put in authority over an infant state which had no debt, but, on the contrary, possessed a capital of \$10,000,000 equivalent to about \$30 for every man, woman and child of its population. Instead of creating an army, buying a navy and thus wasting the money on mere militarism which appeals so strongly to the Latin-American mind, they organ-



THE GOVERNMENT SCHOOL OF HAT MAKING



COFFEE PLANTATION AT BOUQUETTE

ized a civil government, equipped it with the necessary buildings, established a university and laid the foundation of a national system of education.

The thoughtful traveler will concede to the Republic of Panama great natural resources and a most happy entrance to the family of nations. It is the especial protégé of the United States

and under the watchful care of its patron will be free from the apprehension of misuse, revolution or invasion from without which has kept other Central American governments in a constant state of unrest. About the international morality of the proceedings which created the relations now existing between the United States and Panama perhaps the least said the better. But even if we reprobate the sale of Joseph by his brethren, in the scripture story, we must at least admit that he did better in Egypt than in his father's house and that the protection and favor of the mighty Pharaoh was of the highest advantage to him, and in time to his unnatural brethren as well.

At present the Republic suffers not only from its own checkered past, but from the varied failings

of its neighbors. Its monetary system affords one illustration. The highest coin of the land is the peso, a piece the size of our silver dollar but circulating at a value of fifty cents. If a man should want to pay a debt of \$500 he would have to deliver 1000 pesos unless he was possessed of a bank account and could settle by check. No paper money is issued. "Who would take paper money issued by a Central American republic"? Ask the knowing ones scornfully when you inquire about this seeming lack in the monetary system. Yet the Republic of Panama is the most solvent of nations, having no national debt and with money in bank.

Probably the one obstacle to the progress of the Republic to greatness is the one common to all tropical countries on which Benjamin Kidd laid an unerring finger when he referred to the unwisdom of

longer permitting the riches of the tropics to "remain undeveloped with resources running to waste under the management of races of low social efficiency". The Panamanian authorities are making apparently sincere



WORK OF INDIAN STUDENTS IN THE NATIONAL INSTITUTE

endeavors to attract new settlers of greater efficiency. In proportion to the success that attends the efforts the future of Panama will be bright.



THE CRATER OF THE CHIRIQUI VOLCANO



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VENDOR OF FRUIT AND POTTERY

Like all tropical towns Panama displays interesting bits of outdoor life in its street markets and vendors. The sidewalks are the true shops and almost the homes of the people.

