

BRAZIL AND THE
BRAZILIANS

G. J. BRUCE

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BRAZIL AND THE BRAZILIANS



AN AMAZON GUARAPÉ

BRAZIL AND THE BRAZILIANS

BY
G. J. BRUCE

WITH EIGHT ILLUSTRATIONS

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BRAZIL AND THE BRAZILIANS

CHAPTER I

OCEAN-GATES OF A GREAT LAND

Country's vast dimensions—Bay of Rio described—Entrance to Amazon—Port of Para development—Old forts at San Luiz—Fortaleza's struggle with difficulties—Natal a naval base—Pernambuco's quaint history—Bahia Bay's progress—Rock-guarded harbours—Victoria—Down to Lake Patos.

BRAZIL is the fourth biggest country in the world. Its area exceeds three and a quarter million square miles. Only China, Canada, and the United States of North America hold greater areas in a continent. Brazil occupies more than a third of South America, and takes in also several island groups and single islands near its coasts. The farthest away of these are Trinidade and the Fernando Noronha group; while near the coast are Maracà, Marajo, the islands of the Amazon mouth, San Luiz, San Sebastian, Grande Isle, the Abrolhos, the Frades, Santa Catherina, and a few others. The coast-line of the mainland extends from $5^{\circ} 10'$ north to latitude $33^{\circ} 36'$ south, and measures over four thousand miles. This seaboard, from Cape

Orange in the north to the River Chuy in the south, is washed by the Atlantic Ocean. The nearest point to Europe is Cape S. Roque in Rio Grande do Norte. The nearest Brazilian port is about three thousand miles from New York, and four thousand miles from London. The trip from Lisbon to Pernambuco, the first Brazilian port of call from Europe, is now being done by mail steamers in less than ten days.

There are over forty ocean-gates around the Brazilian coast. It is not necessary to enumerate them all, for only ten or twelve are yet of any importance to the outside shipping world. It might perhaps have been difficult to determine where one should start, when about to describe those entrances to this great land, if they had to be reviewed in their relative importance to Brazil. Rio de Janeiro, the Federal Capital, might very well claim precedence, because of the aggregate of her yearly shipping entries and clearances exceeding so greatly in tonnage that of the other ports; but Manaos, up in the far north, could well point out that she received and despatched twice as many national Brazilian vessels as any other port in the country, and was moreover the distributing point for the largest State in the world. Para might claim first notice because she was the most northerly great port on the coast; Pernambuco because she was the first port of call

for the largest steamers from Europe ; Bahia because of her history as a naval station and trading port in the early days ; and Santos because of her great docks and important position as the port of the richest State, with a shipping record second only to that of Rio de Janeiro.

I am going to take the Federal Capital port first, not because it happens to be the Federal Capital, or enjoys the leading position in the shipping entries and clearances aggregate, but because Nature has made it without a peer amongst the harbours of the world. Some of the qualifications desired in a good harbour are depth of water in approach and all over the inside area ; spaciousness with adequate shelter ; natural features that lend themselves to the making of strong fortifications ; islands for depots and other purposes ; fresh water and fuel accessible easily from it ; an entrance negotiable in all weathers, and room enough around for a city's purposes. The Bay of Rio has all this, and in addition an unsurpassable wealth of natural beauty. Approaching Rio de Janeiro from Europe the vessel when past Cape Frio, changes her course from south-west to due west, edging along a coast that is broken up into hills and knolls of diversified shapes. Some are gathered in groups, others string out in lines which seem to dip into the ocean, re-appearing here and there as little isles, cap-shaped, from out the waters. Another

material alteration in the vessel's course to about due north, may suggest to the stranger that she is about to try her strength against a huge rocky promontory which resembles a cathedral. When a few hundred yards from the end of this weird sentinel, a passage to the bay beyond is quickly revealed. Running out from the "cathedral spire," a reef appears connecting it with a small islet. Opposite the islet, separated from it by a narrow deep-water channel, there is a formidable-looking fort. Through this channel, under the guns of the fort, the vessel passes into the placid blue waters of Rio Bay. If the beautiful be the visible form of the good, then embodied before us we have the saintliness of all ages. An entrancingly lovely spot in that gem of the Pacific, New Zealand, is called "Heaven's Gate, Paradise." Those who named it reached the superlative in their conception of beauty, and promptly applied to it the superlative in their language. That was a natural and justifiable action. But what shall we say of the discoverers of this glorious bay who left it with a name that simply means "the river of January"?

In the Great Creator's final crowning work—mankind—we find beauty expressed in two ways, in the stern, rugged powerful man, and in the angelic winsomeness and spirituality of woman. The first we call majestic grandeur, the second sublime loveliness, yet they both just express

superlative beauty. This combination of majestic grandeur with sublime loveliness is sometimes seen in Nature. It appeals to you in Rio Bay. When the first golden rays of the morning sun pierce the grey haze that thinly veils the eastern hills, kissing the hill-crowns as they descend to transform a bed of ultramarine into an expanse of sparkling silver, the mountains in the mighty amphitheatre around seem to emerge from clinging, silky wrappings of the night to adorn themselves in the gorgeous vesture of the morn. Fleecy cloud curtains fold aside, revealing islets by the score, woody knolls and granite cliffs from whose steep sides grey sandy strands stretch to the silvery waters. The sombre tints of early dawn on sea and shore and mountain-top, give place to roseate hues of laughing day. Deep purple headlands now assume a brown or even lighter hue; while grassy slopes and sylvan dells come into view. Tall Mount Tijuca seems to bid a morning greeting to the stately Corcovado, while Gavea and the distant Organ Mountains join the acclaimers of the day. The sun at last arises high to take command of all the scene.

The city spread around the bay is clear to sight. There on the right is Nictheroy, a residential part, where milk-white buildings stand against a green hill-slope. The ferry-steamers plying to and fro from Rio give early life to the still harbour scene. On the left, and extending

far round behind us, as the vessel lies at anchor, the Federal Capital rises from the waterside to the very summits of the nearer hills. Just in front of the city is the Isle of the Cobras, Fiscal Isle, and the Caes Pharoux, all used for naval or customs' purposes. There are forty-six islands named, and about as many more unnamed in the bay. The largest, Governador, is eight miles long by about three broad. The harbour, or bay, is about twenty miles long by twelve wide in the broadest part, and is almost completely land-locked. A very fine thoroughfare, the Avenida Rio Branco, one and a half miles long runs through the city from the north to the south shore, and then joins the Avenida Beira Mar. This splendid avenue, beautifully paved and adorned on either side with lawns and flower-beds, runs between the city and the water's edge for a distance of over four miles and then winds amongst the hills till it terminates at last in the Praia Vermelha. It is one of the prettiest thoroughfares in the world, and is almost entirely used for pleasure-driving, motoring, riding, and walking.

Rio has many beautiful palaces and residences. These, nestling in the forest-clad hillsides, their white walls and coloured roofs often appearing through a profusion of bright-flowered garden trees and bushes, give variety to the tints in the landscape. The many spires and domes of the city stand out against the emerald background

with pleasant effect. The avenues of palm trees which here and there intersect the city give the tropical touch to the picture. The mountains, the giant cliffs with their forbidding steepnesses, and the great measure of the panorama suggest majestic grandeur. The sunshine, softness of suggestion in the air, forests, and flowers, with the feast in colour effects, entitles it also to be described as a spot of sublime loveliness. Such then is Rio de Janeiro Bay, the chief amongst the ocean-gates of Brazil.

The others had better be noticed in the order they occur round the coast, from north to south. To do so we must make a sea journey of three thousand three hundred miles to the Port of Para, or Belem, as it used to be called, in the mouth of the Amazon River, about eighty miles up from the ocean. When an approaching vessel is a hundred miles or more away from the coast, the yellow tint of the Amazon water may be seen around. The city and port of Para occupies a site in Guajara Bay on the left as you ascend the river. The country is low-lying for a great distance back, yet the place has become quite a healthy locality since dealt with by a Government medical commission. The wharves and docks extend for miles along the front of the city. These harbour works include slipways, two large floating docks, and a complete modern equipment for dealing with vessels and cargoes. Several

European steamship lines make Para their first port of call in Brazil, and it is the headquarters of the Amazon Steam Navigation Co., which has about two hundred steamers on the rivers in the regions around. The port is well lit by electricity and the landing quays are served by an electric tramway and railway service. Yachting and boating are much indulged in, and modern ferry steamers run frequently across the bay to the large island of Marajo opposite. Para as the port of entrance to the great Amazon Valley, and the capital of one of its richest States, is always likely to be of much importance to Brazil.

Following the coast round, the next place of interest is San Luiz, the capital and chief port of the State of Maranhao. The harbour, little more than an anchorage for vessels up to five thousand tons, is a pretty bay on the north-eastern side of the island of San Luiz. The city is built chiefly on this island but extends to the mainland. The island lies in an estuary where three rivers join the ocean. There are quays to accommodate small vessels along the city front. Three English steamship lines visit the port, principally to do a cargo trade. San Luiz is always the most verdant spot in Brazil, for it has a rainfall said to exceed 250 inches a year. Around the bay there may be seen the ruins of old French and Dutch forts, reminding one of the times when the place was held by these people. Fortaleza, the capital and

chief port of Ceara, is worthy of note in passing, not because it has a harbour, but because its people are determined to make one there. For ages past the merchandise of the million or so people of this and a neighbouring inland State has come through an open bay, little better than a roadstead. After the great ocean rollers lashing the beach were negotiated, a heavy stretch of white sand had to be crossed ere the goods reached the city. The sand-stretch has been overcome by a pier extending far out into the bay, and the indomitable Cearenses are now going to extend this still further and build a breakwater and other protection for shipping. Fortaleza is a port of call for several European and American steamship lines, as well as for the coasting mail and passenger steamers of Brazil.

Natal, on the right bank of the river Potengy, about a mile and a half from its mouth, is the very charming capital and chief port of Rio Grande do Norte. This is one of the most delightful spots around the coast of Brazil. The climate is warm, dry and agreeable. The port works are an illustration of what can be achieved by Brazilian enterprise unassisted by foreigners. A scheme to convert the place into the principal naval base for the north of Brazil is in course of execution. Large ocean steamers can now enter or leave the river at any time of the day or night, and Natal seems likely to one day become the

first port of call for liners from Europe bound for the south. It is now doing a rapidly increasing shipping trade, and is the headquarters also of a whaling fleet. Cabadello, the chief port of Parahyba, is only a stopping-place for coasting steamers and stray cargo liners.

Pernambuco, or Recife, is one of the chief ocean-gates of Brazil. Here all the steamers of the northern hemisphere visiting the south of Brazil, and the countries beyond it, make their first call. A low-lying rocky shore, with lines of reefs running for miles almost parallel with it, is what first strikes the eye. A channel between the nearest reef and the shore has been utilized as a natural harbour. Along the reef a breakwater has been added, and wharf accommodation provided; but the larger ocean liners yet lie far outside, and passengers, mails and cargo are transhipped into tugs and lighters. In rough weather, and it seems to be frequently rough off Pernambuco, this is not an ideal way of landing. Coasting steamers, and many of the smaller international visitors, go inside and tie up to the quays. Merchandise is usually transferred to lighters, even in the inner harbour, and distributed by the canals which intersect the city. Several railway lines converge on the port, and it competes with Para for fourth place in importance amongst the ports of Brazil. It is interesting to recall that Pernambuco was in 1595 taken by an English

pirate, who, after collecting all the loot he could, got away with it before being captured. Sergipe and Alagoas, two of the smallest States, have a few harbours capable of more use than is being made of them. Of these the best known is Jaragua, the port of Maceió, which is the capital of Alagoas.

Bahia, or San Salvador, now ranks third amongst Brazil's chief seaports, but it was the first port used in the country for commercial and naval purposes. Its history goes back to the year 1500. Bahia Bay, from the bar at the entrance to its head, is forty-three miles long and about forty broad at its widest part. It is one of the safest harbours in the world, and yet the entrance to it looks dangerous and forbidding in the extreme. It is guarded by huge rocks rising in some cases hundreds of feet out of the water. The fairway in is however well marked and lighted. Berthing accommodation at the wharves is only provided for the smaller vessels. Steamers of large tonnage anchor out in the bay. The city is built partly along the shore at the water's edge and partly on high land ending abruptly in a cliff which extends for several miles around this arm of the bay. Electric lifts and tramways take passengers from the lower to the higher part of the city. A French Company has considerable works for the improvement of the port well advanced. Docks, wharves, quays, breakwaters,

with all the modern appurtenances necessary to a great shipping centre are being proceeded with. When the scheme is completed more international shipping is sure to come to the port. Bahia is the starting-point for several coasting lines, as well as for the trading services to the San Francisco River regions. Around the bay are the ruins of several old Dutch and Portuguese forts.

Proceeding down the coast we find an extremely pretty harbour at Victoria, the capital of the State of Espirito Santo. The entrance is masked by a number of little islands. The country around is hilly, rising in height to the three thousand feet of Mount Alvaro on the northern shore of the inlet. The harbour is six miles long by about a half mile broad. Its shores are beautified by luxuriantly-forested slopes, hillocks, and half-hidden coves. The city lies on the south-west corner of an island, and occupies the lower land between the hills and the harbour. The port is visited by several European lines of steamers, as well as by the coasting services. Just two hundred miles south-west from Rio de Janeiro is Santos, the port of Sao Paulo, and the second commercial gateway of the Republic. This place is approached from the ocean, as so many of Brazil's ports are, through guarding rocks and islands, around forest-clad headlands, past enchanting bays with sandy beaches until a river is entered. Santos is to have a chapter to itself

here, so meanwhile we must pass on to the Bay of Paranagua on the coast of Parana. This large and well-protected bay has two ports, Paranagua, near the entrance, and Antonina, at the head of the bay, which is about thirty miles from east to west. At the entrance to the bay Honey Island divides the approach into two fairly deep channels. The port does an international shipping trade. Florianopolis, the capital of Santa Catherina, is one of the most beautiful ports of Southern Brazil. It is visited regularly by coasting steamers and occasionally by ocean liners.

Rio Grande do Sul, the capital of the State of that name, is the southernmost port on the coast of Brazil. Much is being done to improve the port. It is approached over a sand-bar at the entrance of a large lagoon or inland sea. A fine quay has been built along the water-front of the city, and a mole which is designed to assist in removing the bar is being pushed ahead. At the head of Lake Patos, as this inland sea is called, there is the busy centre Port Alegre, doing a considerable shipping trade which is transferred to the ocean liners at Rio Grande do Sul.

The approaches to these ocean-gates of Brazil are lighted by a hundred and twenty lighthouses distributed around the coast. Wrecks on the Brazilian coast are very few and far between.

The ports are all under the control of the Federal Government, whose policy respecting them has been to grant concessions to persons or companies willing to improve, and then administer them.

CHAPTER II

BRIEF GLANCE INTO HISTORY

The original inhabitants—Discovery by Pinzon—Cabral's annexation—The French appear—First naval battle at Bahia—Further fights—Colonists arrive—British open trade with country—Caramuru—Portuguese nobles' failure to govern—Orellana comes down Amazon—Strange women warriors—Stormy years—Mamelukes appear—Discoveries of gold and gems—Tiradentes—Royal Court of Portugal transferred to Rio—Ports opened—A kingdom declared.

ARCHÆOLOGICAL research in Brazil has not yet succeeded in producing evidence sufficient to settle the question of who the original inhabitants of this country were. The point on which most investigators seem to agree is that the aborigines found there are descended from a Mongol stock. It is conjectured that their ancestors made their way from Asia through North America, down the isthmus, or by Florida to South America. Whether these ancient invaders found a people in Brazil or not cannot so far be determined. Fossil relics and articles discovered in excavation throw little light on the problem. Many European savants have devoted considerable time to a study of the matter, with unsatisfying results. The art specimens found are attributed

to a race that got their ideas in Central America or farther away. The funeral urns found in burial-places, such as the caverns of Maracà, vary in design from Egyptian to Japanese types. The stone and bone weapons convey no more idea of their makers than those made by primitive peoples of other lands. When Brazil was discovered by men who left us records of what they saw, it was peopled by a race of light-complexioned Indians, armed with bows and arrows, who showed a lot of courage in their attacks on the discoverers.

It is remarkable that the discovery of Brazil followed immediately on the finding of the New World by Christopher Columbus; and that the possibility of there being a great land in this quarter of the globe seemed to have occurred to two such renowned navigators as Columbus and Vasco da Gama about the same time. It is true that neither was directly responsible for it, but Pinzon, who first sighted it in January 1500, was evidently acting under Columbus' advice; and Cabral, who landed on it three months later was admittedly acting under instructions from Vasco da Gama.

The discovery of Brazil came about in this way. Vincent Yanez Pinzon, a young Spaniard who had been associated with Columbus, fitted out four vessels late in 1499, and started out to see what lay in that portion of the world assigned

to his country by the Treaty of Tordesillas, 1494. With his little squadron, Pinzon pushed west until on Jan. 28, 1500 a coast-line fringed with palms appeared in view. Approaching it he found a forest-clad promontory, which he called Cabo de Santa Maria de la Consolacão, which was probably Cape St Augustine, a point near Pernambuco. After unsuccessful attempts to hold friendly intercourse with armed natives, who resisted the party's landing, the squadron examined the many islands and the coast north-westward. Here Pinzon found friendly natives, who resorted to the ships "as if they had been well acquainted with them." After penetrating the estuary of the Amazon a little beyond the present site of Para, Pinzon returned to Spain by way of the north coast.

Having arrived back in Lisbon after his famous voyage round the Cape of Good Hope in 1499, Vasco da Gama at once prepared an expedition to search out the great land he believed to be away to the south-west, and then to continue the same voyage to the East Indies.

Leaving Lisbon on March 9 1500, the small squadron under command of Pedro Alvares Cabral, came to anchor on April 25 in a little bay on the coast of Bahia, which he called Porto Seguro. Cabral took possession of the land in the name of the King of Portugal and called it Terra da Santa Cruz, the Land of the Holy Cross.

The act was accompanied by elaborate religious ceremony conducted by certain Franciscan friars who were going out with the ships to the Indies. The natives met on landing proved extremely friendly, and two members of the ships' company were left with them. A ship under Gaspar de Lemos, was sent to survey the coast northward, and then return to Lisbon with the news. Cabral went on to the Indies, and Lemos arrived safely back in Lisbon. In May of the following year the King of Portugal had another fleet fitted out to go and further explore the new land. The fleet was placed under the command of a Venetian, named Amerigo Vespucci, an astronomer and scientist of note, who had been with Hojeda, the discoverer of Venezuela and Trinidad in 1499, and had returned with Pinzon in 1500. This expedition met Cabral's on its return from the Indies, off Cape Verde, and together they surveyed the coast of the new land, naming capes, bays, and rivers as far south as Santos, which they called São Vicente.

Amerigo returned to Lisbon by way of Africa, and took another expedition out in 1502. This squadron of six vessels, with the command of which Admiral Duarte Coelho was associated, got scattered by storms. The admiral's ship was wrecked on an island supposed to be one of the Fernando Noronha group, and Amerigo

with some of the other ships, reached a bay which they called All Saints, now Bahia Bay. They landed there, built a fort, and left a garrison. Some months were spent in further exploration of the coast north and south. Friendly intercourse with the natives was maintained. In this the survivor of the two men left behind by Cabral on his first visit assisted by interpreting. Amerigo's remaining ships were loaded with wood, with which they returned to Europe. The story of Amerigo's voyages was published at Freiburg, Baden, and the books commanded a good sale. A suggestion that the newly-found continent should be called "Amerika" in his honour found favour, and the name seems soon to have come into general use even by the Portuguese. The wood coming from Terra da Santa Cruz became known in Europe as "bresil"-wood, and the country as the country of "bresil." Bresil, or Brazil, as it is designated by the English, was visited by the French navigator de Gonneville in 1504, and from that time onwards was frequently touched at by Portuguese vessels trading to the Indies. In 1519 Magellan spent some weeks in Rio Bay.

From 1503 the French actively endeavoured to get a footing in the country. In 1526 they succeeded in establishing themselves on certain parts of the coast, and during that year a Portuguese fleet, sent to guard the coasts, met and

defeated a French fleet in Bahia Bay. A Portuguese post at Pernambuco, which had been captured by the French, was retaken in 1530 by a Portuguese fleet under Martin Affonso de Sousa, who was sent out in that year from Lisbon with 400 colonists. Most of these colonists were left at Pernambuco, which he called Olinda. The rest were distributed down the coast at Bahia, São Vicente, and other points. Pernambuco was first visited by Pinzon, but Cabral's lieutenant Gaspar de Lemos, the Portuguese, was the first European to effect a landing there. There is a legend that Pernambuco was visited by a native of Nuremburg named Martino Behaim in the year 1484. It is said this mariner, then in the service of Portugal, was driven out of his course on a voyage to the Congo. "Perà Nambuco" are the Indian words for perforated rock. There are gaps in the reefs in front of the place, and the name Pernambuco seems easily accounted for.

It was in 1530 that an English trader, William Hawkins of Plymouth, visited Pernambuco and inaugurated the trade between England and Brazil that has grown now to such large dimensions. Hawkins made the voyage in a little vessel of 250 tons called the "Pole." In this ship he brought to England an Indian chief who was presented to King Henry VIII at Whitehall. From this year 1530 onwards

British vessels traded at irregular intervals with Brazil.

The Portuguese colony at Bahia was founded by Diogo Alvares Correia, subsequently known as "Caramuru," one of the men left behind by Cabral in 1500. Caramuru rose to become a man of considerable wealth and influence with the Indians. He built the first church erected in Brazil on the site occupied to-day by the Chapel of Our Lady of Victory, Bahia. Martin Affonso de Sousa, as he had been instructed by the Portuguese Government, divided the country into "capitaneas," which he allotted to nobles willing to undertake the expense and labour of colonisation. These capitaneas were fifteen in number, each with a coast-line of fifty leagues, and a hinterland stretching west indefinitely between lines drawn from the points on the coasts. This system of colonisation proved a failure, and one after another the capitaneas reverted to the Crown, with the exception of that of Pernambuco, which seems to have been ably managed by Duarte Coelho its captain. By 1549 such a state of disorder had arisen that Dom John III of Portugal sent out an expedition of over four thousand men, with judges and ecclesiastics, to restore order and establish a royal captaincy at Bahia. This expedition, under Thomé de Souza, was well received and supported by Caramuru and other influential

colonists. A capital surrounded by a pallisade and defended by a fort was created at Bahia. The leader of the ecclesiastical party, Manoel da Nobrega, a distinguished Jesuit and friend of Loyola, began to erect a cathedral, and opened missions and schools throughout the country. Under Thomé de Souza a legislative system was evolved, and order arose out of the chaos he found. As Captain-General he took over the powers formerly vested in the captains or chiefs of the capitaneas, and shared them with a council he established. A militia was raised to protect the colonies from native raids; cattle was imported from the Azores and plantations of various kinds, already started, were developed. Large numbers of boys and girls from the orphanages of Portugal were brought out; possibly to offset the evil influence of hundreds of convicts that were also transported to the new colonies. Thomé de Souza returned to Portugal in 1553, leaving as his successor Duarte da Costa, who was eaten by the Indians, and succeeded by Mem de Sá, who very ably extended the good work begun by de Souza.

Meanwhile, in the year 1540, Francisco Pizarro the discoverer and conqueror of Peru, hearing of territory of fabulous wealth away to the eastward of that country, sent his brother Gonzalo with three hundred Spaniards and four thousand Indians to explore it. Leaving Quito the ex-

pedition reached the River Napo, on which a brigantine was built. Gonzalo Pizarro sent this vessel ahead with baggage, instructing Francisco de Orellana its captain to return with what provisions he could get for the remainder of the party. Orellana never returned, but proceeded on down the great river to the ocean. When Pizarro, despairing of Orellana's return, made his way to the great river, he learnt from a Spaniard left behind there by Orellana of that officer's treachery. Pizarro returned to Peru, where the tales he told of hardship and encounters with female warriors on this great river, as a reason for the failure of the expedition, were not generally accepted. Orellana who was thus the first navigator to cross northern Brazil by water reached Spain. The story of his voyage induced others to enter Brazil from the north-west at different later periods, and their tales of ferocious female warriors confirming earlier stories, gained for the waterway the title "Amazon's River."

