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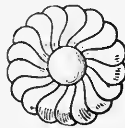
America Across the Seas

Our Colonial Empire

Described by

HAMILTON WRIGHT · C. H. FORBES-LINDSAY
JOHN F. WALLACE · WILLARD FRENCH
WALLACE W. ATWOOD AND ELIZABETH FAIRBANKS

Illustrated



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C. S. HAMMOND & COMPANY
1909

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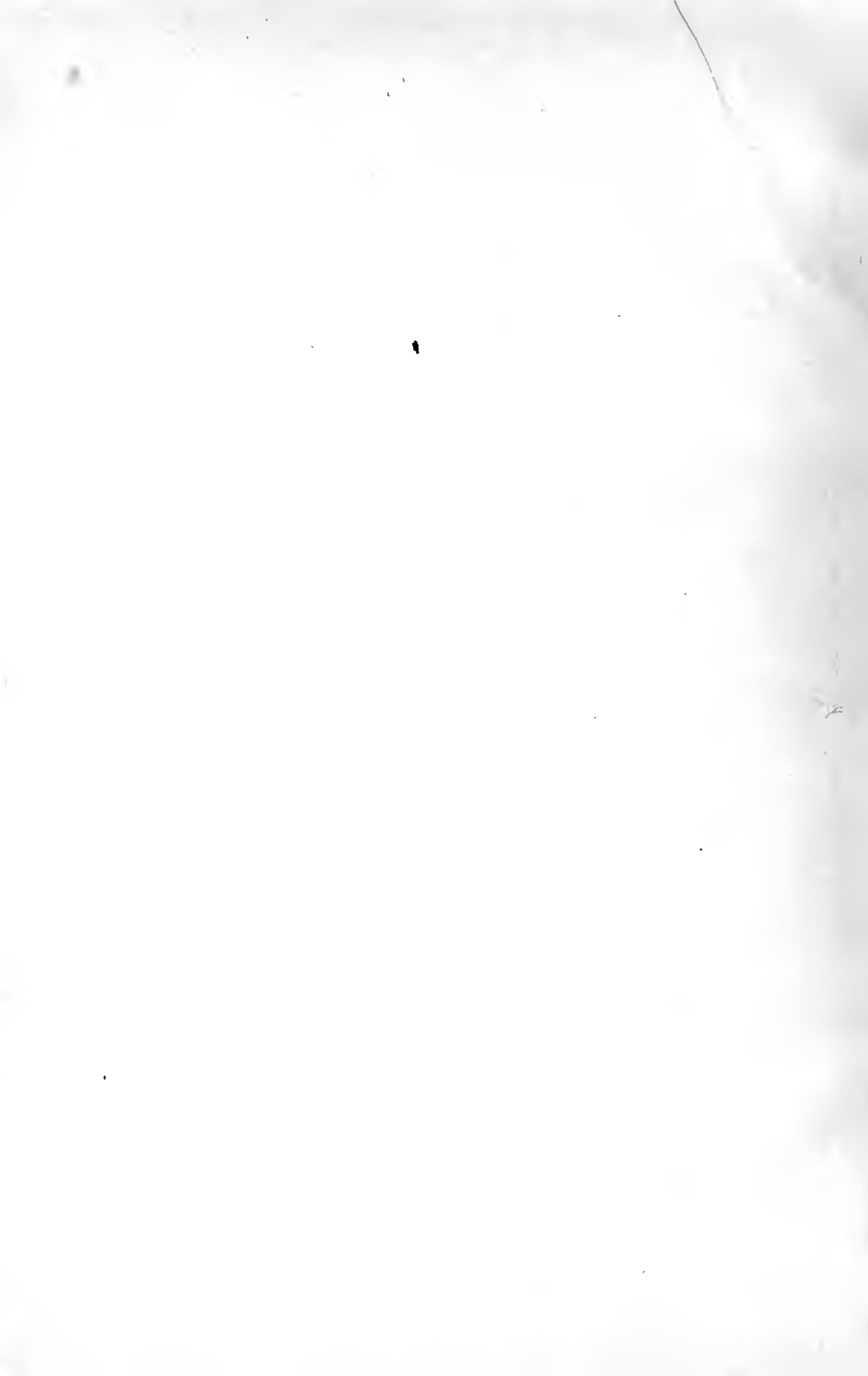

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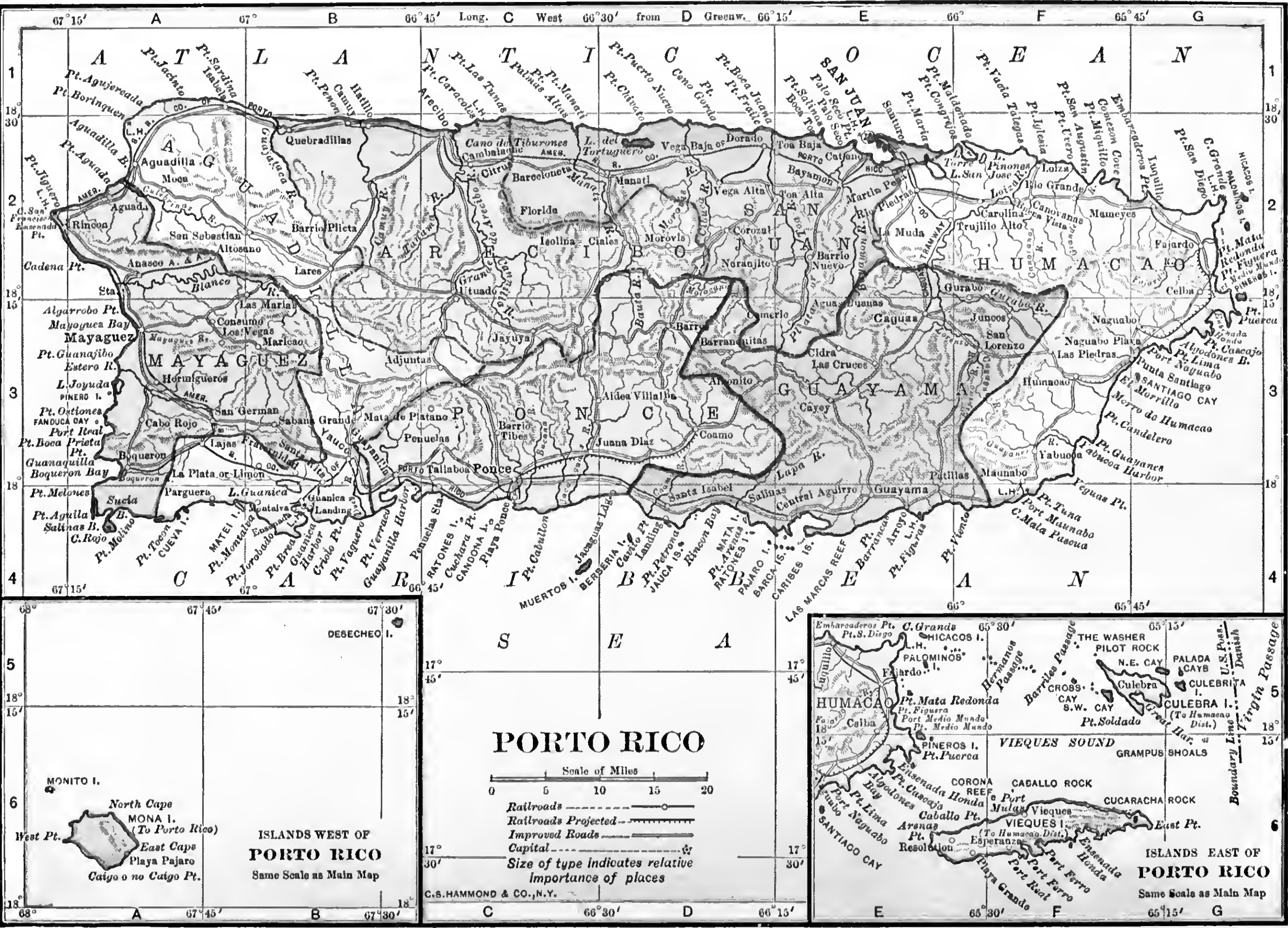

PORTO RICO
Scale of Miles
0 5 10 15 20
Railroads
Railroads Projected
Improved Roads
Capital
Size of type indicates relative importance of places
C.S.HAMMOND & CO.,N.Y.
ISLANDS WEST OF
PORTO RICO
Same Scale as Main Map
ISLANDS EAST OF
PORTO RICO
Same Scale as Main Map
ATLANTIC OCEAN
CARIBBEAN SEA
SAN JUAN
Ponce
Mayaguez
Arecibo
AGUADILLA
ARECIBO
SAN JUAN
HUMACAO
GUAYAMA
PONCE
MAYAGUEZ
VIEQUES SOUND
Virgin Passage

UNITED STATES CANAL ZONE
ISTHMUS OF PANAMA

Canal — Post Offices ⊙ — Villages ○
Deepened Approaches to Canal — Railroad in Operation
Locks — Railroad Projected

SCALE OF MILES 0 1 2 3 4 5

DIRECTION OF CANAL

ZONE EXTENDS 3 NAUTICAL MILES FROM MEAN LOW WATER MARK

REPUBLIC OF PANAMA
CARIBBEAN SEA
PANAMA BAY

Las Minas Bay, Puerto B., Margarita I., Manzanillo I., Colon, Cristobal, Pt. Toro, Light House, Playa de Flor, Limon or Navy Bay, Pt. Brujas, Pt. Tortuguillo, Ft. Lorenzo, Chagres, San Andres, Gatun, Lomas de Ahorca Lagarto, Monte Lirio, Pena Blanca, Pena Blanca Swamp, Agua Clara Swamp, Lomas de Palenquilla, Rio Plea, Rancho Camacho, Lagartera, Taja R., Gatun, Cruces, Bas Obispo, Gamboa, Gorgona, Matachin, Juan Grande, Mamei, Empire, Culebra, Caimitillo R., Paraiso, Pedro Miguel, Miraflores, Rio Grande, Corozal, Ancon, La Savana, La Boca, Panama, Ruins of Old Panama, Petillo Pt., Perico I., Flamenco I., Culebra I., Naos I., Pt. Farfan, Changarni I., Pt. Batele, Pt. Bruja, Tortola I., Pt. Venado, Cocove I., Hacienda de Cabra, Sugar Works of Olaqua, Divide of the Atlantic

CARIBBEAN SEA — SCALE OF MILES 0 50 100 — Carreta Pt., Colon, Chagres, Panama, Panama Bay, Coiba I., Col.

C.S. HAMMOND & CO., N.Y.

CUBA

SCALE OF MILES 0 50 100

Capitals of Provinces
Railroads
Submarine Telegraph Cables

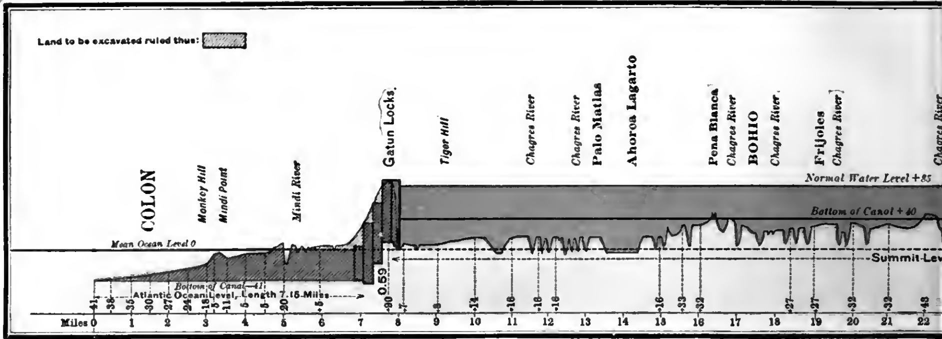
GULF OF MEXICO
CARIBBEAN SEA
YUCATAN CHANNEL
ATLANTIC OCEAN
GREAT BAHAMA BANK
Old Bahama Channel
WINDWARD CHANNEL

PINAR DEL RIO, HAVANA, MATANZAS, SANTA CLARA, CAMAGUEY, ORIENTE

Havana, Bahia Honda, Pinar del Rio, San Cristobal, Artemiso, Guanajay, Matanzas, Cardenas, Sagua la Grande, Caibarien, Sta. Clara, Cienfuegos, Trinidad, Sancti Spiritus, Moron, Ciego de Avila, Camaguey, Nuevitas, Gibara, Holguin, Manzanillo, Bayamo, Santiago de Cuba, Guantanamo, Baracoa, Isle of Pines, Nueva Gerona, Gulf of Batabano, Isla de Mangles, Large Key, Cantiles Key, C. San Antonio, C. Corrientes, C. Francés, Frances Pt., Guacanabo Gulf, C. Cruz, Sa. Maestra, Grand Key, Alcodones Keys, Little Cayman, Cayman Brac, Grand Cayman, Long Island, Crooked I., Acklin I., Fortune I., Crooked Passage, Cochinos Bank, Columbus Bank, Pickle Bank, Sabinal Key, Guajaba I., Romano Key, Cocos Key, Sta. Maria Keys, Fragoso Key, C. Maysi, Mulas Pt., Mangle Pt.

85 83 81 Longitude West 79 from Greenwich 77 75

C.S. HAMMOND & CO., N.Y.



MAP OF PANAMA CANAL

MILES

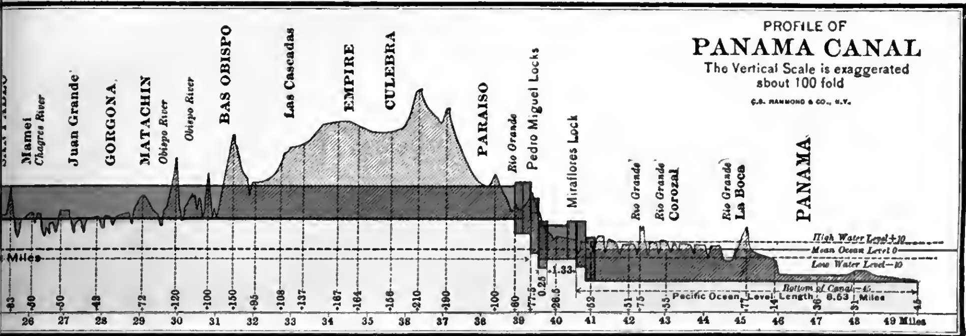
KILOMETERS

- Line of Canal
- Panama Railroad, present location
- Panama Railroad, proposed location
- Dams
- Indicates shallow water with less depth than in adjacent canal
- Indicates Navigable water more than 41 f[t.] for Atlantic entrance and more than 45 [ft.] from Gatun to Pacific terminal, referre[d to] tides or mean lake levels.

ATLANTIC OCEAN — CARIBBEAN SEA

Las Minas Bay, Pt. Halo Remo, Pt. Cano Principal, Pt. Coco Solo, Manzanillo B., COLON, CRISTOBAL, Marajal, Monkey Hill, La Soledad, Sierra Quebrancha, Pt. Toro, Limon or Navy Bay, Playa de Flor, Pt. Brujas, Naranjitos, Pt. Naranjitos, Mt. Jaramillos, Mindi, San Jose, Jaramillos, GATUN LOCKS, GATUN, Pt. Tortuguillo, FT. LORENCO, CHAGRES, Chagres R., San Andres, Tiger Hill, Lion Hill, Monte Lirio, Ahorca Logarto Hills, Ahorca, Lagarto, BOHIO, Carmen, Santana, Massias, PROPOSED, Buena Vista, Frijoles, Chagresito, Pena Blanca, GATUN LAKE, Agua Clara, Palenquilla Hills, Rio Pina, Pina R., Rancho del Tigre, Rancho Comancho, Rio del Medio, Lagartera, Limon R.

Hammond's Smaller Map of Panama Canal.
Copyright, 1909, by C.S. Hammond & Co., New York.



CROSS SECTION—CULEBRA CUT

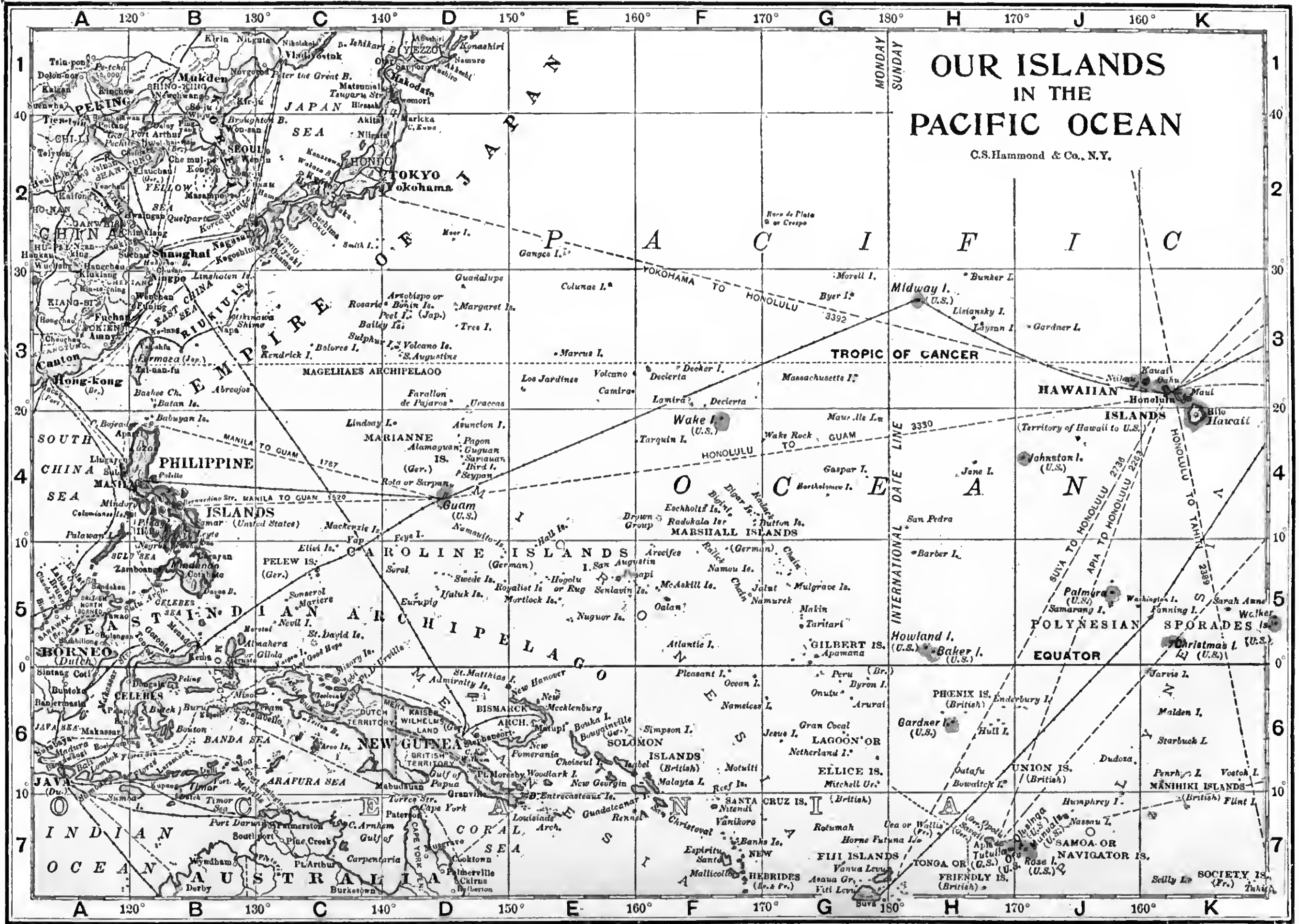
Rock Line

150′

45′

300′

San Juan
Chagres R.
Santa Barbara
Chagres
Dos Bocas
El Vigia
Campanas
Chagres R.
Chilibrillo R.
NORTH
Gatun
Cupe
Yayiza
Las Delicias
Juan Mina
Pihiva
Palo Grande
Cruces
PANAMA
BAS OBISPO
Las Cascadas
EMPIRE
CULEBRA
Mt. Culebra
RAILROAD
PARAISO
Pedro Miguel
PEDRO MIGUEL LOCKS
Rio Grande
Miraflores
MIRAFLORES LOCK
COROZAL
Ruins of Old Panama
Petillo Pt.
PANAMA
Mt. Ancon
LAS TRES HERMANAS
Harbor of
GABILA I.
LA BOCA
Corozal
Panama
FLAMENCO I.
NAOS I.
PERICO I.
CULEBRA I.
Pt. Farfan
Pt. Batele
Hacienda de Cabra
Pt. Bruja
Pt. Venado
Juan Grande
MATACHIN
Mamei
Paja R.
Cano R.
BAY OF PANAMA
PACIFIC OCEAN


OUR ISLANDS
IN THE
PACIFIC OCEAN
C.S.Hammond & Co., N.Y.
MONDAY
SUNDAY
INTERNATIONAL DATE LINE
TROPIC OF CANCER
EQUATOR
P A C I F I C
O C E A N
EMPIRE OF JAPAN
YOKOHAMA TO HONOLULU 3392
MANILA TO GUAM 1520
MANILA TO GUAM 1787
GUAM TO HONOLULU 3330
SUVA TO HONOLULU 2736
APIA TO HONOLULU 2263
HONOLULU TO TAHITI 2389
Midway I. (U.S.)
Wake I. (U.S.)
Guam (U.S.)
Johnston I. (U.S.)
Palmyra (U.S.)
Howland I. (U.S.)
Baker I. (U.S.)
Gardner I. (U.S.)
Christmas I. (U.S.)
HAWAIIAN ISLANDS
(Territory of Hawaii to U.S.)
Honolulu
Hawaii
PHILIPPINE ISLANDS (United States)
MARIANNE IS. (Ger.)
CAROLINE ISLANDS (German)
MARSHALL ISLANDS
PELEW IS. (Ger.)
GILBERT IS.
ELLICE IS.
PHŒNIX IS. (British)
UNION IS. (British)
SAMOA OR NAVIGATOR IS.
TONGA OR FRIENDLY IS. (British)
FIJI ISLANDS
NEW HEBRIDES
SANTA CRUZ IS.
SOLOMON ISLANDS (British)
BISMARCK ARCH.
NEW GUINEA
BORNEO (Dutch)
CELEBES
JAVA
AUSTRALIA
INDIAN OCEAN
SOUTH CHINA SEA
EAST CHINA SEA
YELLOW SEA
JAPAN SEA
BANDA SEA
ARAFURA SEA
CORAL SEA
EAST INDIAN ARCHIPELAGO
MICRONESIA
MELANESIA
POLYNESIA
POLYNESIAN SPORADES
CHINA
PEKING
Shanghai
Canton
Hong-kong
TOKYO
Yokohama
SEOUL
Mukden
MAGELHAES ARCHIPELAGO
MANIHIKI ISLANDS
SOCIETY IS. (Fr.)

HAWAII

Scale of Miles
0 10 20 30 40 50

Long. West from Greenw.

OAHU COUNTY
OAHU
HONOLULU
Kaena Pt.
Kahuku Pt.
Kaneohe Bay
Mokapu Pt.
Makapuu Pt.
Koko Head
Diamond Head
Pearl Harbor
Barbers Pt.
Cable to Midway I.
Cable to San Francisco
KAIWI CHANNEL

KALAWAO COUNTY
LEPER SETTLEMENT
MOLOKAI
Mauna Loa
Laau Pt.
Kaunakakai Har.
Pailolo Channel

MAUI COUNTY
MAUI
Haleakala 10,009
Kahului Harbor
Kauiki Head
Kapueokahi Har.
LANAI
Kealaikahiki Pt.
Kealaikahiki Channel
Auau Channel
KAHOOLAWE
MOLOKINI I.
Alalakeiki Channel
ALENUIHAHA CHANNEL

PACIFIC OCEAN

HAWAII
Upolu Pt.
Kohala Mts.
NORTH KOHALA
SOUTH KOHALA
Mauna Kea 13,805
NORTH HILO
SOUTH HILO
Hilo
Hilo Bay
Hualalai 8,269
N. KONA
S. KONA
Mauna Loa
Crater of Mokuaweoweo 13,675
Crater of Kilauea 4,040
Volcano House
PUNA
KAU
C. Kumukahi
Kailua B.
Kealakekua B.
Ka Lae Pt.
Kauna Pt.
Keauhou Pt.
Kalapana
Punaluu Landing
Honuapo
Kaalualu Har.

KAUAI COUNTY
KAUAI
LIHUE
HANALEI
WAIMEA
KOLOA
Waialeale
Kilauea
Haena Pt.
Hanalei Bay
Nawiliwili Landing
Makahuena Pt.
NIIHAU
Kaeo Mt. 1,500
Puuwai Pt.
Kona Pt.
Cooks Anchorage
Pahau Pt.
Kawahoa Pt.
Puko Pt.
Oku Pt.
LEHUA (EGG I.)
KAULA (TAHOORA)
KAMUKAHI CHANNEL
KAIEIE-WAHO CHANNEL
Kaena Pt.
OAHU
PACIFIC OCEAN
Cable to Midway I.

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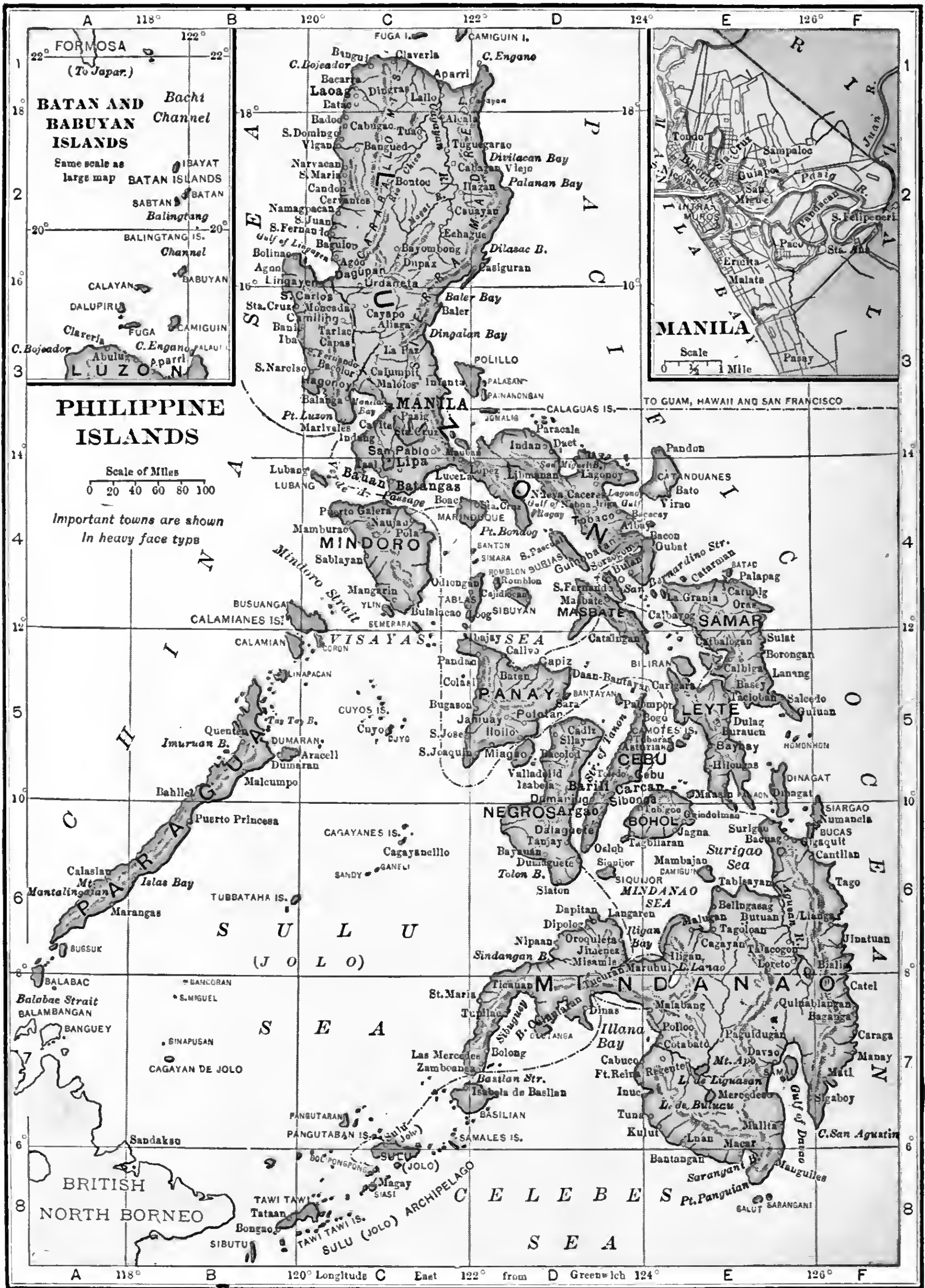

PHILIPPINE ISLANDS
Scale of Miles
0 20 40 60 80 100
Important towns are shown in heavy face type
BATAN AND BABUYAN ISLANDS
Same scale as large map
FORMOSA
(To Japan)
Bachi Channel
BATAN ISLANDS
Balingtang Channel
BALINGTANG IS.
CALAYAN
DALUPIRI
FUGA
CAMIGUIN
BABUYAN
C. Bojeador
C. Engano
Aparri
LUZON
MANILA
Scale
1 Mile
Tondo
Sta. Cruz
Sampaloc
Binondo
Quiapo
San Miguel
INTRAMUROS
Pandacan
S. Felipeneri
Paco
Sta. Ana
Ermita
Malate
Pasay
MANILA BAY
R. Pasig
TO GUAM, HAWAII AND SAN FRANCISCO
Laoag
Vigan
Bangued
Tuguegarao
Ilagan
Divilacan Bay
Palanan Bay
Dilasac B.
Casiguran
Baler Bay
Baler
Dingalan Bay
POLILLO
Lingayen
Dagupan
S. Fernando
Bolinao
Tarlac
Malolos
MANILA
Cavite
Batangas
Lipa
Lucena
Nueva Caceres
Lagonoy
Albay
CATANDUANES
Virac
Gulf of Lingayen
Pt. Luzon
LUBANG
Verde Is. Passage
MINDORO
Calapan
Puerto Galera
Mindoro Strait
MARINDUQUE
MASBATE
SIBUYAN
TABLAS
Romblon
San Bernardino Str.
SAMAR
Catbalogan
Borongan
LEYTE
Tacloban
Guiuan
Dulag
Ormoc
BILIRAN
PANAY
Capiz
Iloilo
Antique
S. Jose
NEGROS
Bacolod
Dumaguete
CEBU
Cebu
BOHOL
Tagbilaran
SIQUIJOR
DINAGAT
SIARGAO
Surigao
Surigao Sea
MINDANAO SEA
MINDANAO
Cagayan
Iligan
Iligan Bay
L. Lanao
Dapitan
Butuan
Misamis
Zamboanga
Basilan Str.
BASILAN
Isabela de Basilan
Cotabato
Illana Bay
Mt. Apo
Davao
Gulf of Davao
C. San Agustin
Sarangani B.
Pt. Panguian
SARANGANI
VISAYAS SEA
SIBUYAN SEA
CALAMIANES IS.
BUSUANGA
CALAMIAN
CUYOS IS.
Cuyo
PARAGUA
Puerto Princesa
Malcumpo
Islas Bay
Mt. Mantalingajan
BALABAC
Balabac Strait
BALAMBANGAN
BANGUEY
CAGAYANES IS.
TUBBATAHA IS.
SULU (JOLO) SEA
CAGAYAN DE JOLO
SULU
(JOLO)
SULU (JOLO) ARCHIPELAGO
PANGUTARAN IS.
TAWI TAWI IS.
SIASI
BRITISH NORTH BORNEO
Sandakan
CELEBES SEA
PACIFIC OCEAN
CHINA SEA
120° Longitude East 122° from Greenwich 124°
118°
126°

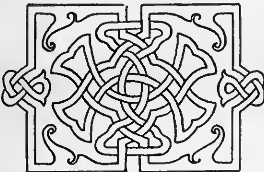
THE PHILIPPINES

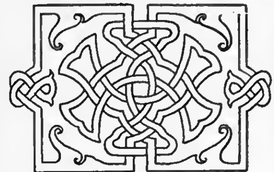
BY

HAMILTON WRIGHT

EDITOR OF THE "OVERLAND MONTHLY MAGAZINE"

AUTHOR OF "A HANDBOOK OF THE PHILIPPINES"





AS attractive, perhaps, as any other land under the Stars and Stripes are the vast unknown Philippines — the Philippines outside the cities, which present a phase of the archipelago that Americans in the islands are just beginning to appreciate but with which the people of the United States are almost as unfamiliar as they are with the black heart of Africa.

The difference between the Europeanized and Americanized Philippines and the unknown Philippines is simply tremendous. It is a political, sociological, industrial, economical, and, in some measure, an ethnological difference. And, we may say, the difference is topographic and climatic, so great is the gulf between the real natural features of the archipelago and the current descriptive fiction which passes as reality; yet it is easy to arrive at the reasons for our faulty knowledge, for those general ideas which were not gathered during the haze of the insurrection have been gained from descriptions of Manila and other of the larger centers, and the immediate country about them. A stranger may obtain a far better idea of the United States and the vastness of its resources by visiting in New York alone, than he would gain of the Philippines who spends six or eight weeks in Manila, Hilo, and Cebu.

Picture, if you will, the huge Philippines, seven thousand square miles larger than the British isles, though with but one-fifth of England's population. An insignificant proportion of their eight million Malay peoples dwell in great cities; the rest live in scattered hamlets and communities along the seacoasts and in the great interior valleys and plains. There is but one notable exception to this distribution of the people, that of the hardy Igorrotes, those most prodigious workers and scientific irrigators, who to a number probably exceeding three hundred thousand, make their homes in the almost inaccessible mountain heights of

interior Luzon. And a minor exception is found in the case of a few wild fugitive tribes, like the Negritos and Tirurays, who dwell for the most part in the deep forests of the coast ranges. Because these millions live a communal life and seldom leave the locality in which they are born, they are unknown even to the leaders of their own people.

The archipelago is an empire of undreamed-of possibilities. Possibly no country in the world may excel its unique and lasting charms. Were it known it would become a paradise for the sightseer and tourist. Yet one who has not left the well-traveled routes will with difficulty appreciate its marvelous diversity in happiness and comfort. It is nonsense to say corporations will exploit the Filipinos. In the first place the corporations can not hold enough land, and in the second place the people will not work efficiently if abused.

These great unknown islands spell neglected opportunity; millions and millions of acres have never known even the wild man's crude plow. One may, in regions, travel for days, even weeks, without seeing a native. He will pass through realms of extreme fertility and beauty, through vast upland meadows of rich pasture grass, growing knee-high and concealing a soil rich and black as that of Egypt; across quiet savannahs where

A TYPICAL FARM IN THE PHILIPPINES

and almost limitless opportunities. I think it was fortunate for the Filipino people that the Americans came. For there is no way in which the native inhabitants will develop faster. They are imitative and adaptable to a degree, and they progress faster when in contact with the white settler than when left to their own devices. The grasp with which the Filipino people are laying hold of a totally new scheme of life is the astonishment of the European nations which have colonized the Orient.

There is room in the Philippines for ten times the present population to dwell

strange trees dot the landscape as do the mountain oaks of the California Sierras. But for the lack of sleek cattle, one might here fancy himself in a deserted orchard pasture in New England. Streams, clear, cold and crystal, spring from the mountain heights and bubble through the mountain meadows. Broad prairies which might pasture thousands, or better, millions, of head of cattle, or which might grow sugar-cane, cotton, tobacco or corn, are deserted.

In the lowlands, jungles of wild bananas wave in the wind, their fruit uncropped; in the uplands thousands of

ALBAY VOLCANO, SOUTHERN LUZON
Pueblo of Legaspi in foreground

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LOOKING FROM CORREGIDOR ISLAND TO CABELLO ISLAND

Rice fields in foreground

Copyright by Underwood & Underwood

IN THE BOTANICAL GARDENS, MANILA

PLOWING A RICE FIELD

SANTA CRUZ, MARINDUQUE

acres of wild hemp are never stripped; on the mountain-tops the Igorrotes grow as fine long-staple cotton as any in the world, but crudely. For each cotton-plant stands alone on the summit of a hummock which is six or eight feet from the next hummock, and surrounded by the water of a rice paddy. The cotton grows well enough, and an immense quantity could be grown on the idle areas, but the Igorrotes are skilled only in the raising of rice. Wild peanuts, wild camotes (sweet potatoes), wild oranges of many kinds and some of a delicious flavor, wild limes, wild rubber and gutta-percha, thousands of products of the tropical, semi-tropical, and, in the higher altitudes, of the temperate zone, are neglected.

The valuable hardwoods that pass their usefulness without being lumbered and on to decay are almost everywhere. In the mountains one sees them in a panorama to delight the eye. Dense forests of hardwood creep blackly down the steep hogbacks and thrust themselves into the grassy meadows as a promontory reaches out into the ocean. Deer and wild boar are innumerable. In some regions you will find jungle fowl and in the heart of Luzon I have seen many wild carabaos

A FARMER'S WIFE
With her large cigar

tobacco, and a long-worded and usually difficult attempt to explain routes and distances. While, if one comes at night to a solitary dwelling, the woman of the house cheerfully sacrifices her last chicken to set up a feast for the stranger. One could, if necessary, travel from north to south in the islands subsisting entirely upon the bounty of the native people, whether the civilized natives or the pagan wild tribes. I have never heard of an instance in which the natives have refused to extend hospitality where on any pretext it could be offered.

All in all, I venture that you will not find anywhere a country which is, by and large, more hospitable, more cheerful to the eye, of greater promise, and more healthful than the Philippines. After traveling 651 miles on horseback and afoot, the writer came one day upon some scales and found that he had increased in weight by ten pounds. After five months more of travel, he found himself eighteen pounds to the good. But the man who stays always in Manila, for instance, who never plays tennis, or golfs, or rows,

A SCHOOL TEACHER AND HIS PUPILS
He is protesting against their habit of smoking

or water buffaloes, and a few wild horses. Game and fruit for the taking, cool nights — sometimes very cold — and brilliant, comfortable days, and a region as magically alluring as ever beckoned to the pioneers of the Great Plains. Who knows the Philippines who has lived only in the cities there?

The mountains have a charm all their own and are much less known than the lower altitudes. Sometimes, above one thousand five hundred feet, their vast flanks are dotted with innumerable groves of great pines. Again on their mist-clad summits the trails will lead through dense forests where enormous vines coil like huge pythons about the giant trees, and creepers and parasites and flowering orchids innumerable make a fantastic paradise of the woods. And if on the trail one meets a native, or a party of fifty, they pass the time of day with such gifts as may be handy, perhaps an offer of

who drinks more of alcoholic liquors than is healthful — he should really drink nothing in the tropics — and who spends laborious days trying to keep cool, will never think well of the Philippines or of the Filipinos. Not every one can live in the islands, but nearly every one can if he looks out for his liver.

There are to-day in the unknown Philippines, in the remote provinces, and far from the cities, many young Americans who are starting up plantations and who swear by the country. It is of these pioneers that you will learn something new about the Philippines. I know many who have been in the islands six or eight years and have not had a sick day. I have myself, in the past few months, directed more than a dozen young men to the islands, though I had no personal object in so doing, and those who have written me say that they like the life greatly. Down at Davao on the huge island of Mindanao, there are about forty Americans, mostly former soldiers who have served their enlistments and are now owning and managing their own plantations. Those men of our early West who divided their time between shooting the skulking Indians and cultivating their crops were not greater pioneers than the soldier boys in the Philippines who have turned farmers. But the white man has not proved a menace to his Malay brothers. The population of the Philippines has increased twelvefold since the Spaniards came. While, on the other hand, the American Indians either perished in resisting civilization or in succumbing to it, the Malay profits by contact with civilization.

One of the pioneers of the Davao district settled in a remote region many leagues from a white neighbor. He won the confidence of the Bogobos, as the wild people there are called. They came in and settled on his ground, they helped him clear it, they learned the use of modern farm implements and, to-day, he can put a hundred men at work in his hemp hills at any time. Another pioneer who went into planting at Davao, in 1900, with little capital other than courage, health, and steadfastness, is now $25,000 ahead of the game, besides owning his own plantation. To tell the truth, the hackneyed stories of disaster that first cropped up from the Philippines and still persist in coming out, are relics of a by-gone age, the prehistoric era of 1898-1903.

There is optimism in the Philippines. My friend, Mr. M. A. Clarke, president of the Manila Merchants' Association,

SHEEP IN THE CAYUGAN VALLEY
Splendid sheep are raised in the Philippines, as well as Angora goats

writes that the association has a fund of $50,000 gold to "boom" the islands in the good western way, with the specific object of attracting tourists and capital to the Philippines, and of advertising Philippine products, such as the valuable woods and rare cloths and hats of native fibers. The Insular Government has appropriated $12,500 gold to the association to print pamphlets. Every business man, Filipino, American, Spanish, English, German, in the islands wants to encourage foreign capital. A few, very few, years ago the statement that there was anything good in the Philippines would have been hailed with derision. Even to-day one of the attractive features of Philippine life, the weather, is presented as a prodigious bugaboo to life there.

The climate of the Philippines has been much maligned. It is probably more generally misunderstood than any other feature of the islands, and this misunderstanding has been a serious commercial drawback. One should travel to learn what the climate really is, and how many variations of it there are. Really the climate presents so many gradations, from tropical to almost temperate, that no general statement can be made which

will not be subject to innumerable well-grounded objections. As a whole, the climate is not entirely determined by altitude; for, in some regions, at sea-level where the trade-winds are not arrested by the mountains, you will find a climate pleasant, uniform, and with steady but gentle showers every few days the year around. This climate is typical of Mindanao Island and Southern Luzon. And, on the other hand, you will in some sections, as at Manila, for instance, find a round of seasons where the climate for a given month can be predicted with certainty.

Manila is balmy for three months of the year and pleasant for six, the period from the middle of September till early in March. The latter part of March, and April, May and June are the hottest months, but by June the showers have come. The highest recorded temperature of the city for twenty-two years was 100.04 Fahrenheit, which was reached on May 23, 1889. Altogether the hot season of Manila is perhaps as endurable as that of New York or Chicago in midsummer. Now that the railroad is built from Manila up to Anipolo, 625 feet above sea-level, and a special train to Dagupan runs in connection with the stage to Baguio, one can as readily get away from the heat of the city as he can take the Brooklyn elevated at Park Row for Coney Island. All in all, the climate of the Philippines is an asset.

ANCIENT MINES OF THE IGORROTES
Gold has been taken out of these mines for two hundred years or more

During the fiscal year ending June 30, 1906, the death rate among American civilians living in the Philippines was only 9.34 per thousand, while the death rate among American soldiers was but 8.65. In the United States the death rate for the last census was about seventeen per thousand, but of course the American inhabitants of the islands are mostly adults who have passed the period of infant mortality.

The difference between the Philippines, as seen in Manila and other centers of population, and the less-known regions of the islands is sociological, industrial and economic, because in the interior the civilization of the Philippine Malays has probably changed but little since the Spanish came three hundred and fifty years ago. The houses are, in the main, the rather primitive thatches typical of Malayasia; the industries are limited to the piecemeal performance of many tasks, and all the manufactures, as the making of hats, cloths, mats, knives, bolos, and utensils, are household manufactures. Transportation is crude and difficult and agriculture is accordingly limited. The native farmer can not get his products to market if he raises them;

A PLANTATION SETTLEMENT

A TYPICAL NATIVE SUGAR RANCH
Bananas and other plants are mixed with the sugar cane

A HEMP PLANTATION
The Manila Hemp makes the best known cordage

A RIVERSIDE VILLAGE

there is no stimulus for him to produce beyond his immediate needs.

Social intercourse is correspondingly restricted. The native knows the circle of friends of his village. He loves the Philippines, and is patriotic because he loves the ground itself and the familiar landscapes which he has known from childhood; because he loves his home, wife, children and parents, but he has not the remotest conception of the islands as a whole, and such a condition as a unified government would be totally incomprehensible to him. And yet, frequently, in the most remote localities, one will meet natives of great intelligence and considerable information; for the Spanish padres penetrated the islands and taught the people all they knew. But the building of the railroads, the improvement of steamship facilities, and the development of the public-school system will in a generation open up the life of the Filipino people, and the progress of the islands will assuredly be as marked as that of Japan, though perhaps along other lines.

One great influence renders the people of the Philippines peculiarly susceptible to American teachings. It is Christianity. In every settlement there is a church. Seven-eighths of the people are Christians and devoted to the Catholic faith. They are therefore generally classed as civilized, though apart from those who have been in close association with foreign influence, their civilization is in no way an industrial civilization as we know it in the United States. The change from the time of Legoaspi, who first entered Manila, has not been in the manner of living, but rather in a gradual relaxation of the cruel, tribal, patriarchal system then practiced. When the Spaniards came, the Filipino people had a civilization as peculiarly their own as is that of the Chinese, for they were able to read and write in a fashion in their dialects, and, what is most wonderful, they even staged plays. Most of the plays were in Tagalog dialect.

Nor are the people civilized in the sense of being able to comprehend the art of self-government or to understand in a political way the individual rights of man, but they are civilized in a moral sense. And because they are Christian

A MORO DATTO OF MINDANAO AND HIS RETINUE

The Moros say this datto, or feudal chieftain, has a homely face but a good heart

and morally civilized we must account the work of the Spanish through the Catholic missionaries as perhaps the greatest peaceful conquest in the world's history. The work shows in the daily life of the people. The Filipino woman is the only woman in all the Orient who is not held in subjection to man; and, either from a statistical or any other basis, the more than seven million Christian Filipinos will compare very favorably with their white cousins of the United States. Rape, prostitution, murder, burglary and violent crimes are even proportionately less in the Philippines than in the United States. Petty pilfering and deceit are, no doubt, more frequent, for the people are but children. Yet they are peculiarly susceptible to the noblest ideals of the white race.

The Christian people of the Philippines embrace eight civilized tribes, each of which speaks a different dialect. When Americans first came to the islands they thought of all these peoples as alike. But now they know the Visayans, living mostly in the islands of Negros, Cebu, and Panay, to the number of three and a quarter millions, as a gentle, peaceable lot. The Visayans took little part in the

insurrection. They know the Ilocanos, eight hundred thousand in number, as the Yankees of the Philippines.

A race of prodigious workers are these Ilocanos; from dawn to dark they are in the fields with scarcely a respite at noon; and we know of a native Ilocano planter who attached an acetylene gas-lamp to a motor plow and worked his men in three eight-hour shifts through the twenty-four hours. The Ilocanos live on the northwest coast of Luzon, where the plains that extend between the Cordilleras and the sea for 150 miles north and south, and perhaps from ten to thirty east and west, hold but a shallow soil. Their country, the least fertile in the Philippines, has rendered them industrious; their numbers have increased and they are gradually migrating to all portions of the islands, where they are much sought for their industry.

The Tagalogs, who number almost a million and one-half, are the most mentally alert race in the islands. For generations they have lived in and near Manila, in closer contact with the white race than any other. They are not nearly as strong physically as the Visayans, Ilocanos, Bicolos or some others. But there are all sorts and conditions of Filipino people. It would be as difficult to describe them as it would be to describe the people of the United States.

RAFTING FRUIT IN SOUTHERN LUZON

Outside of the larger cities, where American methods are rapidly creating an independent industrial type, all of the Filipinos may be divided into two social classes: the ruling or the landlord class *(gente ilustrisimo)*, the subordinate class *(gente baja)*. In a village of, say, ten thousand population, you may find twenty ruling families, all probably closely related and intermarried, who dominate to a large extent the entire population. These families live in the fashion of the wealthy Spanish; they have pianos in their homes and magazines, and are polished and agreeable companions. In a community of ten

thousand, too, you may find to a very small degree, a fairly independent class of artisans and workers.

But when you come to settlements of one to two thousand or perhaps more, the gulf is wider still; there is no middle class, there are very few rich, and millions and millions of poor, and the rich absolutely rule and control the poor. Those who judge the Filipino people by the educated Filipinos they meet fail, of course, to strike any average of the people. For the people of the Philippines as a whole are the uneducated, unambitious, passive, obedient, contented and cheerful poor. They are not longing for independence, for they have no idea of what independence is; all they want is to be happy with their families and their amusements, to have enough to eat and enough to wear. These are the people of the unknown Philippines, hospitable and happy fatalists, looking for nothing more than what nature herself will provide. I am not against independence at such time as the people generally would be benefited.

Though the wealthy classes as a whole impose heavily on the poor, yet the condition of the latter is by no means sad or deplorable; rule in the Philippines is of class and not caste. Education and material wealth alone determine the position of the upper classes; the son of the poorest peasant may, by his own efforts, rise to the most influential of stations. I have met former Governor Piemontel of Ambos Camarines Province. His parents were humble *taos* who knew no speech but the primitive Bicol dialect. Governor Piemontel started as a boy to work in the hemp fields; he saved enough to begin a little hemp patch of his own, and for seven years he toiled without leaving his plot. To-day he is, through his own efforts, a man of great wealth and of education. He has traveled over Europe and the United States, and his sons have been highly educated on the continent.

IGORROTE BOYS PULLING A FERRY ACROSS THE EBELAN RIVER

The hope for these poorer Filipinos is

their education, education especially in modern methods of transportation and manufactures, through association with the more advanced races. The American public-school system with its almost half a million native pupils, is performing a tremendous work in the upbuilding of the islands. The system is at present so arranged that every child of school age in the islands may spend three years in a public school. The schools are overcrowded. Young Filipino children are as bright as American children of the same age, or as Japanese children. There is in the character of the Filipino people nothing to prevent them from advancing as rapidly as the Japanese have done; but foreigners are only beginning to appreciate this.

A traveler through the Philippines would have to speak in sixty-seven dialects to talk to all the tribes in their

THE CATHEDRAL AT TUGUEGARAO, IN THE CAYUGAN VALLEY
This is one of the finest of the old-type churches

A LITTLE MORO GIRL DIVER AT JOLO

own language; some of the uncivilized pagan tribes are almost unknown. The northeast coast of Luzon and the heart of Mindanao have never been thoroughly penetrated by the white man. The regions are some of the richest in the world, and if inhabited at all, are only the homes of nomadic tribes. The pagan tribes or savages number about six hundred thousand, and, with the exception of the Igorrotes, are generally most primitive.