With the development of sugar plantations, slaves from Africa were introduced to Brazil about the year 1550. Troubles with the French occurred intermittently throughout the century. An attempt by Huguenots to establish a colony in Rio Bay in 1555 was disastrous, and led to the Portuguese establishing a royal captaincy there for the protection of the southern coast.

In 1580 the country passed with Portugal to the Spanish Crown, and the closing years of the century saw the coasts and settlements alternately ravaged by French, British, Dutch, and Spanish fleets. In 1583 and 1591 Santos was taken and held for short periods by the British, but no attempts seem to have been made by them to annex the Brazilian colonies.

During these years the Brazilian pioneers seem to have generally resisted all invaders; and in 1608 a general government for the south of Brazil was formed, with its headquarters at Rio de Janeiro. There were then two Governor-Generals, one Diogo de Menezes at Bahia, and Francisco de Souza at Rio de Janeiro. This arrangement worked well for several years. The northern government had a difficult task to keep the Dutch and French from getting a footing on the north coast. In 1612 the French fortified themselves at a point in Maranhao they called St Louis, now San Luiz. They were expelled from this in 1614, only a few who had married native women being allowed to remain. During the next year the Dutch who had established a colony at Para were attacked and finally driven out in 1625. For over thirty years at this time the Dutch fought the Portuguese and Spanish for Brazil. In 1617 the Rio de Janeiro government was suppressed, and Bahia became again the sole capital. Seven

years later a northern government, to control the States of Para, Maranhao, and Ceara, was established with its capital at San Luiz. Bahia was taken by the Dutch in 1624, but they were ejected by a combined Spanish and Portuguese fleet in 1625. During the following twenty years the Dutch captured and occupied nearly all the remaining ports and colonies in the country, and in 1636 Prince Maurice of Nassau was sent out as Dutch Governor-General of Brazil. After Portugal had successfully revolted from Spanish rule in 1640, the Marquis de Montalvão was appointed Viceroy of Brazil. The new King of Portugal was immediately accepted by the Brazilians as their sovereign. After a short armistice, the Brazilians assisted by the Portuguese fleet, commenced a determined campaign for the dislodgement of the Dutch. Port after port fell into their hands, till in January 1654 all the Dutch possessions in Brazil had surrendered. About this time the half-breed descendants of the southern settlers began to explore and take up the country north and west from the port of São Vicente, or Santos. These "mamelukes" as they were called, spread out till they reached the Paraguay River and got into conflict with the Spanish who had settled west of the Uruguay. In 1680 a colony was founded on the River Plate by a party from Rio de Janeiro. This was ceded

to Spain in 1777. Much more important to Brazil were the activities of the mamelukes, or "Paulistas" as they came to be called from the name of their capitanea Sao Paulo, to the north-east of their territory. Before the century closed several expeditions had gone from Taubaté the capital, in search of the gems and precious metals known to exist plentifully somewhere in the interior. Indians, who brought diamonds, emeralds, and gold in increasing quantities to the coastal settlements, as they became acquainted with the purchasing power of these things, told of plentiful supplies in the back country. The Paulistas met with many reverses in their attempts to discover the El Dorado, but at length found important gold and silver mines; and diamonds, emeralds, tourmalines, beryls, garnets, amethysts, topazes, and rock crystals were also discovered in considerable quantities. The news of this getting through the rest of Brazil and into Europe, led to events that opened a new chapter in the history of the country.

The eighteenth century opened with further attempts by France to get Brazil. In 1711 a powerful fleet, with a large landing party, actually seized and held Rio de Janeiro but evacuated it in a few days on payment of a ransom. About this time Brazil was also troubled by rebellions in several capitaneas. Away in the

far north the French were driven over the River Oyapock, which by a treaty between France and Portugal in 1713, was fixed as the northern boundary of Brazil. In 1755 and 1758 laws were passed forbidding the enslavement of Indians, and an agitation for the entire suppression of the slave traffic made much headway.

During the first half of this century four new capitaneas, or provinces, were created. These were Goyaz, Matto Grosso, Santa Catherina, and Minas Geraes. In 1749, by direction of the Minister for Foreign Affairs in Lisbon, the Jesuits were expelled from Brazil, and State education was established. Laws for the regulation of mining, trading, and dealing in land were also enacted and put into operation by the Crown of Portugal under the advice of this zealous and strong-minded Minister. In 1762 the capital was transferred from Bahia to Rio de Janeiro. Here it has remained ever since. The population of Rio at the time of the transference is said to have been about 30,000. The year 1789 was notable for an attempt made in Minas Geraes to set going a movement that aimed at the independence of Brazil. Minas Geraes was the mining camp of Brazil. To it had been attracted adventurous spirits from many countries. The period was the time of great political unrest and turmoil in Europe and North America.

The doctrine of Republicanism was being preached in Brazil, as well as in these continents. It was brought to Minas just when the miners and settlers were chafing under legal restrictions that seemed to hamper progress. The Captain-General of the province, and the central government at Rio de Janeiro were most unpopular. A number of the leading men of Minas, led by a dentist named Joaquim José da Silva Xavier, plotted to overthrow the Portuguese authority and declare a republic. Their scheme had not been put into operation when it was divulged to the Government, and the leaders were all arrested and tried. A number of them were condemned to death. The sentences were however commuted by the Queen of Portugal to deportation to Africa, excepting in the case of Xavier, popularly known as "Tiradentes" (draw teeth). He was hanged, drawn, and quartered in Rio, and portions of his body were sent to be exhibited in the centres of disaffection. Tiradentes' last words on the scaffold—"Cumpro a minha palavra; morro pela Liberdade" (I have kept my word; I die for Liberty) are embalmed in modern Brazilian literature, and frequently quoted as one of the highest sentiments of Republicanism.

The beginning of the nineteenth century saw a population of over three millions in Brazil, and the country enjoying a yearly trade with

Europe exceeding in value four million pounds sterling. The war between Spain and Portugal in 1801 affected their colonies. Brazil entered on a war first with her Spanish neighbours in the south, annexing Uruguay after a prolonged struggle. In the meantime in the far north she captured Cayenne, and the whole of French Guiana was added to Brazil. Uruguay subsequently freed itself from her control, and was annexed by Buenos Aires. After much fighting for it, Brazil and Buenos Aires agreed to have the territory proclaimed an independent State under the title of the Oriental Republic of Uruguay. French Guiana was restored to France by the Treaty of Vienna in 1815.

In 1807 King João of Portugal, then Prince Regent, under pressure from Napoleon removed his court and the crown from Lisbon to Rio de Janeiro. The transference of the Royal court to Brazil was accompanied by much pomp and ceremonial. A British fleet attended to protect the Royal squadron out of the French danger zone. On the way to Rio the Royal party visited Bahia, and eventually reaching their destination, landed amidst scenes of great acclamation. A proclamation was issued immediately on the Royal court's arrival, throwing Brazilian ports open to the commerce of all nations. By Royal Charter, of December 16 1815, Brazil was raised to the rank of a kingdom

and associated on an equal footing with Portugal. In 1821 the King was recalled to Portugal by the Parliament, or Cortes, which had been established. He left his son Dom Pedro I as Regent of Brazil, with a ministry of Portuguese advisers. Dom Pedro at once proceeded to arrange for the government of Brazil on the constitutional lines adopted then in Portugal. The Portuguese Government, however, would not concede Brazil self-government, and vetoed what was done, also ordering Dom Pedro to return to Portugal. This he declined to do, dismissed his Portuguese ministers, and formed a new ministry of Brazilians, with an eminent Paulista, Jose Bonifacio d'Andrada, as its leader. An appeal was made to Brazilian sentiment by the convocation of a national convention to consider the position. The time proved right for a great step, and a new and independent nation emerged from the mould.

CHAPTER III

A NATION EMERGENT

Brazilian independence proclaimed—Portugal resents—Britain helps Brazil—The Regency—Slavery abolished—The national sacrifice—Republican's coup—Emperor and Court deported—Dom Pedro's farewell address—Republicans govern—The country's flag—Marshal Deodoro first president—Civil War—Civilistas restore order—New Republican leaders.

THE Prince Regent was at Ypiranga near the city of Sao Paulo when he received peremptory messages from Lisbon which forced him to the choice of obeying, or declaring the independence of Brazil. Fortified by the knowledge that Bahia and other parts of the country had declared for independence, and that the provinces of Sao Paulo, Minas and Rio were clamouring for separation from Portugal, Dom Pedro publicly burnt the despatches and with raised hand declared it was henceforward "Independencia ou morte" (Independence or death). This was on September 7th 1822, and five weeks later on his return to Rio he was proclaimed Emperor of Brazil. The Portuguese troops, with all people in the Portuguese Government service who did not agree to this, were deported. Strong resistance

to the overthrow of its control was offered by Portugal, and expeditions were sent out to endeavour to suppress the empire, but met no success. One of the decisive engagements was a naval battle fought off Bahia. In this a British squadron led by Lord Cochrane gave important assistance to the Brazilians, and the Portuguese evacuated the place after suffering severe loss.

Revolutions promoted with the idea of getting a republican instead of a monarchical form of government, broke out in several northern centres, but were soon suppressed by the new Brazilian Government. In 1825 Britain persuaded Portugal to recognise the independence of Brazil, which was done by a treaty signed that year. The following year the first Brazilian Parliament assembled in Rio de Janeiro. Trials of strength between the ministry's following and the opposition showed that the republicans were in a majority, and the government of the country was carried on with much difficulty. The Emperor failed to keep control of the army, and perceiving the fast diminishing popularity of his ministers, abdicated in favour of his son Pedro in April 1831, leaving then for Europe where he died a few years later. As Dom Pedro II was only a child five years of age at his father's abdication, a Regency was established till the boy at fifteen was declared by Parlia-

ment to be of legal age. He then began what proved to be a long and most successful reign. During the infancy of Pedro II the duties of Regent were very ably performed by Diogo Feijo. Under the wise rule of the new Emperor, assisted by clever statesmen, Brazil made marked progress for several decades. Many public works were undertaken, industries opened out in all parts of the Empire, and hundreds of thousands of immigrants flocked in. Parliament, working under a constitution modelled on the British, was controlled sometimes by the Conservatives and sometimes by the Liberals. Laws were enacted to promote the general well-being, and an army and navy for the country's protection were gradually built up. In 1851 Brazil went to the assistance of Uruguay and enabled that country early in 1852 to regain her independence. The action of Lopez, the Dictator of Paraguay, in refusing the right of free navigation on the Paraguay River, Brazil's only highway to her province of Matto Grosso, led to Buenos Aires, Uruguay, and Brazil uniting to make war on Paraguay in 1864. The war lasted seven years during which the Paraguayans who had invaded Matto Grosso were expelled, and the free passage of the river secured. The war greatly exhausted the financial resources of the young Empire.

In the year 1851 the party that had for many

years agitated for the suppression of the slave traffic scored their first success. A measure to stop further traffic was passed into law. Not content with this achievement, the agitation was persevered with by the emancipators till, in 1888, laws were passed that set the last slave free, and made slavery illegal for ever after on Brazilian soil. To arrive at a full appreciation of what this meant to Brazil one must examine the industrial and social conditions of the country at the time. If to such an examination an unbiassed mind is brought, what it reveals should evoke surprise and commendation. It is due to the Brazilian people to have it recorded that neither Britain nor the United States of America made the sacrifices Brazil did when she freed her slaves. She was less prepared than either of these countries for the strain of such an act and she suffered more as the result. An Empire not seventy years old, with a population of about fourteen millions, of whom one million were slaves, Brazil distraught by internal revolutions and exhausted by external wars, had yet her harbours, railways, and highways to construct. Her infant industries were struggling against keen foreign competition consequent upon the opening of her ports earlier in the century. There were few and in many States no facilities whatever for getting implements and machinery through to the mining, agricultural, and plant-

ing areas. Immigrants came in these days not to work for others but to start for themselves. On the plantations and farms, in the industries, mills, stores, and private houses, workers were needed to carry on with. Europeans did not usually take up the lowest menial work. Africans did not come there to seek it, Indians were quite unaccustomed to it. The needed public works could not be gone on with for want of labour, and money to pay labour with. To stop the slave traffic would be to handicap all Brazil's activities. To set free all slaves and prohibit slavery for ever, without a cent of compensation to those who held slaves, would bring irreparable loss, and even ruin, to the bulk of the people and hold-up development throughout the Empire. Yet faced with all this, the Brazilian people on religious and moral grounds dared the consequences, and performed an act that has stamped them for ever with the impress of true greatness.

The passing of this anti-slavery legislation, to secure which the Imperial family lent their active influence endeared them more than ever to the Brazilian people. This was especially noticeable in the northern States to which the greater number of the slaves went on their release, and where the rest of the population had always led in the agitation for their emancipation. The provinces of Ceara and Amazonas

had shown the way, by the former liberating her slaves in March 1884, and the latter in July of the same year. Owing to the Emperor's absence from the country it fell to his daughter the Princess Isabella, who was Regent at the time, to sign the Emancipation Act. The Emperor now old, and interesting himself more deeply in literature and historical matters than in current politics, lost touch with his people. Finding that the Princess Isabella had considerable talent for dealing with political questions, and a zeal for managing troublesome politicians, Dom Pedro resigned his state duties more and more to her, and took frequent journeys abroad. The Princess's Regency was as popular as her father's rule, and she managed to avoid different threatened conflicts with the increasing Republican party. Her patriotic efforts were however nullified by the tyrannical and unscrupulous methods of the Viscount Ouro Preto, the Premier, who took office in 1889 with a ministry that initiated what one writer calls "a carnival of corruption." A policy of centralization was pushed to extremes. The provinces were dictated to by bureaucrats at the Capital. Shutting their eyes to the rapidly increasing discontent of the masses, the Government adopted rough coercive measures in an attempt to bring the people to heel. Discontent was rapidly succeeded by anger and a

determination by the people to throw off their oppressors.

The Army and Navy also became disaffected ; and the crisis was reached when the Government tried to effect a double stroke in suppression by scattering the various regiments throughout the provinces to prevent disaffection spreading further in the Army, and by their presence there intimidating the people of the country. The 7th Battalion of Infantry at Rio de Janeiro were ordered to a far-away province on November 15th 1889. The Republicans in consultation with representative officers of the Army and Navy resolved to make that occasion the signal for the substitution of a new authority. The Government hearing of the plan determined to execute their order with all the forces they could control ; and brought a strong naval force into the city to escort the 7th Infantry to their ship.

When all had been arranged, and the members of the Cabinet had come down in early morning to witness the embarkation, the people's prepared thunderbolt fell. Marshal Manuel Deodoro da Fonseca, the leader of the Army movement, came on the scene and ordered the arrest of the Naval Secretary who was superintending operations. The order was received with tumultuous cheering by the army and populace. The Secretary resisted arrest, drew his pistol on the

lieutenant apprehending him, but was immediately shot dead by soldiers in attendance.

Marshal Deodoro then entered the barracks, where he found the other members of the Cabinet, all of whom he arrested, and shortly after released when they had promised to respect his authority. During the day processions through the streets of Rio de Janeiro proclaimed the Republic. The news spread quickly to all parts of the Empire and was almost everywhere received with public rejoicings. Dom Pedro the Emperor came into Rio de Janeiro during the afternoon, and held a protracted council with his deposed ministers.

While this was proceeding, the Republicans met at the Municipal Palace and formed a Provisional Government of which Marshal Deodoro was made Chief, and with whom were associated Aristides Lobo, Ruy Barbosa, Quintino Bocayuva, Lieut-Col. Benjamin Constant Bothelho de Magalhais, and Commodore Eduardo Vanderholtz. Decrees were issued the same evening abolishing the monarchical form of government, and giving guarantees that all foreign obligations and life and property would be respected. The aims and programme of the Republican Party were also indicated, and reasons given for the grave step that had been taken. An ultimatum was sent to the Emperor. The gist of this was in the following words:—"We are forced to

notify you that the Provisional Government expects from your patriotism the sacrifice of leaving Brazilian territory with your family at the shortest possible time."

The grief of Dom Pedro and the Princess Isabella, who pleaded to be allowed to remain and die in their own country even if they might not rule it, appealed to Ruy Barbosa, the new Minister for Finance, who agreed that the aged Emperor should be given immediately a sum equal to £350,000, and an annual allowance from the Civil List of £26,000 on condition he retired and remained out of Brazil. This the Emperor was compelled to agree to; and with his family and Court he embarked next day for Europe in the transport "Alagoas."

Before leaving the Emperor issued the following address to the people:—"In view of the address handed to me on the 17th November at three o'clock in the afternoon, I resolve to start with all my family for Europe to-morrow, leaving this beloved country, to which I have tried to give firm testimony of my affectionate love and devotion during nearly half a century as Chief of the State. I shall always retain a kindly remembrance of Brazil and cherish hopes for its prosperity.—DOM PEDRO DE ALCANTARA."

The steamer conveying the Emperor and his court to Lisbon was convoyed away from the coasts of Brazil by a small naval squadron.

Dom Pedro II died in Paris on December 5th 1891. During his reign Brazil emerged from a dependency of Portugal to the dignity of a separate empire enjoying the full recognition of the other nations of the world. It was a period of prosperity and progress, when capital began to flow into industries, and people came to her shores in great numbers. The pursuit of education, arts, and sciences was stimulated, and a healthy national spirit developed. Brazil under her last Emperor formed friendships with the Courts of Europe that gained for the country a standing amongst the older nations which proved valuable in many ways to her. The House of Braganza will ever rank amongst her greatest friends.

After the departure of Dom Pedro the Republican Ministry swept away all appurtenances of the monarchy and obliterated as far as they could every reminder of it. Those who had titles were not deprived of them, but they ceased to be officially recognised. A new national flag was designed, which is the country's flag to-day. It has a green ground, in the centre of which appears a diamond-shaped yellow area, on which there is a blue sphere crossed by a white zone bearing the motto, "Ordem e Progresso" (Order and Progress). The twenty-one States of the Republic are represented by twenty-one stars arranged to represent the Southern Cross, Orion's Belt, and another feature of the

heavens. A constitution was drawn up on the lines of that of the United States of North America. Under it the provinces became autonomous States with their separate legislatures; and the Federal Assembly was elected on a very wide franchise. Marshal Deodoro became the first President of the Republic of Brazil. The dominant note in the new Government's policy was local autonomy, and the States settled down at once to get their legislative machinery going. Before this was completed dissatisfaction with the Federal Government arose. Marshal Deodoro came into conflict with several of the States, and finally with the Federal Parliament. Seeing it making preparations to indict him for various breaches of the constitution, he peremptorily dissolved it by force, but shortly after had to submit to force himself and resign. He was succeeded by the Vice-President, General Floriano Peixoto.

The year following Peixoto becoming President, Matto Grosso revolted and declared itself an independent Republic. Peixoto speedily quelled the revolt and banished its leaders. This was followed by a more serious rising in Rio Grande do Sul, and soon after the whole of the country was in an uproar. During this civil war Rio de Janeiro was attacked from the sea, and much damage done by the guns of warships under Admiral da Gama. This rebel naval officer took

control of the ports, and maintained war on the Government until Peixoto had been replaced in the Presidency by Dr Prudente de Moraes, the first civil President. During the course of the naval war, Britain, the United States, and Portugal had at times to threaten intervention ; but the necessity for it was always averted. Dr Prudente de Moraes succeeded in restoring order throughout the Republic. He was succeeded in 1898 by Dr Campos Salles, who gave place in 1902 to Dr Rodrigues Alves, who afterwards was President of São Paulo. Dr Rodrigues Alves was followed by Dr Affonso Penna, Dr Nilo Pecanha, and then again in 1910 a military officer secured the position from Dr Ruy Barbosa, the Civilista candidate. This gentleman, Marshal Hermes da Fonseca, held office for the full term and retires in 1914 to be succeeded by his Vice-President, Dr Wenceslão Braz Pereira Gomes, erstwhile President of the great State of Minas Geraes.

The new President's election to office was not seriously contested, though Dr Ruy Barbosa's name went to the polls against him. Dr Wenceslão Braz while President of Minas Geraes, Brazil's most populous State, and while serving the Republic as its Vice-President for the past four years, exhibited such strength of character and statesmanlike abilities that his term as President of Brazil should prove one of the most

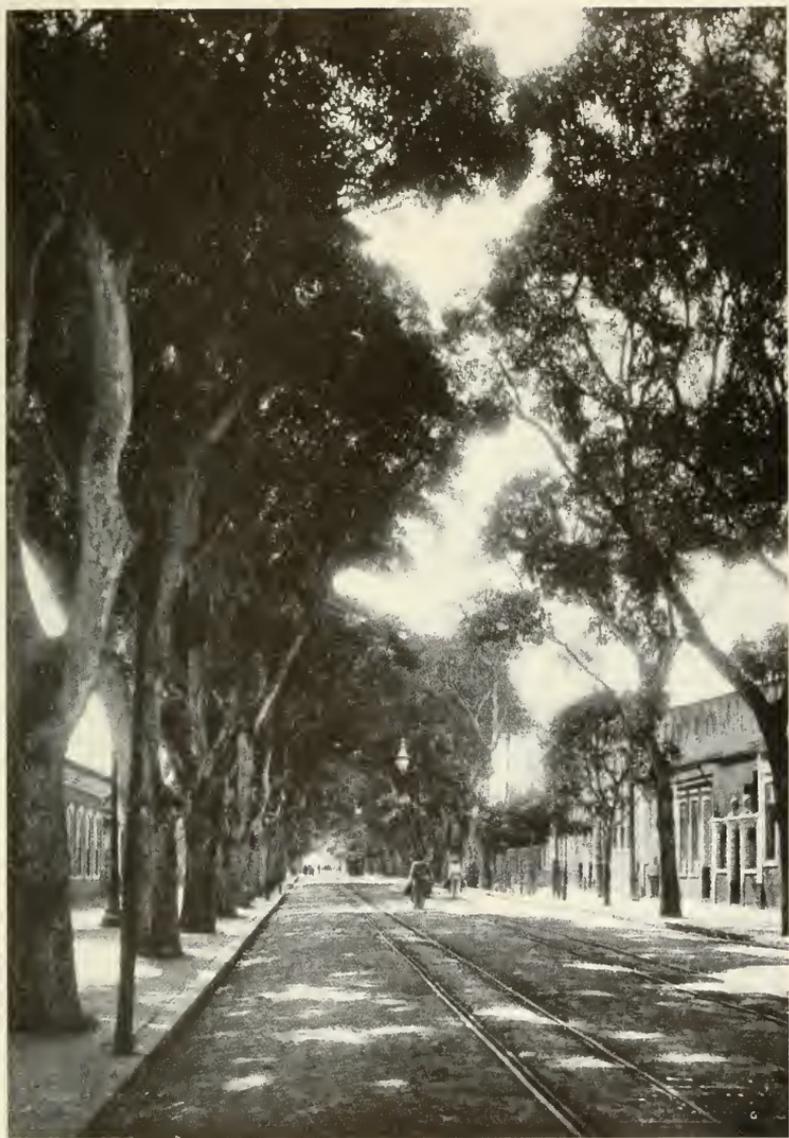
notable periods in the country's history. He will have assisting him in the position of Vice-President, Rear-Admiral Manoel Ignacio Belfort Vieira, a native of the State of Maranhao and one of the most popular men in the North of Brazil.

CHAPTER IV

THE BRASILEIRO

A new man arises—His characteristics—Women do not count—A Brazilian courtship—Home etiquette—The “Casamento” or betrothal—Pretty girls of Ceara and São Paulo—Fashions and women’s interests—Business men’s habits—What happened a tramcar—Carrying guns preferred to carrying resolutions—Reverence for sacred things.