The Igorrotes, who can neither read nor write, who have no signs nor symbols, such as even the cave-dwellers scratched upon the rocks, have yet developed some of the most amazing irrigation works in the world. They terrace mountain cañons to a height of three thousand feet and grow rice on the summit of each flooded terrace. They often mix the water used for irrigation with an enriching sediment and thus irrigate and fertilize with one operation, a step ahead of fertilizing in this country. The number of Igorrotes is probably over three hundred thousand. They are a jolly, peaceable and very hospitable people, though the tribes engage in bitter feuds that are carried from

THE CATHEDRAL AT LUEBAN, LUZON

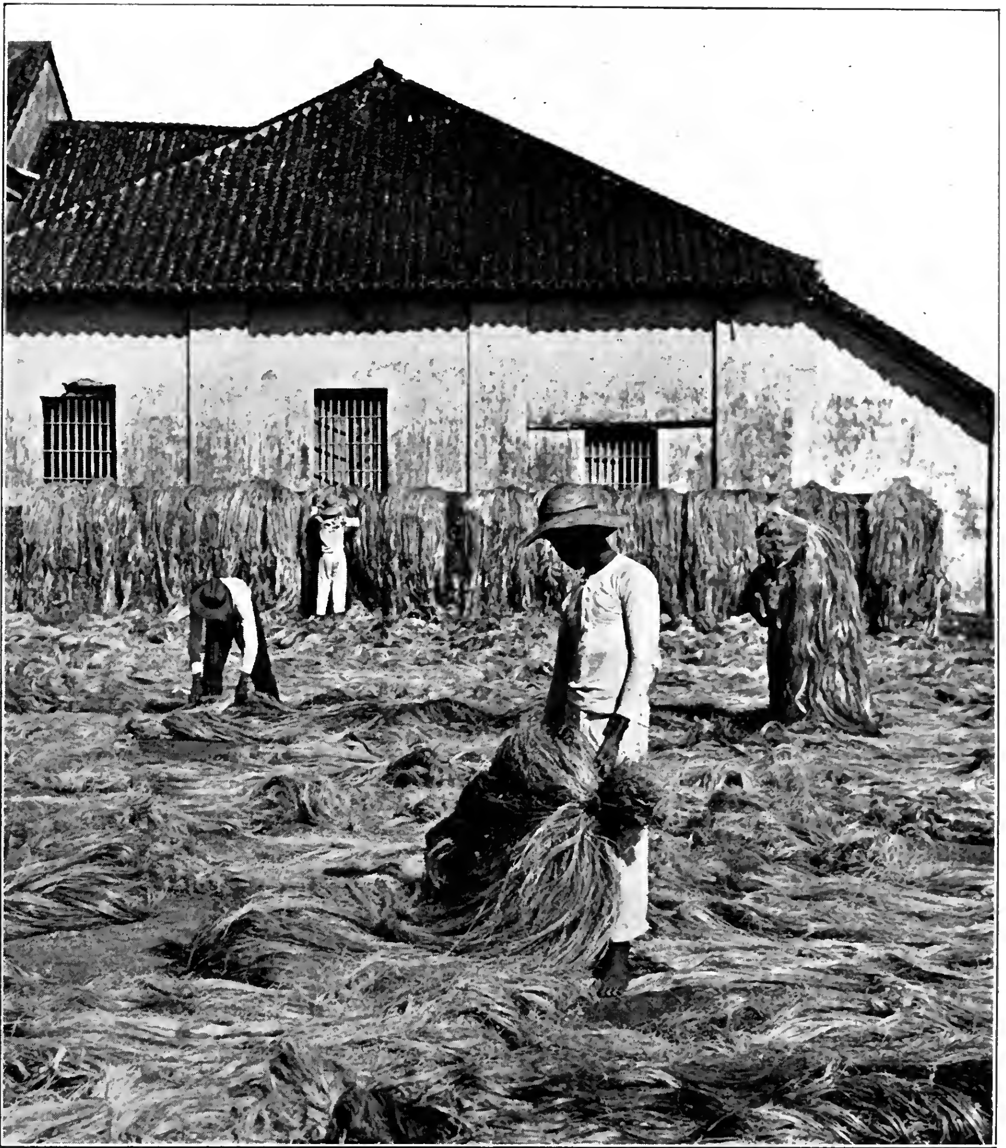
father to son. Head-hunting, common to all the uncivilized Malays, is occasionally still practiced in the most inaccessible Igorrote communities. The Igorrotes are fine workers, and some of the best trails in the islands are to be found among the mountains in the heart of Luzon.

All the wild tribes are amenable to civilization. Even the Moros, who are Philippine Malays, who believe in Mohammed, are taking readily to public market places where they sell jungle produce for cash. The industrial conversion of the Moros is remarkable, for no belief affords greater resistance to the inculcating of the white man's civilization than does the belief of the followers of the prophet.

There is no reason to regret our accidental occupation of the Philippines; the islands are self-supporting, and they have been for four years. Outside the army appropriations, we have not sent them a cent since the passing of the Agricultural Relief Bill. The real imports and exports are larger than ever before. The vast resources and rich promise of the Philippines make them an attractive field for progressive young Americans with moderate capital.

And over and above all, the Philippines need capital. If ten thousand young white men with ten thousand dollars each would settle in the islands and engage in agriculture there, all the problems would be forever settled. The problems of the archipelago are not social or political, but economic. The development of its agriculture, of the coal mines and forests, is the great question before the archipelago to-day. All it needs is capital and direction; the resources and labor are there in abundance, and the invitation presented to-day is like that of the once unsettled West, when cheap and fertile land thronged it with homeseekers.

MOUNTAIN TERRACES IRRIGATED BY THE IGORROTES



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DRYING THE HEMP FIBRE.

IT is, perhaps, a most emphatic commentary upon the clouded vision of many who in the last few years have scoffed at the Philippines and our possession of them, that, during the past year and more, the islands have experienced an era of almost unparalleled prosperity. The imports jumped from $27,000,000 for the fiscal year of 1906 to $33,000,000 for that of 1907, despite the fact that the enormous quantities of rice formerly imported, some years to the extent of $12,000,000, are now raised in the islands.

It is less than ten years since Admiral Dewey steamed into Manila Bay; it is less than half a decade since absolute peace conditions were established throughout the Philippines, and yet in that short

period we have done more toward the establishment of a permanent and lasting prosperity and the consequent happiness of all the people than England has done in any twenty years of her imperialistic occupation of India, or that the Dutch have accomplished during all the generations they have been in Java. The fact that our general plan of procedure in the Philippines has been pronounced untried, visionary, or impossible, is no evidence that it is impracticable. The only thing for us to consider is, how the general policy is working out. In the face of what has been and is being accomplished we may dismiss all arguments against the Philippines as unworthy of consideration.

It is but natural that the cities, the old established centers of European civilization in the Philippines, should be the first to respond to improved conditions. But even the remote country districts are becoming more prosperous, because the people are back on their farms, and the farmer is at liberty to work in the fields for himself and he may no longer be imprisoned or held in subjection to another for debt. His *carabao* or work oxen, which perished in the cattle plague following the war, are gradually being replaced, and his children are attending the American schools, learning the English tongue, which enables them to speak a common language with those of their own blood who talk a different dialect, in whatever part of the islands they may find themselves. Over and above all, the children of the Filipino *tao*, or peasant, are learning better ideas of living and are sitting side by side with the children of the *ilustrisimos*, the ruling classes, to whom for centuries their forebears have bowed their heads in slavish obeisance.

Undoubtedly the most important work ever undertaken in the Philippines is the building of the railroads. The experiences of the men in charge of the construction work of these railroads, and of the Americans engaged in other enterprises, cast light upon both the nature of the people, the possibilities and probable destiny of the islands. While new problems are constantly presented in the building up of this new yet old country, still the apparently great obstacles, once regarded as insurmountable, prove to be but theories and shadows after all.

NATIVES LOADING RAILS ON TRACK-LAYING CARS ON THE TEMPORARY WHARF IN CEBU
Filipino labor in construction work has given satisfaction to American employers

It has been often said that it is a great mistake to try to impose our form of government or our methods of work, which are the result of a thousand years of Anglo-Saxon development, upon a people thought to be congenitally rooted to a sort of feudal system. The assumption that

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TEN THOUSAND ACRES OF COCOANUT PALMS IN THE PHILIPPINE ISLANDS

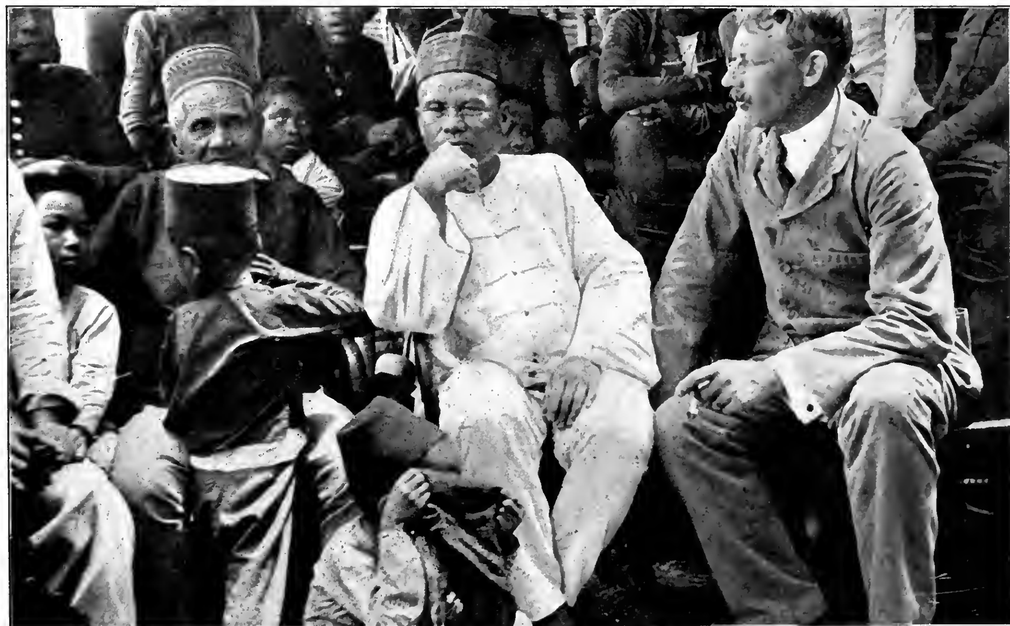
we are doing so is a wrong one. Yet, with the probable exception of the Japanese, the Filipinos are perhaps the most adaptable and initiative people in the world, and when they have had as long a time as the Japanese have had in which to lay hold of our industrial scheme of life, we shall probably find in them as apt pupils as the Japanese. The ways to work and the methods of government we are teaching the Filipino people will undoubtedly be appropriated by them, though modified to meet their special needs and conditions.

To these conclusions one is impelled by the success of the public-school system, the building of the railroads and other industrial or governmental enterprises. About seven hundred miles of new railroad lines are being built in the Philippines. This, with the reconstruction and improvement of existing roads, will give the islands close to one thousand miles of railway. The first step toward the construction of these lines involved, of course, a personal inspection of the country to be traversed; and the second, that of mapping out the labor policy, called for a knowledge of the people.

There was a strong feeling among Americans in the Philippines that Chinese labor was the salvation of the railway projects, and it was proposed to let down

FILIPINOS DIGGING ONE OF THE CUTS FOR THE NEW RAILROAD IN CEBU

the bars temporarily and admit Chinese coolies under deportation bond. When Mr. Edward J. Beard, Chief Engineer of Construction, and Mr. William B. Poland, Chief Operating Official of the Philippine Railway Company, decided in favor of Filipino labor, much doubt was expressed as to the wisdom of their decision. It was the biggest problem that any except a governmental concern had ever faced in the Philippines. But the gentlemen had kept close tab on the construction work of the Manila street railway, where fifty miles of modern track were laid by Filipino labor at an efficiency of eighty per cent of unskilled American labor, but at less cost for the amount of work done. They had noted

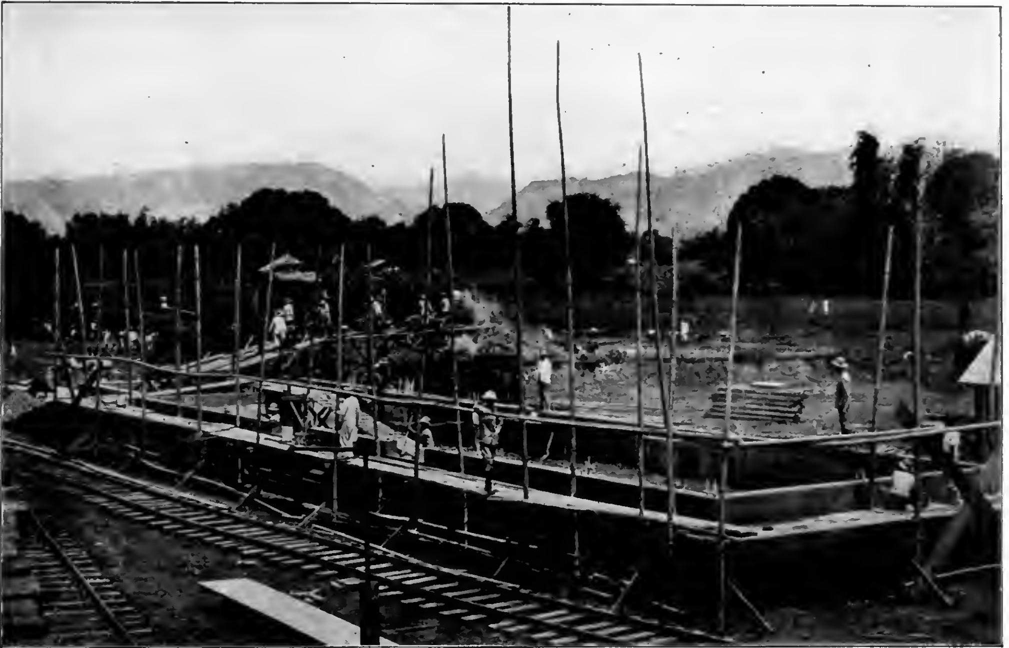


NEGOTIATING WITH DATTO MASTURA FOR THE MAKING OF RAILROAD TIES BY HIS TRIBE

the work of the Filipino laborers at the quarries at Mariveles, and upon various harbor works, and knew as everybody in Manila knows, that in work requiring a high degree of resourcefulness, Filipinos can be found for positions of responsibility such as foremen. Indeed Filipino motormen and conductors on the Manila street railways operate the cars with far less disaster to the public than do motormen in San Francisco, and perhaps in other of the large American cities. Yet the native motormen in an Oriental city have to contend with vehicles and pedestrians that dodge in front of the cars in a most reckless manner, seemingly courting death with unconcern.

To employ Filipino men at nine hours of the hardest kind of work each day, constructing a road-bed and laying ties, would possibly seem something like an attempt "to hustle the Aryan brown," which Mr. Kipling has asserted to be impossible. Nevertheless, when the railroads are completed, an army of twenty thousand men will have been thoroughly trained in the principles of modern industry. Furthermore, Chief Engineer Beard recently stated that his men were doing work not only better than could ever be achieved by white laborers in the tropics, but comparing favorably with the average of workmen in temperate climes.

Apace with the railroad work is the development in other industries, and the man from any particular section will tell you that his region is the most up-and-coming. There is Tarlac Province, for instance, the "Kansas of the Philippines"; "Cagayan Province," "the Kentucky"; and Ilocan Province, where live the "Yankees" of the islands. A large amount of machinery has been sent to Tarlac, and a single firm in the Cagayan imported three carloads of farm implements.



LAYING CONCRETE FOUNDATIONS FOR A PERMANENT STOREHOUSE IN CEBU

The sociological and industrial problems in the Philippines are synonymous. Any propaganda, to be of lasting benefit, must sound the note of militant industrialism; and with more and more of the population busy and at work, all the so-called problems are passing away. The railroad building alone will teach a vast number of native men to be useful and productive citizens in the new, American,

prosperous life in the islands. But there are dozens of other collateral and independent industries which are also raising the standard of living. And the Filipino will not abandon what he learns from the American any more than he will forget the Spanish and Chinese traditions which he has assimilated.

One of the seeming obstacles to the present railroad building was that the average laborer lacked physical strength. This was largely due to the fact that the laborers were often obliged to leave their homes, and suffered from want of regular and proper food. Many of them, when paid entirely in cash, systematically starved themselves in order to send more money home. Accordingly, the surgeons of the Philippine railway settled upon sixty per cent rice, eighteen per cent beef, ten per cent fish, seven per cent onions, and five per cent vinegar, salt, lard, etc., as the most nourishing composition for the natives doing severe physical labor. The men receive as much food as they can eat, and it is undoubtedly much more sustaining than anything to which the majority of them have been accustomed. A

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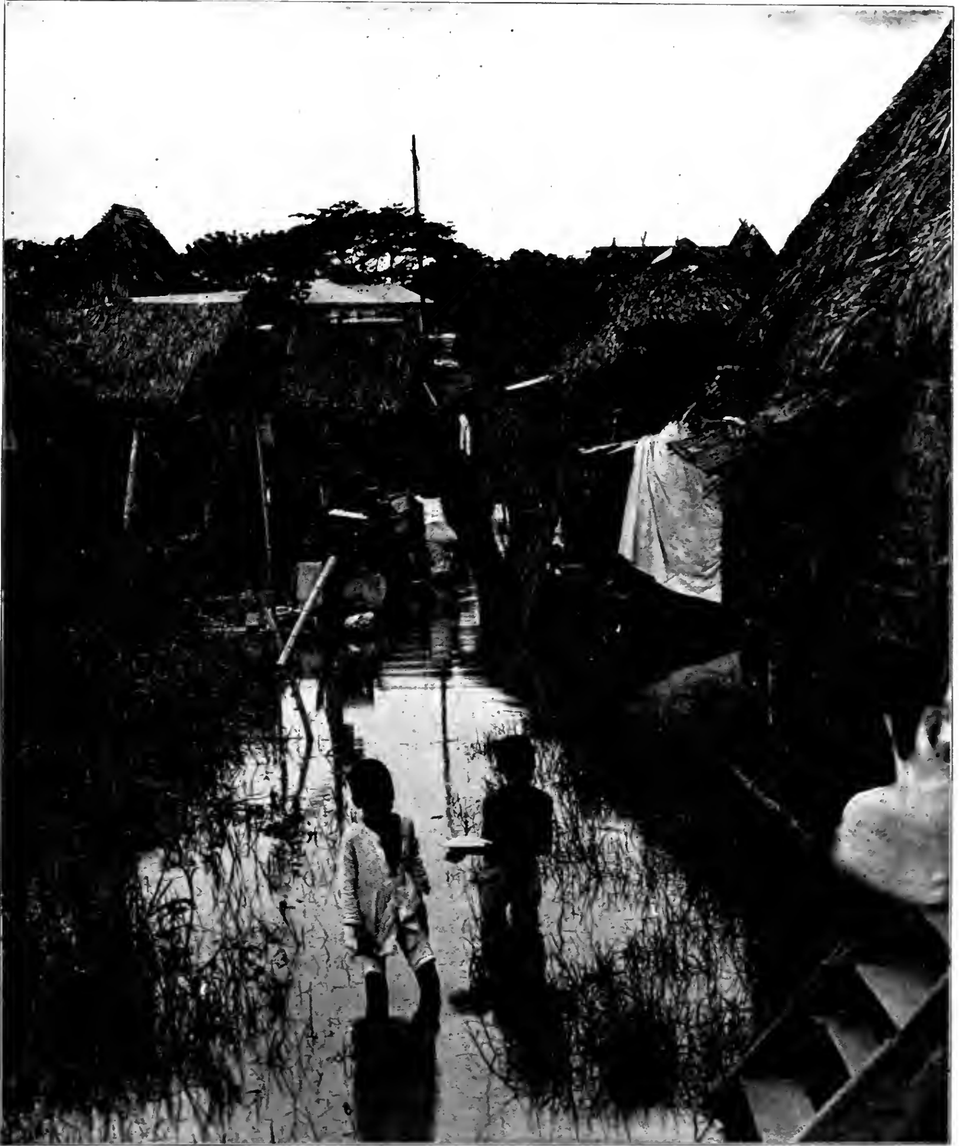
A STREET IN MANILA
Here we find the typical Filipino architecture and the modern electric car



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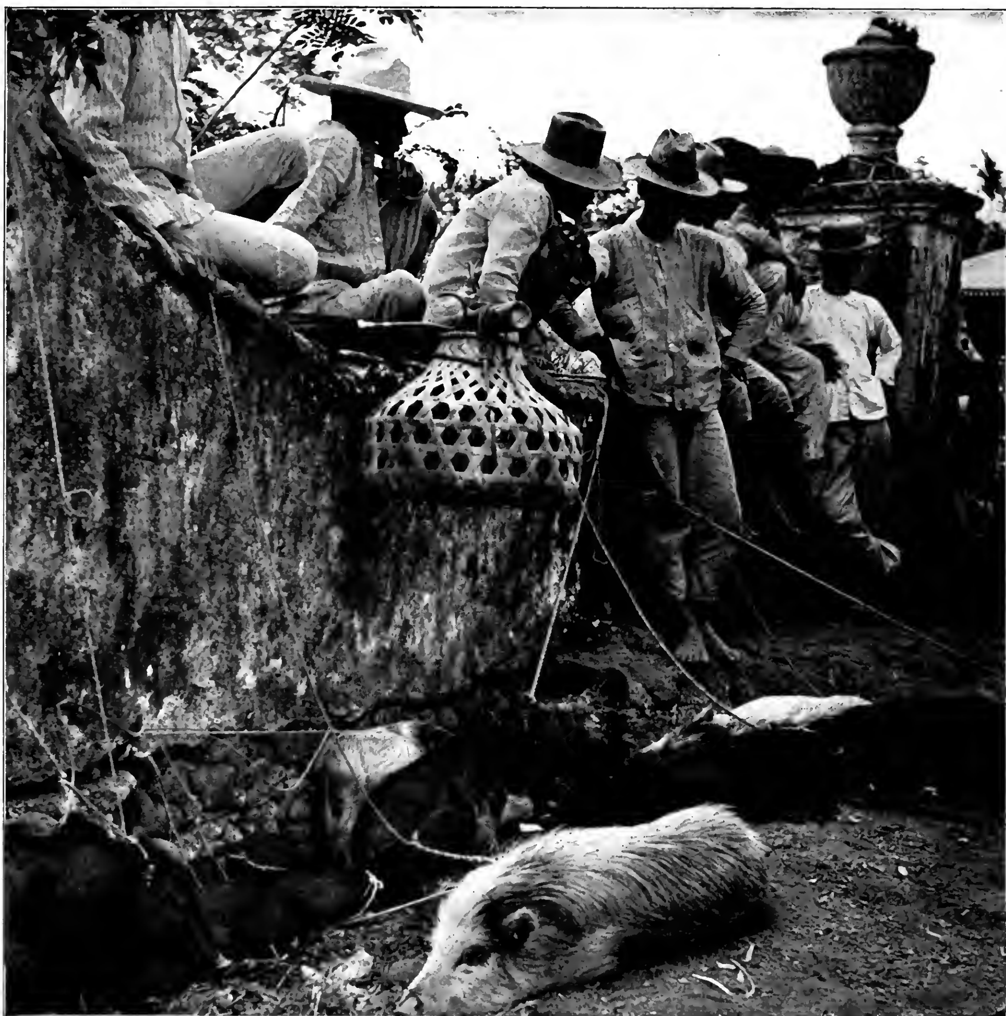
SHACKS BUILT ON PILES IN THE OUTSKIRTS OF MANILA

It is this sort of condition that the American administration is remedying

comparison of the unit costs of the construction before and after adopting this diet showed an increased efficiency among the laborers of from fifty to sixty per cent for the same money. And, too, the same men are to be found constantly on the work, month after month, day in and day out.

The railway lines for the Philippines consist of two general systems, those on the great Island of Luzon and those on the Visayan Islands: Negros, Cebu and Panay, so called because of the Visayan dialect there spoken. Five different lines have started building. The Luzon roads, which are being built by the Speyers, who have taken over the Manila & Dagupan Railway, will consist of a number of lines



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PACKINGTOWN IN EMBRYO

Filipino pig dealers "wire-pulling" in the stock market at Pasig

radiating from Manila, and also of a system something over a hundred miles in length in the southern peninsula of Luzon. Ultimately the latter road will reach north to Manila, and some day when all the projected links are completed, one will be able to ride from north to south in Luzon a distance, as the line will run, of probably about seven hundred miles. The Southern Luzon road will run through the finest hemp country in the world, embraced in the provinces of Sorsogon, Albay and Ambos-Camarines.

In a single province not much larger than a New England county, there are twenty-seven prosperous towns solely supported by the hemp industry. The production of Manila hemp, the best fiber in the world and found only in the Philippines, is worth about twenty-five million dollars gold a year, most of which is exported. I have been all through the hemp regions, and would rather have a good hemp plantation than an orange ranch in California. There is less chance of crop failure.

About three hundred miles of railway are being built in the Visayan Islands, the length of line being about equally divided among each of the three islands.

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ON BINONDO CANAL LOOKING TOWARD CAVITE

Back of the project are the J. G. White Company of New York, Cornelius Vanderbilt, Heidelback, Ickelheimer & Co., and others. The first dirt was broken in Cebu on November 4, 1906, by Governor-General Smith. The work was pushed; a

construction force of four thousand natives was organized, and within three months ninety thousand cubic yards of earth and thirty-five thousand yards of rock were being moved at a cost of only twelve and a half cents a cubic yard. Already short stretches, about forty miles, of road are in operation. One hundred miles of track will be soon laid. On Panay a twenty-mile section is about completed from Iloilo, the metropolis of the Southern Philippines, to Pototan in the interior north.

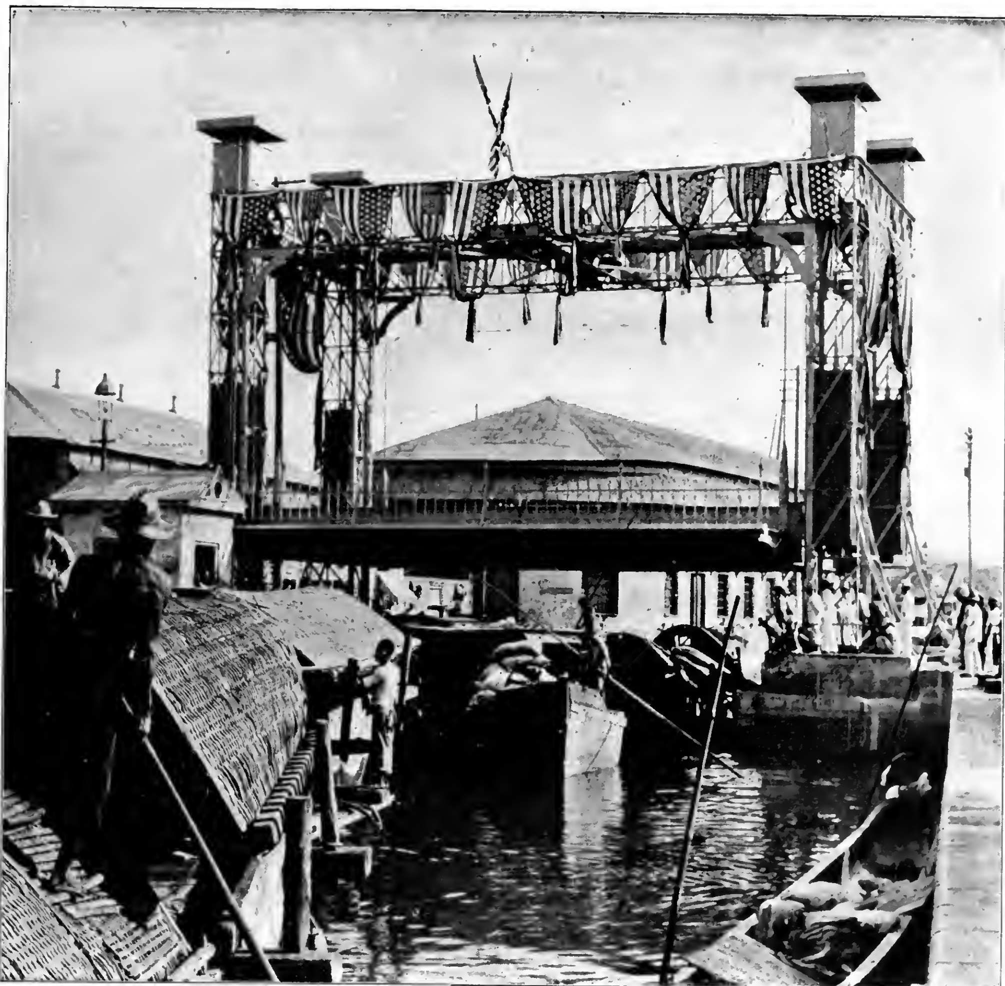
A MANILA SUBURB LOOKING TOWARD THE CITY

Cebu is the most densely populated of the Philippines, there being three hundred persons to the square mile, and transportation is badly needed. All the Visayas are wonderfully fertile, producing coffee, cocoa, hemp and sugar. Vast deposits of excellent steaming coal have been discovered on Cebu and will be reached by a spur of the railroad. Large deposits have also been found on Batan, Mindanao, and Pollilo Islands. Philippine coal is an excellent steaming coal, comparing favorably with the product of Japan or Australia, and it is now being used in the inter-island service. Gold has been discovered in three widely separated regions and on the island of Masbate; several gold dredgers costing $110,000 each are in operation.