IT would be difficult to determine exactly at what period in her history Brazil could claim to have given the world a new type of man, or race of men. The Brazilian, or Brasileiro, as he calls himself, is a most interesting study. He is the product of the intermingling during centuries of the most enterprising peoples of Europe with great hunters in tropical forests, and tenacious tillers of the soil from Africa. In his ancestors would seem to be blended all that goes to make a virile and accomplished race, a people at least physically well enough endowed to take and make a continent. The influences against the new man, the result of all this blending of natural human forces, would be the climate where so little required to be done to keep comfortable; the natural wealth of the country making the getting of a good living easy; and remoteness from the



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great races of the world preventing him pitting himself frequently against them for the stimulation of his ambition. Yet incredible as it may seem in view of that, the Brasileiro of to-day is keenly appreciative in matters of taste and dress, noticeably active in temperament and disposition, indeed nervously so, and strikingly ambitious. Brasileiro men vary much in frame and features; in colour of skin not so much. The typical Brasileiro is swarthy in complexion without being what is called "coloured." He is usually a broad-shouldered, well set-up fellow of five feet eight to six feet in height, with a voice that indicates robust gender. He is passionately fond of music and art, revels in all kinds of sport; has a keen sense of humour or ridicule; and frequently displays a daring that approaches absolute recklessness. The Brasileiro seems to inherit from his Latin ancestors all their excitability, with a spice more added. He flashes like gunpowder without warning but is quickly appeased. One of the Brasileiro's traits of character that is going to materially conduce to the progress of his nation, is his capacity for assimilating book-knowledge. Brazil has already got a very extensive literature. She has produced writers and poets in hundreds. Brazilian students in Europe and North America have scored many scholastic successes; and Brazil's universities and

academies produce every year men and women who gain world fame in science, arts, and letters. The Brazilian educational institutions, in their equipment and capacity for general instruction, are not behind those of the older world; yet the Brasileiro likes his boys to finish at one of the great European or North American Universities. For his daughters he is not so ambitious; a convent school or a religious order's seminary usually finishes their education.

In his attitude to his womenkind the Brasileiro fails to reach the standard one would expect him to. Women do not yet count in the general order of things in Brazil. They have been kept in the background. Their privileges are few, and their liberty is much restricted. A Brasileiro marries young, and provides amply for his wife according to his station in life. The courtship and steps that lead up to marriage follow lines that would seem strange perhaps to an English woman or her freedom-enjoying overseas sisters. In the best Brazilian society marriageable girls do not go out except in the company of their parents, one male relative at least accompanying. That is they may go with their father or with their mother if she be accompanied by one of her sons, or a near male relative. The womenfolk of the household do not usually meet a male friend calling on the householder or his sons, except in the case of a very intimate

friend who is invited to a meal. Therefore young men have little chance of meeting young women until they first become intimate friends with some man having daughters, or young women friends visiting his wife. The etiquette of the home forbids a visitor having much conversation with a young lady until he has been accepted as her admirer.

Until quite recent years marriages were arranged by the contracting parties' parents, the principals having very little say in the matter. Nowadays parents may discuss such projects, but it is left to the young man to make his choice and his advances. It is for the young girl's parents or guardians to decide how far the matter may go. Should a young man fall in love with a young girl he has met, he mentions the matter to her parents or guardians, who when fully satisfied that he is in earnest and is a suitable husband, give their consent to a "casamento" or formal recognition of the courtship. A casamento means more than the British or American engagement. On a fixed evening the family and near relatives of both parties assemble, previous to which letters of agreement have been exchanged between the principals and their prospective fathers-in-law. When the company has assembled the young man gives his reasons for being there, and asks for his inamorata. Her parents express their con-

sent, and rings are produced and exchanged between the principals. An evening party with dancing and music may follow. Next morning the young couple accompanied by relatives go to a religious service together, and the casamento is completed. The betrothal is announced in the local newspapers and the couple may then appear together, accompanied still by chaperons, in public places. The young man may not after that be seen in public with any other young woman, and is expected usually to spend most of his spare time at his fiancée's home. The marriage is expected to follow within a year of the casamento. Of course there are many variations to this way of doing things, and the Brasileiro girl of to-day shows an inclination to adopt much of what she can learn about British ways in these matters.

Brazil's womenkind have retained the good looks of their European ancestors on the female side, with an improved physique. A large proportion of them are pretty. The State of Ceara is famed far beyond the borders of Brazil for its handsome women and girls, and São Paulo runs it close for the honour. It has become a saying in Brazil that "men go to the Amazon Valley to make money, but to Ceara to get a wife." Brasileiro women dress well, and follow the Parisian fashions with variations of their own designing. There seems to be some in-

dications of national characteristic about their costumes and fashions. Hats are seldom worn by Brasileiro women. They seem fond of jewellery, and even the humblest worker does not feel dressed without a brooch of gold and gems. Even young children wear expensive jewellery. If a Brasileiro woman's lot be cast in a wealthy household, she is forced to lead an idle and somewhat dull life. She is not allowed to occupy herself in public affairs of any kind, and may not go out driving or walking if there be no men relatives at hand to escort her. She can attend religious services as often as she wishes, and may visit religious institutions too, but must not participate in outdoor sports or games. Women of the middle and working classes have more freedom. They have their work to occupy their days, and visit each other in the evenings. In the Brasileiro's home his wife does not hold the prominent place she does in the British and American home. The Brasileiro, except the man who has been abroad and acquired modern ideas, treats his women-folk as his playthings, to be brought out for his entertainment and kept shut up when he is not there. He has not yet acquired the courtesy of the Frenchman, the respect of the Briton, or the veneration of the American for the women of his household.

In business the Brasileiro is fair and enter-

prising. He has yet perhaps to learn the greatness of being a man to his word. In the commercial arena he is more brilliant than plodding. Application to a thing that does not quickly bring results is a quality that does not characterise him. Frugality he would almost deem a vice. The Brasileiro is the most generous man to be met. He is kind-hearted and loyal to his friends, and intensely devoted to his country. Brazil is the dearest land on earth to him. It would be very difficult to find a Brasileiro anywhere who would deny his nationality.

A fondness for fashionable attire and jewellery is one of his little peculiarities. He must have his shoes kept well-polished, and would fret considerably if he could not have frequent changes of nicely-pressed clothes. Coffee is his favourite drink, with a little wine at his dinner. Smoking is very heavily indulged in, but as tobacco is grown, and very fine cigars are cheaply procured in the country, this is scarcely to be wondered at. The art of public speaking has been developed to a high degree of excellence, and as a rule the average citizen is an orator of no mean order.

Unlike the British and Americans, the men of Brazil seem able to speak freely and eloquently in public at the shortest notice. When a Brasileiro has a grievance in a car, railway

carriage, steamer, cafe, or on the street, he will convey his protest in remarks that generally develop into a public address to all who come around to listen. His auditors will freely express their opinions on the matter, and should there be in the opinion of the crowd just cause for complaint, the offender might have to answer to the multitude for his offence. The public quickly makes up its mind in these little disputes, and acts as promptly. This is what happens sometimes:—A business man at a tramway stop in a certain city began complaining loudly that he had been kept waiting there twenty minutes through all the tramcars that came along being too crowded to accommodate him. He declared to the gathering crowd that the tramway authorities had numbers of cars idle in the sheds, while citizens were delayed and inconvenienced on this particular route. They must forcibly protest, as letters to the authorities had not brought an improvement in the conditions. Led by the orator that crowd held up the next tramcar arriving there, and compelled its occupants to alight. The car was then broken up into pieces and burnt on the spot. An increased service of cars began running within an hour, and was maintained thereafter. A daily newspaper commented one morning on the actions of a popular public man, in a personal strain that offended many citizens. Two

of these meetings in the street near the office spoke in loud tones of the injustice to their fellow-citizen. Soon a large crowd gathered and the newspaper was severely criticised in fiery orations. The crowd went home for their guns, and returning riddled the newspaper office with bullet holes, and chased the editorial staff out of their city. Public anger then seemed appeased. These outbursts are frequently referred to by foreigners as "revolutions," and British and United States press agents cable alarming reports to their countries. There is however no more, often not as much, danger or importance in these incidents than in a Trafalgar Square or Madison Gardens "mass protest meeting." The difference arises chiefly from the Brasileiro believing that to carry resolutions may not mean to carry your point; but to carry your gun generally means getting quick attention to your grievance. In carrying out these protests the Brasileiro has always been careful not to interfere with those having no connection with the quarrel. It is quite exceptional for foreigners or their property to be injured in these demonstrations. Having been on the spot on several occasions while so-called "revolutions" were in progress, and coming through unscathed at all times, I write of personal experience. The man who wanders around the danger zones while a city is having

its streets raked by rifle or artillery fire, and is being shelled from the sea or river, goes out looking for trouble.

The Brasileiro's reverence for sacred things is noticeable and touching. You will not find an educated Brasileiro scoffing at anyone's religious beliefs. He will always raise his hat when passing a church or burial-ground entrance. He takes a pride in his national memorials. He is an entertaining conversationalist, with a fine sense of humour ; and will be all the better pleased if the conversation is kept to light matters and the pleasures of life around him. Though he is inclined to effusiveness, even boisterousness when a young man, the typical Brasileiro is, when his defects and virtues are carefully weighed up and set against each other, a citizen of the new world to whom we can unreservedly extend the hand of friendship.

CHAPTER V

SOME NATIONAL TYPES

Race-classes reviewed—The negroes from Africa—What the freed slaves did—A slave republic—Variety of half-breeds—Tribes of the south—A Dutch strain—The Fluminense—Whites who kept to themselves—Agua Doce—The new Roman.

THE people of Brazil, for the purpose of discussing national types, may be separated into four main classes. First there were the aboriginal Indians, then came the white Europeans, who brought along later the black Africans. The intermarriages of these three produced the fourth class. The first class, about whom the world yet knows so little, will be dealt with in a chapter devoted entirely to them. The second class are so well known that it will suffice to review briefly the European peoples found in the country who have not blended with the others, while the third and fourth classes must have more than brief mention.

The first-comers were the Portuguese, who impressed their language, customs, and religion on the country in such a thorough way that they prevail there to-day. The Portuguese

have always been an enterprising race, and very good colonisers. The countries they discovered and took possession of were invariably well colonised. Brazil is their foremost example. Their experience with it equalled, if it did not excel, Britain's with North America till part of it became the United States. The Portuguese seems to have made similar mistakes to those Britain made with slave labour, land division, and bureaucratic government; and they encountered almost identical troubles. The Portuguese made great efforts to keep the El Dorado they had secured to themselves, but the French, Dutch, Spanish, Germans, and British got in despite their efforts. The French and Dutch came strong enough, and remained long enough, to mark the places they occupied with indelible traces of their attempts to get hold of the country. The Spaniards came and blended with the Portuguese, scattering everywhere throughout the country, taking up land, opening businesses, and starting industries that their descendants occupy to-day. The Germans may be found in strong force in Santa Catharina, a State which is almost entirely a German colony. It was, strangely enough, first settled with German agriculturists in 1849 by the Duc de Joinville, son of Louis Philippe of France.

There are also large German colonies in the states of São Paulo, Amazonas, Para, and Rio

de Janeiro. The British are found in greatest numbers in the Federal Capital, Rio de Janeiro, São Paulo, Pernambuco, and Amazonas, with a few sprinkled through Matto Grosso and some other states. Americans from the United States are found in most of the states in small numbers. In some of the southern states, notably São Paulo, there are large numbers of Italians, Greeks and Turks, while Japanese and Chinese are also found in fast increasing numbers in São Paulo and Amazonas. Norwegians, Swedes, and Danes are found in business in some of the coastal towns.

African blacks were first brought into Brazil as slaves in 1583. These were said to be recruited in the Portuguese colonies of Angola, and Upper Guinea principally; but close observation discloses that the slave-traders of the early days must have gone much further afield. Amongst the descendants of these slaves, anyone acquainted with the African races can to-day pick out those who are indisputably descended from Bechuana, Hottentot, Kafir, Basuto, and Makalanga people, as well as from Mocambique Shangans and Guinea negroes. A study of their customs and peculiarities will support this. You will find Kafir descendants in Rio and Bahia to-day singing the same songs, telling the same stories, and preferring the food that the Kafirs of Kaffraria enjoy. You meet

the wizened little Hottentot, with his "coraltjes" and strong love for horses, that can be seen in Capetown. We can see the industrious Basuto cultivating his little plot of ground in the approved style of his brother at the foot of the Drakenbergs; and the lordly Makalanga, "child of the rising sun," haughty yet in the race pride that keeps him from intermarrying with children of his long-conquered foes. Change of air and country have made little difference in these children of the veldt and African forests. They are the same laughing happy people that evolved the dances and ragtime music destined to become the craze of London and New York mansions and variety theatres.

Upon the abolition of slavery in 1888 the freed slaves made for the cities in large numbers. In taking up the responsibilities of their new free life, they were handicapped by an inherited lack of initiative. Accustomed in their slavery to have food and clothes provided for them, in their freedom it was an irksome duty thrust on them. Little wonder was it then that these poor people were slow to adopt regular methods of livelihood. Sheer necessity eventually drove them back to the plantations and industries in which they had worked as slaves, to offer themselves again to their old masters for wages that were little better than slavery. Many of these black people had, some years previous

to their emancipation, been given plots of ground to cultivate, and were agriculturists and planters in a small way. To them freedom meant time to cultivate more land and produce more food, and they remained on their plots and improved them. Gradually the emancipated slaves were absorbed in a variety of menial occupations, where they were paid enough to keep soul and body together, but their experiences then were so bitter that the saying amongst black people, "the white man frees his slaves to get their work cheaper" arose. An episode in the history of these Africans in Brazil should be recorded wherever they are written about. In the year 1630 certain slaves who had succeeded at different times in escaping from their masters, until they were hundreds in number, proclaimed a republic where they had taken refuge in the mountains of Barriga between Porto Calvo and Alagoas. The "quilombo" was called the Republic of Palmeiras. The leader was called the "Zumbi," signifying in the slaves' language, "pure soul become powerful." The black republicans cultivated areas of their land, but relied largely on the proceeds of raids on neighbouring plantations. They became so troublesome that military operations were frequently taken against them. The republic however resisted for sixty-nine years all attempts to suppress it. Finally it was over-

come by a large combined force of men from São Paulo, Pernambuco, and Alagoas.

The earliest miscegenation between the Portuguese and Indians of Brazil probably occurred in 1500. Half a century later quite a number of half-breeds were found about Bahia and Pernambuco. During the first century of Brazil's occupation by the Portuguese about 50,000 Europeans, nearly all of whom were men, came to settle in it. The beginning of the next century saw tens of thousands of "mamelukes," or Portuguese and Indian half and quarter-castes spreading over the country. Miscegenation between the white settlers and the African blacks had in the meantime produced thousands of mulattoes. Intermarriage took place between the mamelukes and the mulattoes; while the Portuguese, Dutch, French, and Spanish whites took wives from the mamelukes, mulattoes, or Indians. This intermixing of races, going on for centuries, and latterly being extended further by all the races of Europe, and most of those of Asia coming into the mixture, has given Brazil a people truly wonderful in the variety of types it presents. Some of the earlier branches of this new race separated from the general stock, and by keeping to themselves in remote parts of the country have perpetuated their distinctive features. Such for instance are Paranaenses and Paulistas in the

states of Parana and São Paulo. Here the leading Brasileiro families often bear Indian names, and boast descent from Indian chieftainesses, with nowhere in their history a drop of other than Portuguese and Indian blood. From this stock has come many of Brazil's warriors and statesmen. In the early days these Paulistas, called then "bandeirantes," characterised by the fighting qualities, courage, and nomadic spirit inherited originally through a maternal ancestor, overcame the Indian tribes they met, and settled successfully most of the southern and inland states. From Bahia the mulattoes spread north and west, peopling the states of Parahyba, Pernambuco, Ceara, and Para. They too have furnished names of note to Brazil's scroll of honour. The Cearenses, a blending of the mamelukes with the mulattoes, have given Brazil her great seringa industry. It was the people from Ceara who penetrated the forests of the Amazon Valley and gave the world its first seringa supply. It is the Cearenses and their neighbours the Paraenses that work these seringaes to-day.

In Pernambuco may be found a Dutch strain of Brasileiros, which have preserved many of their paternal ancestors' characteristics. In Maranhão one meets this type again associated with a French type. These types prevail to a smaller extent in Alagoas, Sergipe, Parahyba,

and Espirito Santo. The Fluminense, or native of Rio de Janeiro, may belong to any one of several types. In the small State of Rio Grande do Norte most of the people are of white and mameluke extraction. In Rio Grande do Sul there are descendants of Spanish mamelukes.

Of course a large part of Brazil's present-day population consists of a pure white strain, descendants of families that never blended with the coloured races around them. Prominent in this class are the families of the noblemen who came from Portugal with their king in 1807. These people intermarried in their own class, and with white Europeans resident in the country, so that a considerable pure European section is found throughout the Republic. There are also British and Americans of the third and fourth generation born in Brazil, preserving most of their national characteristics. These people are known as "agua doces" (sweet waters) because they are of a foreign race that have not crossed the ocean—the salt water. There are thousands of *agua doces* distributed all over Brazil, and a peculiarity about the British *agua doces* is that they invariably refer to the United Kingdom as "home," though perhaps neither they nor their parents ever saw it. These *agua doces* speak English as well as Portuguese, and amongst themselves use English preferably. There are German and French *agua doces* to

whom one could refer in somewhat similar terms. There is one type of man arising in Brazil who promises to stand out more and more conspicuously as time rolls on. He commands serious attention already. He is the new Roman. Transplanted from the crowded hotbeds of Italy the descendants of the old race that conquered the then-known world, excepting a few corners, are fast coming back to their ancestors' physical greatness. The Italian who came to Brazil generations ago came a stunted derelict of the famous old race. He begot a son that in the free pure air of Brazil, with plenty of food and occasion for exercise, became a physically and mentally better man than his father. This improving has gone on from generation to generation, till to-day this race shows signs of shortly giving us a complete reproduction of the old Roman at his best. Down in the State of São Paulo there are thousands of young men and women of Italian descent, whose children are going to be heard of. People who never leave the old countries of the world forget, or perhaps never even think of, the development of the races in the new countries. Macaulay who wrote of the New Zealander on London Bridge gazing on the ruins of London, sounded a note in the world of literature that might be taken up and sounded again occasionally for the benefit of the somnolent stay-at-homes.

It is not only the dwellers in country villages that get parochial in their ideas. People of the great cities like London, New York, and Paris who do not go abroad, get parochially-minded too. There is no world outside their city to them. Yet their great city is but the merest speck on the world's face. The matters that appear to them to be great concerns may not be heard of outside a few miles' radius, or indeed be of no concern outside a few club circles. When the King-Emperor of Great Britain, returning from a world's tour before his accession, called to his country "Wake up, England" he probably felt the want of wisdom in its shutting its eyes to the important developments in the new lands over the seas.

CHAPTER VI

STRANGE PEOPLE OF THE FOREST

A fascinating field—History of the Amazons—Legend of El Dorado—The Tupis and Guaranis—Who were the Tamoyos—The Indian tribes—Old and new attitudes to them—An Indian described—How Indians live—The war methods of Guaycurus—The Cougnantainsecouimas.

NO part of the world presents to-day a more fascinating field for the study of uncivilised tribes than South America; and no part of that continent is more interesting than Brazil for that purpose. After having travelled much in Africa, Asia, North America, Australia, New Zealand, and most of the great island groups of the world, seeing many native races, I do not feel disposed to in any way qualify that assertion. Thousands of square miles remain unexplored, and there may be in South America tens of thousands of Indians who have never beheld a European. As late as 1913 explorers have come on Indian tribes in the Orinoco and Amazon valleys to whom there can be found no reference in European literature.

For the earliest possible references to a race of people in Brazil we must go back over 3500

years, and pick up some slender threads from the slight historical records of these remote times. Diodorus of Sicily makes some references to Amazons of an Asiatic type, but concludes they came from Eastern Asia. Figures on antique vases and sarcophagi in the British Museum appear to represent these fighting women as of European or North African races. Some historians aver that long before the heroines of Cappadocia, there existed a race of African Amazons who, after conquering the northern peoples of Africa, went across the ocean in search of other countries to subjugate. The Scythians called them "Oiorpata," slayers of men. Mid-African and South African archæological research supports Bantu legends that white women once ruled there. Where they came from or whither they went there is no indication of. The Zulus and other African black races are waiting and looking for a white girl saviour and earthly ruler. Prominent novelists have woven romances round this peculiar idea. Some writers declare that the African Amazons, known to the ancient Greeks and Egyptians, made their way to Brazil and settled around her great northern waterway. Portuguese historians translating the most ancient writers, credit these with minute descriptions of the ancient Amazons of Brazil. "They wear their hair cut short like men, they go to war, and hunt with bows and

arrows. Each of them has a woman who serves her."

Serious Portuguese and Spanish writers of the early part of the seventeenth century proclaim their presence in this region; and some go so far as to locate them in the mountains north of Manaos.

Indian legends agree with these writers; but it would be difficult now to determine whether the historians adopted these legends, or recorded facts of which they had got evidence. The legends of certain Amazon Valley tribes are to the effect that once upon a time the country north of the Amazon, from the junction of the Rio Negro to the ocean, was occupied by a race called the Guacaris. Adjoining their territory, further inland, was a country through which flowed a great white and a great black river. Between these two rivers were many high mountains in which lived a race of women whom none but the Guacaris could approach. These women guarded mountains of immense treasure which they had discovered. Once a year the Guacaris visited this country and brought back with them infant boys who grew up to be great warriors and who, conquering many tribes on their way, journeyed to the south-west, where they became lost to local tradition. The women warriors disappeared gradually and were believed to have gone away or died out. Their

country was latterly occupied by the Manaos, or Manoaas, and the Aroaquis tribes.

The legends can be substantiated this far. Dr Martins, the Bavarian explorer and historian, in his works published in German in 1867, dealing with Brazilian Indians, gives in one volume a map in which he allots this identical region to the Guacaris. Many other well-known writers on Brazilian Indians also mention the Guacaris as occupying this territory. The first navigator of the Amazon, Orellana, also Pizarro, and quite a host of subsequent explorers, navigators, and missionaries of various nationalities, have testified to seeing and suffering at the hands of these Amazons. In the sixteenth century Europe accepted the evidence tendered of their existence, and also got excited over plans proposed to reach the treasures they guarded. Their country was called El Dorado, a name that has been perpetuated even in the English language to define an extremely rich place. The existence of the black and white rivers with the mountains between them has long since been verified. I was on the rivers, the Rio Negro and the Rio Branco, and saw the mountains in the distance while visiting Amazonas. The great territory between those mighty rivers is yet practically a *terra incognita*. It is known to contain precious metals, and may one day yet justify its ancient

reputation and prove to be in verity El Dorado.

There were two great nations of Indians in Brazil in the earliest era we can get anything reliable about. One of these races, the Tupis it is said came in from the north and gradually over-ran the country. The other, the Guaranis, came in from the south-west, the River Plate basin. These names are often spelt "Tupy" and "Guarany"; but the best authorities favour the "i" terminal. Without any keen desire to introduce a new theory on this question, I feel bound to claim a place in future discussion of the subject for the Tamoy or Tamoyos. These Indians were found on the coast about Rio de Janeiro. In the Tupi-Guarani (native name "Abaneenga"), or general language of the aboriginals of Brazil, the word "tamoyo" is claimed by several authorities to mean "grandfather." In most Polynesian languages the word "tama" means either "father" or "male heir," and "tama oha" "generous father" or "generous son." "Tama oha" is generally a term of respect applied throughout Polynesia to a parent on the male side. A word pronounced by Indians in Brazil peculiarly like the way a Polynesian would pronounce "tama oha" has been spelt "tamoyo" by the early German and Bavarian writers on the subject. There is no doubt both terms express similar ideas. If

comparisons are made between Polynesian and Tupi-Guarani legends many striking resemblances will be found. It is possible that the Tupis invading Brazil from the north, and the Guaranis from the west, found the Tamoyos there and drove them out to the east coast, where the earliest European visitors found them. From the scant evidences I was able to collect, the Tamoyos of the beginning of the sixteenth century in Brazil approximated more closely to the great people spread over the lands of the Pacific than did the other races of Brazil, if the relics seen and historical references consulted may be relied on. It may have happened that the Tamoyos were maritime visitors to the country as the Maories were to New Zealand. There is no doubt but that subsequent to the Tupi-Guarani occupation of the country, several other Indian tribes or peoples came into Brazil and established themselves where they could. Amongst these were the "Guaianazes," "Omaguas," "Aimores" or "Botocudos," and "Carijos."