Americans who were in Manila in the "days of the Empire" would hardly recognize the city at the present time. The old moat of stagnant water around the walled city has been filled in. Where once stood a great swamp, there is now the Luneta, a beautiful park and boulevard combined. In a thousand ways the city has been improved, so that to-day, while among the most modern cities of the Orient, Manila is undoubtedly the most attractive. One of the most interesting phases of the city has been the development of a large American suburb in which the dwellings are modeled partially upon American styles, with enough of local architecture to render them both artistic and suited to Philippine conditions. Quite recently several reinforced concrete structures have been built in conformity with the Spanish Renaissance architecture.

That portion of Manila embraced in the old walled city is one of the most perfect examples of a fortified city of the seventeenth century. Its walls, battlements and churches would render a European city world-famous. The Augustinian church, the oldest in the islands, stands as it was completed in 1605, with its vault of huge stone and its enormous walls which for three hundred years have withstood the earthquakes.

One could profitably spend weeks in these old cathedrals, with their art treasures, gold plate, and objects of rare historical interest. And hardly less profitable is it to visit the magnificent homes of some of the old Spanish and Filipino families. But everywhere, whether one goes to the palaces of the rich, or the tenements — of which there are a very few — where live the poor, he will find the result of the American system of sanitation. The old rain-barrel which bred pestilence-carrying mosquitoes is gone; refuse and rubbish are nowhere to be



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THE AUTOMATIC STEEL LIFT BRIDGE, IN THE BINONDO CANAL, MANILA
It marks the striking contrast between the old and the new

found; drainage has been installed; even among the palm-thatched native huts of the suburbs you will find a cleaner, more wholesome living. In fact, Manila to-day is as healthy as any city in the world; the change in the city in this respect is as great as that which took place in New Orleans and, since the Spanish war, in Havana, Cuba.

In the morning, from seven until nine o'clock, in the hot season, the business section of Manila is animated; the streets are crowded. From ten until eleven the people retreat into their offices; from noon until two or half-past two the shops are closed; and from three until five or six the business left over from the morning is concluded. In the evening, all the world is out for an airing. Thousands of *carromatoes,* or two-wheeled gigs, dart about the Luneta with lamps flashing like fireflies. The Philippine constabulary band, which, after a short training, captured the second prize at the St. Louis exposition, being only exceeded in the estimation of the judges by Sousa's band, discourses airs, gay, grave, and plaintive, and every one meets and chats as if by a common understanding.

It is socially that the Filipino people

are met to best advantage by the stranger. The native people of the cities have taken readily to the charming social manners of the Spanish; they will keep up a rapid fire of light conversation, and entertain with music and unbounded hospitality. The social life, however, has not come exclusively from Spanish association; the social instinct is innate in the people, though the poor peasant classes are not gifted in its verbal expression.

Strangers in the Philippines sometimes regard with impatience the poor native who will sit for hours gazing idly into space. There is a supreme resignation in the poorer classes, to whom everything is inevitable. Once, the writer and a friend, A. D. Gibbs, of Manila, journeyed by night in the far interior toward a distant village. Our guide, a native, had been loaned us, as one who knew the way, by an old Swiss planter, a resident of thirty years. Continually we got off the track, and tangled up in the woods and bogs; we came back to the same hill and crossed the same river twice at the same place.

"Legaspi, I will kill you if you do not find the road," said Gibbs.

"Wait but a little moment, senor, I have never traveled this road in the night."

An hour's stumbling through the night and we are back at the river ford again. Legaspi approaches and kneels before the exasperated Gibbs.

"I am ready to be killed, senor," he says, "for I can not get away from this river crossing."

So we gave Legaspi a big, round dollar *(peso)* and told him to cheer up.

With plenty of good food and supervision a poor native like Legaspi makes an excellent and faithful workman. As an instance: Last Christmas the superintendent of one of the Manila sawmills was obliged to run day and night to meet orders. His Filipino operatives all worked on Christmas Day — and a church holiday possesses a special significance to the native — but the American foreman refused to work.

All the larger towns and cities in the Philippines show the result of American initiative. The local native mayors *(presidentes)* and councilmen are glad to adopt the suggestions of the constabulary officers, schoolteachers, army men, and commercial men with whom they come

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A LOAD OF HEMP AT CEBU

into contact. Street lighting, grading, pure water, sanitation, improved school buildings, and a thousand and one features are being carried out in every sizable community in the islands. The governors of different provinces are doing great work, especially in the building of good roads. There are a number of regions where the roads are suitable to automobiles and, incidentally, there are a number of motor cars in the Philippines. The Insular Government has subsidized eleven different steamship routes, and calls are made regularly at sixty different ports in the islands. Many of their boats are modern steel vessels, equipped in first-class shape.

in new enterprises. Yet the islands afford great opportunity for manufacturing. About a million dollars' worth a month of goods that could be produced in the islands are imported. There is a great chance to harness mountain streams for electrical power; and a small number of high-pressure water wheels have already been introduced. There is a chance for rope factories, cotton factories, furniture factories, modern sawmilling plants, sugar factories. Most of the industries of the islands, at the present time, are household manufactures, and produce yarns and threads, hats, caps, lace, embroideries, mats, etc., in considerable quantities. There is an opportunity to make children's toys, glass and earthenware products, papers and soaps. Already the Philippines are beginning to produce farming implements.

A CARABOAS CART IN SOUTHERN LUZON

Perhaps the greatest benefit from the incoming American is the fact that he stimulates the native people to do things in our modern way and shows them how to do it. One firm sold almost half a million dollars' worth of farming machinery to native planters last year. The Filipino will not learn by precept; he must see the work done in order to do it himself.

The islands need initiative. Filipino capital is timid and hesitates to engage

All in all, our possession of the Philippines will not only prove of great permanent benefit to the people of the islands, as it has already proved an almost immediate benefit to them, but the Philippines have done much for this country in bringing us out into the world.

TARO PATCH, HAWAII

THE HEADLANDS OF PEARL HARBOR

HAWAII

OUR FORGOTTEN KEY TO THE PACIFIC OCEAN

BY

WILLARD FRENCH

BEAUTIFUL Hawaii! What pages of picturesque prose-poetry the gem of the Western Ocean has inspired! What love at first sight — and lasting love — thrills the heart of the suitor, whether for a day or a year or a lifetime he kneels in the Paradise of the Pacific! For how many years — more than threescore of them — have envious eyes, far-seeing eyes, prudent, fore-seeing eyes, patriotic eyes of earnest and wise Americans rested upon that outpost of Americanism, seeing in it the key to the protection, preservation, progress

and eternal prosperity of our twenty-five thousand miles of Pacific Coast.

In 1841 President Tyler gave notice to the world that the American Government was looking after Hawaii, recognizing thereby that in these islands lay the defense of the nation from invasion Pacificward. In the sixty-odd years which have followed, the United States has never for a moment failed to realize the necessity of keeping other nations from controlling the islands which practically are the key to the entire Pacific for all manner of transportation, except as it creeps up and down the coast of China. And yet, in all these years, not an adequate fortification of any kind has been placed there, nor has a single effective step been taken to make available the one perfect, landlocked harbor within thousands of miles in any direction — Pearl Harbor, a few miles down the coast from Honolulu.

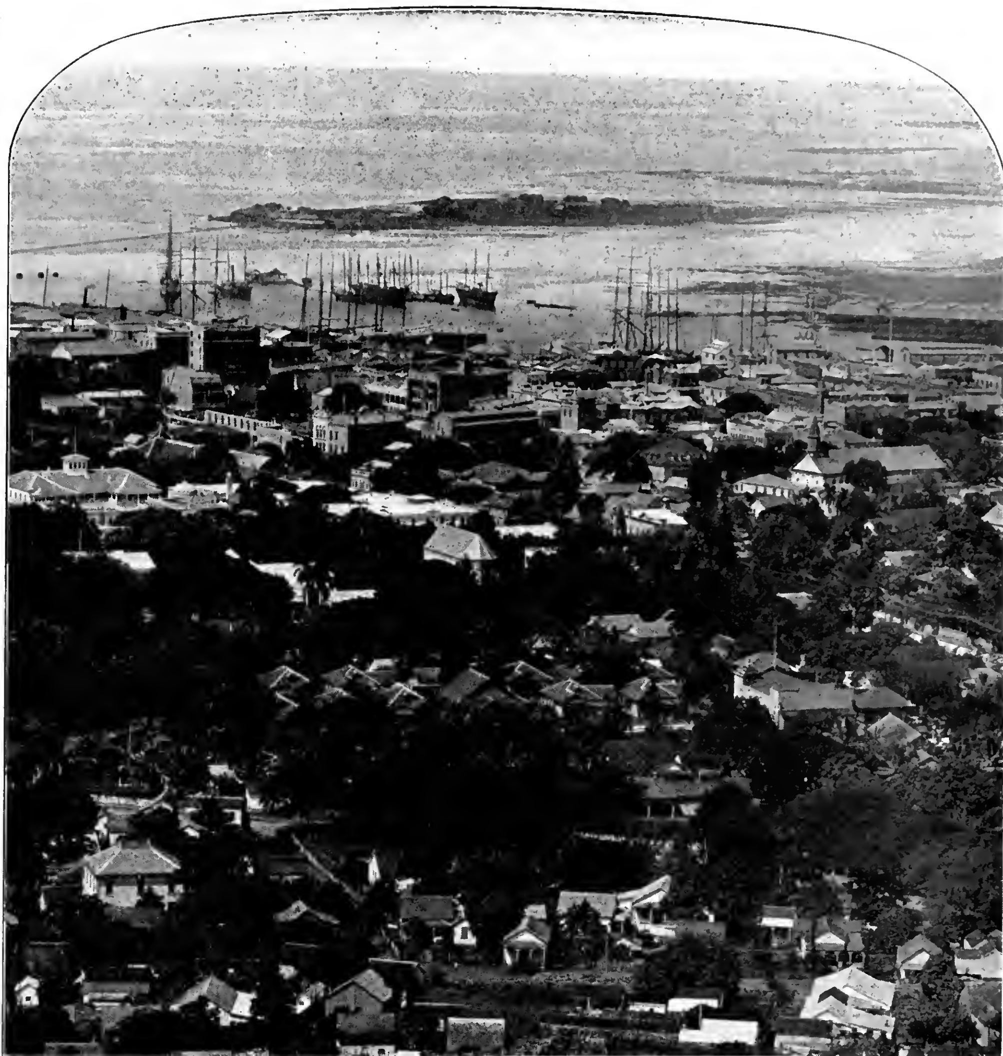
We have suffered spasmodic twinges of foreboding over what we ought to have done long ago. We have taken down the key and fondled it, then hung it up again.

In 1854, under all kinds of threats from other nations, King Kamehameha sought to protect himself from obliteration by appealing to the United States to annex the Hawaiian Islands; but that effort failed. At the close of the Civil War Secretary Seward took the matter up and gave it a vigorous push. He sent a secret agent to the islands to investigate thoroughly and arrange a purchase price. For a time American statesmen who were behind the movement felt that the transaction was assured. Seward had a dream of the development of the Pacific which, if at that time he could have followed to fulfillment, with a free hand, would long since have resulted in a gigantic commercial supremacy and military dominance of the Pacific for the benefit of America. But that was many years ago! Seward found himself so mercilessly criticized and condemned for the purchase of Alaska that his courage failed him. He let the effort die in swaddling clothes.

To-day Japan is well in the lead, commercially at least, and capable of holding her own. Every other maritime nation on earth is participating — every nation but America. America owns the Philip-

THE JUDICIARY BUILDING, HONOLULU

The second floor is occupied by the Territorial Supreme Court and the First Circuit Court; the left half of the first floor by the United States District Court



From Stereograph, Copyright, by H. C. White Co.

A BIRD'S-EYE VIEW OF HONOLULU

Massive business blocks, electric cars, and new highways bordered with beautiful residences, mark the rapid development of the city

pines and Guam, on one side, and 25,000 miles of coast on the other side, and the commerce of her Hawaiian territory alone was $47,741,300 last year; but America has less than a dozen ships to fly her flag in the merchant service of the Pacific Ocean. We have killed our merchant marine by oppressive shipping laws and refused to compensate by protective aid. So that this much of Seward's dream has gone beyond our grasp, but Hawaii remains the key to the Pacific and the only safeguard of our western coast.

Before the Spanish War there was another effort toward possession of that key. We were very generally roused to the dire necessity of possessing it. We were told on every hand of the vital importance, the strategic importance of Pearl Harbor as the real — and the only — way of protecting our Pacific coast. There was not, then, the added necessity of a mid-ocean fortress, refuge, base and coaling station, on account of the Philippines, but the imperative duty which the country owed to its Pacific coast, in a

THE PALI ROAD LEADING FROM
Beautiful scenery with the superb tropical glory

spirit of self-preservation, brought Congress to order preliminary steps toward the possession of enough of Pearl Harbor for the construction there of a naval coaling station. A small appropriation was made to begin the business and we had fair hopes that something would be doing that would result in a safe, sure harbor, properly fortified and protected, from which stronghold it would be a simple matter to prevent any fleet under heaven from approaching our coast, for without another harbor in thousands of miles, for coal and supplies, nothing could reach the coast prepared to fight, much less to get away again. Nothing would attempt it, leaving an enemy's stronghold in mid-ocean behind it.

Then the war with Spain revived annexation, rendering it imperative, and in the possession of the whole, Pearl Harbor was again utterly forgotten. Even the original appropriation was not wholly expended, and for ten years, from that day to this, we have hardly lifted a finger toward perfecting Pearl Harbor. An Englishman standing on the deck of a steamer beside me as we were passing Pearl Harbor, a year ago, remarked: "It's damned odd." So it is, but also true. From time to time prudent ones foreseeing evil have written and orated, taking various texts — the possibility of

A HAWAIIAN BELLE AS SHE WAS

HONOLULU IN THE NUUANU VALLEY
of flowers and foliage is everywhere outside the business district

a war with Japan, for instance, in which case no one could deny that with a single battle-ship the brown nation could take possession of the islands as they are, to-day, without the necessity of firing a single shot; and the sure demands which must shortly be made upon Hawaii in the tremendous increase in shipping which will follow the opening of the Panama Canal, when almost everything passing through the canal, except for South America and New Zealand, must of necessity call there for supplies. The little open harbor, the ocean roadstead, in front of Honolulu, would be hopelessly inadequate for the transaction of business.

AND AS SHE IS

Patriotic dwellers in Honolulu have lost no opportunity to urge the dire necessity of something, if only for the development of Hawaii's self, and at last the presence of the great fleet off San Francisco has apparently added a final straw, in demanding attention. It has brought forcibly to the front the fact that the key to the Pacific still hangs upon its dusty peg; that Japan and Manila are the nearest harbors where the fleet could find anchorage, if it followed the course of empire from San Francisco. While these lines are being written a little bill is waiting the attention of Congress, asking for $300,000 to begin again the development of Pearl Harbor. Compare the amount

THE NATURAL BEAUTY OF HAWAII

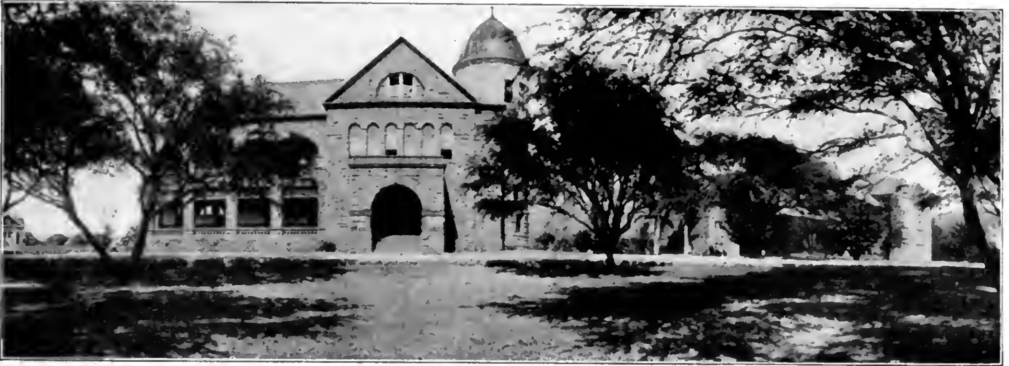
with the colossal appropriation so easily obtained for the building of a single battle-ship; and then the relative benefit to be derived from the perfecting of Pearl Harbor or the addition of another battleship to our navy.

An enemy in possession of Hawaii would separate us absolutely from the Philippines and could harass and threaten our entire coast; while on the other hand our own fleet, operating from a well-equipped base at Pearl Harbor, would practically prohibit any approach from the Orient. The equipment of this harbor is absolutely necessary to the successful operations of American fleets, whether acting offensively or defensively on the Pacific. The development of the harbor is equally necessary for the tremendous increase in the demands of transportation which we shall create with the opening of the canal.

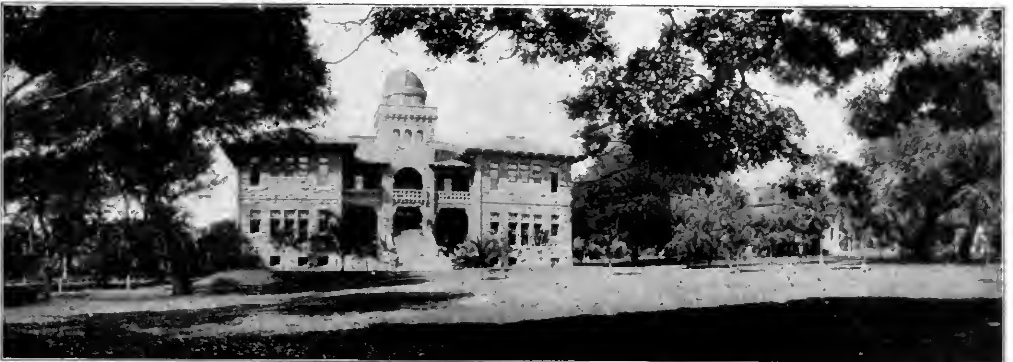
But there is more to Hawaii than a strategic point for a naval base. There is a duty of protection and development which we owe our new territory, greater than the claims of self-preservation. And there are other things which are needed besides coaling stations and fortifications.

The Hawaiian Islands were a part of us long before they were annexed. For a generation a strong American community had dominated public and private thought and action. It was an Americanized nation which we annexed and made a territory of the United States. In becoming a dependent territory, subject to our control — and incidentally turning something like a million dollars a year into the treasury of the United States—Hawaii naturally lost something of her internal power of self-preservation and she faces several problems, to-day, calling for a helping hand more than for drastic legislation.

For example, counting native Hawaiians, half-whites, Americans, Portuguese, Teutons and all other races on one side and only Asiatics on the other, the population of the islands, to-day, is more than half Asiatic. It is increasingly evident that for the protection and progress of Americanism Hawaii needs Americans—needs American farmers more than anything else — and to know the islands is to wonder that the want has not long since been supplied by overwhelming migration. Phenomenal possibilities are offered in agriculture. A few who have pioneered in fruit canning have made a great success of it, in a small way. Sisal fiber of the highest grade, for binding twine, is returning good profit. Coffee and tobacco



THE KAMEHAMEHA SCHOOL IN HONOLULU



OAHU COLLEGE, HAWAII

These schools, internally and externally, are institutions of which any city in America might be proud

of superior quality are being successfully produced in limited quantities. Almost all of the fruits and grains of New England have yielded ample encouragement to isolated efforts, while everything tropical can be produced at its best. Yet, as a matter of fact, almost all of the pork, beef, poultry, butter, eggs and citrus products consumed in Hawaii are imported. Oranges, lemons and limes are among the easiest and most prolific products, yet even the oranges and lemons are imported from California. Hawaii needs American farmers. And American farmers need Hawaii.

No climate in the world is more conciliatory to the white man with a burden. The islands are in the tropics, but they know nothing of the sweltering heat of the torrid zone. The summers are much cooler than New England. The winter never reaches frost. The thermometer never goes above 85. It never falls below 52. Hundreds of Asiatics work little vegetable gardens in the low suburban districts about the city and they are there to stay, but five thousand enterprising American farmers could find desirable and at the same time delightful locations in the healthy upland districts, with the home consumption of their products increased by the tremendous demand which must follow the opening of the canal.

Hawaii needs Americans. Both Pearl Harbor and Honolulu bay will be taxed to the utmost with shipping, and within a few years there will be two large commercial cities there, and a populous, busy, wealthy state looms in the near future behind them. There are great possibilities to be taken advantage of and threatened dangers to be averted. It is Hawaii's easy destiny to become the headlight of Americanism on the Pacific, but she must be strengthened by men as well as by forts; she must have a safe harbor and more of America back of it if we hope to hold the key we coveted so long

and forgot as soon as we possessed it. She must have aid, not hampering, from America. Congressional paternalism has imposed some laws upon the new territory which are oppressive and dangerous. It is always a serious proposition to legislate upon problems of which we have no real conception—making laws upon theories instead of facts—and Congress has made several blunders in its efforts to regulate Hawaii on principles which obtain through the states.

In matters purely legislative, Hawaii has proven, during the past ten years, that she is remarkably capable of self-government. She had a long history back of annexation which had drilled her people in the art, and the church polity also helped them. In 1863 the churches were freed from missionary control and began a career of self-government which taught the people to think, debate and vote upon conviction. The state is now reaping the benefit. More emphatically to the point, Hawaii was called out of aboriginal shadows and guided to modern things by some of the best of the old stock of New England grafted upon the beautiful tropical paradise. The coterie of pioneers who began the work and the sons who carried it on, themselves in many cases born in the islands, form a list of Americans almost as illustrious as those that began the work earlier on the "wild New England coast." Ex-President Sanford B. Dole and his associates will be even stronger in history than they are to-day, for the outpost of America which they established far out on the Pacific.

A SUBURBAN RESIDENCE IN HONOLULU

The strides which Hawaii made under their guidance, the strides which Honolulu has made during the last ten years under increased impetus, are almost miraculous. To old friends Honolulu seems to claim a pace with the mushroom development of the Yankee West. The massive walls of business blocks keep out the heat instead of the cold. New high-

PLANTING SUGAR-CANE

ways, bordered with beautiful suburban residences, stretch away into the foothills. Electric cars find their way for miles in various directions beyond the city. But everything except the business streets is still submerged in the superb glory of the tropics—flowers and foliage such as can not be found anywhere else on earth. Nature has a right of way in Hawaii which she will not easily surrender. Beautiful homes and beautiful lives she renders possible, for the poorest as well as the rich. For if there is a spot of earth where one may smile at adversity and feel that

THE GROWING CANE

money is not everything, that spot is Hawaii.

In nothing has Hawaii made greater strides toward the best Americanism than in her educational department. The Honolulu High School and the Oahu College and the Kamehameha School are triumphs, internally and externally, of which any city in America would be proud. It is no accident, but the result of earnest patriotism and persistent energy on the part of those men whose names will forever be linked with Hawaii, that the islands have arrived at the high standard of Americanism which they hold to-day. The three daily papers in English are another convincing evidence. Read them and you realize that they emanate from a genuine American ideal, ethically, socially and politically.

It is a popular belief that the native Hawaiian is dying out. Theoretically it is true, but practically he is making good. Actually he can not die. The exact racial division of the population of the islands is not at this moment obtainable to date, but according to recent statistics there are about ten thousand Anglo-Saxons, two thousand five hundred Teutons, thirty thousand pure Hawaiians, ten thousand part Hawaiians, twenty-five thousand Portuguese and eighty-five thousand Chinese and Japanese. But through all of this—even to some extent into the Chinese and slightly into the Japanese—the influence of the fading Hawaiian permeates. The Hawaiian is not dead and will not die. Racially he will become obsolete. So have almost all races of men. It would exhaust the resources of ethnological mathematics to calculate the correct racial proportions of the American; and Hawaiians have at last drifted into the universal stream of racial absorption. That is all. But Hawaiian blood improves in miscegenation. Countless proofs of this are easily recalled by anyone who has lived long in the islands. And when the race shall live only in history there will still remain its indelible characteristics in gentleness of disposition, courteous dignity and open-handed friendliness sorely needed by the sterner stuff produced in colder climates. In losing his racial identity the Hawaiian greatly enriches the cosmopolitan man now in the evolutionary alembic.

CUTTING RIPE SUGAR-CANE

The Hawaiian is a born book-lover. Illiteracy is practically unknown in the islands. He has not, thank Heaven, been Occidentalized. Some are tempted to speak lightly of the prevalent Christianity of the native and call him only a whitewashed pagan. There is more or less ground for it. But whitewashed paganism is not the worst thing in the world.