The word "Tupi" means "uncle" or "comrade." "Guarani" means "great brave" or "lord of the soil." It is noteworthy that the Caribs in the north of South America considered the Tamoyos of the Brazilian coast their forefathers, and writers dealing with the Cariba nation refer to this. However, accepting for

the present the theory that the Tupis and Guaranis were the basic races in Brazil, that there were eventually hundreds of separate tribes with a great variety in their characteristics cannot be disputed. Whether all these tribes are descendants of the Tupi-Guarani stock or not has never been decided. They have been classified in many different ways by the various writers taking up the subject, and no two writers seem to agree how this should be done.

Since the first Europeans landed in Brazil nearly a thousand different tribes of Indians have been encountered at one time or another. About four hundred of these were found in the Amazon Valley. There are to-day about a million Indians, civilised and savage, in the country. This is only an estimate, as there are no means of ascertaining the numbers of people in the savage tribes of unexplored territories. The early colonists used to hunt and kill them as they would wild beasts. Indian-killing raids were frequently carried on by the first governments. Thus many tribes were ruthlessly exterminated, and the Indian population greatly reduced. The mamelukes of São Paulo were always the leaders in this work. They hunted their mothers' people with a ferocity that exceeded that of any known savage. For many years quite an opposite attitude to their Indians has been adopted by the Brazilian people. Govern-

ment departments exist for their protection, civilisation, and education. Every year further tribes are reached with civilising influences, and all the inducements the Federal Government can devise to make them feel that they will be kindly treated are put before them.

Indian tribes may still be found near the coast in the States of Espirito Santo, Bahia, São Paulo, Santa Catharina, Parana, and the north-east of Para. The most of these are civilised, and their members come into the cities and towns near them. Many of them work in the plantations. Uncivilised tribes are yet found in the hinterland of some of the coastal States. They abound in the inland States such as Amazonas, Acre, Matto Grosso, Goyaz, and Piauhy. There is a great similarity in appearance among the members of nearly all these tribes. The average Indian is about five feet eight inches in height, rather slender in build, square head and face, with high cheek-bones, narrow forehead, large mouth with thin lips, nose with sharp point and spreading nostrils, dark beady oval eyes with well-marked eye-brows, chin prominent, ears large, skin tawny yellow, hair black and very straight, stands up straightly and moves with soft long stride. The women are more handsome than the North American squaws. They are often tall and slender, and the girls just coming to womanhood have in

some tribes well moulded figures, and good carriage. I have never seen any that could be called pretty. Compared with Polynesians, Africans, or the Red Indians of North America, the Brazilian Indians are not a striking race.

It would be useless attempting to deal here with the Indian tribes that have come under European notice in Brazil in any way other than taking a few selections at random to give a general idea of the main body. The Tamoyos who were found at different points on the coast were never difficult to get on with. The first navigators traded freely with them at their earliest visits. Later on they helped the French against other tribes. The Tamoyos lived in "tabas" (villages), which they pallisaded as a protection against their enemies. They were a hardy and courageous race. Their great enemies were the Tupinikins who came from São Vicente. In the fights between the Portuguese and French about Rio the Tupinikins fought with the former and the Tamoyos with the latter. Allied to the Tupinikins in São Paulo were the Guaianazes who lived in caves in the ground. This tribe at one period had a "cacique" (chief), named Tibirica, who was the "montezuma" (head chief) of South Brazil. His descendants are yet to be found in the City of São Paulo. The Carijos, Patos, Tupis, Goytacazes, and other tribes were found in the southern coastal States. The

Tupinambas were found all round the coast from Rio north. They were much sought after for slaves, and the first colonists selected wives from amongst them. Descendants of this tribe may yet be found in the south of Amazonas. Tribes that gave a lot of trouble in the early days were the Potiguaras, Tabajaras, Cahetes, Abacatiaras, Moriquitos, Chocos, Umans, Coropotos, Pitiguazes, Chiquirus, Tabayares, and Cairiris around the north-eastern coasts. They were nearly all cannibals who ate their enemies to show their hate, and ate their children to show their affection. They lived in pallisaded or walled villages, and fought amongst themselves continually. The Aimores or Botucudos, at one time a very savage tribe, but now more peacefully inclined, are still to be found in Espirito Santo. In the latter State the Tupinakis formerly lived on a high plateau until the Aimores drove them out. These Aimores with tribes of Cataguas, Cataguazes, Guaianas, Guaias, and others may be also found in Minas. The Payagoas were a numerous people skilled in navigation, found on many rivers. One of the most formidable Indian peoples encountered were the Guaycurus of Matto Grosso and north-western São Paulo. Amongst them were found several tribes such as the Lugoas, Cambas, Araras, and Xiriquanhos; while they made slaves of such tribes as the Goaxis, Guaianas, Guatos, Gaivabas,

Bororos, Ooroas, Caiapos, Xiquitos, Xamococos. The Guaycurus who roamed over the vast plains of these States, were well-mounted and known to the Portuguese as the "Cavalleiros." Their fighting weapons were a lance twelve to fifteen feet long with an iron point, a hunting knife, bow and arrows, and a club two to four feet long. These Guaycurus made extraordinary cavalry charges lying along their horses' sides as they galloped forward. Sometimes they drove herds of cattle before them as a screen when advancing on their enemies. The men were always quite nude, but their women wore cotton aprons. Their dead were buried in cemeteries. The Payagoyas, Cayapos, and Icqutos are also found in these States and Rio Grande do Sul. The Coroados, or crowned Indians, were found in many States but most largely in Minas, where some may yet be seen. The men were tonsured, and the women painted their faces with lines and figures. The Coropos were a neighbouring tribe.

In the northern States the Cairiris, Potiguares, Cahetes, Abacaxis, Tabajaras, Araguayas, and Pituguazes are the names recurring most frequently in the early colonists' experiences with the Indians. A few descendants of some of these tribes may be found yet in Ceara, Piauhy, and Maranhao.

It is when one comes to the Amazon Valley,

where the four hundred separate Indian tribes have been catalogued, that the greatest difficulty confronts the chronicler. All of these tribes claim points of interest, yet few of them can be mentioned in a work of this kind. The tribes of the "Amazons," as they are given by Baron Nery in his "Land of the Amazons," should be mentioned because their names are as striking as the female warriors themselves appear to have been. These peculiar female tribes living without men were known as Amazonas, Ica-miabas, Cunhatese, Cuymas, Cougnantainsecouimas, Coniapuyaras, Comapuyaras, and Aikeambenamos. Perhaps all these names referred to one tribe. If so, I think we might adopt the word Cougnantainsecouimas as a sufficiently comprehensive tribal name for them. It certainly covers a lot of ground and suggests much. During a stay of three months in the territory, said to be once solely occupied by these ferocious women, I failed to discover a trace of them, not as much as a fossilised hair-pin. Of the great tribes now extinct those worthy of mention are the Tupinambas, Manaos, who gave their name to the modern capital of Amazonas, Omaguas, Aroaquis, Ariinis, Amari-bas, Atures, Cagoas, Conomanas, Maiurunas, and the giant Curenqueas who were said to be over ten feet high!

Amongst the notable tribes found to-day in

the Amazon Valley are the Parintins, who have given their name to a town on the lower Amazon ; Parintintins, still savage warriors and raiders of other tribes, found around the rivers of Para and Amazonas ; Passes, a race of agriculturists on the rivers in mid-Amazonas ; Maues, amongst whom I spent some time and found engaged in peaceful pursuits ; Muras, fierce savages who formerly inspired terror wherever they wandered, but who have been recently not much heard of ; Purus, once the most feared nation in the Upper Amazon regions ; Ubirajaras, the club users, Madeiras, Natanahuis, Araras, Tacus, Solimoes, Ticunas, Uarupis, Uaupes, Coitas, who are said to have a tail ; Xomanas, Abacaxis, Brauaras, Cacatapuyas, Cauanas, the dwarfs of the Jurua ; Caxararys, hardworking and peaceable people on the Purus River ; Chaperas, Cipos, and Guaribas, howlers. The last remnant of the direct Tupi line, the Tupinambaranas, may be found at Villa Nova on the Madeira-Mamore railway. These Amazon Valley Indians live principally in the forests and their tabas (villages), are not as a rule easily reached. A strange tribe of pale-faced Indians, named Andoques, were seen in 1913 by an explorer near the Colombian frontier. The news of this discovery just reached the lower Rio Negro during my stay there, and excited much controversy as to what race they came from. It will probably be found

that there is no European record of these Andoques having been seen before. They appear to have treated their discoverer well, and to have facilitated his passage through their territory.

CHAPTER VII

THE INDIAN AT HOME

What explorers' dangers arise from—A forest experience—Indian warnings—Bush dwellings—Native industries—An Indian menu—Calling in a paje—Night in an Indian hut—When cannibals eat a man—Indians' marriage customs—Children's games—Strange religious beliefs—No idol worship seen—Civilised Indians' homes.

IT is a wonderful privilege to be the first civilised white man to come in contact with any race of natives. Those of us who have enjoyed this experience have not as a rule much sympathy with those explorers who return from so-called savage lands with tales of barbarous treatment or grave dangers surmounted. I know that I am not alone in the opinion that nearly all explorers' and navigators' troubles with natives arise from inexperience in dealing with them, or from indiscretions. Men who have had an extended experience of natives, and are careful in their habits, need seldom have any fear of danger from those who never saw nor heard of a white man before. The principal danger arises generally from the natives' recollection of some wrong behaviour of a former white visitor, whom they may have encountered

or only heard of. They are in that case naturally suspicious of, or hostile to, the next white visitor who comes along. When I am about to traverse unknown territory, I make as full inquiries as possible about the kind of white men who preceded me, should any have. If I learn that they were men likely to transgress the native laws in any way, I change my route preferably to one never before taken by a white man. Who is there having much experience in uncivilised lands, who would not sooner trust himself amongst natives who never saw a civilised man, rather than to the semi-civilised natives who had learnt only to fear or hate him?

The Indian roaming the forests of Brazil, far away from the haunts of civilisation, is a gentleman of nature. Should you come unannounced to his domain, though he has never seen or heard of a civilised European, he will treat you usually with respect. Let us go up the mighty Madeira River, and after steaming for a few days on its wide breast, turn into one of its many affluents. Day after day we proceed on our journey into the heart of these vast forests. At last we land and journey deep into the woods. There is no sign of human life around; yet from the moment of our landing we were watched and followed by Indians. News of our arrival has been sent near and far

by the strange telegraphy of these people. Unseen by us they are gradually completing a circle around us and our every movement is noted. We camp for the night at a suitable spot. One of the party watches by the fire while the rest sleep. About midnight strange low cries attract the watcher's attention. They come from the woods around. He knows what it means, and wakes us to say that the Indians are around us. We sit up and discuss the situation for a while, then resume our rest. Next morning we go to the point where the cries began and hang our presents of coloured cloths, beads, metal cups, and small mirrors, on trees or poles we stick in the ground, and halt for the day. At night we retire as before. There are no cries that night. Next morning we go to where we left the presents the previous day. We find all the articles gone, and arrows sticking in the ground around, with their points in the direction that means peace and safety for us. The Indians believe we have no hostile intentions to them, have intimated that to us, and we go on unmolested right through their territory, though we are probably watched carefully till we leave their borders. Should the cries have been repeated the second night, the following morning we would have found our presents untouched. We might then have added largely to them and retired as before.

If the Indians wished us to go back, the cries would be renewed earlier that night, and an arrow or two into our camp would clinch the matter. We must then clear as quickly as possible unless we wish to fight it out. If we go away we will not be further interfered with, unless we show any resentment. Should we decide to fight, relying on our fire-arms, we must be prepared to carry on a running and extremely hazardous fight, with perhaps many hundreds of men for several days. The odds would be greatly against us. The fact of being ordered back would show us that the Indians had some previous bad experience of white men, or had heard unfavourably of them.

Indian dwellings vary according to the habits of the tribe. Those Indians who live by hunting, and are consequently roving about after game continually, erect only rude temporary shelters up in trees, or in bushes on the ground. Some of these abodes are merely break-winds. The hunting tribes have usually little or no covering on their bodies, and their household goods and utensils are extremely limited. Where tribes settle permanently huts or houses of different types are built. Some of these are conical without walls, some are quadrangular with wood and clay walls and thatch roof, while others are all thatch roof brought down to a quadrangular base. Many tribes live in

“malocas,” great quadrangular halls that house a number of families, such as the “wharepunis” of the New Zealand Maories. Indian settlements are usually found on the highest and driest spots near to rivers. Cotton-spinning and weaving seems to have been practised in certain tribes before the European advent. The making of clay pottery was widely prevalent. In the Amazon Valley household pottery was lavishly ornamented with coloured figuring and lines. Basket-ware, wooden, bone, and horn vessels, and articles for household use made of combinations of these things, comprised the home equipment. Weapons for hunting were huge bows and arrows, spears, blowpipes, darts, nets, and snares. For fighting, lances, clubs, bows and arrows, with shields were most commonly used. The Indians had an extensive variety of foods. The forests provided meat, fruits, nuts, vegetables, corn, and birds, while the rivers yielded turtles, and fish in hundreds of varieties. Indian repasts usually include soups, stews, mandioca meal, fish, meats, vegetables, fruit, and nuts. The only drink taken with meals is water. In their feasts the Indians use a variety of intoxicating drinks, though seldom more than one is used at the same feast. The most common is Kawa, or Kava, made from maize or from mandioca root by a process in which chewing by women, as with Samoans,

is an important stage. Next to Kawa, a wine made from the juice of the Tabate fruit, seems always to have been most popular. Altogether ten or twelve intoxicating drinks of different kinds have been found amongst various tribes. When an Indian falls sick the "paje" or medicine man is called in. This man usually does what he previously ascertains he is expected to do, then shakes his head gravely, prescribes, and gets his reward.

The home life of uncivilised Indians away in these forest recesses does not differ very much from what it would be in a civilised household so situated. Where the family have a hut to themselves, the visitor is given a hammock or a bed of mats in the best corner. The evening may be spent with music, singing, dancing, drinking, and conversation. The musical instruments are generally flutes and stringed instruments, accompanied by castanets or drums. The songs are weird chants mostly, their themes being legends, religious beliefs, love and hunting daring. War-songs are seldom sung in family circles. The household may possibly retire very late if it has an interesting visitor. Everyone but the very old members of the family are up and out early. While the women or slaves are preparing breakfast, the men bathe in the river, or go for a stroll around. After breakfast the men go hunting, fishing, or to

work at their canoes or weapons. The younger women go and work in the plantations and the old folks are left to mind the young children. At noon the women usually return from their outside work and lie about the house conversing with callers till the men come in at evening, when they busy themselves attending to what is brought home, and in preparing the evening meal. Should the tribe be cannibals and they have a prisoner to eat, this is generally done at a special afternoon feast which is conducted with much ceremony and drinking. Intoxicants are freely supplied to those who have to kill and eat the prisoner. When those present are well intoxicated, the victim is led in and after being made the butt of their drunken sport, he is clubbed to death, cooked and eaten. In an extended experience of natives who were, or whose ancestors had been cannibals, I never got satisfactory evidence of human beings having been killed and eaten for food only. I believe cannibalism to be the extreme expression only of that feeling which would prompt an English high church clergyman to cross a street rather than meet a dissenting clergyman he sees approaching. The uncivilised savage eats instead of cuts the man he dislikes.

Morality in the Indian home and village is generally good. Uncivilised natives are seldom thieves. Each respects the other's property

and household. Great chiefs have several wives placed in different huts. The common members of tribes usually have only one wife. Daughters are betrothed when very young, and given up to their future husbands when they arrive at womanhood. If a girl has not been betrothed, when she arrives at marriageable age her hair is cut short, and marks are scratched into her back to show that she is prepared to take a husband. The women of some tribes paint their faces with dyes obtained from plants, and wear ornaments hanging from holes in the lobes of their ears, a custom not unknown amongst women in more civilised surroundings.

Mothers carry on their backs infants and children unable to walk, slings made of cotton or other plant fibres being used as carriers. The children in a hut are shy and restrained when there is a stranger present, but at ordinary times are as boisterous and irresponsible as European children can be. It is noteworthy that children's games and toys are very much alike in all countries. The Indian girl has her doll, and the boy his toy animals; and the mother gets quietness and good behaviour by threatening to bring a wild black or white man if the children are naughty. The children learn to dance with their elders. There is little grace or beauty in the Indian dances. Since the negroes were introduced to Brazil the African

dances have been largely adopted by the Indians as well as Europeans. In addition to the "maxixe," the "baducca," a somewhat similar dance, has much vogue. As the "baducca" may find its way to European mansions, it might be described shortly. It is usually danced by a man and woman who approach each other and retire, making as they do so a variety of hip contortions, and keeping up an incessant snapping with the fingers. This dance is usually given at a feast where a man has to be eaten.

The name for a child is chosen by its relatives in conference shortly after its birth. If the child be a boy he has the right to take an additional name, when he has grown up, every time he kills an enemy. Having a great many names therefore indicates that the bearer has been a very blood-thirsty savage. A woman is entitled to use all the names her husband takes, but their sons may not.

Hospitality is a trait of Indian character. Those who have succeeded well in the chase or at fishing share freely with their unsuccessful tribesmen, and an Indian family will divide up their last scrap of food with a stranger. Treat an Indian well and you can depend on good treatment in return. Offend him, and you had better beware. It has been said by several writers that the Brazilian Indians have no religion, and worship nothing. Yet those

who have lived many years amongst them deny this emphatically. Because no idols are found in their villages and there are no temples in the land, it would be unwise to assume these people have no religious beliefs. When the first Europeans came in contact with them they found the Brazilian Indians believed in a spirit that separated from the body, a future life, a Supreme invisible Ruler, the future reward of a good life and punishment of a bad one. They have a tradition of a white man with a long beard, whom they refer to as "Sume," who came from over the sea and spent a long time amongst them. He taught them to plant seeds, prepare meal, use fire, brew "maté" tea, and live peaceably. When wicked Indians wished to destroy him "Sume" escaped and never returned. Writers of all nations on Brazil refer to this man. References to him may be found all round the coasts. The generally accepted belief is that "Sume" was St Thomas or one of the apostles. It is worthy of note here that the Polynesians have a similar tradition about a man they call "Tame" or "Tama." The Brazilian Indians have also the tradition of a flood that covered all their land and drowned all but one family. They believe in an evil spirit whom they call "Jurupary," and their Great Good Spirit was made incarnate and proceeded from immaculate conception.

I feel convinced that the absence of images and temples arises from a peculiarity I noticed in Brazilian Indians. What they fail to understand in the powers around them they dread and would not imitate. They imitate only what they ridicule. The invisible powers that they see evidences of they respect and worship, and also seek to propitiate according to their light. Their soul expression is a silent reverence, an unattempting submission in which there is no place for a thought of ritualism. To-day it takes a very close observer to detect spiritual emotions in an uncivilised Brazilian Indian; and the superficial observer therefore classes him immediately as an unthinking savage. That he is not this becomes clearly apparent to those who study him closely and deeply. He may not be able to define his ideas, or give any reasons for thinking he has a spirit within him akin to some great spirit without; but he has clung to such thoughts throughout generations, without religious guidance and support, and has always proved susceptible to good influences.

The civilised Indian tribes in Brazil have adopted European customs and all the adjuncts of civilisation. They build houses and furnish them in approved European style. In the towns of the Amazon Valley Indian belles may be seen on the streets in all the glory, or

absurdity, of the latest Paris fashions. The men are industrious workers and provide well for their families. You generally find a musical instrument of some kind in their homes. Gramophones are very popular with them, and it was an amusing experience to me when lying in a boat one day on a stream far inland in Amazonas to hear the words of "I love a lassie" rolling in broad Scottish accents from a gramophone in some Indian hut hidden in the trees.

CHAPTER VIII

A DIP INTO POLITICS AND LAWS

Federal and State powers defined—Union may financially assist States—Wide powers of States—Ministers' and members' qualifications—The courts and laws—Man's house his castle—How taxes are levied—Brazil's small foreign debt—Political parties—Questions of the day—Present President.

WHEN the Federal Republic was proclaimed on November 15th 1889, the constitution adopted by the United States of Brazil was modelled closely on that of the United States of North America. The municipality of Rio de Janeiro was constituted a Federal District, to be governed by the Union Government and a municipal camara, or council. An area of a hundred square miles in the centre of the Republic was reserved as a site for a future Federal Capital, and the provinces were made autonomous States. Upon these States were conferred power to legislate on all matters not specially reserved by the Union. The control of the Army and Navy, customs duties on imports, postal and telegraph system, stamp duties, right to establish banks of emission, control of ports and coastal shipping services,

high courts of judicature, currency, weights and measures, treaties and conventions with foreign nations, naturalisation, navigation of rivers traversing more than one State, and other matters of a national character specified in the Constitution, are so reserved. The Federal Government also reserves the right to interfere to repel foreign invasion, or the invasion of one State by another, to maintain the Federal Republican form of government, to re-establish order and tranquillity in the States at the request of their respective governments, and to assure the execution of laws and Federal decrees. The States have the right to incorporate one with another, to subdivide, to form new States, with the consent of the respective legislatures in two successive annual sessions and the approval of the National Federal Congress. It is the duty of each State to provide at its own expense for the necessities of its government and administration, but the Union may come to the assistance of any State whose financial embarrassment may warrant it, and in the case of public calamity demand it. States may establish telegraphic communication between points in their own territory, but the Union may take possession when the general welfare requires it. The States are prohibited from taxing Federal property or revenue, or anything utilised in the service of the Union and *vice versa*. The rights

of the States to legislate regarding railways and the navigation of inland waters may be defined by Federal enactment. With these few exceptions the States have very wide powers ; and in some cases have put them into full operation. The country is divided into twenty States and two Federal Territories. The waste lands, mines, and forests belong to the States in which they are found.

The Federal Constitution provides for a Senate and House of Deputies elected by manhood suffrage. This Parliament is called Congress. The Executive consists of a President, Vice-President, and Ministers chosen by the President. These Ministers cannot hold seats in Congress, and do not answer questions or accusations. They are not responsible for the advice they give the President and may only be removed by him. Their duties are to preside over the various departments into which the administration is divided. They make yearly reports in writing of the work of their departments, which are Foreign Office, Justice and Home Affairs, Finance or Treasury, Public Works and Transport, Agriculture, Industry and Commerce, War and Marine. The President, who must be over thirty-five years of age and a native of Brazil, is elected for four years, and may not go out of the country during his term of office without the sanction of Congress. The

Vice-President is elected at the same time as the President, and must not be a relative by consanguinity or by marriage. His duty is to act as deputy for the President, and to preside over the Senate. Both President and Vice-President may be suspended by Congress, and upon conviction of crime or offences against the Constitution may be deposed. Senators must be over thirty-five years of age, as well as being Brazilian citizens of at least six years' standing. Each State elects three senators, their term of service being nine years. Any Brazilian citizen of four years' standing may be elected a deputy. The number of deputies is fixed at one to every 70,000 inhabitants, and not less than four from each State. At present it stands at 212, but must shortly be greatly increased. Elections are held triennially, and all senators and deputies get salaries and travelling expenses. No senator or deputy may hold a seat on any bank or company directorate in enjoyment of favours from the Federal Government. The qualification for an elector is that he must be a male Brazilian citizen of twenty-one years of age who is not a beggar, illiterate, common soldier, monk, or member of a religious order restricting his individual liberty. The State legislatures are modelled on the Federal though all States do not yet have a Senate. The Federal Supreme Court consists of fifteen

judges nominated by the President for life, subject to the ratification of the Senate. The Court of First Instance consists of as many judges as may in the opinion of Congress be desirable. These are also nominated for life by the President from names submitted by the Federal Supreme Court. The States have also their system of courts. These have in their decision all matters of common law not reserved for the Federal courts. Provision is made for appeal from the State to the Federal Supreme Court in questions where constitutional points are involved. This latter tribunal has authority to adjudicate in actions of foreign countries against the States or Union.