The exuberance, gentleness, generosity and eternal beauty of Nature in Hawaii, render it difficult for even foreigners to remain long thoroughly Occidental. The free wind, free water and free sunshine work wonders of moderation and beauty upon all nature, mental and physical. A man can not live long in beautiful Hawaii without partaking of its lavish generosity. There are many merry incidents in his nature-day when the regulation garb of Broadway would be as impossible as a cat-boat for his surf-shooting. The swimming pools are his. Who would exchange them for a promiscuous bath hut on the beach? Nature's pantry tempts him, where even a whitewashed pagan has but to open his mouth and be sure that it will be filled. How many times I've envied him his uniform, his pleasures and his perquisites. It was easier for the women to Occidentalize themselves somewhat and by compromise devices keep themselves still cool and pretty. The past-time belle, still easily in the memory of many, has practically disappeared, with her wonderful hair, her masses of flowers and her face always longing to laugh. But her transformation sits astride a horse, all in bright colors, still, and happy still in spite of restraining influences. They are all happy. Even the dear old mother—great, great grandmother—who has seen the transformations of a hundred years which have changed the Hawaiian Islands from barbarism to be the Pacific headlight of Americanism—even the dear old mother, with her snow-white hair and a face that is much readier to smile than frown, sees the new world and is happy.

Beautiful Hawaii! If we can not serve her and save her for any other argument, let us do it and do it quickly, because she has a harbor—Pearl Harbor—which is the key to the safety of our twenty-five thousand miles of coast and the connecting link in the chain that binds us to our white elephant on the China coast.

TRANSPORTING SUGAR-CANE

GUAM AND OUR SMALLER ISLANDS IN THE PACIFIC

BY
ELIZABETH FAIRBANKS

The United States was first introduced to the Island of Guam in 1801, when the good bark "Lydia," Salem-built and owned, carried thither from Manila a Spanish governor and his suite. The Yankee captain and his crew little dreamed that the island to whose waters they had borne the "Stars and Stripes" for the first time would, a hundred years later, pass from the ownership of Spain to that of their native land.

In the years that followed, the acquaintance thus begun did not grow perceptibly. Other American ships called at the little island for water or provisions, and went their way. The world at large knew little of those insignificant specks of land in the western Pacific, which, in their geography days, they found designated on their maps as the "Marianne or Ladrone Islands."

Magellan discovered the islands in 1521, and bestowed on them the latter name, which is Spanish for robber. The inhabitants of Guam naturally objected to such an offensive name and requested the authorities to have it dropped. And thus, the latter name is no longer good form, and henceforth on all government maps and charts the islands will be known only by the name "Marianne," which was bestowed on the islands in honor of Maria Ana, of Austria, wife

of Philip IV. of Spain, in recognition of her interest in the conversion and education of the natives.

For a century and a half after their discovery, Spain made no effort to colonize the islands. Then a Jesuit mission was established and the work of civilization, according to Spanish ideals, was begun. The Jesuits were in control for a hundred years, and then were superseded by the Recollet missionaries. Guam could never have been a source of much profit to Spain, for its resources, almost wholly agricultural, are very limited. She succeeded in making the people ardent Roman Catholics, made some progress in education, introduced most domestic animals and, to a limited extent, improved agricultural methods. Her sway in Guam, as in so many of her colonial possessions, was destined to be superseded, at the close of the nineteenth century, by that of a younger and more progressive nation.

ENTRANCE TO HARBOR SAN LUIS D'APRA

On June 20th, 1898, a little more than a month after the battle of Manila Bay, an American cruiser, the Charleston, steamed into the harbor of San Luis D'Apra and fired a shot, which meant that Uncle Sam, stretching out his long arm, had taken the small island for his own, and that henceforth the Stars and Stripes were to float over Guam. The Spanish governor did not even know that war existed, as he had been for some months without a message from the outside world. When the excitement of war was over and the results of the conflict had been sifted and settled by treaty, Guam remained as a permanent possession of the United States, while the other islands of the group were ceded to Germany. The newly acquired possessions and responsibilities of the United States now became objects of general and absorbing interest. Far-away, diminutive Guam has come in for her share of consideration, and is gradually becoming known through magazine and newspaper articles.

There are fourteen islands comprising the Marianne group. They form a chain extending north and south some 450 miles, in latitude 13° 14′—20° 30′ north, and longitude 142° 31′—143° 46′ east. They are of volcanic origin and surrounded by coral reefs. In some of the more northern islands there is still occasionally volcanic activity. Guam, the southernmost and largest island of the group, has the best harbor in that part of the Pacific, and for that reason and also because of its strategic position—3,330 miles west of Honolulu and 1,520 miles east of Manila—it is of great value to the United States as a naval and coaling station.

The impression given to the voyager by the first view of the island is that of a low,

A STREET IN AGANA

long strip of land, lying desolate in a waste of waters. Drawing nearer, the land grows into a mountainous ridge, with rugged crags and peaks. The dark border about the base of the range finally appears as the vivid green of tropical foliage. Cabras island and a large coral reef form a natural breakwater to the harbor, San Luis D'Apra. The view of Guam from the harbor is delightful. About the landing place are clusters of native huts, some of adobe and others mere wooden frames, quite open to the weather. Through the tropical foliage are visible the thatched roofs of the village, and beyond the matted verdure rise the bare, brown mountains—a somber, rugged background.

The island is about 32 miles long, from 4 to 10 miles wide, and contains a little more than 200 square miles. The narrowest point is near the middle of the island, where it is less than four miles from shore to shore. The surface is divided into two distinct parts by a ridge varying from 500 to 1,400 feet in height. The northern part is a mesa, or plateau, from 300 to 600 feet above the sea, an ancient coral reef. It is without springs or streams, owing to the porous nature of the soil. The surface of this plateau slopes gradually upward to the coast, where it ends in high cliffs. Near the middle of the island, in the vicinity of Agaña, is a large spring, whose waters, after oozing through a swamp, form themselves into the Agaña River. Its channel has been artificially lengthened and turned from its natural course for the convenience of the natives. The southern part of the island, almost wholly of volcanic origin, is mountainous, with numerous valleys and small streams. Along the western coast is a low, fertile strip extending from Agaña south, and upon this the population of the island is settled.

The soil is shallow, and is composed mainly of disintegrated coral. Its reddish hue is owing to the presence of oxide of iron. In the valleys and forests, especially in damp, swampy places, vegetable mold has accumulated, which is quite rich and fertile. There is, so far as is now known, no mineral wealth in Guam, but some indications of iron ore and also of gypsum may prove in time to be important.

The trees native to the island are the breadfruit, banyan, ironwood, and several kinds of palms, including the cocoanut. The latter is the most valuable of all, as the pulp of the nut, dried, and known as "copra," supplies the islanders with their principal article of export.

The principal crops, corn and sweet potatoes, are raised only for home consumption. The other cultivated products—rice, sugar, coffee, cocoa and tobacco—are not raised in sufficient quantities to meet the necessities of the people living on the island.

Besides the domestic animals introduced by the Spaniards, there are deer, wild hogs, ducks, curlews, snipe and pigeons. The waters teem with edible fish. With the exception of several kinds of lizards, the

island is free from reptiles. Guam has its share of mosquitoes, flies and centipedes, and two varieties of bats, one of which lives upon fruit and grows to enormous size, the other insectivorous and small. Butterflies of all colors, and brilliantly marked birds add to the interest and beauty of the country.

Guam, lying in tropic seas, and having a mean annual temperature of about 81 degrees, is on the dividing line between the northeast trade winds and the monsoons of the China Sea. From December to June the prevailing winds are from the northeast. The nights are cool and refreshing showers are frequent. The most agreeable months are March, April, May and June. From July to December, southwest winds hold sway, often accompanied by heavy rains. Hurricanes may occur at any time, but are most frequent in October and November. They are much to be dreaded, and often cause great loss of life and property. Earthquakes, while frequent, are not generally violent, but there have been some very destructive ones.

The inhabitants of Guam are descendants of the original Chamorros and of immigrant Tagals and Spaniards from the Philippine Islands. In their physical characteristics the natives resemble the Hawaiians, having light brown skin, straight black hair and fine features. The men are dressed in shirt and trousers, with a straw hat, and the women in white waist with flowing sleeves and a trailing skirt. The people of Spanish extraction are fairly intelligent, live in houses built of coral stone, and have many of the comforts of life. The poorer classes, natives and half-breeds, live in wooden shacks, built on poles three or four feet above the ground, the space below being utilized by the pigs, dogs and chickens owned by the family. They are naturally indolent, cowardly and superstitious, but they have their redeeming qualities and show much of friendliness when properly treated. Their love for music is indulged to the utmost, and it is believed by those most conversant with their characteristics that education and training will make these people industrious, sober and useful members of their community. The native language contains Chamorro and Tagal words, but Spanish is also spoken, and the use of English is spreading.

The population as shown by the American census of 1901 was 9,686. It is now close to 11,000, mostly gathered in Agaña, the capital, and the villages of the west coast. Agaña, with about 7,500 of population, lies on a low sandy plain on the seashore. Through it flows the sluggish Agaña River, which serves the people as a bath, open sewer, and laundry. From Agaña to Apra, a distance of seven miles, is a hard well constructed road.

The government has bought a large tract of land at Sumway, and will use it for the naval station. In the same village is the station of the Pacific Commercial Cable Company, whose lines connect Guam with the continental portion of the United States, via Honolulu, and with the

A FISHERMAN'S VILLAGE BUILT OVER THE WATER

THE QUARTERS OF THE COMMERCIAL PACIFIC CABLE COMPANY

Philippines. A German cable, opened in 1905, extends to Yap, in the Carolines, where cable connections are made with Meñado in Celebes, and the German colonies in New Guinea and the Bismarck Archipelago.

Since Guam became a possession of the United States its affairs have been administered by the naval officer in charge of the marine force there stationed. These officers have proved able governors, and it would be hard to recount all that has been accomplished towards bettering the condition of the island and its inhabitants. About 1,600 children from seven to nine years of age, are benefiting by the compulsory school system now in operation in Agaña and in the villages. The children are taught in

THE MARINE CAMP

Twenty-two members of the United States Marine Corps live here as evidence that the islands are an American military station

THE GARDEN SPOT OF MIDWAY

The only tree on the island, six and a half feet high, and the only place where Bermuda grass has been successfully grown

English, and learn carpentry and other handicrafts. An agricultural experiment station has been established, the superintendent of which instructs a class of from 30 to 40 boys in scientific methods of agriculture. The government has undertaken various public works, such as the improvement of the harbor and public highways, and the construction of water and sewage systems. Justice is administered in accordance with the old Spanish system, somewhat modified by the insular authorities.

It is the opinion of all who have observed the unfolding and expansion of the American idea as thus far carried out in Guam, that the most potent uplifting force exerted has been that of the medical officers of the naval station. At least three of these officers are always on the island, and from the beginning of American occupation they have served the people, regardless of personal hardship and suffering. In 1898 there was not an ounce of medicine on the island. The people were fatalists, and

MARINES GETTING THEIR CANNED RATIONS FROM A CELLAR OR "DUG-OUT"

content to trust to simple remedies and in sickness they were afraid of water and extremely neglectful. As a result, mortality was high, especially among the newly born. The doctors have had an incessant battle with ignorance, and habits as old as the race. They have battered down the walls of superstition and won the confidence and love of the people. To-day the lowered death rate, the hospitals built by natives, the improved sanitary conditions everywhere evident, all proclaim the rare intelligence and devotion of these missionary scientists. It may be predicted with safety that the government will in time make the island a place where will prevail that intelligent regard for and observance of law and order which alone make life desirable.

The Midway Islands

The United States has, from time to time, raised her flag over a number of uninhabited rocks and strips of land in the Pacific Ocean, thus giving notice that they are no longer available for adoption by other nations. Many of these possessions are of no present practical value to the national government, but the policy of thus marking them for her own is undoubtedly a sound one. That it is well to be prepared for emergencies was never more forcibly illustrated than it was in the case of the Midway Islands. Those two lonely strips of land, named for their position midway between Asia and America, were discovered by an American, Captain Brooks, in 1860. The United States paid no attention to the land thus discovered until cable communication with the insular possessions acquired as a result of the Spanish war became a necessity. Then the ownership of the Midway group became a matter of vital importance as the site of one of the relay stations for the cable line between San Francisco and Manila. A warship was, therefore, sent to the islands, and a marine station established to fortify our claim by actual occupation.

TERNS ON THE MIDWAY ISLANDS
The shrubs are dwarf magnolia bushes, the only vegetation there

The two islands, one called Sand or Western Island, the other Eastern Island, contain but a few acres of land each. Surrounding them is a coral reef some eighteen miles in circumference, five feet high and about twenty-five feet wide. The first mentioned island, the one occupied, is one and three-fourths miles in length and about three-fourths of a mile in width. As its name indicates, it is a waste of coral sand almost destitude of verdure. One or two patches of coarse grass and a few low shrubs, known as dwarf magnolias, are the only traces of vegetation.

Observation Hill, the highest point on the island, is forty-three feet above the sea, while the rest of the surface varies from

OBSERVATION HILL AND LIGHTHOUSE

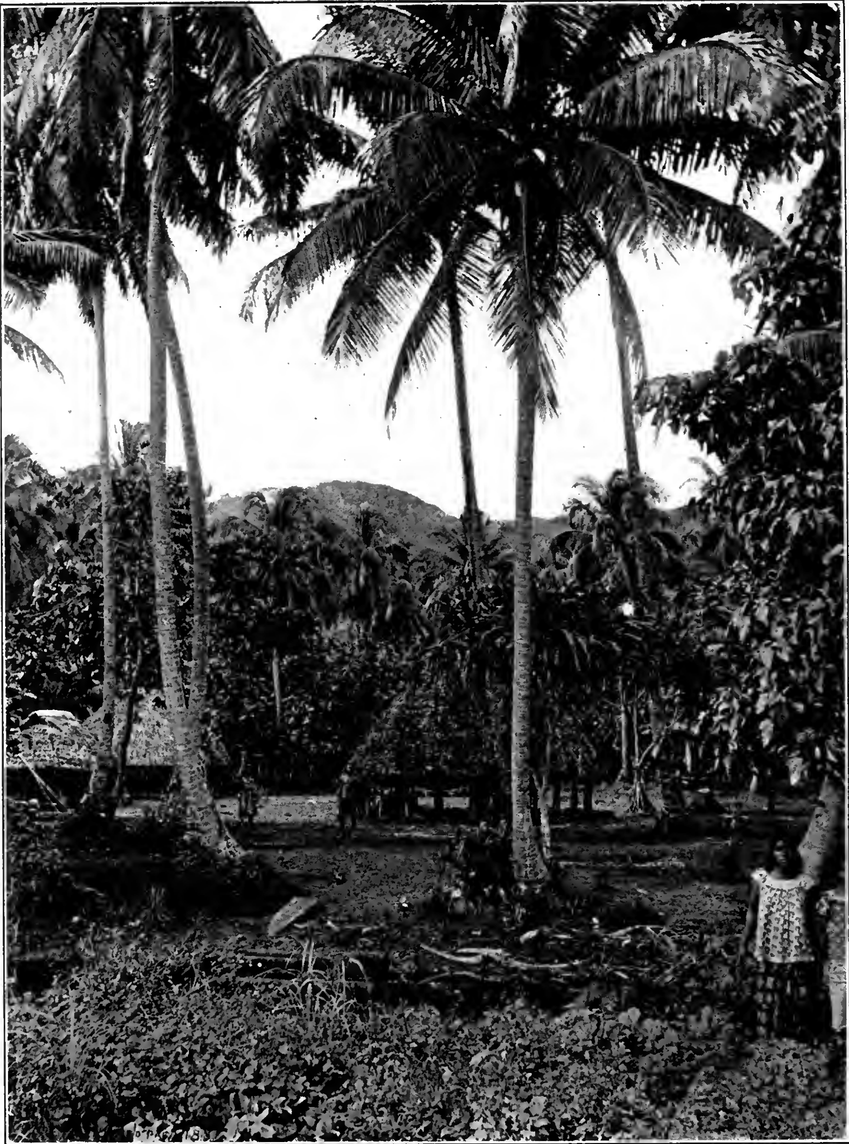
This is the highest point on the island, only fifteen feet above the level of the sea

three to fifteen feet above sea level. It will thus be seen that the islands would be unfit for human habitation but for the sheltering reef, which forms a perfect protection against the waves of the ocean.

In 1903 the Commercial Pacific Cable Company established its station, where messages are received, reinforced, and sent east or west to their destination. The superintendent of the cable station has a force of seventeen men, and these, with the twenty-two marines, make up the island's population. The nearest point of land is Hawaii, more than twelve hundred miles distant. The life of the dwellers on the island is one of isolation and monotony. It is not, however, utterly devoid of excitement. An occasional typhoon, with a ninety-mile breeze, has once or twice caused the little company grave misgivings; the army and navy transports call, as do also some of the ocean liners, while the vessels of the Commercial Pacific Cable Company make regular visits. But life at Midway would be far more desolate than it is did not the cable keep the islanders in constant

AN AFTERNOON TEA

Mrs. Colley, the only woman on the island, is the hostess



A SCENE IN TUTUILA

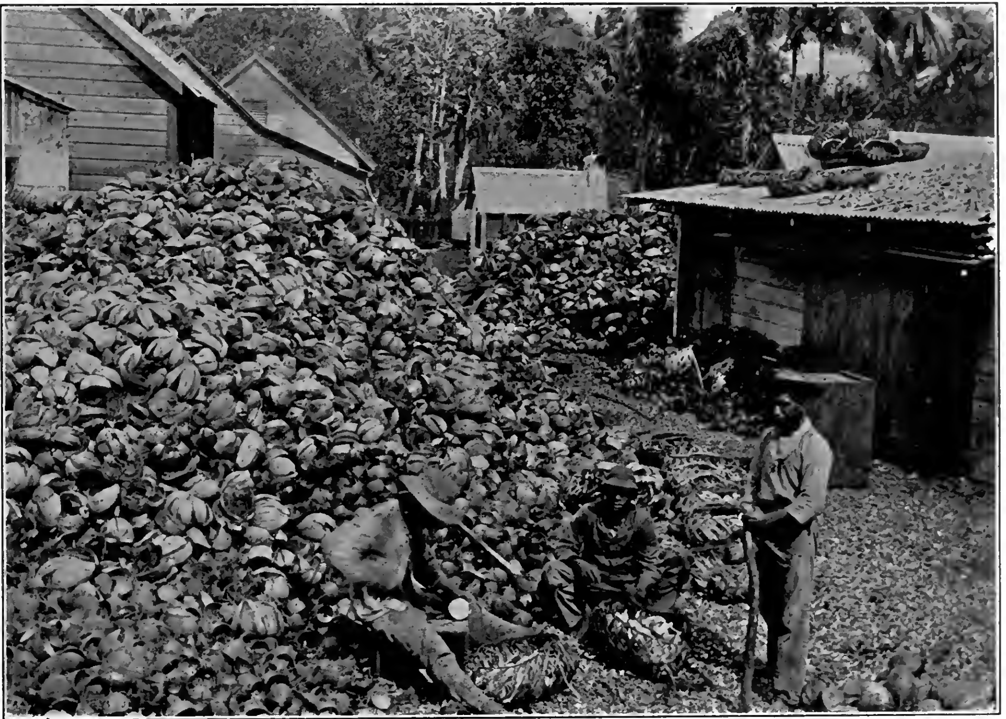
touch with the whole wide world, through the messages which, day and night, are received and retransmitted through its agency.

Tutuila

A portion of the Samoa Islands—consisting of Tutuila, seventy miles from Apia, and the smaller Ofu, Olusinga and Tau of the Manua group—came into possession of the United States in January, 1900. Previous to that date, however, American influence had been strong in Samoa, and the harbor of Pago Pago, in Tutuila, had been a United States naval and coaling station since 1872. In 1889 Great Britain, Germany, and the United States, in a treaty framed at Berlin, recognized the Samoan Islands as neutral territory, with an independent government, the natives being allowed to follow their own laws and customs, while for civil and criminal causes in which foreigners were concerned, there was established a Supreme Court of

Justice, in which an American citizen was the presiding judge. This arrangement continued till 1898, when disturbances regarding the right of succession to the office of king arose. In 1899 the kingship was abolished, and by the Anglo-German Agreement of November 14 of that year, Great Britain and Germany renounced in favor of the United States all rights over the Island of Tutuila and the other islands of the Samoan group east of the 171st meridian, the islands to the west of that being assigned to Germany.

Tutuila has an area of about 54 square miles, with a population of 3,800 miles. The Manua group has a united area of about 25 square miles, with about 2,000 inhabitants. Tutuila is mountainous, luxuriantly wooded and fertile. It is described as the most pleasing of the Samoan islands. The harbor at Pago Pago, which penetrates the south coast like a fiord, could hold the entire naval force of the United States, and is the only good harbor in Samoa.



THE COPRA INDUSTRY, TUTUILA

The commandant of the naval station at Pago Pago is the "Governor of Tutuila." He appoints officers and frames laws and ordinances. Native customs, unless inconsistent with laws of the United States, still prevail.

The islands are organized in three political divisions, in each of which there is a native governor, under whom are native high chiefs in the counties, these in turn having control of the village chiefs. Judicial power is vested in village courts, in five judicial district courts, and in a high court.

There are about forty schools in the islands, attended by nearly 1,500 pupils of both sexes. Education is wholly in the hands of three religious missions: The London Missionary Society, the Roman Catholic mission, and the Mormon mission.

The chief island products are copra, taro, breadfruit, yams, cocoanuts, and bananas.

The United States possesses a number of other small islands in the Pacific, some of

which are hardly more than rocks or coral reefs. Among them are:

Christmas Island, a large, low atoll in lat. 1° 57′ north, long. 157° 26′ west. It has a good anchorage and has been much visited for its deposits of guano.

Baker Island, in lat. 0° 13′ north, long. 176° 29′ west. It was taken possession of by the United States in 1857.

Gardner Island, in lat. 4° south, long. 176° west.

Howland Island, in lat. 0° 49′ north, long. 176° 40′ west.

Johnston Island, lat 16° north, long. 169° west.

Palmyra Island, in lat. 5° 49′ north, long. 160° 30′ west.

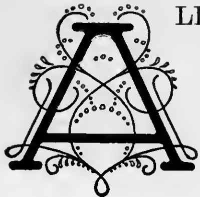
THE ROAD OF LOVING HEARTS LEADING TO OLD HOME OF ROBERT LOUIS STEVENSON

ALASKA AND ITS WEALTH

BY

WALLACE W. ATWOOD

ASSISTANT PROFESSOR OF GEOLOGY, THE UNIVERSITY OF CHICAGO
GEOLOGIST OF THE U. S. GEOLOGICAL SURVEY

LL that happened in Alaska prior to 1897 is there considered ancient history. Those who came into the country in '97 or '98 are old-timers, and almost every one of them who has remained in the country has deservingly won the title of "sour dough." They tired of baking-powder biscuits, and a pail of sour dough in the corner behind the stove became a familiar object in the cabin. Many of the stampeders who stood in line at Chilcoot, Chilcat or White Pass have made good and left the country; others have made good several times and are to-day looking for some one to "grub-stake" them for another prospecting trip. Some were misfits in such a country, and most of them have drifted away.

The latest excitement is in the Innoka region in the lower portion of the Yukon basin. Hundreds of men, and some women, have been rushing to the new

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strike to stake out claims. Some rich deposits of gold have been found in this new camp, and about two hundred people planned to spend the winter there. The results of the winter's prospecting and next summer's sluicing will do much to determine the fate of the camp.

A MINER WASHING OUT GOLD

Fairbanks, the largest gold camp of the interior of Alaska, is located in the midst of rich placer ground and will long continue to be a great gold producer. The annual production from this camp is about $10,000,000. At Nome, the chief interest is now in the third beach line. There the claims are distributed among a great many owners, and active work is in progress on almost every claim. The work consists of sinking through about sixty-five feet of ancient shore gravel to bed-rock, thawing the frozen gravel by means of steam points, hoisting the gravel to the surface, and passing it through the sluice-boxes. The pay streak at this place is of sand and gravel about eighteen inches thick and limited to a zone about one hundred feet wide. This material immediately overlies the bed-rock, and the gold in it is so plentiful that it can be seen by the unaided eye.

From one claim on this old beach line over $300,000 was taken in a single month. A single clean-up on August 17, 1907, made after three days of sluicing, amounted to $40,000. The gold occurs as small nuggets, in grains, as flakes and as dust. The coarser gold is caught in the riffles of the sluice-boxes, and most of the fine dust amalgamates with the quicksilver which is on metal plates in the bottom of certain of the lower boxes. At several points along this third beach, the old dumps are being reworked, and the men thus engaged are making better than good wages.

In the Pacific-coast provinces of Alaska, the interest is chiefly in the copper and coal resources. An exception must be made in the case of the Treadwell Mine, near Juneau, where the steady stamping of large quantities of low-grade gold ore continues to pay good dividends. The copper interests are centered about Ketchikan, Copper River and Prince William Sound. Active mining and smelting are going on in the Ketchikan district, and large quantities of ore are being shipped from Prince William Sound. The Copper River district awaits the building of a railroad.

As yet the valuable coal fields in the coastal province of Alaska have been little developed. They also await the building of railroads. The Controller Bay field is the most accessible of the high-grade coal fields, and active work is now being done on the railroad connecting that field with the coast. This railroad will cross the Copper River delta to the west of the coal field and reach tidewater at Cordova on Prince William Sound. The main line of the road will follow the Copper River Valley to the rich ore deposits in the upper portion of that basin.

This railroad will make it possible to develop many properties in the Copper River district that thus far have remained untouched, and may also be expected to lead to the erection of a smelter on the shores of Prince William Sound, where the ores shipped by rail or water and the coal shipped from the Controller Bay field may be brought together. The

THE METROPOLIS OF NOME, THE BASE OF SUPPLY FOR THE MINING CAMPS

copper ores from Latouche and Knight's Island, in Prince William Sound, must now be shipped either to southeastern Alaska to the Hadley smelter or to the Tacoma smelters. The Alaska Central Railroad, which has Seward as its ocean terminus, is headed toward the Matanuska coal field, and will in time lead to

A MAP SHOWING THE KNOWN DISTRIBUTION OF THE MINERAL RESOURCES OF ALASKA

the development of that field and bring large quantities of high-grade coal into the Alaskan and other Pacific-coast markets as far south as San Francisco.

The annual production of gold in Alaska during the last two years has been about $22,000,000. Of that amount nearly $18,000,000 has, each year, come from the placers. Over $1,000,000 worth of copper was produced last year and over $100,000 worth of silver. In addition to the mineral resources, the fisheries are coming to be of great importance. Over $10,000,000 worth of salmon is canned each year. Fifteen thousand fur seals may, under contract with the government, be taken, and there is little doubt that the full number is usually secured. Many of the small Alaskan islands have been taken as fox-ranches, and from these ranches hundreds of blue, red and white fox skins are secured each year.

In 1867 the United States purchased the district of Alaska from Russia for $7,200,000. The land thus purchased includes 586,401 square miles, or 375,296,640 acres. The purchase price amounted to about two cents an acre.

It is difficult to appreciate the dimensions of this land from figures or on a general map of North America, but if the district of Alaska is drawn on the same scale as a map of the United States, and superimposed on the latter, a more definite conception of the dimensions may be secured. In the latitude of Los Angeles, the Alaskan possessions would stretch from the Atlantic to the Pacific; the southernmost island in the Aleutian Chain would rest in part in Mexico, while the northern border of Alaska would reach to the Canadian boundary line. Thus placed, the territory of Alaska is seen to equal a large portion of the upper Mississippi Valley, while the island possessions in southeastern Alaska and far to the westward cover considerable additional territory.

VEGETABLES AND CEREALS GROWN IN "THE FROZEN NORTH"

If the district of Alaska be shifted in longitude, but held to its appropriate position in latitude, and superimposed on northern Europe, it may be so placed as to cover a large portion of northwestern Russia, all of Finland and Lapland, most of Sweden and a portion of Norway. The southeastern panhandle would rest over the central portion of European Russia, while the Alaskan Peninsula and the islands to the westward would lie in part over Germany, Holland, England, and reach even to Ireland. From this transfer of Alaska, it may be noted that many of the islands to the westward are south of Edinburgh, some are as far south as London and Dublin; that the coastal province bordering the Gulf of Alaska is in about the same latitude as Christiania and Stockholm; that St. Petersburg and the dense population surrounding that metropolis are as far north as Valdez, and that the Yukon basin is in the same latitude as Finland and northern Sweden.

The populations of those portions of Europe that correspond in latitude and dimensions to the Alaskan district amount to several millions of people, while in Alaska there is to-day a population of but sixty thousand to seventy thousand. The climatic conditions in Alaska and northwestern Europe are strikingly different, and it must not be inferred that Alaska can ever support so large a population as an equal territory in northwestern Europe. It may, however, be pointed out that much of the Alaskan territory inhabited now by only a few native tribes

"SHOVELING IN"

From one claim over $300,000 was taken in a single month. A single clean-up on August 17, 1907, after three days' sluicing, amounted to $40,000

is as suitable for habitation as much of Lapland, Finland and the northern portion of the Scandinavian peninsula.

The Pacific-coast province of Alaska is as suitable for habitation as much of Norway. Some Finlanders with their families are now settled on the shores of Cook Inlet, and are undertaking agricultural work there. The United States Agricultural Bureau has established four stations at which experiments have shown that common garden vegetables may be ripened and that an oats-hay suitable for feeding cattle during the winter season may be raised. Many of the white people cultivate small garden patches even as far north as the Arctic Circle, and thus secure fresh lettuce, radishes, turnips,

SITKA AND THE ADJACENT ISLANDS
These beautiful mountainous islands make the inland passage a rival of the fiords of Norway

cabbages and potatoes. In the Yukon basin the gardens are commonly placed on south-facing slopes so that the rays from the sun may strike the garden land at a high angle.

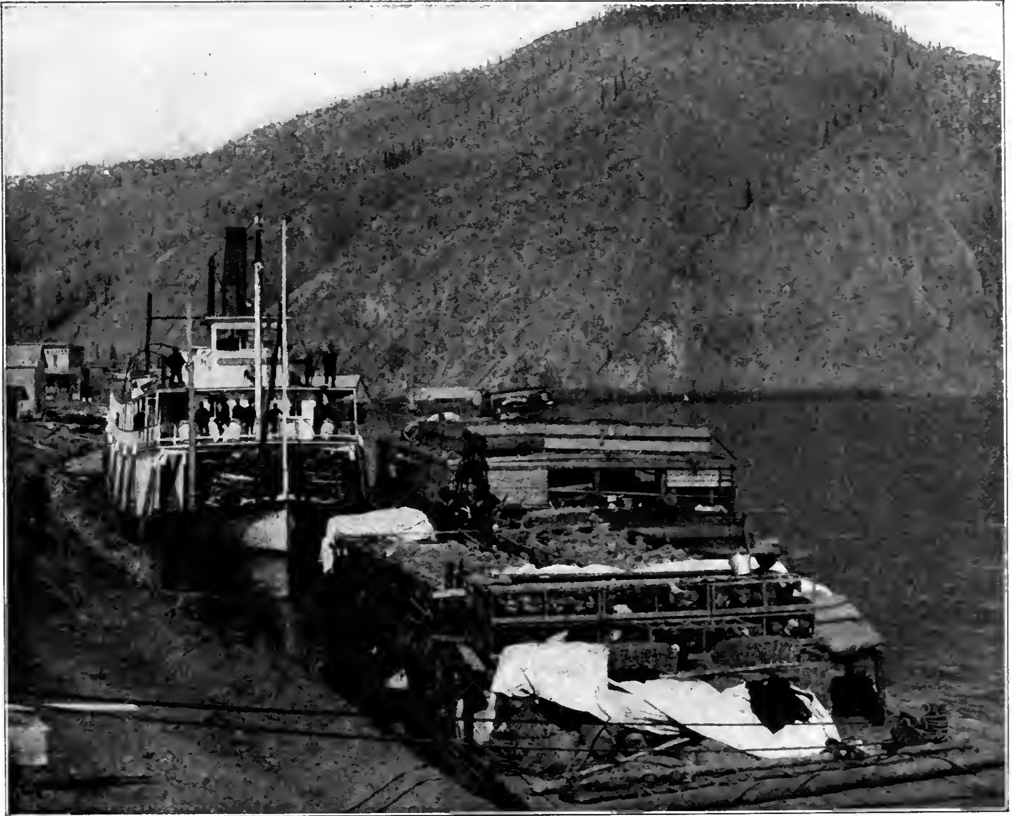
From the geographical standpoint, Alaska may be compared advantageously with the western portion of the United States and British Columbia. Bordering the Pacific are the magnificent Coast Ranges, with many peaks rising seven thousand and eight thousand feet, and a few to elevations from sixteen to eighteen thousand feet. This system of mountains is continued far to the westward and thence southwestward where it forms the backbone of the Alaskan Peninsula. The western termination of this mountain belt is in a chain of volcanic islands, the westernmost of which is nearer to Japan than San Francisco. In the Alaskan Range is Mount McKinley, twenty thousand three hundred feet, the highest mountain in North America. This great peak rises conspicuously from the plains to the northwestward in the valley of the Kuskokwim, and may be seen from the upper portion of Cook Inlet or from outlook points on the mountains of the Kenai Peninsula.

A FAMILY PARTY

The Scenery of Alaska

In the southeastern portion of Alaska, the numerous *fjords* and sheltered channels make possible the most picturesque of water routes in North America, if not in the world. From Seattle to Skagway, a distance of over one thousand miles, the inland passage is guarded by great mountains among which the vessel quietly moves.

To the eastward are the Coast Ranges and from the basins among their summits glaciers descend to or nearly to the tidal waters. Immediately bordering the channel there are numerous cirques or amphitheatral areas on the mountain



LOADING SUPPLIES FOR MINING CAMPS IN THE INTERIOR OF ALASKA

tainous islands. The channel is in mountain valleys through which the ocean waters now pass. At places the channel becomes very narrow and the waters shallow. Such places were the divides or passes in that mountainous region before the land was lowered and the sea advanced into it. In all this journey there are but a few hours when there is any possibility of the vessel rocking from the motion of the sea. The travelers are, therefore, comfortable and in good spirits, usually on the hurricane deck or in favorable outlook points, viewing the slopes where glaciers formerly existed, and from which beautiful cascades now descend over precipices from one hundred to five hundred feet in height.

In the northern portion of the inland passage there are several glaciers that reach the tidal waters and that may be approached within a few hundred yards by the steamers. The ends of these glaciers present vertical cliffs of ice of beautiful deep-blue color and sometimes as much as two hundred feet high. As the glaciers advance, the ice is pushed out into the water, and huge masses break off

RAILROADING UNDER DIFFICULTIES
Cutting through fifteen feet of snow

and drift away as icebergs. The breaking of these "live-glaciers" is accompanied by a thundering noise not unlike that from cannonading.

The panorama in Glacier Bay includes in the background the peaks of the Fairweather Range with Mount Fairweather reaching to nearly sixteen thousand feet, and on the flank of the range a great *mer de glace* from which flows the Grand Pacific, the Johns Hopkins, the Carroll, the Muir and the Davidson. Thirty miles to the northwestward are half a dozen other glaciers. The former glaciers of southeastern Alaska deepened and widened the great canals, inlets and *fjords*, and thus greatly assisted in making possible the inland passage and the present easy approach to the existing glaciers.

But if one ventures beyond the southeastern portion of Alaska through Icy Straits and into the open ocean, still greater scenic features are in store for him. There from the deck of the vessel we watched for two days the magnificent ranges which border the Alaskan Gulf from Icy Straits to Cape Hinchinbrook. The Fairweather Range, which extends northward from Icy Straits, is now seen from the west. This great mountain mass rises promptly from the sea-level, and from the deck of the vessel the entire height of nearly sixteen thousand feet is within view.

Farther north, the St. Elias Range rises similarly from the ocean, but reaches a maximum elevation in Mount St. Elias of nearly eighteen thousand feet. Nowhere in the world can one see to such advantage such huge mountain masses. If one climbs to elevations of five thousand or six thousand feet among the mountains of our western states or of British Columbia, or even to similar elevations among the Alps, there remain but six thousand to eight thousand feet of mountains to be seen.

In the basins near the crest line of

Fairweather Range, the snows accumulate, glaciers form, and these glaciers descend nearly or quite to tidewaters. On the southern slopes of Mount St. Elias the valley glaciers descend, and at the base of the mountains blend into one great ice-sheet known as the Malespina Glacier. This, the largest Piedmont glacier in the world, borders the coast for about eighty miles. The ice-sheet at places reaches to the ocean and steep cliffs of ice border the water-front. At other places, forests clothe the glacier, and give it the appearance of land.

RESIDENTIAL SECTION, VALDEZ

To the westward from Cape Hinchinbrook, the coastwise journey leads one into Prince William Sound. Again we are in the midst of mountains where beautiful *fjords* make it possible to advance far inland. It is the southeastern Alaskan type of country over again. The mountains bordering the great *fjords* rise to elevations of three thousand and four thousand feet, while in the distance the summits of the Chugach Range reach elevations of six thousand and eight thousand feet. From the catchment basins among these mountains, other glaciers descend to tidal waters. At the head of the Sound, after steaming up one of the most beautiful *fjords* in Alaska, we reached the little village of Valdez. This village is situated on a plain made of material washed out from the glacier just above town, and the floods from this glacier endanger portions of the village each season.

Still farther to the westward, the mountain chains of the coast continue to be within view from the vessel. The Chugach Range follows out the Kenai Peninsula and into Kodiak Island. On the west of Cook Inlet is the Alaskan Range, with its numerous volcanic peaks, many of which are yet active.

The Yukon Basin

The interior of Alaska presents a very different aspect from that of the coastal province. It is a plateau region which has been much dissected by running water. From elevated positions in this interior region, the hill-tops come to a conspicuously even level and represent the ancient plateau into which the great valleys of the Yukon, the Tanana, the Kuskokwim, the Koyukuk and the Porcupine have been cut. In the cutting of these great valleys, in the working over the material of these interior lands, the streams gathered and concentrated the gold which has drawn so many thousands of people into Alaska.

The famous Klondike region is relatively near the headwaters of the Yukon drainage system; Eagle and Circle adjoin that river; Fairbanks is located in the basin of the Tanana River, and the

SHOWING RELATIVE SIZE OF ALASKA AND THE UNITED STATES

latest find in the Innoka region is near the headwaters of a tributary to the lower Yukon. Lesser finds of gold have been made in almost every valley associated with this interior country.

Running in an east-west direction, and north of the Yukon River, are the Rocky Mountains of Alaska. These ranges of mountains reach elevations from six thousand to eight thousand feet above sea-level, are snow-capped, and among them there are numerous small glaciers. Northward from the Rocky Mountains an extensive plain, covered by a thick moss or tundra growth, extends to the Arctic Ocean.

The four great geographic provinces of Alaska, namely, (1) the mountainous province bordering the Pacific Coast, (2) the interior plateau of the Yukon basin, (3) the Rocky Mountain belt, and (4) the Arctic slope, correspond to the great geographic provinces of British Columbia and the western half of the United States. The Pacific Coast mountains are represented in the states by the mountains of Washington, Oregon and California; the Yukon plateau by the plateau of Utah and Nevada, and the Rocky Mountain belt of Alaska is continuous through British Columbia with the Rocky Mountains of Montana, Wyoming and Colorado. The Arctic slope is comparable to the plain stretching eastward from the Rocky Mountains in British Columbia and in the western states.

Climatic Conditions

The great geographic provinces of Alaska define also the great climatic provinces. In the Pacific-coast province the climatic conditions are modified by the proximity of the great ocean and especially by the ocean currents which reach the Gulf of Alaska from the more southern waters of the Pacific. As the Japan current approaches the western border of North America, a portion turns southward and another portion turns northward and follows the coast line of Alaska.

The southwest winds from the Pacific Ocean are forced to give up their moisture on the windward slopes of the mountains, and therefore this province receives a heavy precipitation. At Sitka the annual precipitation is about one hundred inches; at Juneau about ninety-five inches; on the slopes of the Fairweather and St. Elias Ranges the precipitation approaches nearly to two hundred inches. At Nuchek, a point just north of Cape Hinchinbrook, a measured precipitation of one hundred and ninety inches has been recorded. This heavy rainfall and snowfall accounts for the luxuriant forests that clothe the lower ranges and adequately explains the presence of the glaciers in this portion of Alaska.

In this rainy coastal belt, the number of sunshiny days per month averages from fourteen to sixteen, but throughout the summer months, from May to September, the average number of such days is much higher. The extreme southwestern portion of this province, the Alaskan Peninsula and the Aleutian Islands, receives less rainfall than that to the east. In the Cook Inlet region, which is in part cut off from the sea breezes, the amount of precipitation drops at places to fourteen inches per year. In this region the rainfall comes as gentle showers and is not a serious interference to mining or agricultural work.

The temperature at sea-level in this coastal province varies from about zero to eighty or ninety degrees. Many portions of this region seldom have a minimum temperature much below zero Fahrenheit. In southeastern Alaska the annual range of temperature runs from an average minimum in January of two degrees below zero to an average maximum in July of eighty-six degrees.

The interior plateau province is a semi-arid country, for the winds having been forced to give up their moisture on the Pacific Coast slope descend into the inte-

rior in a relatively dry condition. That portion of the interior bordering the Bering Sea receives some moisture from that direction, but the winds on which it is borne usually distribute it before they have advanced far into the Yukon basin. Thus the rainfall grades from an annual fall of fifteen to twenty inches in the lower Yukon country to an annual fall of from ten to twelve inches at Eagle. This land is for the most part covered with grasses and shrubs. The only portions supporting trees are those immediately adjoining the great rivers. Thus narrow belts of forest border the Yukon, the Tanana and the Kuskokwim.

The interior province suffers extreme changes in temperature, ranging from a recorded minimum of minus sixty degrees Fahrenheit to an authentic maximum of ninety-four degrees. The winter temperature averages from five to ten degrees, while during the summer months the average temperature is between fifty and sixty degrees. During the dark winter months this interior region is covered with from two to three feet of snow, the rivers are frozen, and there is very little activity except in underground mining operations.

During the summer most of the snow disappears, the rivers are open to navigation, and prospectors and miners are putting in long days at hard work. The ground in the Yukon basin never thaws much more than eighteen inches below the surface. In all mining work it is necessary to thaw the gravel or to mine each day just the amount that the heat from the sun has loosened up. The ice in the Yukon River begins to break in May, and the river freezes early in November. During the summer months when the sun shines most of the twenty-four hours of each day, the vegetation becomes luxuriant, and in the moist tundra lands bordering the valleys, wild flowers and mosquitoes are in great profusion. The days are frequently uncomfortably warm, and traveling is often postponed until the night hours.

The Rocky Mountain province, owing to its greater altitude, receives additional precipitation, and in that area the snowfalls are sufficient to give rise to some smaller glaciers. Very few recorded data are available regarding the temperature conditions in this province, but the region may be thought of as one of extreme cold, especially during the winter months.

The Arctic slope receives so little precipitation that it may be classed as a semidesert. The annual precipitation there is less than ten inches, and at points where the record has been kept, less than eight inches have been noted.

The temperature conditions in this extreme northern province have been somewhat faithfully recorded at Point Barrow. At that point, the extreme northernmost point of Alaska, the winter temperature has been known to fall to fifty-five degrees below zero, while the summer maximum is sixty-five degrees. The length of the growing season, or the period from the last killing frost in the spring to the first killing frost in the fall varies from 150 days on the Pacific Coast to about ninety days in the interior, and to an uncertain minimum farther north so short that no agricultural work is practicable.

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AN ALASKAN INDIAN'S ABODE

The Native People of Alaska

In southeastern Alaska the Indians are grouped in small villages, among which Metlakatla, Kake, Kilisnoo and Sitka are the most populous. The natives are now largely engaged during the summer season in work associated with the salmon canneries or the oil and guano factories. They still do some logging, getting out and forming great rafts which I know have sold from $500 to $800 each. This money is distributed among the men who have assisted in the work, and the distri-

THE RAILWAY PIERS AT VALDEZ

bution results in a general good time about the village and a very considerable income to the little storekeeper who has located in or near the village. During the winter they still do some hunting, though the income received from work associated with the white man's industries has made them less dependent upon those primitive occupations.

In the Cook Inlet region there are small Indian villages at Seldovia, Kenai and Tyonok. These natives are somewhat intermingled through marriage with the Russians who settled in this district over a century ago. They are also somewhat related to the natives living in the islands far to the westward, and it is not uncommon to find among them a distinctly Japanese type. They are a simple, friendly people, who become very intimate with the whites who are more than tourists in the country. They assist in the shipping and mining work of the inlet. They are an industrious people and when not engaged by white men may usually be seen at work fishing, gathering wood, preparing for or returning from some hunting expedition. In this district the bear and moose are abundant.

Throughout the interior of Alaska, away from the coastal provinces, the Indians have their headquarters or villages near the main rivers. They use those highways for travel, just as the white man has come to do. Throughout the summer season, they, as well as many of the white people, are busily engaged in catching and drying fish. They may leave their more permanent homes and scatter along the river banks, where they will live in tents or little temporary shacks, and with nets, traps or fish wheels in the river catch the salmon that are moving upstream from early in June until late in August. During the time that the fish are being cleaned, the native dogs, which are more plentiful than the people, have their annual feast. The fish when cleaned are hung up to dry and then stored away in certain little shacks which they call "fish caches." The chief food supply, both for the dogs and for the people, during the winter season, is fish and when carefully dried it is not an unpalatable foodstuff.

As we reached the lower portion of the Yukon valley we noticed that the natives had assumed some of the ways of the Eskimos who live in the coastal provinces bordering Bering Sea and the Arctic Ocean. We began to see the Eskimo *parkie* or outer garment. Moccasins would have the form or design of the Eskimo *muckluck,* but still retained some of the

ornamental beadwork which is characteristic of the work of the Indians. The birch-bark canoes gradually disappeared and the skin *kyaks* took their place. The lower Yukon country is a sort of transitional zone.

By the time we had reached the mouth of the river, the true Eskimos were seen, camping about St. Michaels and across the bay at Nome. Those at Nome had come chiefly from Cape Prince of Wales, where their winter home is located and where they keep their herds of reindeer. During the summer season these people, who love to travel and love to visit, were in temporary homes, made either by the upturning of one of their large boats, or in tents, located in the outskirts of the city. Here they were busily engaged, the men at carving or polishing ivory, the women at making *mucklucks, kamilinkas* or rain-coats, and large mats or rugs. The mats or rugs are made of pieces of hair seal, cut so that with the different colored hair an artistic design is made. These people are great traders, and each afternoon and evening the men, women and children come through the streets of Nome, trying to dispose of some of the things they have made.

When fall approaches, the Eskimos leave for their winter home. There the men care for the reindeer and the young people attend the government schools. The schoolmaster is also the chief reindeer herder, and the men of the tribe may, if they wish, become assistant herders. After four years of satisfactory service, the assistant herder receives four head of reindeer, and for each succeeding year two more head, until he has a nucleus of ten for his private herd.

My season's work, which had taken me through the interior and down the entire length of the Yukon River, ended at Nome. We left that metropolis late in the fall when signs of winter were appearing. The city is cosmopolitan in nature and a busy place throughout the year. During the summer the active mining is in progress both underground and at the surface. Outfits are continually made ready and trainloads, wagonloads or boatloads of provisions are leaving for the mining camps.

During the winter, Nome is reported as equally busy, for underground mining is still in progress, and large quantities of supplies are being moved over the snows for the next season's work in the more distant camps. As winter approaches, the ice begins to form in Bering Sea, until it is impossible to approach the city by boat, and with the freezing of the river all navigation into the interior ceases. The boats must all be drawn up out of the water and beyond reach of the ice, which during the break-up in the spring moves so vigorously that it would destroy any craft within reach. Through the interior, the season is virtually closed by the middle of November. The white people as well as the natives are then chiefly concerned in keeping warm and sleeping as much as possible, awaiting with interest the arrival of each week's mail, and with still greater interest the appearance of the next season's sun.

ESKIMO HAULING REINDEER MEAT TO NOME MARKET

THE REPUBLIC OF PANAMA AND THE CANAL ZONE

BY

JOHN F. WALLACE

FORMERLY CHIEF ENGINEER PANAMA CANAL

The Harbor of Panama

HILE it would hardly be proper to style the Republic of Panama one of the colonial possessions of the United States, yet under the existing treaty with that republic, the United States has control and a qualified sovereignty over a strip of territory, known as the Canal Zone, some ten miles in width, being five miles on each side of and parallel with the axis of the surveyed line of the Panama Canal, and practically forty-seven miles long from ocean to ocean. Two small reservations, embracing the municipalities of Colon on the Caribbean side and Panama on the Pacific side, are excepted from this territory.

The Constitution of the Republic of Panama went into force on February 23, 1904. Executive authority is vested in the

President, who is elected by popular vote for a term of four years and ineligible for the next succeeding term. The legislative branch of the government consists of a single body, the National Assembly, deputies being elected thereto for a term of four years in the proportion of one deputy for every ten thousand inhabitants or fraction over five thousand. This assembly meets every two years, but extra sessions can be called by the President.

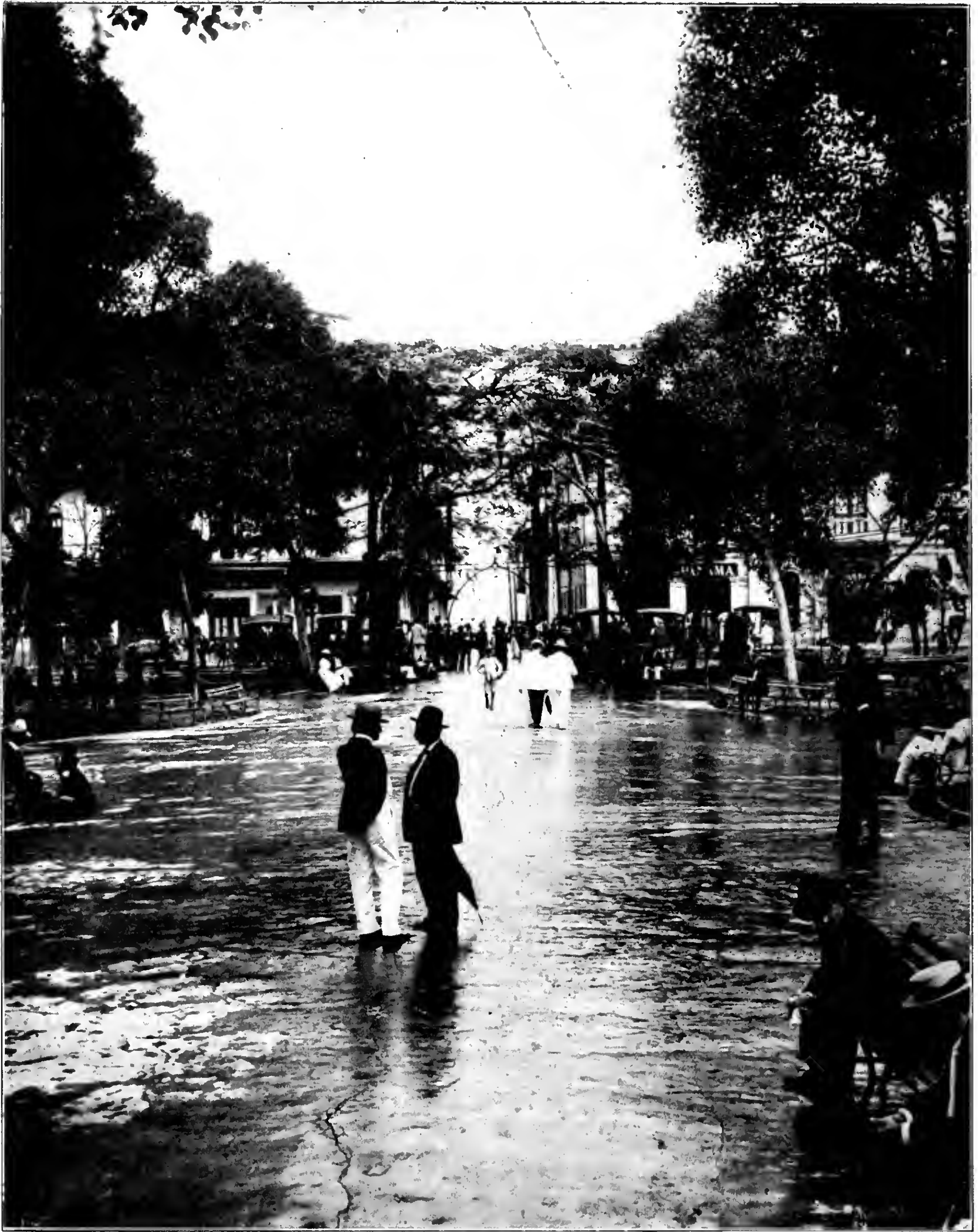
It should be borne in mind, however, that the government of the Canal Zone is entirely distinct from that of the Republic of Panama, the executive authority being vested in a governor, who is also a member of the Isthmian Canal Commission, appointed by the President of the United States. The administration of justice in the Canal Zone is also vested in the United States Government.