Foreigners residing in Brazil are allowed to enjoy full civil rights, and are guaranteed ample protection for their persons and property. There are very few limitations to what they may engage in. No passports are required, and foreigners may combine in associations, clubs, corporations or religious organisations. Before the law all persons are equal. The Republic does not recognise privileges of birth, or titles of nobility. All persons may exercise publicly and freely the right of worship. No sect or church receives official aid. Civil marriage only is recognised. Expression of opinion is by law free on whatsoever subject, through the Press or from the platform, without censor-

ship. No person may be kept in prison without charge being formally made, or be detained if he give bail when such is lawful. The rights of property are maintained strictly. No appropriation of property can be made except for public utility, and indemnity shall in such cases be made in advance. Mines shall belong to the owners of the land under the limitations provided by law for their proper working. Habeas corpus may always be invoked when an individual illegally suffers detention, compulsion or abuse of power, or considers himself to be in imminent danger of the same. Trial by jury is maintained, and the death penalty is abolished, except in case of martial law in war-time. Authors of literary or artistic works are guaranteed the exclusive right of producing them through the Press or in other form, and their continued rights are protected by a good copyright law. The laws relating to patents and trade-marks are also good. Education is State-provided and secular. Persons accepting any foreign decorations or titles of nobility lose all their political rights. The house is the inviolable asylum of the individual, no one can enter it at night without the consent of the occupant, nor by day except in the cases provided for by law. The autonomy of municipalities in everything that concerns their peculiar interests is guaranteed. They may confer

privileges, grant concessions, raise loans, or enter into agreements with anyone. Their bye-laws may be enforced in all courts.

The Constitution of the Republic may be amended on the initiative of Congress or the legislature of any State. Proposed amendments to carry must be adopted by a majority of two-thirds of the votes in the two chambers of Congress. No proposal to abolish the Federal Republican form of government, or the equal representation of the States in the Senate can be introduced to Congress. The Republic imposes a high customs tariff on imports for protective and revenue-producing purposes. This tax produces quite two-thirds of the national revenue. Although in some cases this impost exceeds 100 per cent. of the invoice price, yet so many lines are admitted free of duty that the total sum collected by customs duties on imported goods is only 11.25 per cent. of the value of the imports. The other principal taxes imposed by the Union are a "consumo" tax on certain articles of merchandise, collected by requiring the articles to have stamps affixed to them or to the packages in which they are contained; a stamp tax on lottery tickets, and on documents relating to legal or commercial transactions; a passenger-tax on all railway and steamer tickets; a tonnage tax on all vessels trading with Brazilian ports, and an export



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tax on all seringa sent from the Federal Territory of Acre. The Union has also a revenue from the disposal of Federal property, dividends on Government enterprises, and the usual income from the public services. In January 1914 the Brazilian Government's foreign debt amounted to approximately £90,000,000. This sum does not include the foreign debts of the States and municipalities, which may be taken to be approximately at the same date as: States, £45,000,000; municipalities, £11,000,000, making a total foreign debt of £146,000,000 at the beginning of 1914. The Union revenue for 1914 may be estimated at £38,000,000, and the States revenue at £18,000,000, so there would appear to be available an income capable of providing interest and sinking funds for a much heavier foreign debt, as well as meeting all present internal liabilities. A point in connection with Brazil's national indebtedness that critics in European countries, which have already parted with most of their national estate, seem generally to overlook is that Brazil, like most of Britain's Overseas Dominions, is investing a large proportion of her borrowings in reproductive enterprises; and the nation, represented by its Federal and State Governments, still owns the bulk of its very valuable lands, mines, and forests. Should a great emergency arise, the Brazilian Government, by parting with the

ownership of one or more of its railways, or a slice out of its vast landed estate, might realise a huge sum. The present strength of its financial position is, however, that the collective private resources of the people are sufficient to meet a greatly increased taxation, should that be necessary, without feeling the strain much.

Although attempts have been made in certain financial journals of Europe, where the hand of the frustrated exploiter was apparent, to besmirch the honour of Brazilian governments, they generally emerge vindicated from such attacks. Brazil has ever maintained a high standard of honour in the fulfilment of her foreign obligations. In a review in 1914 of Brazilian finance, the most widely known London newspaper was justified in remarking, "It is pleasing to have to add that, except in a few cases, the company investments have been profitable, and the various Federal and municipal authorities have acted honourably."

In the Federal Congress there are two main political parties—the military and the civil or industrial. Combining in each of these parties there are various groups, including one with advanced labour views. The Government party at the time of writing this is called the "Republican Party," and the Opposition is the "Civilista Party," generally led by Dr Ruy Barbosa, who was the Party's candidate for the

Presidency at the last election. In the States' legislatures parties arrange themselves on Federal questions according to the Union parties, but divide in their several States according to local questions. Sometimes all parties in a State Congress unite against the Federal Government of the day. This is exceptional, but it is quite common to have the Civilistas in power in several States while the Republicans govern the Republic, and *vice versa*. The Southern States are usually strongly Civilista, while the Northern States favour the Republican Party. There is a leaven left of the old Monarchical Party. In some States I found it surprisingly strong ; but it has not been in anyway aggressive recently. The old barons of the Empire have mostly refused to take part in Republican politics and have kept quietly to their fazendas (lands) or businesses. As they do not seek to interfere, they are not interfered with. The most aggressive party in the political arena seems to be the Labour or Socialist Party. Labourites are found in almost all the State legislatures, and are a fairly large group in the Federal Congress.

It would be difficult to compare the political parties in Brazil with those in the British Parliament or United States Congress. The Republicans of Brazil resemble the Republicans of the United States more than the Conservatives of England in their political ideals, yet the Civil-

istas are not ultra-Democratic or Radical in their tendencies. Both parties in Brazil have produced men of conspicuous patriotism, and whose terms in positions of power were marked by notable accomplishments for their country's good. There have been keen struggles between the military party and the commercial leaders; and while the Republicans welcomed mainly the military chiefs to their party they did not enjoy a large measure of commercial men's confidence. Now, when that great party welcomes all classes to its ranks and chooses its leaders from amongst professional and commercial as well as military men, it is beginning to enjoy more commercial confidence. It seems probable that the future line of cleavage may not be "militarism *versus* industry," as in the past. The Republican President just elected in 1914, has a record of fine effort to secure commercial expansion and financial soundness in his country. As a Republican he had the unique experience of having his candidature endorsed by the Civilista States of the South as well as the Republican States of the Centre and North. Dr Wenceslão Braz's life has been spent in Minas Geraes and São Paulo, where he absorbed the industrial and pastoral spirit prevailing there so thoroughly that his political activities have always been in schemes for taking the most wealth possible out of the soil and promoting new industries.

CHAPTER IX

QUICK REVIEW OF THE STATES

São Paulo the leading State—Dry winters and wet summers—Paulistas always prominent—A strange contrivance—Minas the mineral State—Two powerful northern States—Where coloured people govern—Rio's lofty suburb—Herva maté's home—Hard-working Cearenses—Ranching in Matto Grosso—The corner State's big exports—A German centre—Piauhy waking up.

WHEN the provinces were raised to the dignity of States at the proclamation of the Republic in 1889, they immediately set about establishing their local legislatures and erecting the machinery for carrying out the responsibilities entrusted to them. Some States were able to do this much more quickly than others, because they had earlier experience of self-government, or had made provision for managing their internal affairs with a view to some change. In less than a decade, all were ready to undertake their new trust, and to-day the States machinery is running fairly satisfactorily throughout the Union. Occasionally there is a temporary breakdown in some of the northern States, but a little adjustment by the Federal authorities seems to usually put all right again. The States in the

order of their commercial importance are São Paulo, Minas Geraes, Para, Amazonas, Rio Grande do Sul, Pernambuco, Bahia, Rio de Janeiro, Parana, Ceara, Matto Grosso, Espirito Santo, Alagoas, Parahyba, Maranhão, Sergipe, Santa Catharina, Piauhy, Rio Grande do Norte, and Goyaz. The Federal District of Rio de Janeiro would rank in commercial standing after São Paulo, and the Federal District of Acre after Goyaz. In the competition for pride of place in this list São Paulo comes easily first, but there is little to choose between Minas, Para, and Amazonas for second place. A falling-off in the value of seringa accounts for the slightly smaller volume of trade recorded recently by Para and Amazonas.

São Paulo is a coastal State, part of which lies in the south temperate zone. Though only ninth in point of size, it is exceeded in population only by Minas Geraes. Originally settled by mamelukes, it has now a population of three millions, made up from most of the races of the world. Those preponderating are Brazilians, Italians, Portuguese, Japanese, Germans, Spanish, British, French, Austrians, and Greeks, in about that order. The climate is very pleasant even in the summer, when the nights are invariably cool though the day may be hot. Frosts are common in the higher altitudes in winter. The rainfall is regular, and

averages about 52 inches a year. Summer is the rainy season and winter the driest season. The hottest months of the year are usually December and January.

São Paulo produces quite half of the world's supply of coffee, and also grows extensively sugar-cane, cotton, rice, maize, beans, tobacco, grapes, oranges, and potatoes. The Paulistas have always been the most enterprising people in Brazil, and they are responsible for the opening up and development of all the surrounding States. They were the discoverers of gold, diamonds, and precious stones, and the pioneers in demonstrating the extraordinary fertility of the soil. Paulista politicians have not only brought their State a long way ahead of the older States in power and importance, but have been one of the greatest factors in securing for Brazil the position she enjoys in the world to-day. It is indisputable that São Paulo and Minas Geraes are the propelling powers behind Brazil's greatest movements. Their governments have devoted their energies to settling people on the land and giving them every help to make the best possible use of it. The establishment of manufacturing industries has been encouraged so thoroughly in São Paulo that mills, foundries, and factories of all kinds abound in the State. A feature of the capital, which is located in the higher country, a two hours'

rail journey from the coast, is its great educational institutions. The Avenida Paulista, a residential avenue of striking beauty, runs along the crown of the hills above the city, and there are many nicely arranged gardens and parks to be found. The Ypiranga Memorial Building, a stately pile erected on the spot where the Independence of Brazil was proclaimed, stands close to the city. The shopping quarter is inconveniently crowded, and suffers in other ways from the narrowness of the streets. The retail business places are quite up to the best European standards in their stocks, displays, and equipment. The hotels of the capital lag far behind those of other cities of Brazil. Many of the residences of the richest people are mansions unexcelled in South America for their luxurious furnishings. The social clubs, sporting and athletic institutions are quite a feature of life in all parts of São Paulo.

São Paulo City is a sporting centre, and horse-racing, football, cricket, golf, tennis, boating, motoring, and aviation have a considerable vogue. It is claimed that the first dirigible flying-machine was invented by a Paulista. Paulista aviators are now emulating the most daring deeds of their Old World brethren. In aviation circles there I had the privilege of learning much of an astounding contrivance for enabling a person to rise in the air by his own

exertions. Experiments are being continued to if possible extend the scope of the contrivance before it is brought before the world. It is noteworthy that the invention or discovery is being experimented with by men who were concerned in giving the world its first controllable flying-machine. The inventor claims to have risen fifty feet in the air and then come down slowly without any motive power outside his body. He is endeavouring to improve his discovery so that a man may go up any height and move at will through the air while up. He seems sanguine of success, though he thinks the problem may require years of study and experiment. An offer of a considerable sum of money to come to England to continue his experiments only brought from him the patriotic declaration: "No, if I succeed Brazil shall have the glory. I remain here. I will stay and get for Brazil the credit of a great invention." This reveals an outstanding characteristic of the Paulista—intense loyalty to country and State.

There are quite large British and American communities in São Paulo. They have founded and still carry on the foremost colleges. The British church is a well-attended, cathedral-like building. Its rector can be trusted to get into touch with British visitors to his city quicker than anyone except perhaps the British Consul. These two gentlemen seem to compete as to who

shall bestow the most kindness on British strangers. There are others too who evidently have fully caught the spirit of the place, so that it requires a lot of resolution to tear oneself away from São Paulo.

Minas Geraes is the fifth largest State of the Union, but it comes first in point of population, with $4\frac{1}{2}$ millions of people. These are well scattered over the State. The capital, Bello Horizonte, has only about 30,000 inhabitants, but there are several cities with this, and even a greater population. Minas Geraes has no seaboard, though its south-eastern boundary is within sight of the ocean. It enjoys with São Paulo the distinction of being one of the two States best served with railways. All its principal cities are connected with the railway system. The State became famous in the early days of Brazil for the vast mineral wealth and precious stones discovered there. Since its mines were first worked about 25 million ounces of gold have been taken from them. In 1853 the famous "Estrella do Sul" diamond was found at Bagagem in this State. The weight of the stone was 254 carats. Several stones varying in weight from 120 to 200 carats have since been secured in the same district. The wealth of Minas Geraes in minerals and precious stones of all kinds is almost inestimable. Besides gold it has silver, copper, mercury,

zinc, tin, iron, platinum, molybdenum, bismuth, cobalt, barium, tellurium, amianthus, and other metals and elements. Black and green tourmalines, aquamarines, amethysts, beryls, topazes, granadas, rubies, and other precious stones are found in various districts. The country does not appear to have been thoroughly prospected yet, though most of it has been rambled over.

Agriculture and planting have gone ahead rapidly in recent years, and the State now exports wheat and cereals of other kinds, coffee, cotton, rice, potatoes, and beans. Stock-raising and the industries connected with it have been well taken up, with the result that Minas Geraes keeps the Federal Capital in meat, cheese, butter, eggs, and milk.

Bello Horizonte is situated in an upland valley. The city is well laid out and profusely planted with ornamental trees. There are good streets and many fine buildings. The educational institutions are here also a prominent feature of the city. In Juiz de Fora, a city on a high tableland, there is a good commercial academy. Ouro Preto was the capital of Minas Geraes until 1897. Barbacena, with 60,000 people, is the highest up city in Brazil. It is 4300 feet above sea-level, and has a cool, bracing climate. Minas has many other interesting cities and towns. One that though quite a village is widely known is Caxambu, famous for its mineral waters.

These issuing from the slope of a hill above the town have medicinal properties, and are bottled and extensively sold throughout Brazil for table and hotel drinks. The water if not bottled too long is a very agreeable adjunct to a meal. The city of Diamantina the centre of the diamond industry has 15,000 inhabitants, which is much fewer than Kimberley's population; but Diamantina, located up in the mountains 3700 feet above sea-level, is a far more picturesque town. The city is also a manufacturing and educational centre. Much planting and farming in the surrounding districts help, since the decadence of the diamond industry, to keep the city advancing.

The States of Para and Amazonas, occupying the entire north of Brazil from the Atlantic west to the frontiers of Colombia, Ecuador, and Peru, comprise the Amazon Valley, a vast territory dealt with separately in this work. Rio Grande do Sul, the southernmost State of Brazil, whose capital is Porto Alegre, is a stock-raising State, with many manufacturing industries in which the wool, cotton, hemp, silk, meat, and agricultural produce of the territory are utilised. Gold, copper, and other minerals are mined. Rio Grande do Sul, though taken possession of about 1531, has failed to make the progress some younger provinces have. It has suffered from the lack of good harbours, but much is

now being done to improve the shipping facilities, and this State should make great strides as its harbours and railway undertakings are further developed.

Pernambuco and Bahia are the two leading States of the north-east coast. They have many points of resemblance in their present-day features as well as their history. The original colonies of Brazil, they have grown side by side, experiencing similar troubles and enjoying periodic seasons of prosperity, out of all of which they have emerged two powerful States, politically and commercially. Pernambuco though only a third the size of Bahia has an almost equal population. Bahia, with its $2\frac{1}{2}$ millions, ranks as the third, and Pernambuco with a quarter of a million less, the fourth most populous State in the Republic. Both capitals are large cities on the coast carrying the names of their respective States. The industries of both are extensive and varied. Sugar, cotton, and tobacco production predominate, but mining and stock-raising claim much attention. Bahia tobacco, and cigars already challenge the rest of the world's production in these lines. Bahia diamonds have long since claimed world-wide notice. Pernambuco sugar and cotton are standard lines beyond the limits of Brazil as well as throughout its States. Negroes, mulattoes, and coloured people form the bulk of the

population and occupy a great many public offices.

The small States of Alagoas and Sergipe lie between Pernambuco and Bahia on the north and south banks of the San Francisco River, and derive some importance from being thus situated. The San Francisco, a great waterway navigable by steamers from a point above the Paulo Affonso Rapids for over 1500 miles inland, forms a natural boundary between Bahia and Pernambuco, for some hundreds of miles. In neither State are there any cities of importance apart from the capitals, though Bahia has a few country towns, one of which is Feira de Sant' Anna, where the largest stock fair in Brazil is held. Many of the large businesses in these States are owned by British people, of whom there are communities in both capitals.

Nictheroy, on the right arm of the Bay as you enter, is the capital of the State of Rio de Janeiro, which must not be confused with the City of Rio de Janeiro in Federal territory on the opposite shore of the Bay. The State of Rio de Janeiro has a population of about a million and a half, of whom 40,000 are found in Nictheroy and 30,000 in Petropolis, which are both really suburbs of the City of Rio de Janeiro, many of whose business and professional men have their homes there. Nictheroy is the commercial centre of the State, and Petropolis, which is

about 3000 feet above the sea-level has besides nearly all the foreign Legations the homes of many of Rio de Janeiro's foremost citizens. It is undoubtedly the fashionable residential quarter of the Federal Capital. Campos is the country town of the State. Cotton, salt, lime, and fishing industries, with mining, stock-raising, and timber-getting, constitute the State's principal activities. Marble and stone quarries are also worked. The capital and chief cities are in night and day continuous communication with the Federal Capital. Several large educational establishments conducted by religious orders are found in the State, and Nictheroy is the seat of a Roman Catholic bishop.

Parana which adjoins São Paulo on the south and has a small seaboard, is the great herva maté producing State. It is remarkable that the tea and coffee States should adjoin. Herva maté is the Brazilian tea many million pounds of which this State exports every year. The State of Parana is bounded on two-thirds of its western side by a great river bearing its name, which ranks second in importance amongst the rivers of Brazil. This huge waterway drains an area computed to be greater than that drained by any river in the world except the Amazon, Obi, Mississippi, and Congo Rivers. Parana is a mountainous State with many plateaux and rivers. The climate is temperate, with occasional

falls of snow in the winter. A feature of the State's communication facilities is the number of good roads found here. There are also railway and steamer transport services. The population of the State is about 400,000. The capital Curityba is an extremely healthy city with a population of 50,000. The Government has had a good deal of success with the foreign settlement schemes it promotes. Amongst the industries are fruit-growing, agriculture, stock-raising, lumber, and mining. Gold, diamonds, copper, iron, and coal have been worked. There are good seaports and several rapidly growing towns in the State.

Ceara on the north coast has a seaboard of 435 miles with three ports. The State has a population of about a million. The capital is Fortaleza, with 70,000 inhabitants, on the coast. Other towns of importance in the State are Sobral, Granja, Baturite, Iguatu, Camocin, and Quixada. Near the latter town there is a gigantic reservoir constructed by the last Emperor, designed and built for him by a British engineer. This, one of the greatest works of its kind in the world, is intended to irrigate the plains below it. Droughts have hindered the development of these plains in the interior of Ceara, but water conservation and artesian-well boring are rapidly overcoming the drawback. Two railways, one of which crosses the country

from the coast to the frontiers of Pernambuco and Piauhy, open up the State to commerce. The climate on the coast is trying, but extremely pleasant back on the mountains. One of the peculiar industries of Ceara is the collection and export of carnauba wax gathered from a species of palm. Maniçoba seringa, cotton, sugar, and cocoa are also exported. Cattle-raising is a great business in the State, its herds numbering millions. Gold and other minerals are found, but have not so far been much exploited.

The Cearenses are a very hard-working people, who, unfortunately for their State, have transferred their activities to the Amazon forests, leaving the work of Ceara to those not so energetically inclined. The State gets however considerable benefit from the earnings its absent sons send home. In Fortaleza there may be found many of the old barons of Empire times and their descendants. Educated and cultured gentlemen, they have influenced and kept high the social tone of the community.

Matto Grosso and Goyaz, two large States occupying the heart of Brazil, are not easily accessible yet. They depend entirely on river transport for their communication with the outer world. Matto Grosso is reached usually by the Paraguay River from Buenos Aires, but it may also be reached from the Amazon Valley by the River Madeira. A railway in course of

construction will however shortly bring it into three days' touch with São Paulo, and a half a day longer with Rio de Janeiro. Concessions have also been granted to link up its capital, Cuyaba, with Para on the north coast by what will be one of the greatest railways in Brazil. The capital has a population of 35,000, and the character of its buildings, streets, and public places would astonish anyone visiting for the first time this remote spot. Matto Grosso is one of the greatest cattle-ranching countries in the world. The extent of its herds is unknown. A large proportion of the ranchers are Britons. Agriculture and mining, especially diamond-getting, have received much attention. Herve maté and sugar-cane are also exported. Goyaz, whose capital bears the name of the State, has a population estimated at half a million, scattered amongst forty or fifty small towns dotted over the State. As in nearly all inland States, cattle-raising and mining are the staple industries in Goyaz. Gold has been successfully won in several parts. Tobacco and sugar-cane growing receive increasing attention.

Espirito Santo, whose capital is Victoria, is a small coffee-growing State on the coast south of Bahia. It is connected by railways with Rio de Janeiro and different points in Minas Geraes. Parahyba is a cotton-growing State on the coast north of Pernambuco. It has a

port named Cabadello, which the smaller class of coasting steamers trade with.

Farther up the coast is the very progressive State of Rio Grande do Norte, whose capital Natal, has a harbour that may soon challenge its namesake in Africa for favourable notice as a resort for ocean-going steamers. The climate of Rio Grande do Norte is warm, dry, and healthy.

The ports of Macau and Areia Branca share with Natal quite a surprising export trade for such a small State. The principal exports are cotton, sugar, hides, carnauba wax, dairy produce, and tobacco. This is one of the best governed States of the Union. With a population of about half a million fairly distributed over the country, what seems most lacking is adequate means of communication. Except for a railway to the south, the State lacks sufficient roads and railways. Public works are now being pushed on rapidly, and the facilities existing for education are notable.

The State of Maranhão, capital San Luiz, on an island in the Bay of San Luiz, is one of the earliest settled parts of Brazil. There is one railway and many old roads running through the country. The population is just short of a million. The people are largely engaged in cotton and sugar-cane growing with spasmodic attempts at agriculture. Seringa-getting on

the Tocantins River engages the attention of increasing numbers. The State is said to be extremely rich in minerals, as yet scarcely touched. There are several large country towns and numerous villages in the interior. The climate is extremely wet. A British steamship line trades regularly with the capital.

Santa Catharina is practically a German State in Brazil. It is on the coast between Parana and Rio Grande do Sul. The capital is Florianopolis, one of the pretty spots of the Republic, situated on an island in a beautiful bay. The island has been described as "a garden of beauty." The city on it is so well arranged as to add to the charm of the scene. Numerous small colonies of planters and agriculturists are settled in the interior, and there are a few cities with populations exceeding twenty thousand. Tobacco, sugar, wheat, and dairy produce are the main products of the State, but there are many others showing rapid increase. A remnant of the original Tamoyo Indians may be found in the extreme west of the State. A large number of the people are German, or of German extraction.