A technical interpretation of the original treaty with the Republic of Panama would imply absolute sovereignty over this strip on the part of the United States. There has since been substituted, however, a provisional sovereignty by subsequent negotiations between the administrative officers of the two republics and it is at present understood — at least by the administrative officers of the Republic of Panama — that this sovereignty is restricted and qualified to purposes of construction, maintenance, operation and protection of the Panama Canal.

Logically, the municipalities of Colon and Panama should have been included in the Canal Zone. However, as these two cities contain the dominating element of the Panama population, it was necessary for the United States Government to except them from the concession in order that a political entity might be created and maintained, with which the United States Government could negotiate for the cession of the Canal Zone. Otherwise, the creation of the Republic of Panama would have been merely a diplomatic fiction providing for a forcible transfer from a weak republic to a strong republic, sustained solely by the doctrine that, in large governmental affairs at least, the end to be accomplished justified the means.

The physical boundaries of the Republic of Panama embrace a luxuriant and fertile country, approximately the size of the

THE AMERICAN TOWN OF CULEBRA


From stereograph, copyright, 1907. Underwood & Underwood, New York

CENTRAL PLAZA, PANAMA CITY, ON A SUNDAY MORNING

State of Maine, and over four times that of New Jersey, embracing 32,280 square miles and containing a miscellaneous population of three hundred and sixty-one thousand inhabitants: Whites of Spanish and other descents, Indians, Negroes and many of mixed nationalities, the dominating and controlling factor being the commercial element residing in Panama and Colon.

To the eastward a large part of the territory of the Republic of Panama is under the practical control of the San Blas Indians, one of the few tribes of natives

who have never permitted the heel of the conqueror to rest upon their necks, and who even to-day maintain their integrity and independence, having their own ancient tribal government and acknowledging allegiance to no one. This territory has no stronger sanction for being embraced in the Republic of Panama, or formerly in the domain of the United States of Colombia, than its assumption by rulers who have never exercised real governmental functions in and control over the San Blas region. The actual control of the present Panama Republic is confined to the territory immediately adjoining the coast line and that lying between the Panama Railroad and Costa Rica, together with the indefinite area adjoining and lying eastward of the Canal Zone.

The larger part of the Republic of Panama is mountainous, the physical characteristics of the country consisting of a range of mountains which forms the backbone of the Isthmus, through the lowest portion of which runs the present Panama Railroad and the located line of the canal. East and west of the railroad, along the axis of the Isthmus, the mountains rise on either side and the Isthmus widens. Along the northeastern slope of the principal range flows the Chagres River and the various tributary streams.

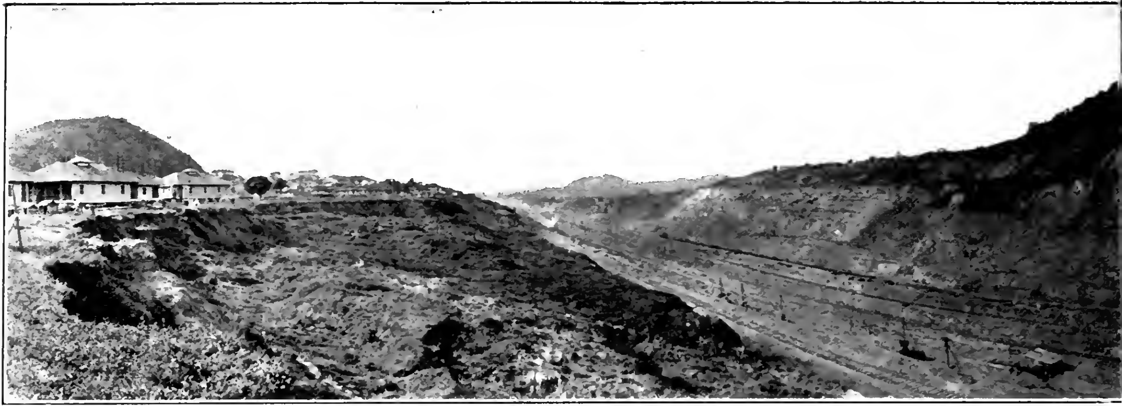
Panama is intersected by numerous rivers or small streams, more than a hundred flowing into the Caribbean Sea and twice that number draining into the Pacific.

MEAL-TIME AT AN ISTHMIAN CANAL COMMISSION KITCHEN

The groups in the right-hand corner are mostly Panama half-breeds. The typical canal laborers are in the background on the extreme left. The force exhibits much greater ethnic variety than it did a few years ago although the West Indian black is still the predominating ingredient in the melange

The largest river in the republic is the Teuria, which rises in the southeastern part of the country and flows into Darien Harbor. There are numerous bays, which form remarkably safe and large harbors. One of the largest on the Caribbean coast is the Chiriqui Lagoon, which, with Almarante Bay, practically forms one body of water with an area of over three hundred square miles. The Gulf of Panama on the Pacific has a width of one hundred miles between Cape Garachine and Cape Malo. Within this large body of water are the Bay of Parita, on the western side, and the Gulf of San Miguel, on the eastern side. Numerous islands skirt the coasts of Panama, both in the Pacific and Caribbean, with a total aggregate area of more than six hundred square miles.

The valleys are particularly fertile, and the mountain ranges in a less degree. The larger part of the country was originally covered with a dense tropical forest, composed of both hard and soft woods. A

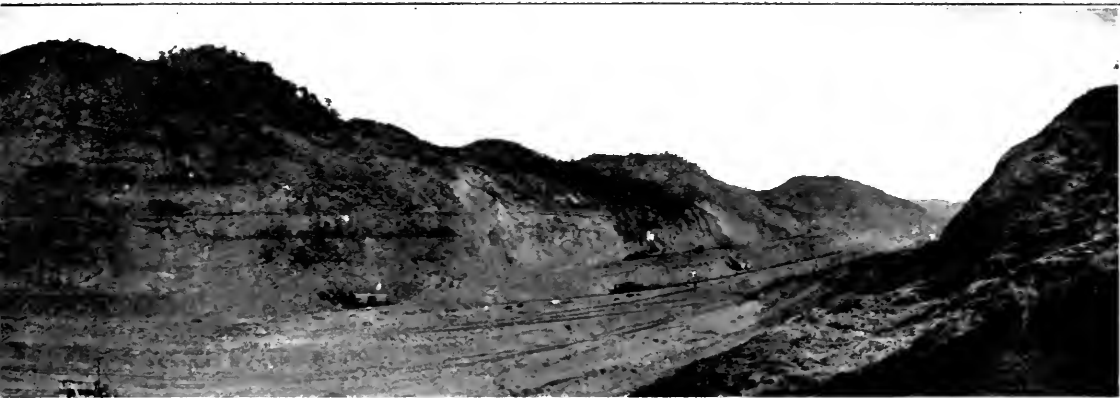


THE CULEBRA CUT. Rio Grande Slide in foreground. Culeb

THE AMERICAN TOWN OF LA BOCA. Showing wh

Photos, Copyright, 1909, by the Pictorial News Co.

PANAMA CITY AND



ond cut looking north. Cucuracha Slide to the right and cut south

t Pacific terminal of canal. Rio Grande and canal beyond

FROM ANCON HILL

large area of rolling land in the foot hills is partially bare of forest, and corresponds to our prairies, or, as they are called on the Isthmus, "savannas." They remind one of the rolling lands of the United States, except for the occasional palm

From stereograph, copyright, Underwood & Underwood, New York

HOMES IN THE BANANA BELT

The Chagres River Valley, Panama

trees and other distinctive forms of tropical vegetation. All tropical and semi-tropical products can be raised in this country, which is quite capable of sustaining a dense population.

The republic contains over twenty million acres of land, of which about seventy-five thousand acres only are under cultivation, practically forty thousand acres being devoted to the cultivation of bananas and the balance of the acreage to cacao, coffee, cocoanuts and other fruits and vegetables. The country also produces many varieties and large quantities of hard wood, such as rosewood, mahogany, *cobololo*, as well as many dye woods, all of which are procured with great difficulty, owing to lack of roads through practically an impenetrable jungle.

Contrary to the general impression, the climate is to some extent variable. The higher altitudes are more or less healthful. The Pacific slope has a moderate rainfall of approximately sixty inches per annum, gradually increasing across the Isthmus to one hundred and twenty, or one hundred and fifty inches per annum at Colon, on the Caribbean Sea. Outside the low

swamp lands near the coast and adjoining some of the streams, the Chagres River in particular, the climate is salubrious as tropical climates go. Heretofore the only places scourged by malignant diseases have been Panama and Colon, on account of insanitary conditions and the fact that both these cities have been the gateways through which the tide of travel to and from the west coast of Central and South America has ebbed and flowed. While the mean temperature of Panama is approximately 80° F., and the humidity varies between 75 and 90 degrees, making the climate very enervating during the day, the nights are cool and refreshing.

The principal cities of the republic are, of course, Panama and Colon, the former having a population of approximately thirty thousand and the latter six thousand inhabitants. The business of these towns is confined to tradespeople and small merchants, as outside of a few small soap, match and ice factories, the republic has little or no manufacturing interests.

The present undeveloped state of the Republic of Panama is due primarily:

First. Prior to American control the ports of entry of Panama and Colon were the hotbeds of disease. The sanitary measures enforced within the past three years under the administration of Colonel W. C. Gorgas, of the United States Army, have now made these cities as healthful places of residence as any other tropical region. Panama and Colon have both been supplied with water and sewage systems and the streets have been paved.

This cause, which seriously retarded the development of the country, has now been eliminated.

Second. The unstability of the local government, revolution having occurred almost annually for fifty years immediately preceding the formation of the Republic of Panama on November 3, 1903, the date of her declaration of independence from the Republic of Colombia.

On account of the present protective relationship between the Republic of Panama and the United States, revolutions are now a very remote possibility.

Third. The monopoly of transportation facilities by the Panama Railroad, which it remains for the United States, through its ownership thereof, control of

BOATS SELLING NATIVE PRODUCTS AT THE WATER FRONT, PANAMA

From stereograph, copyright, 1907, H. C. White Co.

FRONT STREET, COLON, ONCE A RIVER OF MUD, NOW PAVED AND MADE SANITARY

the Canal Zone and protective relationship to the Panama Republic, to change from a retardant to a stimulating factor.

Prior to the construction of the Union and Central Pacific Railroads, the Isthmian route was a link in the preferable line of connection between the Atlantic and Pacific seaboards of the United States, the alternate to the slow, expensive overland route, operated by wagon train and stage coach.

The incentive for the construction of the Panama Railroad in 1852, expediting transcontinental mails and traffic by the Isthmian route, was the basic cause of the original treaty between the then Province of New Granada, within the boundaries of which the route lay, and the United States Government. Under this treaty, the United States obtained unusual powers in connection with the Panama Railroad; while the management, maintenance and operation remained in the hands of a private corporation, every safeguard was provided for American control and protection.

This railroad was given the unqualified monopoly of all means of transportation from ocean to ocean, inside the limits of the Province of New Granada, now prac-

THE ROAD TO LAS SABANAS, PANAMA

tically the Republic of Panama. The restrictive policy of the management of this road for fifty years through the apparent necessity of charging exorbitant rates for the transportation of passengers and merchandise, operated to prevent local development, as well as to limit seriously the through commerce which the railroad was created to foster.

The construction of a waterway connecting the two oceans and throwing this route open to the world on equal terms will undoubtedly in years to come create a flow of commerce through its gateway that will greatly stimulate and develop the prosperity of the entire Republic of Panama. The inevitable destiny of this country will surely cause it to become one of the brightest stars among the nations of South America.

The fact that Panama and Colon will be the last ports of call for the world's commerce, moving in either direction for long ocean distances, will create the necessity for vast depots of shipping supplies for distribution at these points, and will afford the means, if made a free zone, for the interchange of the world's commodities. This will necessitate a population many times that which now exists and undoubtedly promote the development of the entire country. With governmental encouragement, railway lines will be constructed in the Chagres Valley and along the Pacific Coast line, ultimately forming a link in the future Pan-American Railway.

A further stimulus in this direction will be caused by the large number of active Americans attracted by the construction of the Panama Canal, not only as direct employees of the United States Government engaged on the work, but in connection with the collateral and auxiliary trade relations necessitated thereby. Many of these people will find their future destiny as residents of the Panama Republic, and their predominating influence will no doubt result in the growth of a warm and lasting friendship between the inhabitants of the Republic of Panama and the United States. It will also tend to promote future profitable trade relations with all South American countries.

The present treaty between the United States and the Republic of Panama provides for a protectorate which practically gives the United States not only the power of intervening to repel invasion and repress local disorders, but also guarantees that the United States will assume the responsibility for the internal and foreign peace of the country. What the final outcome will be, and whether or not a closer relationship will eventually exist between the United States and the Republic of Panama depends largely upon the inclination and desire of the people of that country, which may result in annexation at some future time.

It does not require a prophetic mind or great foresight to predict the day when the Republic of Panama will support a population of several million happy and contented people, profitably engaged in the development of its abundant natural resources.

AN OFFICIAL TOUR OF INSPECTION IN THE CANAL ZONE

President Taft and Colonel Goethals (with hat removed) are seen at rear end of "The Taft Special."

PORTO RICO
THE LAND OF PROBLEMS

BY

C. H. FORBES-LINDSAY

AUTHOR OF "AMERICA'S INSULAR POSSESSIONS," "INDIA, PAST AND PRESENT," ETC.

RITING of Porto Rico some years before American occupancy, I called it the "Ireland of Spain." At that time its political, social and industrial conditions bore no slight resemblance to those of Great Britain's insular possession. It was somewhat similarly governed. It had its wealthy element in the population, consisting of landlords and merchants, but almost no middle class. Its peasantry were poor and ignorant tenants, wringing a bare subsistence from the soil. The parallel is capable of farther extension, but this brief comparison suffices for my purpose.

To-day Porto Rico may aptly be termed a "land of problems," because everything in the island is in a formative or reformative stage and it is impossible to

HAULING SUPPLIES FOR THE NEW RAILROAD

tell what the ultimate results will be. A true account of Porto Rican conditions written when we acquired the country, or even as late as 1900, would apply in hardly any important respect to the conditions of to-day, and twelve months hence the present article will be inadequate to a description of the Porto Rico of 1909, so rapidly and extensively are changes taking place.

Porto Rico was the most prosperous of all Spain's colonies during the closing years of the nineteenth century, and its commerce, benefiting by the disturbed state of Cuba, reached the height of its prosperity just before the Spanish-

THE MILITARY ROAD FROM SAN JUAN TO PONCE

The Spaniards were splendid road-builders, but their efforts seldom extended beyond government needs

American War. Then came a period of depression, due to the disorganization of trade and the closing of old-time markets, which reached its climax in the year following the disastrous hurricane of 1899. Out of the depths of commercial confusion and industrial collapse Porto Rico has been raised in the course of a few years to a condition of welfare and promise such as she never knew before, nor ever dreamed of.

There is a vital difference between her prosperity under Spain and her prosperity under the United States. The former condition mainly benefited the small moneyed class and improved the condition of the masses only to the extent of removing them in a degree from their chronic state of semi-starvation. On the other hand, in the changed conditions brought about by the administration of the United States, the poor people are the chief beneficiaries. Already the evils of their hard lives are considerably mitigated, their ignorance is alleviated, and a hopeful prospect is held out to them.

The Porto Ricans have a marvelously rich possession in their country. It is a land of innumerable hills and valleys, watered by a thousand streams. The surface is clad in perennial verdure, and the elevations covered with vegetation even to their rounded summits. This little island spot can boast a greater variety of landscape scenery than any similar area in the world. There are no wastes, no swamps, no rocky stretches.

THE MARKET PLACE AT PONCE

The entire face of the land is covered with a soil so rich and deep that some of it has been continuously worked without fertilization for centuries. Every rood of it is cultivable. The alluvial bottom-

lands along the rivers and the coastal plains yield sugar abundantly in response to the simplest methods. The upland valleys and the foothills produce tobacco of the finest quality. The slopes of the hills support groves of oranges, fields of bananas and plantations of coffee. Even the sandy belt along the littoral affords the most favorable ground for the growth of the cocoanut palm.

LARES, FORMERLY A BUSY CENTER OF THE COFFEE INDUSTRY

Under the Spaniards coffee was Porto Rico's principal product, but its export valuation has dropped from $12,222,599 in 1897 to $4,693,004 in the last fiscal year

Passing rich as it is, this country has never been developed. Spain did little toward the exploitation of its resources and even prohibited the prosecution of some of its most promising industries. Cattle grazed over large areas of land that might have been set in cane or tobacco, because there was lack of capital for the cultivation of the former, and the exportation of the latter was restricted. Coffee was the mainstay of the island trade and it was mostly carried to the coast on pack animals over difficult trails.

There was but one highway of any considerable length and that was a splendid one — the military road from San Juan to Ponce, with a branch to Guayama. Aside from this, most of the roads were indescribably bad and at seasons impassable for vehicles. The first franchise for railroad construction was granted in 1888 to a French company, which laid several disconnected sections of narrow-gauge track along the coast, aggregating about 130 miles in length. One town, Mayaguez, boasted a street tramway. It was equipped with square curtained cars that looked like medieval bedsteads on wheels, drawn by reluctant, raw-boned ponies.

The population was, as a matter of course, in the same state of stagnation as the country. San Juan, "La Capital," as the Porto Ricans fondly call it, should by all the laws of hygiene have been a perpetual plague spot, for every established condition made for disease. But some mysteriously providential agencies secured for it a tolerable degree of healthfulness. Into the eighty acres of the in-

THE GOVERNOR'S PALACE AT SAN JUAN

A RECEPTION ROOM IN THE PALACE

tramural city twenty thousand souls crowded, where not more than half the space could be devoted to habitations. The houses, solidly massed, side by side and back to back, were devoid of any but the most primitive sanitary arrangements. In the upper story — few houses are more than two in height — lived the better class in ill-ventilated and poorly lighted rooms, for the Porto Rican shuns the trade wind which is probably the secret savior of his city. The lower quarters of the dwellings were veritable rabbit warrens, partitioned off into a number of small rooms, opening upon the *patio*. Here the poor lived under infinitely worse

A STREET IN COAMO SPRINGS

conditions than do the Italians of Soho, or the Chinese of Mott Street. The average number of inhabitants to a house in San Juan was twelve, but there were many ground floors that harbored twice as many, in apartments that had no inlet for light or air, save the door, and no furniture but a few mats on which to lie, a small charcoal stove and a kettle. The cooking was done in the *patio,* which was also the drying-ground for clothes and the general lounging place.

We have done much toward improving these fearful conditions, although the relief of the congestion — which is fifty per cent greater than in Havana — presents a formidable problem. The accumulated filth of centuries has been cleared out of the city, water supply and sewerage have been provided, and ordinary sanitary conveniences installed. In time we shall either thin out the buildings or the inhabitants of San Juan, *intramuros.* Many of the *patio* dwellers will be induced to move out to the suburbs and modern tenements will be built for others.

The condition of the masses in the

TOBACCO CULTURE UNDER CHEESE-CLOTH SCREENS

Around Caguas, the center of the tobacco district, hundreds of acres are found under one cover

From stereograph, copyright, by Underwood & Underwood, New York

COLUMBUS SQUARE, SAN JUAN AND THE BAY

Seen from San Cristobal Fortress

country districts was better only in so far as they were slightly less crowded and confined, and consumption was not so rife among them. But they lived in the most miserable shacks, their only furniture a few simple utensils, a hammock or two, and perhaps a mat. Tens of thousands never sat upon a chair, nor at a table, nor knew other bed than the bare floor. Three-fourths of Porto Rico's million never had covering to their feet, nor more than the scantiest clothing, while their children of both sexes went totally naked until seven or eight years of age.

In attending to the victims of the hurricane of 1899, the medical officers were

brought into close contact with a large number of the people. Then the startling discovery was made that three in every four of their patients were afflicted with tropical anemia, which is now attributed to the presence of a parasite in the blood. Thorough investigation showed that ninety per cent of the adult laboring population was affected by the disease, which saps the energies and shortens the life of the sufferer.

THE MARINA, SAN JUAN
One of the chief docks of the harbor

The insular authorities are engaged in no more important work than their fight against this terrible affliction, for the eradication of the "hook-worm" means the regeneration of the Porto Rican and the upgrowth of a sturdy population in the place of their listless and thin-blooded forbears. There has been constantly increasing successful treatment under the direction of a special commission. In 1904, about five thousand persons were cured. The striking results induced larger appropriations for the prosecution of the crusade, with the outcome that in the last three years upward of two hundred thousand victims have been relieved of the infection. There is no doubt that the disease will be completely stamped out in time, and with its passing we shall cease to have justification for characterizing the Porto Ricans as lazy and shiftless.

Thirty cents for twelve hours' work was the highest wage the Porto Rican laborer could ever hope for and that was often payable in tin checks on the planter's store. Moreover, there were upward of ninety holidays in the year, not to mention periods of idleness occasioned by industrial conditions. More than half the adult population, and a large proportion of these were whites, did not handle as much as $5 in the course of a year.

It must be admitted that the people

were happy and contented, despite the almost universal state of disease and poverty. Shortly after the transfer of the island I asked a number of *peons* what they would like most of all, with the understanding that the range of the inquiry was limitless. In every case the wish was for something material, and the most ambitious was for a set of furniture. I could not find any desire for education, perhaps because they knew practically nothing of it, and must confess to surprise at the quick response to the opportunities we have put in the way of these extraordinarily illiterate people.

with transportation facilities in promoting the welfare of an agricultural people. The physical peculiarities of Porto Rico will tend to confine its railroads to the coastal line designed to encircle the island, and short loops and branches of it. The lines of communication and transportation in the interior must always be mainly cart roads. The cost of constructing these averages $10,000 a mile and their maintenance is proportionally expensive, but the commerce and industry generated by their existence would make them worth while at a quadrupled outlay.

OLD FORTIFICATIONS, SAN JUAN

Spain turned over to us one public school building. Now the whole country is dotted with schoolhouses, so that one is within easy reach of every soul in the island. And the pupils, as a rule, show remarkable aptitude and inclination to learn. The census of 1910 will show that we have wiped out the reproach of superlative illiteracy under which Porto Rico has lain for generations. But education is a sorry adjunct to an empty stomach. The combination breeds agitators and anarchists. Happily we are working quite as effectually to improve the material condition of the Porto Ricans. The steam-roller and the schoolmaster were brought into play simultaneously and the good works of both are bearing early fruit.

No other factor is comparably potent

Spain left 171 miles of main highway in use. We have already added more than three hundred miles as part of a system which is planned to supply the needs of every part of the island. The treasurer of Porto Rico recently disposed of $1,000,000 of the island's bonds at a premium in New York. The entire proceeds of this transaction will be devoted to road-building.

An American company has succeeded the French corporation in the control of the railroad. The disjointed sections have been connected and there is now a continuous line from Carolina, through San Juan, Arecibo, Mayaguez, and other important towns, to Ponce. Several branches to interior points have also been constructed. American locomotives have

replaced the toy engines which were incessantly breaking down, and the permanent way and general equipment have been greatly improved. The line has only completed half the proposed circuit and it is far from being perfect in operation or fully adequate in service, but it marks a great advance in transportation facilities over the old conditions.

San Juan and Ponce both have modern electric street railway systems, the latter extending out two miles to La Playa, the port town. An electric line is in course of construction to run from the capital over the route of the military road to Aibonito.

Those who are thoroughly familiar with the island and its resources express the opinion that it will easily support a population of two millions when the road system is completed. As fast as the highways are opened to traffic, the lands adjoining rise greatly in value and are immediately put under cultivation. There has been a general enhancement of real estate values, and land that lacked buyers at $10 and $15 an acre now sells for $50 an acre. Following the increase in transportation facilities, marked improvements in plantations were made at many points, and it is noticeable that the narrow-tire, two-wheeled ox-cart is gradually giving place to the American wagon.

A NATIVE THATCHED HUT

With the expansion of agricultural industries, in which nearly all the people are interested, wages have more than doubled and the masses have adopted a higher standard of living. In 1906, Porto Rico took from us three hundred thousand pairs of shoes and this represented a great advance in consumption. In 1907 the shipments included just twice as many pairs and the general quality was better. The imports of the last few years show enormous increases in foodstuffs, clothing, tools and furniture, much the

greater part being in response to the demand of the peasant class.

The most remarkable changes have taken place in the industrial economy of the island during the past few years. In the final period of Spanish rule coffee was by far the principal product of Porto Rico. Nearly half of the entire area under cultivation was devoted to it and in the exports it represented a value more than twice as great as that of all the other shipments combined. Of the eight hundred thousand *peons*, one-third, at least, were dependent, directly or indirectly, upon the coffee industry.

Upon annexation to the United States the protected markets of Spain and Cuba were closed to the Porto Rican planter and the utmost endeavors have failed to secure a sale for his product in the United States. The insular coffee is better than the Brazilian bean and fully equal to the Costa Rican "Mocha and Java," which constitute the bulk of our supply. But Americans have almost as poor taste in the matter of coffee as they have in that of tea, and the only hope for the island industry would appear to lie in such intensive cultivation as will greatly increase the yield to the acre and allow of the output being sold in competition with the cheap, low-grade products of South America. The proposition to put a five-cent duty on foreign importations and so protect the Porto Rican berry at an annual expense of $50,000,000 to the American consumer is not likely to be considered by Congress.

The problem of the resuscitation of the coffee industry is an intricate and a momentous one. It is safe to say that one-fourth of the population would be benefited by a revival of the old-time source of prosperity, and a large proportion of these are people whom it will be difficult to make prosperous in any other way. Coffee may be cultivated with comparatively little outlay of capital and it is grown to advantage on the interior elevations, which are adapted to no other product. This will account for the fact that, despite the severe depression, the plantations have not been abandoned, as much as one hundred and eighty-five thousand acres still lying under the bush. The total value of the coffee exported in the last fiscal year was $4,693,004 as compared with a valuation of $12,222,599 in 1897. Planters are almost unanimous in the opinion that the salvation of the industry depends upon securing the United States market, or in some form of protection, but the investigators at the experiment station of Mayaguez are sanguine of finding a solution to the difficulty in improved methods of cultivation and preparation for market.

A STREET IN SAN JUAN

Fortunately, we have effected an offset to the coffee collapse in the expansion of the sugar and tobacco industries, with the prospect of a profitable fruit trade in the near future. American capital and methods have worked wonders in these respects and the principal products of the island now enjoy an assured position.

The sugar business is undergoing an entire reorganization on the most scientific and economical lines. Formerly sugar, as an article of Porto Rican export, was far behind coffee. Now it has considerably passed the highest mark ever attained by the berry. Practically all the land adapted to the growth of the cane is under cultivation, but it is believed that the crop may be trebled under improved conditions. Porto Rico, like the Hawaiian Islands, has its wet and dry sides. The southern valleys, which embrace a great part of the sugar belt, need irrigation, and the United States Reclamation Service is investigating the subject with promise of satisfactory results.

Under Spain the tobacco crop of Porto

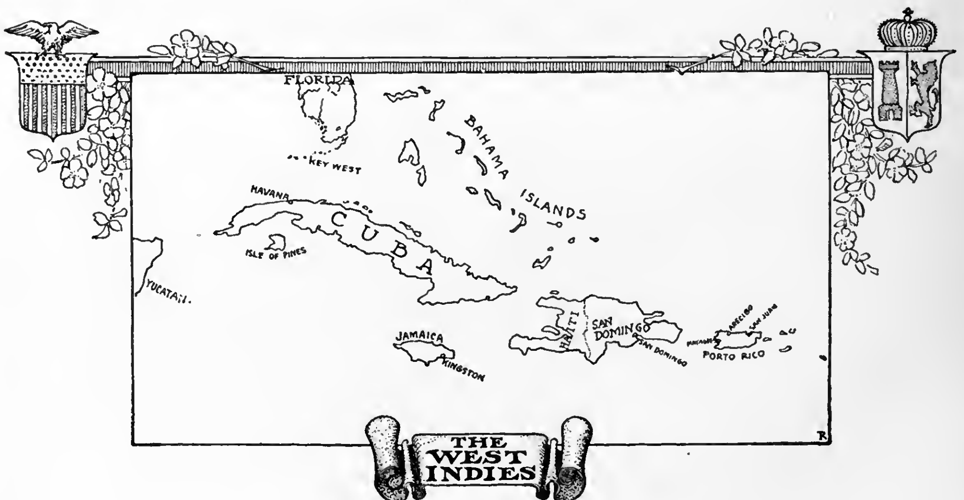
Rico was hardly worth consideration. In 1907 the export of cigars alone approximated $5,000,000 in value and there is every indication of a large expansion of the industry. The most approved methods of cultivation and manufacture are in practice. Around Caguas, which is the center of the tobacco district, one finds hundreds of acres under one cover in several instances. High-grade wrappers are thus grown in large quantities.

A new but promising industry is that of fruit growing, which, as in Cuba, is mainly in the hands of Americans. There are now upward of six thousand acres in oranges and a considerable area devoted to pineapples and grapefruit. Oranges grow wild in the hill region and on the west and south coasts. They are very sweet and of fine flavor but require careful packing. This has prevented their exportation until our own people took the task in hand. At present about two hundred and fifty thousand boxes are shipped annually, but with improved cultivation and greater transportation facilities, both inland and ocean, the shipments will be very largely increased. Pineapple culture has become quite extensive during the past two years. The plantations are chiefly on the north coast and in the Mayaguez district. In connection with these, several large canning factories have been established. The industry has proved very profitable to the planters. Many of them who paid $50 an acre for their land were able to show a profit of one hundred per cent on the investment the first year.

Porto Rico is not at present, whatever it may be under greater development, a country for the small capitalist. He may go to Cuba and do very well, securing land at one-third the price that he would have to pay for it in Porto Rico. Nor can the mechanic or farmer be advised to emigrate to this one of our insular possessions. The former could not live on the wages paid for skilled labor and the latter would find the venture unprofitable until after the interior is better supplied with roads, and markets are more extensively established. Ultimately Porto Rico may afford homes to a large number of our agricultural population.

Many promising industries have not yet been incepted. The systematic cultivation of the cocoanut palm for copra would undoubtedly prove profitable, and the necessary land can be had cheaply. Porto Rico only needs a line of fast and regular steamers to supply the United States with a large quantity of vegetables, and in a dozen different directions new industries may be expected to arise as the constantly improving economic and agricultural conditions warrant.

Even allowing for the splendid natural resources of the island and its previous stagnation, we have made a splendid record in Porto Rico, and one that probably is unparalleled in the history of colonization.

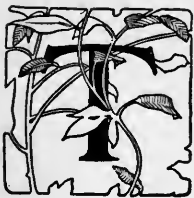


AN AVENUE OF PALMS

CUBA
THE LAND OF PROMISE

BY

C. H. FORBES-LINDSAY



HE first sight of Havana, viewed in all the glory of a Cuban day, makes the strongest appeal to your sense of color. The picture has a setting of clear-blue sky and ultramarine water. On your left, as you enter the pouchlike harbor, stands the grim, gray bulk of the Morro, tailing off into the fortifications of La Cabana, that costly "white elephant" which never fired a shot in defense of the city. On the opposite side, La Punta, with its fort and the open space of the Malecón, and then a mass of many-tinted masonry, out of which rises the conical tower of venerable La Fuerza, topped by its aboriginal maiden gazing out to sea. Almost every

AN EXAMPLE OF THE FINE ROADS IN CUBA

During the past year more than 200 kilometers of macadamized roads have been completed, and 500 additional are in process of construction

conceivable hue is reflected from the walls of the buildings under their dark red tiles.

As at Manila, the steamers, of which an average of ten a day enter the port, anchor off shore and transfer their cargoes by means of lighters. This unnecessary expense should be done away with here, as it soon will be at the capital of the Philippines, but it seems that the lighterage interests have sufficient influence to obstruct the construction of docks, although there is ample depth at many places along the city front for vessels of the greatest draft. Passengers are landed in tenders, or they may, if they wish for a novel experience, go ashore in *guadaños*, the cumbersome boats, with wagon-top shelters over the stern, that look singularly like the Calcutta dinghy.

The first contact with the natives impresses the stranger with the dignified courtesy that he will meet on every hand during his stay in the island. The custom-house officer examines his baggage with the Chesterfieldian politeness that he will later find exhibited by the street-car conductor, the shopkeeper, and, in fact, all Cubans of whatever degree. The new arrival will also notice that there is no riotous hurrying, even about the busy landing places, and, if he is wise, he will conform to the habit of the people and refrain from fussing, for your Cuban can not be shaken in his imperturbability and resents any attempt to disturb it.

The Havanese are the only city people in the island. The inhabitants of all the other centers are virtually countrymen.

Their interests and their manner of living are rural. But even in this great city of three hundred thousand souls, with its enormous business, you will not find as much bustling evidence of industry as in an American town of one-third the size. The Cuban is not a pushing business man as a rule, though those who have spent years in the States furnish exceptions. The Spaniards, large numbers of whom have immigrated in recent years, are more successful. One sees many neglected fields in which native enterprise and moderate capital might be successfully employed and notes that the exploitation of this wonderful country is almost entirely at the hands of foreigners.

The visitor to Havana at the present day, who has recollections of the place during the period of Spain's misrule, will be struck by the signs of Americanization on every hand. Immediate indications of this are found in the superlatively clean streets, the fine electric car system, the smart, if somewhat undersized, police, and the numerous names foreign to the country displayed outside business places. But the influence which has been so potent in its effect upon the city has worked little change in the personal habits of its people.

The Cuban is very prone to imitate. Indeed, he may be moved more readily by the suggestion of example than in any other way, but he has shown little inclination to modify his personal habits in conformity with the up-to-date manner of doing things which has been brought to his notice. This conservatism is no doubt wise in some respects, but it perpetuates many conditions that are incompatible with the growth and advancement of his city. Perhaps the 11 o'clock breakfast and succeeding rest are beneficial institutions. As much can not, however, be said of the custom of selling goods in stores by dickering after the fashion of the Oriental bazaar, and the primitive practice of peddling provisions and other articles might be abandoned with advantage in favor of a modern system of supply and delivery. The visitor is amused to see the milkman, the fruit-seller, the poultry vendor, and even men selling such things as buttons and thread, leading their pannier-laden horses and asses to the best houses and carrying on their dealings

CLIMBING A PALM-TREE BY MEANS OF A ROPE TACKLE

THE HOME OF A CUBAN PLANTER

with the residents through the window gratings.

American influence has, however, brought about some important changes in Cuban customs and notably in the abolition of the bull-ring and the cock-pit, which used to be the chief Sunday attractions of the populace. Not a few of the better class of Havanese desire the same fate for Jai Alai and would rejoice to see the Frontón closed forever. High and low wager immoderately on this game and many stories of ruined reputations and wrecked businesses are connected with it. Every race has its prevailing vice and its comparative freedom from others. The Cubans are incurable gamblers, but drunkenness is virtually unknown among them. Both sexes in Havana spend a great deal of time in the numerous open-air cafés, but they drink, for the most part, non-alcoholic, fruity beverages, of which there are an extensive variety peculiar to the country.

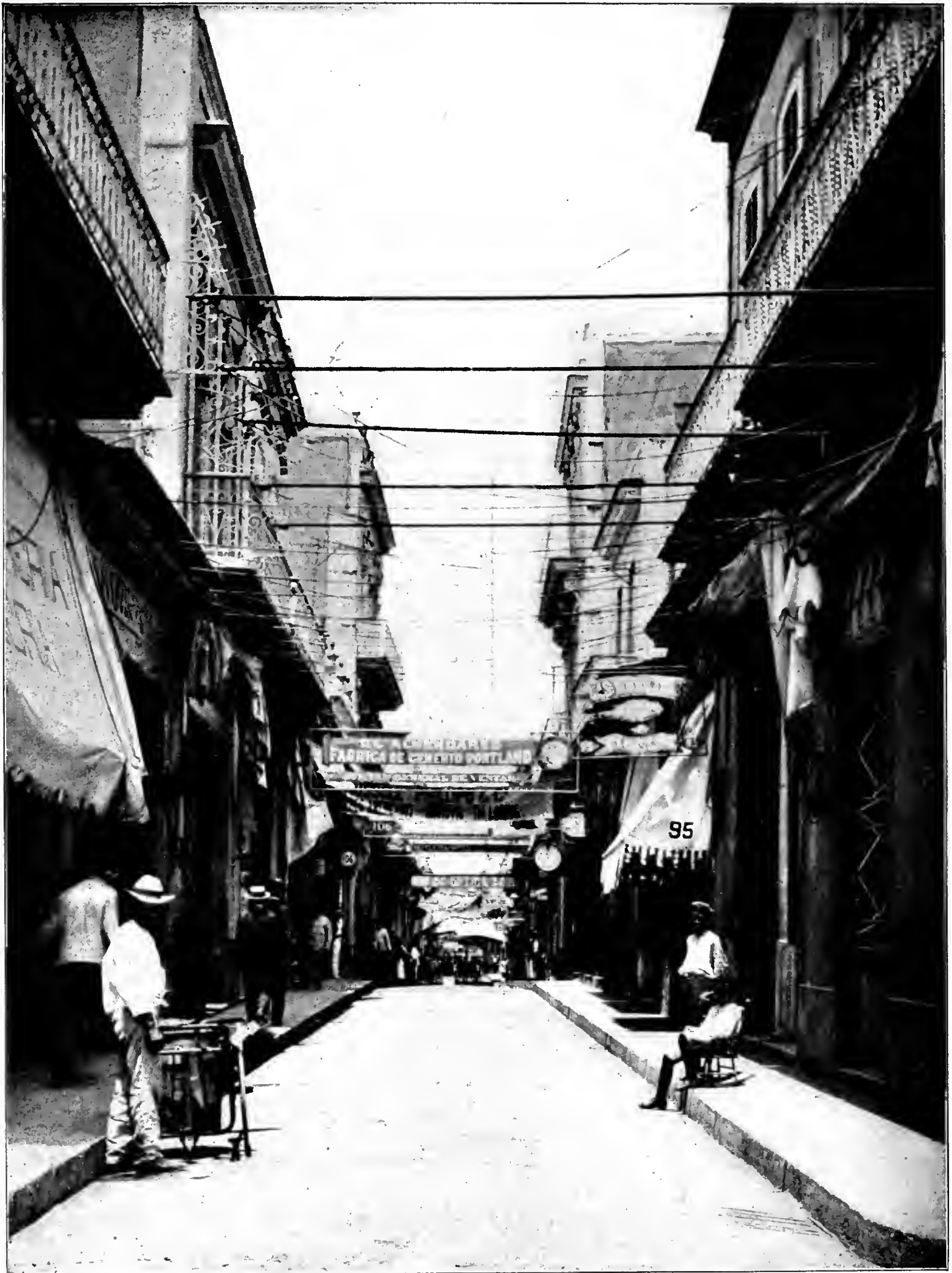
The portion of Havana that lies about the harbor, the old town, was *intramuros* before the walls were razed, a sacrifice of the picturesque to the sanitary. The narrow streets still remain, so narrow that in some cases vehicles may only traverse them in one direction, as the signs *subida* and *baja* at their entrances indicate. The buildings in this section are packed close and the population crowded to an extent that is not exceeded in Whitechapel or the Quartier Latin. There is no city in America of two hundred thousand inhabitants that covers so small an area as does Havana.

A BAND CONCERT AT THE MALECON, HAVANA

Morro Castle is seen across the harbor

The Havana residence is a flat-roofed, heavy structure with barred windows, twelve or sixteen feet in height, and massive doors. Its forbidding aspect is somewhat alleviated by the fact that, except when the slatted shutters are closed to exclude the sun, the passer-by may have a free view of the occupants in the living rooms, or through the open doors, see them enjoying the air in the bowery of the patio. The interiors of the houses are bare, but this is a wise concession to hygiene made in all tropical countries. It is less easy to account for the custom of placing in the reception room two precise rows of chairs facing one another, to disturb the alignment of which is distinctly bad form.

There are along the Prado many hand-



O'REILLY STREET, HAVANA

One of the principal shopping streets Note the American signs

some houses of more attractive architecture, and in the suburbs, particularly in Vedado, stretching along the Gulf front, charming villas are found, with colonnaded façades and set in gardens of beautiful plants. The outlying districts are reached by the electric railroads and connected with the city by excellent high-

ways which in several directions extend for many miles into the country. During the past twelve months, there have been completed in the island more than two hundred kilometers of macadamized roads, and five hundred additional are in process of construction. This work is an important factor in the movement that is fast making Cuba the most popular of winter resorts for Americans, who may now find good use in the island for their touring motors.

A NEW AMERICAN HOME
The Americans are coming into Cuba in considerable numbers, taking up land for agricultural purposes

The holiday-maker who has but a few days at his disposal during our winter can pass them delightfully in Havana, perhaps taking the short railroad trip to the famous valley of the Yumuri and the curious caves of Bellamar. The city is one of the most interesting and picturesque in the western hemisphere. The old town abounds in historic spots and quaint structures. Around the Plaza de Armas cluster a number of notable buildings: Fuerza, the first of Havana's forts, now used as a depository for its archives; El Templete, the beautiful little chapel erected upon the spot where the religious ceremonies were performed when Velásquez founded the city; the Palace, built by Tacon and occupied by the governors during the last century; the Cathedral, containing the disputed bones of Columbus; and several others that claim attention for the long-past events and old-time characters with which they are associated. Contiguous too, is the shopping district, of which the principal streets are Obispo and O'Reilly, cramped thoroughfares that have been trodden by the feet of every generation of Havanese. Here the shop signs indicate the American invasion and also reveal the Cuban habit of conferring grandiloquent or sentimental names upon everything. You may buy a pair of gloves at "The Genial Dove," the name of the place, however, having no reference to the black-whiskered proprietor. If you happen in shortly after 11 o'clock you will find him at breakfast with his assistants in the middle of the store.

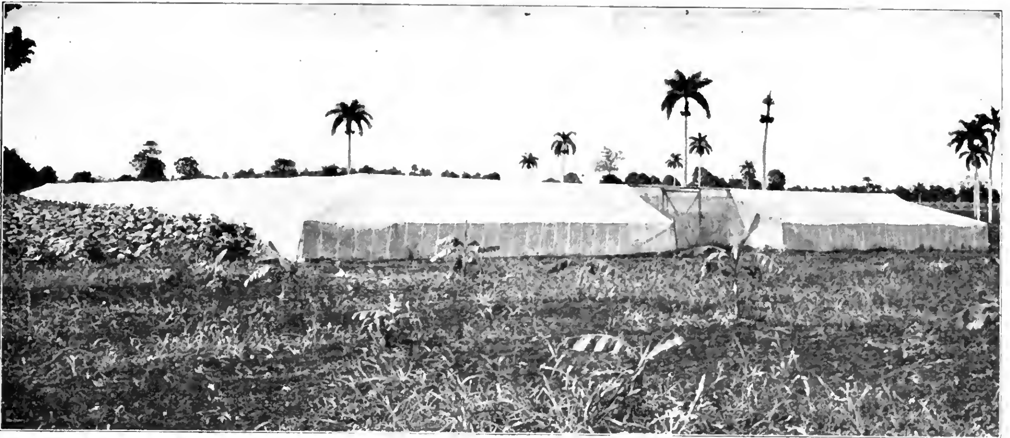
The congestion of the city *intramuros* finds a palliative in the Malecón which is

to old Havana what Battery Park is to lower Manhattan, or the Luneta to Manila. The American authorities found the Point a heap of disorderly rubbish, which they cleaned up, leaving Punta Castle standing in the center of a large open space that has been parked and boulevarded. The sea-wall and the fine carriage road skirting it have been carried on for miles out Vedado-way, affording a charming drive along the seashore.

THE OLD AND THE NEW
A modern double-disk plow in use by progressive Cubans

Traversing the center of the city, from La Punta to Colon Park, is the broad, handsome, tree-lined boulevard, called the Prado. This, Havana's fashionable promenade and drive, is crowded with carriages and pedestrians on Sunday afternoon. It runs through Central Park which, but for the interposition of the huge Villanueva railroad station, might be extended on to Colon Park. Central Park would be more attractive if its trees were not trimmed with such precision as to suggest that they have just been received from a German toy factory. This resort is the focal point of Havana's social life. The principal hotels, clubs, cafés and theaters stand around it, and it is the scene of a joyous gathering two or three times a week when concerts are given in the evening. The Cubans are very fond of social pleasures and Havana is one of the gayest capitals in Christendom. Many persons attend one or other of the half dozen theaters every night in the season and a convenient practice prevails of selling tickets for single acts of the performance.

Some of the statuary about the city, in the plazas and parks, is exceedingly beautiful and nearly all of it is very effectively placed, a point in which municipal authorities so frequently fail. The Cubans evince grateful remembrance of their benefactors. Marti, the revolutionist, Albear, the engineer, Garcia, the patriot, Espada, the cleric, and others are honored with splendid statues, but one looks in vain for a public memorial of the services of Waring, Reed, and the several other American sanitarians who rid Havana of its greatest curse.



RAISING TOBACCO UNDER COVER

In shade-houses similar to these the growing tobacco is protected from the sun and unfavorable climatic changes

The general health of the citizens, despite the fearfully crowded state of the old town, is better than that of the inhabitants of most of our large cities. A great many people still retain the impression that Cuba is an unhealthy country. Except in the swampy districts along the coast, the climate and conditions, especially since we have improved the water supplies of the centers of population, are decidedly conducive to good health, on the part of Americans no less than of

THE BUSY HAVANA WHARVES

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THE PRESIDENT'S PALACE, HAVANA

natives. On the central uplands many of our people are doing hard work, while enjoying unwonted freedom from illness. Few, if any, countries in the world can boast a better climate.

With the possible exception of Java, there is nowhere in the world a similar area of such extreme fertility as Cuba. The island is covered with variegated verdure displayed in undulating prairie or virgin forest. Only about the southern coast of Oriente is the country markedly broken and rugged, and here are deposits of copper, iron and other minerals that, in all likelihood, have hardly been tapped. But a small proportion of the land is as yet turned to practical account and there is no doubt that this territory, no larger than England, might, under favorable conditions of government and development, support a happy and prosperous population of twenty-five million souls.

The charm of the scenery lies largely in the diversity of color. Here are vast rolling fields of dark-green tobacco; here miles of bright sugar cane, interspersed with patches of fresh-turned, rich red earth. The emerald tints of pasture grass relieve the burnt bronze of the pineapple plantation and contrast with the deeper tones of the fruit orchards. The predominant feature of the landscape is the royal palm, Cuba's pride. Its stately, silver-gray boles, topped by graceful plumes, rise on every hand to a height of one hundred or more feet. Here they cluster in a grove with outstanding sentinels; there, run in orderly ranks along some road, or marking the boundaries of a great estate. The monarch of the Cuban plains affords but scanty shade; that must be looked for from the ceiba and other spreading trees, of which there are many varieties. The native, however, finds numerous important uses for the palm. It furnishes the material for the construction of the peasant's shack, and the awning of his cart; it roofs enormous tobacco barns and encases the bales of leaves.

If the Cuban authorities are wise, they will conserve their forests — the greater part of which are public property — for they are the life of the numberless streams that water the prolific prairie sloping to the sea on either side of the island. Cuba has agricultural resources capable of comfortably supporting a rural population of fifteen million and she can well afford to treat her timber conservatively.

With the recent extension of railroad facilities, tourists in general have begun to extend their travel beyond the neighborhood of Havana, and they are learning that the provinces offer even greater attractions than the capital. All the principal cities are picturesque and interest-

ing, and each has distinctly individual characteristics. The hotel accommodations are seldom as good as they should be, but the traveler will not suffer actual discomfort anywhere. In every place one encounters Americans, with an occasional Spaniard, Canadian, or Britisher, who are spying out this land of promise and quietly picking up desirable tracts of it.

The entire central ridge presents an exceptionally attractive field to the land prospector. The climate is salubrious, the soil passing rich and the transportation facilities good, with promise of further improvement in the near future. Our people have put many millions into Cuban real estate. Estimates as to the amount vary, but probably it is not far short of $75,000,000. About twenty thousand individuals are interested in these investments, which represent property varying in extent from a single *caballeria* to thousands of acres. The acre-price of large tracts is surprisingly low, but small blocks of the best lands in the island, except for the favored tobacco region, can be had for less than $10 an acre, cleared and contiguous to a railroad.

There are many colonies of Americans in the country, generally engaged in the cultivation of fruit, which is a fast expanding industry. They are living under comfortable conditions and making money, with excellent prospects for the future as the country about them develops. The life is an easy one and Cuba is one of the few places to which a man advanced in years, and with but moderate capital, can emigrate with any chance of success. I have met several who came here when well toward sixty, and one or two who had passed that age. Some of these are performing as much physical labor as they would be capable of in the States, and here it is often sufficient to secure a comfortable livelihood.

The anticipated revival of coffee culture will afford attractive opportunities for men of limited means and physical capacity, and so with viniculture. Spain, out of solicitude for her home industry, forbade the cultivation of grapes, but some that were "grown under a cassock" demonstrated that the fruit would thrive in Cuba. A large home market exists for light wines and a demand for them might readily be created in our eastern States.

To the young man with brains and discernment, Cuba offers a peculiarly promising field. The country is in the infancy of its development and he who grows up with it can not fail of ample opportunities for a successful business career in one of the great variety of industries which the next decade will see expanded or incepted. The instability of political conditions has been a deterrent to many who might otherwise have settled in Cuba, but

AN INTERIOR VILLAGE

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A TOBACCO FIELD

I base the foregoing statement on a conviction that the United States' control over the island will be indefinitely continued, if it is not permanently established within the next few years.

It would be difficult to exaggerate the productiveness of the soil of Cuba. The peasant scratches it with his rude plow, consisting of a crooked limb from a tree, drawn by oxen, and gets bounteous crops without further trouble. Preparatory to the first planting of an extensive tract, the ground is burnt over and the ashes left upon it. When the earth has been well moistened by the rains, holes are punched in it with the *jan*, and into them is put sugar cane, banana shoots, corn seeds, or what not, and the harvest is awaited. A crop needs practically no attention while growing, and sugar requires to be set only once in seven years.

One of the chief sources of the labor difficulty lies in the fact that between harvests the planter needs but little help and is, therefore, obliged to pay higher wages for his temporary hands than the service would command if he could employ them by the year, or if there was any other industry in the locality in which they might engage meanwhile. The laborer devotes his spare time to the cultivation of a patch of his own and thus becomes more or less independent of the employer. The Cuban peasant is naturally inclined to be independent and does not readily respond to the market demand for wage-earners. When he works for another, he prefers to do it on the contract basis. The result of all this is constant variation in wages and a general insufficiency of labor supply. The labor situation is, not excepting political conditions, the greatest obstruction to the rapid advancement of the island. At present it is inadequate to the requirements of the already established industries and retards the further development of the vast agricultural resources of the country. Ultimately, this problem will be solved, no doubt, by immigration from southern Europe.

There are no zones of specific production, as in most countries. The various crops may be grown in almost any part of the island. The best tobacco lands are in Pinar del Rio, but good leaf is raised at many other widely scattered points. Draw a line from Caibarien to Cienfuegos and another from Matanzas to Batabaño. At least two-thirds of the active sugar plantations lie within the boundaries indicated, but some of the largest are far away from this central district, as the Santa Lucia, near Gibara, and five million additional acres might easily be put under cane. So with the wide variety of fruits and vegetables that Cuba produces. They are cultivable all over the island and many of them grow wild.

The most promising section, if one may make distinction where almost every section is abundantly rich, is the region that has lately been opened up by the Cuba Company's railroad, which runs along the backbone of the island from the city of Santa Clara to the middle of the province of Oriente. Already extensive improvements have taken place in this territory, which a few years ago was almost uninhabited. Riding over the line, one passes frequent clearings and great sugar plantations with their modern mills, in some cases affording employment to five or six thousand persons. It is the intention of the company to tap the rich valleys on either side of the road, with branch lines. An offshoot now connects with the new town of Antilla, situated at the fine harbor of Nipe Bay.

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