The State of Piauhv, settled almost entirely by Portuguese and those of Portuguese and Indian descent, is one of the most backward States of the Union. It has a small coast-line between Ceara and Maranhão. The port is Amarracão, used by coasting steamers. The

capital is Therezina on the River Parnahyba. Carnauba wax, seringa, and cotton are the chief exports. Recently there have been signs of a waking up in this very richly endowed State, and numerous public works are being put in hand. The mineral and other resources of the country have not yet been even scratched. The chief towns, Therezina and Parnahyba, are being equipped with modern public utilities, and have already many manufacturing businesses.

CHAPTER X

COFFEE-GROWING IN SÃO PAULO

Where the coffee tree grows—Tree described—Acreage in coffee in São Paulo—Some big fazendas—Life on a coffee fazenda—Portuguese the language spoken—Picking coffee berries—Best soils for coffee trees—Family recreations at picking time—Coffee valorisation—Its effect on the markets—Can it last?—How to make a good cup of coffee.

THE use of a liquid made from the coffee berry was known in Asia more than a thousand years ago. It is a matter of controversy where the plant first came from. It was probably common to several countries. The trees have been found growing wild in Persia, India, South Africa, Arabia, Malaya, Abyssinia, and the East Indies. The plant seems to have been introduced to Brazil either by the Dutch from Java, or by the French from Cayenne. It was not cultivated to any extent until the beginning of the nineteenth century, hundreds of years after coffee as a beverage was in common use in Europe. The coffee plant belongs to the genus *coffea*, and is an evergreen shrub which grows to a height of fifteen to twenty feet. It has oblong-ovate, acuminate, glossy leaves, six inches by two and a half in size. The flowers

are white with a jasmine-like perfume. The fruit is like a small cherry, ripening red usually, but sometimes deep yellow. Each fruit has two seeds in a yellow pulp. The seeds are plano-convex in form with a groove running down their length in the centre. The seeds are covered by a thin parchment called the "silver-skin." The trees come to maturity in three to five years, and produce abundantly for over fifty years. When the berries are ripe they are collected, dried, and the seeds extracted. These seeds, then known as coffee berries, are treated by various processes, and when ground become the coffee grains used in making the great national beverage.

When in 1908 legislation was passed in the State to limit coffee-planting, there were about 2,500,000 acres of coffee plantations in São Paulo. Coffee-growing was also largely engaged in throughout the Republic. A trip through the coffee-growing districts of São Paulo in the berry-gathering season is a very delightful experience. The months of May and June, which are the cool, dry months of the year, are the period of the coffee harvest. The plantations are called "fazendas" and the proprietors "fazendeiros," terms which are equivalent to "landed estates" and "landed proprietors" merely. Some of the fazendas are very extensive. One of the largest, if not the largest,

is the Dumont Co.'s estate near the town of Ribeirão Preto. This British company has its head offices in London. There are about 14,000 acres planted with 4,500,000 coffee trees. The greatest individual planter is Herr Schmidt, who owns over twenty estates with many millions of trees, while his holdings are closely followed by those of Colonel F. Coutinho, Cons. A. Prado & Sons, and the Count de Prates, who also number their trees by millions. These are the great estates which should not be missed in a tour of the coffee districts. There are many others possessing features of interest peculiarly their own, that would well repay a visit if the tourist desires to see all there is going on in this most interesting industry.

The large coffee fazendas are as a rule very accessible. Railways run in all directions through the coffee-growing districts, and there are some, but not many, good roads that may be motored over. The fazendeiro has usually a motor car in which he takes his visitors from the nearest railway station, and there are always horses available to ride round the fazenda. Should you be fortunate enough to get an invitation to spend a few days with a coffee fazendeiro in the picking season, you would probably enjoy an experience such as this. Arriving say by train at the country railway station, the fazendeiro is there with an automobile to

meet you. A run of a few miles through hilly country, clothed in varied verdant shades, across a few streams whose waters sparkle in the sunlight, and you arrive at the fazendeiro's country house. He has nearly always another home in the nearest city. The country house is a building usually of one or two stories, without a verandah or balcony. The rooms are spacious and well furnished. You are given a very comfortable bedroom. If you have arrived in the morning about ten o'clock you will find "almoço," a combination of breakfast with lunch, ready about eleven o'clock. There you will meet the family. Should you speak Portuguese, or even French, you will be quite at ease in conversation. If you speak only English, the fazendeiro may understand you, but it is likely he will be the only one. Portuguese, which is the language of Brazil, may be acquired in a few weeks of close study, and should be mastered by anyone wishing to get the most pleasure out of a visit to that country. So if you speak Portuguese, meal times in the fazendeiro's home are jolly occasions, when an exchange of wit makes up for the absence of condiments. You will notice that almoço is a meal of many courses, and that all the courses come on the table simultaneously. This has much to recommend it. You see at a glance what every dish is like and adapt your course, or courses, accordingly.

After the meal, coffee and cigars appear. You can depend on the coffee you get being coffee, and not the fraudulent mixture of burnt peas and chicory so often served in London and New York. You may have milk with your coffee, but if you want to get the full benefit of the flavour you take it without. The cigars are usually the national make and quite good. During the afternoon the fazendeiro will take you for a ride round the coffee plantations. Here you will see hundreds of men, women, and children busy with cloths, sieves, and baskets collecting berries. Usually the fazenda is subdivided amongst labouring people, who for their services in attending to the trees and keeping the land free from weeds, have the right to plant cereals or vegetables between the trees, or on colonists' plots allotted to them for the purpose. The coffee-pickers are generally coloured people, or gangs of agricultural labourers imported from Mediterranean countries and Japan. The pickers have a basket suspended from their shoulders into which the berries are thrown. Cloths spread around the foot of the trees catch what falls. When a basketful has been gathered, the berries are shaken through a sieve to get rid of twigs and leaves. This stripping and cleaning is now being done on many fazendas by machines, though the old methods preponderate. When each picker's

collections have been measured, the fruit is taken to the drying terraces where it is washed and spread out in the sun to dry. After the fruit has been dried it is passed through machines for husking. The seeds remaining may then be picked by hand to get rid of what is bad, and finally filled into sacks to go to the merchants or to the grading mills. If all the work necessary before export is done at the fazenda, the coffee beans are separated into sizes and shapes, and may be also polished by machinery devised for these purposes. The pickers are usually paid a few pence per basketful for their work, and earn six to ten shillings a day at it. The fazendeiro provides houses for all his workers, and it seems as if this class of worker is the most contented in Brazil. Each coffee tree yields about $2\frac{1}{2}$ lbs. of seeds. For planting purposes, only the largest berries are selected. These after being dried are husked by hand. Often the seed is soaked in water before being planted. Formerly the seeds were first put in nursery beds, but nowadays they are planted right away in rows in the plantation. The soil must be made absolutely clean and free of vegetation before the seeds are laid down. They germinate in four weeks. The young plants require careful manuring and watering, and the ground must be kept quite free from weeds. The trees are generally planted twenty feet apart. If the

trees are not watched and cared for properly, they may be attacked by diseases and parasites. A worm sometimes attacks them, and must be speedily dealt with, or it would eventually kill the whole plantation.

There are between twenty and thirty different varieties of coffee trees. The principal trees found in the São Paulo fazendas are the São Paulo hybrid called the "National," the "Botucatu," "Bourbon," "Maragogipe," "Murta," and "Creoulo." Of these varieties the most popular is the Bourbon, because it is the most prolific plant, though the National which is very hardy has been the favourite until recent years. Experiments are being made continually with new hybrids, one of which, the "Bourbon-Maragogipe," has come into wide favour.

Coffee trees flourish best on hilly ground, 1600 to 2000 feet above sea-level where the soil contains lime, magnesia, phosphoric acid, potash, and azote, and where there is a fair amount of moisture. The famous red soil of São Paulo, where the best coffee comes from, has its origin in rocks which on analysis show silicic acid, 52.30 per cent. ; oxide of iron, 11.48 per cent. ; allumina, phosphoric acid, and oxide of manganese, 13.04 per cent. ; lime, 3.86 per cent. ; magnesia, 5.75 per cent. ; potash and soda, 3.90 per cent. Frosts are detrimental to coffee cultivation. The plants produce the best results

on those sunny slopes where they enjoy the direct rays of the sun during the greater part of the day. On average ground in São Paulo, coffee-growing should yield not less than 25 per cent. on the capital employed, with the markets normal in Europe and North America. The anxieties of coffee fazendeiros about labour problems are being relieved greatly by the almost yearly improvement in machinery connected with the industry. On the more progressive fazendas almost the whole work is done by machinery. Much of this machinery is being invented and manufactured locally. The São Paulo Government by introducing shiploads of field workers from Europe and Asia has kept up a good supply of manual labour.

Such information as the foregoing the fazendeiro will convey to you as he shows you round his fazenda, elaborating it with his experiences and opinions. He talks freely of his affairs in an open, engaging manner. The visitor's turn to talk comes when the family assembles again for "jantar," the evening meal. This like our dinner in Great Britain, is the important meal of the day. During jantar, music is often contributed by a hired player or players. The evening is usually devoted to family amusements, singing, reciting, and music, or an automobile run into the nearest cinema show. The fazendeiro and his family are great patrons of

the picture halls, and will make long journeys to see a good show. The pictures that seem to appeal to them are representations of current events in the cities or outside world. The comic pictures seem to bore them, and dramas fail to interest them much. There is much to be seen and done during a few days' visit to a fazenda, and one invariably comes away with regret that the time is up. Nowhere in the world is greater hospitality shown to a stranger.

When the coffee harvest has been finished up, the fazendeiro and his family move into the nearest city for a few months. Here they enjoy themselves, spending with a lavish hand the money secured by the harvest. Frequently the holiday is spent in Europe, Paris being most favoured as the fazendeiros' resort. An increasing number go to New York, but London is not much favoured, due probably to the small amount of advertisement it gets in Brazil.

Coffee-growing leaped ahead so rapidly in São Paulo after the year 1850, that in 1897 it was seen the world's markets would soon be overstocked, and a serious slump occur in prices if steps were not taken to avert such a national disaster. Far-seeing men had for years been urging in São Paulo that a limit must be put to production, or more attention given to other agricultural resources. Nothing much was done till what was predicted by Paulista writers

occurred. The 1897-98 crop sent the world's stocks up to $5\frac{1}{2}$ million sacks, and prices went down. In 1903, when the world's stocks had increased to over 14 million sacks, and prices had dropped alarmingly, the fazendeiros began to confer seriously about the position. Two years later, faced with a possible world surplus of 20 million sacks, as the result of that harvest's addition to the stocks, a gigantic scheme to cope with the situation was decided on. The Governments of Rio de Janeiro and Minas Geraes agreed to act with the Government of São Paulo, who had propounded a scheme known as the "valorisation of coffee." A convention held in the city of Taubate, the ancient capital of São Paulo, in which the three States were represented, agreed to a basis for the scheme. The idea was that these Governments, assisted by the Federal Government, should buy up the coming crops and corner coffee till the world's stocks were diminished and prices re-established. A hitch occurred in the negotiations, and São Paulo decided to proceed alone in the matter.

By raising external loans of £1,000,000 and £3,000,000, and getting a loan of £3,000,000 from the Federal Government, São Paulo made a start with this record corner transaction.

With this money, together with drafts against European banks in the proportion of 80 per cent. of the coffee shipped, and assisted by

business houses, the São Paulo Government bought up all the coffee offering in São Paulo and Rio de Janeiro of the 1906-07 crop, and held it in store in Europe and North America. This was followed up in 1908 by the enactment in São Paulo of legislation for the purpose of—

(a) Limiting the exports of coffee from São Paulo to 9 million sacks in 1908-09, $9\frac{1}{2}$ millions in 1909-10, 10 millions in 1910-11, and thenceforward by means of a heavy additional tax levied on the coffee which should be in excess of these quantities.

(b) Raising the surtax from three to five francs collected on each sack of coffee exported, in order to guarantee with this revenue the expenses of an internal loan.

(c) Taking authority to raise an external loan of £15,000,000 for the purpose of consolidating all the liabilities which had arisen in connection with the scheme.

The £15,000,000 was secured, and a Committee was appointed and charged with the liquidation of the coffee acquired by the State, in accordance with a contract entered into in London in 1908. This Committee is empowered to—

1. Pay and liquidate through the medium of the bankers all or part of the money owing for advances granted against the guarantee of the coffee belonging to the Government, releasing this coffee from any onus that may be upon it.

2. Pay through the medium of the bankers all insurance premiums, warehouse expenses, and any other charges relating to this coffee.

3. Liquidate the stocks of coffee on account of the Government of São Paulo by means of sales by public auction, or by sealed letters containing offers, beginning with half a million sacks in 1909-10, the yearly amount disposed of to be increased till the whole stock is sold. The Committee is empowered to supply the trade with any quantities that may be required beyond these minimums, provided the price is satisfactory.

This valorisation scheme has so far been fairly successful. The world's stocks of coffee have been greatly reduced. The State legislation preventing further coffee-planting has also helped in more than one way. The fazendeiros being unable to use their lands for further coffee-planting, have taken up numerous other branches of planting and agriculture, such as sugar-cane, maize, beans, cotton, rice, cereals of various kinds, potatoes, and tobacco. The increased production of these lines has in many ways helped the State, and it is now getting less dependent on the market price of coffee. One circumstance resulting from the valorisation of coffee scheme and its stabilising effect on the coffee market is the increased attention given to coffee-growing in countries likely to become

serious competitors with Brazil. It is generally felt, even in São Paulo, that it will be impossible for that State to hold its corner for many years. The Government have done well so far ; but their position is not impregnable. They are being urged to find a way by which they can retire with accelerating speed if necessary. It would seem that they have not exhausted the means by which the world's consumption of coffee might be increased. When one looks at the immense strides the tea-room fashion has made in London and New York during the last few years, it brings the conviction that if coffee-resorts, as found in Brazil, were set going in these cities, a similar vogue might be introduced in respect to them. Very little in the way of propaganda for São Paulo coffee has been done in Britain and North America. People in these countries continue to imbibe various alcoholic adulterations, not because they are satisfied with them, but largely because they are pushed continually under their notice by advertising and other means. Great Britain would be found willing to give a large part of the £160,000,000 spent annually on intoxicants to São Paulo for her pure, safe, and health-giving coffee if São Paulo put the matter properly before the people there.

What is the best way to make a good cup of coffee is a question frequently asked? Here

is the Brazilian fazendeiro's advice on the point, and he should know. "First see that the coffee you buy has no chicory or other adulterant in it, if you buy it roasted and ground. Chicory destroys the fine flavour of coffee. To find out if coffee has been adulterated throw a little into a glass of tepid water. The coffee will float; the adulterants will fall to the bottom and discolour the water. Having got pure coffee, properly roasted and ground, put a small quantity in a clean muslin bag. Put this in the coffee-pot and pour water which must be boiling into the pot, let it then stand for five minutes or so before using. If milk is added the milk should be first heated, but not by having hot water added to it. The secret of good coffee is largely in the roasting of the berries. These should not be roasted till their oily secretions exude. If that happens the roasting has been spoiled."

CHAPTER XI

SANTOS AND THE SANTISTAS

Santos' former character—Efforts to improve the place—Success at last—Now a healthy city—Traffic facilities—Pastimes of the people—Coffee brokers at work—How coffee is classed—Santista men's peculiarities—Streams of immigrants arriving—The mountain railway trip.

THE City of Santos was at one period of its history a deadly fever spot. Between the years 1889 and 1893 yellow fever threatened to sweep away its entire population. It was then mostly a pestilential swamp, to drain which there had scarcely been any reasonable attempt made. Several times it was seriously suggested that the settlement should be abandoned. It was, however, one of the ports of Brazil to which the British had been attracted in the earliest years of the country's history; and those who had acquired interests there were loth to abandon the place without making an effort to redeem it from its evil reputation. While the deadly fever still had Santos in its grip, a British engineer evolved a scheme to drain and reclaim the site of the city and destroy forever the nurseries of yellow fever. Many

years passed before serious consideration was given to his proposals. Eventually a Government Commission took the matter up, and adopting this engineer's suggestions with extensions of the original, put a scheme in execution which has been highly successful in its objects. The territory on which the city stands has been drained, lagoons and hollows filled up, streams diverted, and in the city an up-to-date sewage system introduced. Concessions granted led to a London company undertaking to supply Santos with water from the mountains above it, gas, and an electric lighting and tramway service. The company's latest reports show that its different undertakings have been extremely successful, serviceably and financially. A Brazilian company undertook to deepen and straighten the channel, construct wharves, jetties, warehouses, docks, and other port works. These undertakings are due to be completed in 1914. Electric power to work the port plant has been secured by harnessing the River Itatinga many miles away. The surplus current is supplied to the city. Already some miles of wharves with warehouses and equipment are finished and working. The city corporation has spent much money in the improvement of the streets, and maintaining an efficient health and cleansing department. The result of all this effort has been to transform, not only the

appearance, but the character of the place. Yellow fever has been banished, and the general health of the city compares favourably with other cities of the world, as the following table will show:—

City.	Co-efficient of Mortality.
Madras	58.7
Cairo	34.6
Athens	30.9
St Petersburg	30.5
Madrid	28.0
Lisbon	23.1
Marseilles	21.4
Dublin	21.2
SANTOS	20.1
New York	18.3
Paris	17.6
London	15.6
Curityba (Brazil)	13.3

Dr Afranio Peixoto, one of the most distinguished climatologists of our time, says of the climate of Santos: it “enjoys that equability of climate which is a characteristic of seaboard towns of Brazil . . . meteorological observations taken for 15 years give the following average: Pressure 762.7 mm.; max. temperature 38.5 Cent.; minimum 5.0 Cent.; evaporation 16.2; humidity 81.0; rainfall 1.342 mm.”

So largely has confidence been restored in the healthiness of Santos, that each succeeding year

sees greater numbers of residents of the interior come to spend holidays at its seaside hotels. To cope with this influx of visitors every season, several large hotels, one owned by a well-known London company, have been erected around the shores of the bay. While the hotels of a few years ago in the city may have been very comfortless places, the newer hotels along the beaches provide good food and accommodation. To the tired, run-down worker, a week or two at the beaches of Santos in the season is an experience most who have tried it would recommend. I enjoyed it more than once, and returned to my pursuits braced up and cheered for further effort.

The City of Santos extends from the waters of São Vicente Bay towards a range of mountains behind. Around the shores of the bay there are magnificent stretches of sandy beaches, where surf bathing is increasingly indulged in. Close to the main beach are the athletic recreation grounds. Electric trams run continuously from the railway station and centre of the city to and around the bay. Ferry steamers connect with a light railway running into Guaraja, a rising residential suburb. A British railway carries one up the mountains to Alto Serra, a cool spot amongst the peaks where there is a railway township. São Vicente, the old State capital at the head of the bay, has now been

absorbed by the city and is traversed by its electric trams. A railway line from the southwest terminating in São Vicente is in course of construction. The citizens are rapidly moving their homes from the city to the suburbs and beaches. Should you go there about Christmas time, you may find the beach hotels crowded with fazendeiros and their families from the interior. The social life of Santos is charming. The "Santistas," as its people are called, stick to their avocations very closely in working hours, but these over they just throw themselves with enthusiasm into every recreation they can think of. Well-arranged pleasure grounds give facilities for cricket, football, tennis, golf, hockey, and a variety of other sports. The long stretches of hard, sandy beach lend themselves to motoring and cycling, the river and bay to rowing and sailing, and the mountains around to shooting, climbing, and botanising. There are theatres, music-halls, cinemas, and casinos for those who want indoor amusement, and clubs and cafés for men who prefer to smoke and talk.

Santos is extremely interesting on its commercial side. It is the greatest coffee mart in the world. When one has heard the brokers in the "wheat pit" of Chicago, and the buyers in the wool exchange of Sydney, you cannot help admiring the quiet, sensible way these Brazilians conduct their brokering or bartering.

In the great seringa mart at Manaus it is just the same. They do not get excited about it, and jump and yell like Maories executing a war-dance. There, down in Santos, most of the bartering is done in certain streets, between ten o'clock in the morning and four in the afternoon. A stranger is at first rather puzzled to see crowds of well-dressed men walking to and fro, or loitering about these streets. Many of them carry small canisters of samples in their hands. Every broker likes to see all the samples coming into the street, so the man with fresh samples has a busy time for an hour or two. These brokers buy and sell to each other all the time, whether there is coffee at the back of each transaction or not. There is of course an association, to which most of them belong. This body regulates their methods and supervises the calling generally. It is called the "Associação Commercial" or Commercial Association. Every transaction, with particulars of prices, destination of the coffee, and all details of interest to the trade is recorded daily by the Association, and published for the benefit of its members. Hourly cables from all the world's coffee markets are posted at the Association House, and announced in the streets from time to time if of special importance. The Association's buildings are centrally situated, handsome in appearance, and splendidly equipped.

An extensive archive department, containing records of matters connected with the coffee industry since its commencement, is an important feature in the buildings.

The number of middlemen who draw commissions out of coffee from the time it leaves the grower's hands till it reaches the consumers in Europe and North America seems rather incomprehensible. It has been computed that every pound of coffee sold, say in London or Paris, has paid a commission to thirty-three middlemen on its way from the tree to the consumer's coffee-pot. This easily accounts for the very high retail price of pure coffee compared to the price that would pay the grower. A great deal of help for the coffee-growers might be found along the lines of elimination of middlemen, with a view to sharing what these now absorb between the grower and the consumer. This might clear certain streets in Santos, but the gain to the State of São Paulo would outweigh that small loss. The bulk of the Santos brokers might then become producers for their State, if not of coffee of one or more of the many lines the soil there yields with large profits.

When coffee comes to the brokers it is separated into nine classes. Unfortunately for Brazil some of the highest grades are known by such names as "Moka," "Java," and others that do not denote locality of origin. The continu-

ance of this system is in a measure due to some weakness on the part of the Brazilian State or Federal Governments. It should not be difficult for the Federal Government to institute a system of grading for coffee, such for instance as the New Zealand Government has established for its exports of meat and dairy produce. With a grading and sack-marking system carried out at the export ports, "Brazil No. 1" might soon come to be accepted as the world's highest standard of coffee. There seems no reason why, till this is done, São Paulo should not put her coffee on the market as São Paulo Nos. 1 to 9, without any other misleading titles. "Para Fina" or "fine Para" is yet a term to invoke interest in the seringa trade.

Moving round amongst those genial dealers in coffee in the streets of Santos, one is soon impressed with the extensive knowledge they have of commercial matters in the northern hemisphere. Most of them have been to Europe and North America, and their cosmopolitan views impress one much more than the parochial views one meets with too often in Mark Lane or Mincing Lane, London. The men of Santos take a large outlook. The world to them is not the city they do business in, or the nation to which they belong. They usually speak two or more languages, and follow closely, with a knowledge of local idiosyncrasies, the com-

mercial movements in European centres. It cannot be charged to the men of Santos that they are unduly enterprising. In business matters they manifest a timidity that does not harmonise with other traits in their character. They are impulsive and demonstrative in other affairs that concern them. In business they exhibit little courage or resource, and will go with the crowd around the highway, rather than seek short cuts or paths of their own. They shirk the initiative in big matters, preferring to lean on their Government or Associations in everything outside the well-worn groove. In this characteristic they are quite unlike the bulk of their commercial brethren in Brazil. The average Brazilian business man is quite an enterprising individual. Show him a fair chance to make money quicker than he has been making it, and he will scale high fences to get on the short cut. The big enterprises in Santos are financed and controlled from outside, when there should have been at least initiative enough to promote and control these enterprises found amongst the city business men. It is fortunate for Santos that British and Brazilian business men of other centres with the command of money have shown more confidence in the prospects of the place than the Santistas themselves. It is now incumbent on them to follow up the good lead and bestir themselves to make the city

worthy of the fine railways, docks, tramways, water-supply, lighting, and other good things foreigners have given it.

An ever-increasing stream of immigrants passes through Santos to the interior of the country. Steamers of all nations bring these people to the port. It is not unusual for ten thousand to arrive in a month. The majority arriving are Italians, generally of the agricultural and artisan classes. Recently large steamer-loads of Japanese, brought out on Japanese vessels, have given a picturesque element to the multitude of incomers. The immigrants spend little time as a rule in Santos. Trains whisk them away up the mountains to be distributed over the rich plateau above. The docks at Santos always seem busy. When immigrants are not pouring off the steamers tied up there, strings of men are loading coffee or cereals into the vessels. When it is realised that almost all the overseas trade of a great State passes through the port, one gets an idea of how busy it is kept. In spite of the extensive provision made, vessels have frequently to wait in the stream till berths at the wharves become vacant. On a hill above the city there is a wireless telegraph station of short range. The older streets in Santos are narrow and roughly paved; but the newer thoroughfares are better.

The railway trip up the mountains to Alto

Serra, or the Summit of the Mountains, is most interesting. From the port the railway runs for some miles along the flat lands to the west till it reaches the foot of the mountain range. At the railway station here the ordinary engine is taken off, and a cable-gripping engine is attached to each of the several sections into which the train has been divided. These sections usually consist of three carriages each. These sections grip on to the cable in turn. There are six endless cables, controlled by winding stations at intervals up the sides of the mountains. As soon as one train section passes on to the next cable it is succeeded by the following section. There is a train ascending and one descending on every cable, so not much hoisting power is needed. The track is one of the finest samples of railway-making in the world. It is a telling monument to British engineering. The railway was built and is owned by a London company. The view from the train as it proceeds up the mountains, around wooded bluffs, across deep ravines, through rocky cuttings, past waterfalls, over roaring torrents, climbing hundreds upon hundreds of feet, is unexpressibly grand. Away on the left as one ascends are densely wooded mountain slopes, between which and the railway lies an immense ravine, down which a stream courses. Sometimes mountain fogs blot out this view. When Alto Serra has been

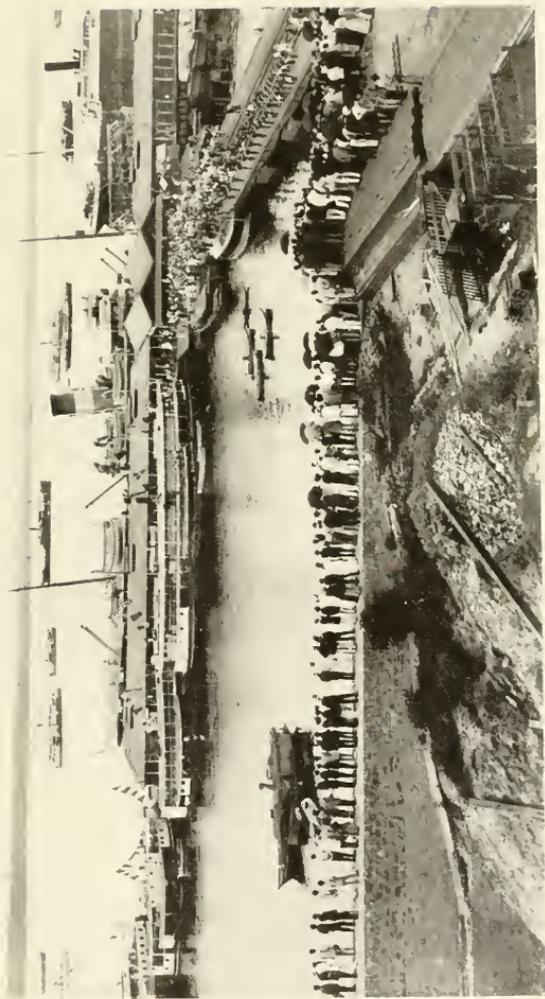
reached, the various parts of the train are coupled up as they arrive, and with an ordinary engine the train moves on to São Paulo. This mountain stretch of railway is built so securely and conducted so carefully that it has never had a serious accident. In fact as one travels over it, and observes the safeguards adopted, one has a sense of security not always felt in railway travelling. A trip over this remarkable railway is an experience so delightful that one does not readily forget it.

CHAPTER XII

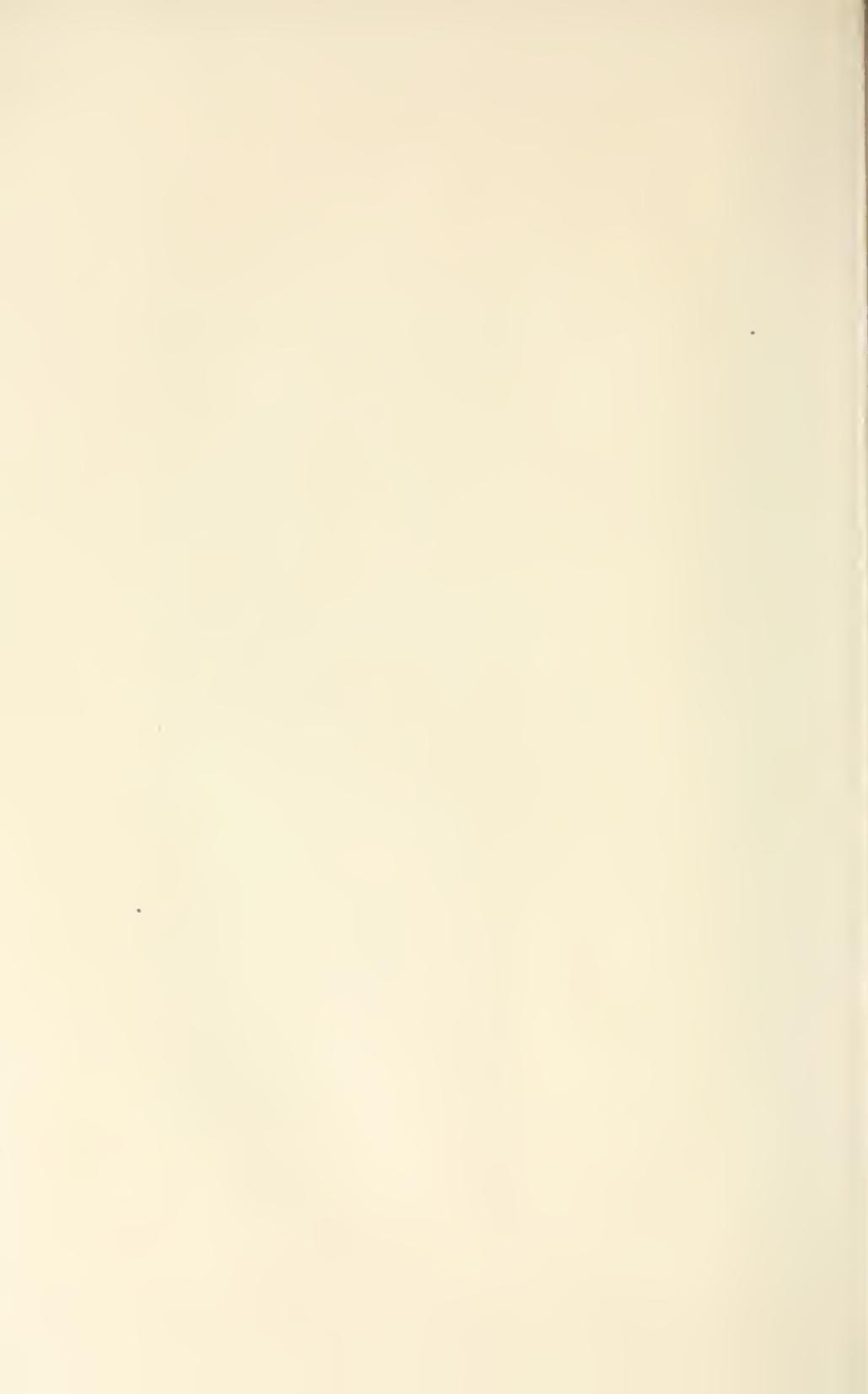
THE MIGHTY AMAZON

A lake above the clouds—Source of the Amazon—Pongo of Manseriche—Many great affluents—Mysterious Rio Negro—Vast water system—Battle of the waters—Incomparably majestic Amazon—Extent of its basin—Site of El Dorado—Para to Acre—Santarem and Obidos—Glories of the waterway—Glimpse of Manaos—A month's river-travelling—Seringa in transit—Purus to the Yaco—Senna Madureira the remote.

FAR up in the Peruvian Andes, sixteen thousand feet above sea-level, there is a little lake called Lauri-Cocha. It is only about three miles across. From the peaks above it you can look down on the Pacific Ocean near Callao. Out of the lake trickles a tiny rivulet that gets no other name but Lauri-Cocha till it has gone a long way. Looking at the cold blue lake and the puny stream issuing from it, one can scarcely realise here is the source of the mighty Amazon. Away down the mountainsides tumbles the rivulet, disappearing here and there to reappear farther on. The streamlet, gathering strength from melting snows and other rivulets joining it, becomes a mountain torrent. Leaping from rocks into cañons, it dashes on its way, coursing through gloomy ravines,



AMAZON RIVER AT MANAOS



foaming as it struggles over boulders and around impeding tree-trunks. With a roar of exultation it sweeps over precipices, down ever down towards the great mountains' base. Torrent and valley stream rush to support and strengthen it. Away through the mountains it tears, increasing in volume till, no more a mere mountain torrent, it leaves behind its birth-name and becomes the Marañon River. Winding in and out amongst the mountains, the river seems to be seeking an outlet through some grand cañon to the Pacific. For hundreds of miles it flows northward, till, when one would expect it to find some way through Ecuador to the Gulf of Guayaquil, it flows gradually north-east. As if weary of contending with the mountains on the west the river turns for ever away from the Pacific and, though it means traversing a vast continent, decides to reach the Atlantic in the east. To get through the Cordilleras the Marañon has to rush through the famous Pongo of Manseriche, a gorge five or six miles long, almost covered by overhanging rocks. Soon after issuing from this it is joined by one of the great rivers of Ecuador, and then by the Huallaga, which had its source near that of the Marañon but had gone eastward from Huanucu. Before reaching Iquitos the Ucayali River pours its waters into the Marañon, and ere the Brazilian frontier is reached many important

affluents from right and left have added their quota. The most important of these is the Napo, from which the entire river was first navigated. At the Brazilian frontier the river again changes its name and becomes the Solimoës. Amongst the many great rivers that join it as it enters Brazil are the Javary, Putumayo, Jutahy, Jurua, Japura, Teffe, Coary, and Purus. All these are navigable by steamers for hundreds, and some of them for thousands of miles. The little child of Lauri-Cocha has become a gigantic waterway, rolling through thousands of miles of wonderful tropical forests, bearing the commerce of nations on its golden waters. Soon it reaches a most important point in its journey to the Atlantic. The Rio Negro, that mysterious river of El Dorado stories and sombre water, adds its huge volume to the Solimoës. Thus, a few miles below the city of Manaus we have the most interesting river junction in the world. The Rio Negro connects in the south-east of Venezuela with the River Orinoco, and the River Madeira, flowing into the Amazon a few miles from the Rio Negro junction, connects in the south-west of Matto Grosso with the Paraguay. The Orinoco is a great water highway running north, the Paraguay running south, and the Amazon east and west across the continent. So that from Manaus a traveller may go north, south, and east by water and reach

the Atlantic Ocean, and also reach a point westward a short distance from the Pacific. There are of course waterfalls and rapids to be negotiated, but except for a few miles of these, this marvellous water-system may be utilised to traverse a continent from north to south and east to west. Some day it will be the ambition of travellers to have this record to their credit.

At the junction of the Rio Negro with the Solimoës an interesting circumstance may be seen. The water of the Solimoës is a golden yellow, that of the Rio Negro an inky-black in appearance in the river, but resembling strong tea in a glass. When the Rio Negro strikes the Solimoës there is a contest for right-of-way, and many large whirlpools are formed where the waters come together. The heavier yellow water of the Solimoës prevails, and the murky, lighter water of the Rio Negro seems to be completely held up. It is a curious sight to see two large bodies of water in contact with each other, yet remaining distinct in appearance and qualities. Of course these waters do actually blend, though their doing so is not apparent. The Solimoës draws the darker water away with it somehow, while retaining its own original tint. From this junction onward the river is known as the Amazon, so that in its course of 3850 miles it enjoys four names—Lauri-Cocha, Marañon, Solimoës, and Amazon. When, a few

miles from the Rio Negro junction, the Madeira, that great river from the south, adds its volume, the Amazon becomes incomparably majestic. Plains disappear to become but one vast river-bed. Hills are left behind as mere islands dotting the surface of the widespread flood. The Amazon soon reaches a width of sixty miles and a depth of 1500 feet. Islands larger than principalities in Europe are created by its refusal to be confined to one channel.

River after river from north and south pour their waters into the mammoth. The Namunda, Mapuera, Maycuru, Gurupatuba, Paru, Jary, and Carapanatuba from the north; the black Tapajoz, the Parintins, Xingu, Uanapu, and Tocantins from the south are the principal contributors. Losing all resemblance to a river, the Amazon continues to deepen and expand, till, when it reaches the Atlantic, it is 158 miles wide and deep enough to hurl into that ocean 500,000 cubic feet of water every second. It is not surprising that the earliest visitors to it named their discovery the Mar Dulce, fresh-water sea.

The basin drained by the Amazon and its affluents comprehends an area of 2,722,000 square miles, which is more than double the combined area of the next two greatest river-basins in the world.

The Amazon river system, including affluents

and sub-affluents, as far as explored, extends over a length of 50,000 miles. The depth of the river varies from 200 to 1700 feet. The current is slow, usually not more than three or four miles an hour, the average fall being only about a foot in nine miles, in Brazilian territory. In flood time it rises up to 60 feet above its normal level, even a thousand miles from its mouth. The river reaches its maximum height in June, and is at its minimum in December. The ocean tides affect the Amazon as far up as the city of Obidos, 581 miles from the mouth. The river has about 200 affluents in Brazil. Of these six are larger and longer than the Rhine, and twelve others may be classed as rivers of first-class importance. The river is navigable by ocean-going steamers to a point about 3000 miles from its mouth, or about the distance from Liverpool to New York. Its main affluents are also navigable for distances up to a thousand miles from the Amazon. The extent of waters navigable by small steamers in the Amazon Basin is estimated to be 40,000 miles. There are many thousands of islands in the Amazon. The largest are Marajo in the mouth, about 200 miles long, and Tupinambaranas, about 700 miles from the mouth, which is 186 miles long. The greatest affluents are the Maderia, 3125 miles long, navigable by ocean steamers 658 miles; the Purus, 2268 miles, navig-

able 1118 miles; Japura, 1740 miles, navigable 1000 miles; Rio Negro, unexplored properly beyond 1200 miles, navigable 451 miles. The Purus and Japura are navigable by small steamers for over 1500 miles. Perhaps the most striking of these affluents is the Rio Negro, which at Manaus is $1\frac{1}{2}$ miles wide, while farther up, for hundreds of miles, its width varies from ten to twenty-five miles. It has innumerable islands, all densely wooded. Some of these are thirty miles long and unexplored.

The Rio Branco, a river of clear water with a whitish tint, is an important affluent of the Rio Negro. In that triangular territory formed by these rivers and the northern boundary of Brazil, it has always been supposed the famous El Dorado lay. From Manaus to the frontiers of Colombia and Peru, between the Rio Negro and the Solimões, there lies territory tens of thousands of square miles in extent, very imperfectly known, studded with precious stones and valuable minerals. Hundreds of rivers, many of them apparently navigable by ocean steamers, come out of it to the Rio Negro. The country is densely clothed with forests that may yet supply Europe with a large proportion of her paper and timber requirements. It might with justification be held that the Amazon Valley is the greatest timber area in the world left unexploited. These great forests, with their almost

endless varieties of woods, are the most accessible timber areas known. They are intersected everywhere by navigable rivers, most of them usable all the year round. The possibilities of discovering mineral wealth should be an attraction, even if there were not wealth enough already in the millions of seringa and caoutchouc trees yet untouched.

Going up the Amazon and Purus from the Atlantic to the Federal Territory of Acre, in the farthest west corner of Brazil, we must cross first the State of Para and then the State of Amazonas. We enter the river at Point Taipu below the city of Belem or Para, the capital of the State of Para. Steaming up the estuary, we find the city on the left bank. Ocean passenger steamers usually tie up here, and before proceeding take a river pilot on board. Should time be no object and personal comfort not a *sine qua non*, a change might be made into one of the smaller river-boats that call at every town on the river. It is advisable perhaps to stick to your ocean liner as far as Manaus at least.

The first hundred miles or so from Para is not extremely interesting. You steam over a wide expanse of water with views only of far-away shores. Gradually, however, the shores converge, and the steamer enters a narrow passage that would be like a canal were it not for the

giant trees and dense undergrowth on either bank. A hundred miles of this and the town of Gurupa is reached. Breves was passed as we entered the narrow part. At Gurupa we are fairly into the Amazon, and we are struck with the number and size of the islands passed. The mouth of the Xingu is crossed, and the steamer is soon abreast of the town of Prainha on the north bank. From there we go on, noticing Mt. Allegre through our glasses with its town 1000 feet above the river, and soon arrive at Santarem, a town of importance at the mouth of the Tapajoz. Santarem has a population of 30,000 and is a town with many fine buildings, including a theatre, market, and several fine schools. It is the commercial centre of a farming and stock-raising district. Several small villages are passed ere we reach Obidos, another town of considerable size on the north bank. It has a population of about 40,000, with several good streets and up-to-date buildings. It also is a stock-raising centre and noted for its carriage horses. The next town of note reached is Parintins on the Amazonas frontier. This is a fast-growing town of 20,000 inhabitants which, from its situation at the junction of the Maues River, is likely to become a great trading centre one day.

As the steamer ploughs its way onwards, we often almost lose sight of the banks. They are

so far away. At times too we can break twigs from overhanging trees as we seem to brush along the shore of some island. The farther we go the more interesting does the scenery around become. Some mornings we come on deck to see chains of hills stretching away from the narrow plain between them and the river. Then we plunge into the dense forests again to startle the brilliantly plumaged birds that fly off at our approach. Some of these will sit on the trees and look curiously down at us, possibly wondering why this intrusion. A troop of monkeys are surprised as they have come to the river-bank, perhaps for their morning dip. The way they scamper off, swinging from branch to branch, uttering sounds of terror, is wonderful to behold. Every bend of the river we round reveals fresh glories of nature. Hanging from gnarled giants of the forest, like flowing tresses, are strange, flowering creepers, swaying in the breezes, or stretched from tree to tree in fantastic devices. Here and there the whole forest seems roped together with bright, living garlands of angels' weaving. The pale-green, tender-looking shrubs seem to nestle up to the strong, dark-green trees beside them. Every conceivable arrangement of tree and plant grouping of colour and shade studies, with an unimaginable diversity in character of trees, shrubs, and flowers, pass in review before you. It is a botanical

banquet. And you can enjoy it all lying at your ease in a deck-chair on a modern ocean liner. Pages might be occupied trying to paint in words the glories of a trip through this wonderland, but no adequate conception would then be given. The tropical forest scenery of the Amazon must be seen to have its indescribable beauty fully realised.

Itacoatiara, on the north bank, is the last town of any size we will see before reaching Manaus. On the opposite bank is Ramos, a town on the island of Tupinambaranas. An attempt is being made to make Itacoatiara the point of departure on the Amazon for the towns on the River Madeira and its affluents, but owing to the proximity of Manaus, where a great deal of money has been spent on port equipment, this is not likely to succeed till at least as much money is spent on Itacoatiara. A railway connecting this town with Manaus was once actually begun. Our first glimpse of Manaus after we have entered the Rio Negro is got at a distance of five or six miles. One who has not carefully read up is scarcely prepared for the scene we approach. Almost a thousand miles up the river we enter a port where we count fifty steamers and three gunboats, besides a flotilla of small craft, lying at wharves or in the stream. Several of the steamers tied up to the wharves are trans-Atlantic liners; some of those in the stream

are cargo tramps. On the north bank appears a city with cathedral and church spires penetrating the sky-line. Amongst the prominent buildings we notice at least one sky-scraper nine or ten stories high, and many other fine modern erections. Large steel bridges cross arms of the river, electric trams, taxi-cabs, and motors are rushing about finely paved streets. But we cannot stop just now to mention the many things that astonish us in this pivot city of a little-known continent. We transfer from our ocean liner to a river boat and return a short distance to get into the Solimoões on our way to Acre. We are soon steaming up that river on our long journey to Senna Madureira, the capital, on the Yaco River. It took us only four days to travel the thousand miles from the Atlantic to Manaus. It will take us just about a month, with the numerous stoppages, to travel the 2000 miles still before us, but we get snug quarters in a British steamer for the greater part of the way, so we are satisfied. As we throw behind us hundred after hundred of miles, we seem to be getting into denser woods, and the vastness of the Amazon forest regions begins to appal us. Day after day, week in and week out, we steam through those countless millions of trees. Sometimes we have a spell of open country. What a relief it seems to see nothing but bare ground! We have halted for hours

at river settlements, and tied up at nights in many strange places. The few villages hidden away in these forest depths are roused to activity on our approach. We carry their mails and stores. A thousand miles between us and Manaus and we realise we are in the heart of the greatest seringa region of the world. Steamers laden with seringa balls like giant footballs meet us continually. They are all on their way to Manaus with their valuable cargoes.

Along the river banks we can see the hevea trees in numbers, and occasionally we see a seringueiro on his rounds seringa-collecting. At length we must change our steamer again, and do the last few hundred miles in a modest little craft, for the river is not yet at its maximum height. Just a few miles from the southern boundary of Amazonas we leave the Purus and enter the Yaco. Villages and settlements are more frequent, and the river is busier. Senna Madureira is reached at last, and we are glad to tramp down its long street to our comfortable quarters. The town, which is the capital of Acre, has a population of about 5000 when its residents are all in from the forests. This is not often, however. There are no striking buildings erected yet, but the town is the youngest capital in Brazil. It is only a few years old, yet it has had its revolution, owns a newspaper, club, amusement halls, and many business

houses. One soon forgets, while enjoying the hospitality of its amiable citizens, that you are actually in one of the most remote corners of any civilised country, thousands of miles up in the hindermost of all back blocks. Acre has several rapidly growing towns on its numerous rivers; and every year its people are bringing fresh areas of seringa forests into working. This corner of the Amazon Basin is at present one of its greatest wealth-producing areas.

CHAPTER XIII

OUT BACK WITH THE SERINGUEIROS

What indiarubber is—Vulcanising—The trees that yield latex—Seringa its first and best name—How a seringal is started—Getting the workers together—Brazilian and Malayan trees compared—Tapping for and smoking latex—Workers' pay—Forest dangers—Seringueiros' agricultural efforts—Comparisons of seringa-getters' chances—From paraora to seringueiro.

INDIARUBBER, or caoutchouc as the French call it, is obtained from the milky sap of several varieties of trees. It occurs in the sap in globular form, the globules being composed of vegetable albumen, which, being brought together by coagulation, form an extremely elastic substance impervious to water. It swells and becomes soft in boiling water, but requires a heat of 445° Fahr. to melt it. Below freezing point it perishes and loses its elasticity. It contains 87.2 per cent. of carbon and 12.8 per cent. of hydrogen. Indiarubber is valuable according to the proportion of pure vegetable albumen to water and foreign matter found in it. Ether, benzine, turpentine, or chloroform will dissolve pure indiarubber. Hydrogen gas will go through it, and nitric and sulphuric acids attack it. Indiarubber is an extremely slow

conductor of heat and a non-conductor of electricity. Treated with sulphur by a process called vulcanising, its elasticity is preserved in, and it adapts itself to, various temperatures. Hardened rubber, made by being reduced to a paste in great heat and mixed with a fifth of its weight of sulphur, is called vulcanite. This rubber paste, mixed with certain mineral colours not susceptible to the action of sulphur, then hardened and polished, is often sold for agates and other precious stones. Before the process of vulcanising was discovered by two British gentlemen, the uses of rubber in Europe were very limited. To-day it would be almost impossible to catalogue the uses it is being put to, and its field is ever enlarging. Indiarubber was first brought under European notice in April 1745 by a paper read at the Academy of Science, Paris, by M. de la Condamine, who spoke of it as a resin called "cahuchu," from which the Indians of the Amazon made unbreakable bottles, boots, syringes, and other articles of domestic use. The syringes seem to have attracted most notice from these early European visitors, who called the substance they were made from "syringa" or "seringa." It is believed that from this has come the words "seringal," a rubber estate, and "seringueiro," a rubber-getter, used in the Amazon Valley to-day.

Our English word "indiarubber" is certainly

misleading. It came to be applied to the article when it was simply used for erasing marks from paper. "Seringa" would be a much better name for the raw material at anyrate. The finest seringa in the world is secured from a tree of the Euphorbiaceæ family called the *Hevea Brasiliensis*, though other trees of the Hevea class, such as the *Hevea Guianensis*, *Hevea apiculata*, *Hevea lutea*, *Hevea pauciflora*, *Hevea spruceana*, and *Hevea membranacea* yield good latex. Many countries have these elastic-gum producing trees. The family of the Apocynæ is notable for the many valuable varieties it claims in Africa, the East Indies, Madagascar, and elsewhere. India, Siam, Malaya, Australia, New Guinea, and some countries of South America have the *Ficus elastica*, of which there are many varieties. Brazil has also the *Manihot glaziovii*, or Maniçoba, growing in profusion in Ceara and other coastal States. Although the Amazon Valley has the most extensive and varied assortment of elastic-gum producing trees in the world, the *Hevea Brasiliensis* has the honour of being the most popular of all such trees for planting purposes. Ceylon, India, Malaya, the East Indies, and Australia have adopted it, and their enormous plantations consist chiefly of this variety. The Hevea tree is a hardy plant and comes to maturity in five or six years in south-eastern Asia. In Brazil

it is allowed seven or eight years' growth before being tapped.

Nearly all the seringaes (seringa estates) have frontages to a river. The rivers are yet the only highways in this part of Brazil. To acquire a seringal, at one time all that was required was that an enterprising and fearless man should go up some river and take possession of whatever land he fancied. If the Indians permitted him to stay, a house and a few sheds were built, and he started in to make "estradas" or tracks through the forest, tapping what trees he chose, and enlisting what help he could. Nowadays Government titles must be secured for any land so appropriated. The terms on which virgin territory can be acquired are most reasonable, but one would have to go many hundred of miles on the southern rivers before valuable unappropriated forests could be secured. In the millions of square miles of the Amazon Valley there are yet hundreds of thousands of square miles of forest untouched by any save Indians.

When a seringueiro selects his seringal, his first concern is to get into friendly relations with any Indian tribes found on it. The seringueiro of to-day is usually a man of substance. Starting perhaps as a humble forest worker, he has saved money and acquired one or more seringaes. Some men in the Amazon Valley have forty or fifty seringaes, running into millions

of acres, and have several steamers trading from their numerous depots to Manaus or some other of the main river cities. When the seringueiro is assured that the Indians on his seringa are peaceably inclined, he generally builds near the river in some clearing, and induces as many Indians as he can to join him. In setting them to work he has the assistance of Brazilians or Europeans with some experience of the work he is undertaking, and also some knowledge of Indian peculiarities. Men new to the work must be taught what trees to tap and which they must not touch. Nowadays workers are carefully instructed in the latest methods of tapping and collecting the latex. It is of the first importance that the tappers should know when a tree is old enough to be tapped, and when its latex is inferior to the standard of that particular forest. In former years it was the common practice to allow the workers to hack away where they cared to, provided they brought in a certain quantity of seringa each period. More supervision is now exercised.

Strange to relate, the *Hevea Brasiliensis* grows more quickly in Malaya than in its native land. A four-year-old tree in a Malayan plantation is several inches greater in girth usually than one of the same age in an Amazon forest or plantation. The latex of the Amazon-grown Hevea tree of say thirty inches in circumference

is found to be much richer in caoutchouc or seringa than the Malayan Hevea tree of similar dimensions. Amazon wild seringa seems to possess durable properties that plantation seringa has not yet equalled. Various theories are advanced to explain this. The Amazon seringueiro believes that both the age of the trees and the methods of coagulation are factors in it. The Asian planter, he says, taps his trees while they are still too young, and his chemical process of coagulation has not yet produced a seringa combining the strength, elasticity, durability, and economic value for manufacturing purposes of "Para fina," or fine Para, the best Brazilian seringa. The North American and European manufacturers must, however, be given the last word on this point. Their verdict may be gleaned from a study of market rates for the different lines offered.

The method of collecting and preparing seringa for export is as follows: The seringueiro and his assistants parcel off the estate to be worked amongst the tappers secured. Each man is given an "estrada" or forest path, on which there may be 100 to 150 trees according to local circumstances. If the trees are far apart there would not be so many as if they were closer together and younger. The estradas are made to converge at certain places where the seringa can be stored till collected by boat or steamer.

For safety and companionship the workers build at convenient spots bush huts where two or more live together. Each morning the worker, or "paraora" as he is usually called, makes the round of trees allotted to him. Making an incision in the bark, he fixes underneath it a small metal cup to catch the milky fluid that exudes. In the afternoon, or next day in the case of lengthy estradas, he returns and collects in a can what latex has dripped into the metal cups. Until recent years there was very little method in making the incisions or "tapping" the trees. The Indians were accustomed to tie a band of creepers tightly around the tree trunk, then chop the tree in all directions above this so that the latex ran down to the band and was guided by it into a vessel below. This treatment generally resulted in the death of the tree in a few years. Subsequently tapping by V-shaped incisions became more popular, and the Indian "arrocho" method was discontinued. The later method of tapping was effected by blows from a small hatchet. This method is now being superseded by the introduction of instruments specially devised for tree-tapping. Instead of many small incisions being made, a long perpendicular incision with shorter diagonal cuts running into it herring-bone fashion, are made with an instrument called the Huber-da-Costa tapper, and one larger vessel is fixed to

the bottom of the tapping. The seringueiros find it difficult to get the Indians to take up these new ideas quickly.

When the latex has been collected in the large can it is just like milk. In that state it is taken to where a fire of Urucury nuts (*Attalea excelsa*) is set under a large inverted funnel of metal or burnt clay. Pouring the latex into a dish, the worker takes a piece of wood shaped like a small paddle, dips it into the dish, and turns it round in the dense white smoke issuing from the top of his conical fire-cover. The milk coagulates rapidly and forms a thin skin round the paddle. Holding it then above the dish, he with a smaller vessel pours more latex on this, and again twists it round in the smoke. This is continued till, skin after skin having been added, he has got a large ball on the paddle. He then withdraws the paddle and puts the ball in the sun to dry. Often two paraoras engage in the smoking business and, holding a stick between them, make a ball forty to sixty pounds weight. The droppings that have coagulated before being treated thus are collected, fastened up together, given four or five coatings of smoked latex, and called sernamby. It has been observed that the creosote and constituents of pyridine found in the smoke of the nuts burned in this process impedes the fermentation of the rubber, and probably also imparts certain qualities to it.

When a number of balls have been prepared they are collected, taken to Manaos or Para, and sold for export. As they reach the exporting warehouse, each ball is sliced up for examination and classification of the seringa. The best quality is called "Para fina," the second "entre fina," the drippings are "sernamby," and poor rough stuff gathered from felled trees and badly treated latex is known as "caucho."

The workers on the seringal are paid in different ways. The most common way is for the seringueiro to provide them with huts, food, clothes, and all other requirements, for which he allows them a percentage of what the seringa they produce realises. If prices are good and the workers have been industrious, they have cash to draw occasionally. If not they are in debt to the seringueiro. He again is also then in debt to the "aviador" or seringa merchant who advances the supplies needed against the coming collection. In the case of the larger seringaes, the seringueiro imports or procures from the manufacturers his own supplies.

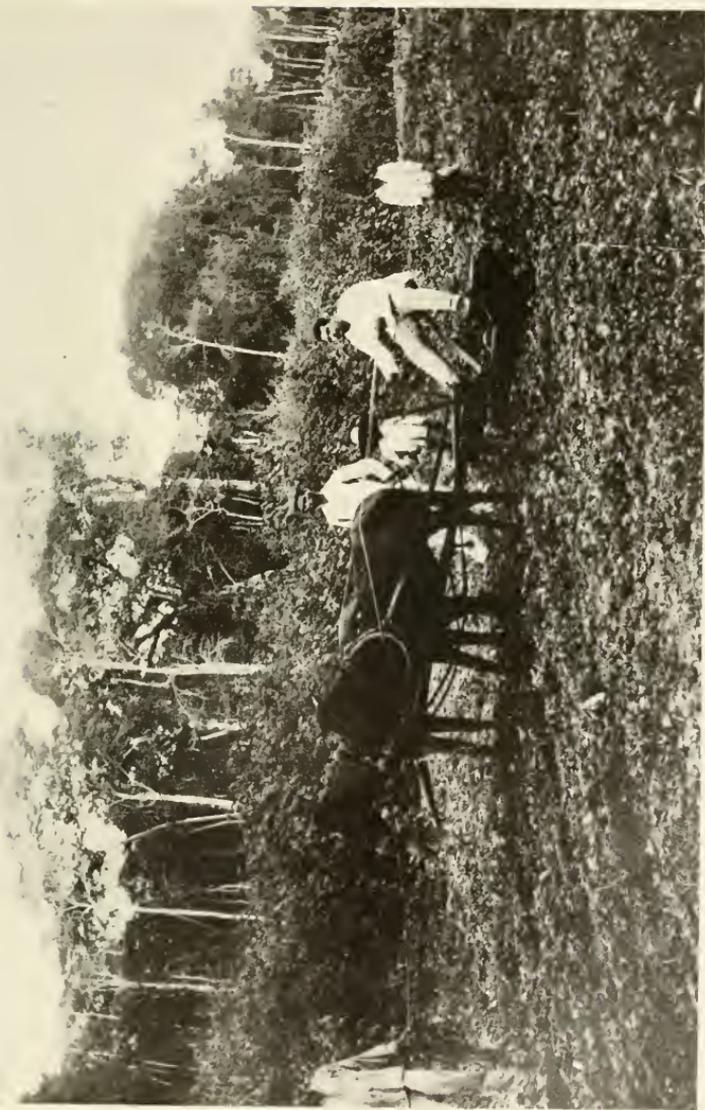
In spite of the danger from snakes the paraora often walks his estrada barefooted, and is usually very lightly clad. When he is working in new country the paraora generally carries a weapon of some sort as a protection against wild beasts or stray savages. His greatest danger is from fever and ailments due to improper dieting.

The most urgent need of these seringal workers appears to be a better food supply, and further facilities for dealing with sickness and accidents. The paraora usually leaves his wife and children in the city nearest to his estrada. The Indians bring their wives and families to the seringal. The little communities away in deep recesses of the forest have their amusements in slack times. The seringa-collecting season usually lasts six or seven months. During the remainder of the year the paraora has a good deal of spare time to himself. This he may devote to visiting his family and friends, or, if too far from them, improving his own and his employer's seringal home. Even in the busy season it is seldom that a paraora works many days without resting. There are a number of saints' or feast days to be observed, and he would be a very green paraora who could not find an excuse for a day's rest when there was a long interval between feast days.

In several parts of the Amazon Valley I found seringueiros devoting attention to agriculture, planting, and stock-breeding. The principal stock-breeding centres are between Manaus and the Amazon mouth. Cattle-ranching is also developing on the British Guiana frontier. When this country is opened up by the railway projected between Manaus and the British port of Georgetown, it ought to become one of the great

cattle-raising territories of the continent. Cocoa and sugar-cane planting is engaged in around Maues and on Tupinambaranas. Cultivating bananas has not been largely engaged in; but a few seringueiros have attempted it. At Porto Santo on the Madeira River fields of purple-top turnips, potatoes, and beans, may be seen. The enterprising seringueiro who is cultivating these crops works his land with disc ploughs, U.S.A. cultivators, and other modern implements. He gets quite good results from his work, thus proving that the soil of the territory will grow almost anything. I feel certain that before this century is far advanced millions of acres of this fertile country will be devoted to planting and agriculture. A continued low price for seringa might be a blessing in disguise for the north of Brazil. The seringueiros would then be led to exploit other resources of their seringaes more extensively than they have yet done. It is a great mistake to think that this region must continue to depend on the seringa industry for its prosperity. It will be largely peopled in the near future with workers of the forests and fields for other purposes. The pioneers are at work there already.

It was my privilege to spend over three months amongst the seringueiros and paraoras in Amazonas, visiting many seringaes, paraora, Kaboclo, and Indian settlements. Having visited nearly



SERINGUEIRO DISCING FOR TURNIPS



all the other seringa-producing territories of the world, and having an intimate knowledge of the industry in many lands, I found the seringal life in the Amazon forests highly interesting. The general system of seringa collection is much the same everywhere, though in Ceylon and Malaya new features have been established. The organisation of the workers, their housing and care, is better in Malaya than anywhere else; but their remuneration is better in Brazil than in any other seringa-producing region I know. It would take the average plantation coolie in Ceylon or Malaya two lifetimes, if he had them, to save enough out of his earnings to acquire a seringa estate. There are scores of seringueiros in the Amazon Valley owning from one to twenty estates who started life there as a paraora. I have in mind one seringueiro with whom I spent many happy hours, who, coming from Ceara a friendless lad, worked for years in these forests as a paraora, yet was able to show me the title-deeds of twenty seringaes he now owns. There are many such men well known in Manaus and Para. The life of the seringa-collector in Brazil is far from being a rosy existence; but, if he eschews strong drink and evil habits, he is more likely to have good health and with it the opportunity to secure future comfort.

CHAPTER XIV

RESOURCES OF THE FORESTS

Tall nut trees—Castanha nuts plentiful—Scores of other varieties—Where our physic comes from—Food products of all kinds—Manioc—Guarana, a new drink—The bread-fruit tree—Vegetable ivory—Ink-yielding trees—A palm that sheds wax—Lace and violin strings from fibres—Woods for pulping and paper—Graunà—Star of forest concert party—Birds' tricks—Clock of the forest—Humming-birds—Monkeys—Woodland spirits and fairies.

THOSE who know so well the three-sided nuts we call "Brazil nuts" may possibly not imagine that it is more difficult to get these in Rio de Janeiro or São Paulo than in London or New York. Their home is the Amazon Valley, where they are found in greatest abundance on the plateau or high lands. The right name of this nut is "castanha," or chestnut. The tree on which the castanha grows is the *Bertholletia excelsa*, of the order Lecythidaceæ. It attains great dimensions, some having been found 200 feet high, and 16 feet in diameter 50 feet from the ground. The branches on such trees would begin 100 feet from the ground. Before the nuts come to maturity they are part of a fruit separated into divisions like an orange, inside a round hard

shell resembling a cocoanut, but more wrinkled. When the nuts are ripe in January and February, the shells fall to the ground, are collected by nut-gatherers and opened with an axe. The sixteen or eighteen divisions then fall apart, and are filled into sacks for export. Besides being relished for eating, the castanha nuts yield a sweet oil. The wood of the tree makes good timber and the bark produces tow. Quantities of castanha are collected by seringueiros and farmers for pig-feed. Thousands of tons of the nuts are exported to all parts of the world, and a large export trade is also done in the bark.

Although Brazil and nuts become quickly associated in our thoughts, nothing to speak of has ever been done by British enterprise to investigate and avail itself of the extraordinary nut resources of this country. There are at least scores of varieties of excellent nuts growing in the Amazon Valley that might very profitably be supplied to the dinner tables of England, yet only one or two kinds have ever been introduced there. The same might be said of fruits. It would be an inspiration for a London Regent or Bond Street fruit-seller to visit the markets of Manaus or Para in the fruit season. The varieties and quality of the fruit offered for sale always surprises a visitor. In the limits of this work it is not possible to even catalogue the products of Amazon forests. Of timber trees

useful for industrial purposes over 500 varieties are known, yet only a few kinds, such as mahogany, rosewood, cedar, guarabu, genipapo, satin-wood, mulatto-wood, violet-wood, and stone-wood are used in England. In medicinal plants there is a famous range. Here are found ipecacuanha, sarsaparilla, ratanhia, cassia, urary (*Strychnos toxifera*), spigelia, carapa, canella sassafras, copaiba, Tonquin beans, embyra, ipe-snuff, and many other plants whose names we might know, but usually do not think of with pleasure. It is pleasanter to dwell on the list of food plants found, such as cocoa, coffee, tea, sugar, rice, beans and peas, corn, mandioca, sweet potatoes, pine-apples, bananas, bread-fruit, arrowroot, and maize, while pepper, mustard, vanilla, cinnamon, clove, nutmeg, ginger, and tobacco plants have their home where the nuts come from. I am not attempting to give anything more than an idea of the astonishing variety of things we are familiar with found growing here. There are hundreds of other plants yielding foods, spices, drinks, inks, dyes, oils, medicines, and substances the Indians and Kaboclos are familiar with, though they are unknown to European households.

Manioc, for instance, is the root of a tree of the Euphorbia family. Dried and ground into a meal, this root is the staple food of Brazilians, as oatmeal is that of the Scots. Manioc

meal is eaten dry, made into porridge, bread, cakes, tapioca, and prepared in several other ways. It is rich in starch, dextrine, and glucose. It is Nature's most abundant, easily prepared food in this country. An acre of ground will yield 100 tons of the roots. I have seen hundreds of acres of it cultivated most successfully. When British farmers realise that a food plant supplying in itself the place of wheat, oats, potatoes, barley, rice, Indian corn, and a few other lines in agriculture, can be grown at the rate of 100 tons to the acre, in a country where millions of acres of land can be got for a song, the British steamers going to the Amazon may have a very busy time. Another interesting plant found here is the guarana. It is a small climbing plant of the Sapindacean family, whose seeds, dried and roasted, then ground into a flour, make, with boiling water added, a stimulating drink. Guarana is preferred to tea, coffee, or cocoa by many people who have tried it. I believe the time will come when it will be a widely used meal-time drink. It is already much used in some States of Brazil. The plant is easily cultivated and very prolific in seeds.

The bread-fruit tree (*Artocarpus incisa*) is worthy of a note. Millions of these trees are found in the Amazon Valley. They grow from 40 to 50 feet in height and yield each year some 70 to 80 apples as large as a man's head.

Amongst the little-known fruits the popunha, capù-assù, mangaba, sorva, cubio, inga, and cajou, all excellent table fruits and with great possibilities for jam-making, attracted my attention most. There are some gum-yielding trees and plants that ought to have a great deal of interest for manufacturers of sweets. An extraordinary plant is the vegetable ivory palm (*Elephantusa macrocarpa*), found in many parts of Northern Brazil. From the seeds or nuts we get that strange substance vegetable ivory. The nuts, of which there are usually four of irregular shape, are found in a large fruit. Their shell is light yellow in colour with a brown inside shell which contains a milky albumen. When this liquid solidifies it resembles and takes the polish of animal ivory, and is much used as a substitute for it. Only experts who had seen much of both vegetable and animal ivory could tell which was which when they were exhibited together. The jatoba tree (*Hymenæa courbaril*), which grows to a height of 120 feet, furnishes a resin similar to New Zealand kauri-gum. When dressed and polished this copal so strongly resembles amber that it may yet be widely used for pipe and cigar-holder mouthpieces. There are many varieties of trees whose barks have considerable value for tanning and dyeing. The best known of these are the red mangrove, log-wood, Brazilwood, tatajuba-de-tinta (a rare

yellow dyer), barbatimão, jarauba, and mas-saranduba. The ink-yielding trees abound in all parts, and offer an extensive range of colours. These trees are only exceeded in numbers perhaps by the oil-yielders found in every part of Brazil.

A palm peculiar to Northern Brazil is the carnauba. A yellow powder like sulphur is shaken from its leaves, and after being heated in water this becomes extremely like beeswax that has been melted. Carnauba wax is now collected in large quantities and exported to Europe, where it is used in connection with the preparation of talking-machine cylinders. The fibre plants are a feature of the country. Cotton flourishes everywhere. The Indians, who called it "amamna," were using it for cloths, hammocks, nets, and other articles when Brazil was discovered. Timbù-assù fibre produces a cloth of good quality, while curanà fibre is used largely for lace and even violin strings. There seems to be no limit to the variety of fibre plants found in Brazil. Those already taken in hand by manufacturers include Maurice hemp, ramie, sisal, gosmenta, guaximas, Perini linen, piteira, vassouras, vinagreira, tucum, croata, gravata de rede, cipo, and fibra de paineira muda. All these yield fibres with their own peculiar features. The Amazon Valley has also a wealth of fast-growing trees destined very shortly to come

to the rescue of paper manufacturers and publishers from a threatened shortage of wood-pulp, and consequent extreme price for paper. The eucalyptus of Australia was introduced to Brazil a quarter of a century ago, and during the last ten years has been systematically cultivated, as its wood is preferred for railway sleepers. The capacity of Brazilian soil for growing anything is well illustrated on the fazenda of Dr Borges of Guaratingueta in the State of São Paulo, who has managed to grow specimens of every fruit tree he has heard or read of, the seeds having been collected from all parts of the world. The hobby is as instructive as it is unique.

There are over 1500 species of birds in Brazil of which 1000 are found in the Amazon Valley. The most common is the urubù, a bald-headed vulture which may be seen in large numbers in every city and village. Most of the urubù to be seen are black and repulsive-looking, but there are several species, of which the white urubù is the rarest. Brazilian parrots and macaws are an extensive class, including birds of extraordinary bright colours and varied plumage. The pink-feathered ibis, or guarà, is a striking bird; and the whole collection of waders and divers is extremely interesting. The toucans attract most attention amongst the climbers. They live in colonies of six to

twelve and make their homes in hollow trees. There is a big selection of songsters. The star of the forest concert party is certainly the *graunà*, a black bird not unlike the English blackbird. The *graunà* is chiefly found in the back country of Ceara, though a few appear in the Amazon Valley. The bird has a song like that of a canary, with a much louder tone and many more notes; but its striking characteristic is its powers of mimicry. The *graunà* seems to have learnt the song or cry of every bird and animal in the forest, and frequently gives selections from them all. It seems also to have a sense of humour, for sometimes when it sees a flock of birds near it will simulate the cry of their greatest enemy to enjoy their consternation and hurried flight. When another bird calls its mate the *graunà* will give the response and then fly away before its trick can be punished, if the bird deceived should be more powerful than the mocking *graunà*. *Graunàs* are never at their best in captivity, though they will sing there. The *japiym* is a smaller bird than the *graunà* with many of the latter's peculiarities. The *japiym* is a resourceful songster and a clever mimic. He is also a great chatterer, very fond of associating with other birds and chattering to them. The *sabia* is an evening songster of the nightingale type. Several of the *mutums* also sing, notably the *poranga*,

which with the nhambu-toro is said to sing at regular hourly intervals. The nhambu-toro is the Indians' clock of the forest. The tobacas are interesting because of their song being a rapid run up the chromatic scale for two or three octaves. The myriads of minute humming birds that come to flower-beds to extract honey soon attract one's attention. These exceedingly pretty little birds, are very plentiful in gardens at Rio de Janeiro, Santos, and other ports. Brazil has a good stock of game birds of the pheasant, partridge, and grouse types, but these are scarce in the coastal regions.

It would not do to close a chapter on the forests without a reference to the monkeys who live there. The monkeys are not interesting when compared to those in African and Asian forests. There are comparatively few varieties, and none of any great size. The coatas or spider monkeys seem to be the largest. They are numerous in the Amazon Valley. They are also found in some of the Southern States. When attacked they will pelt their attackers with large nuts or stones. The guaribas, or howling monkeys, are thought by some to be the largest monkeys in Brazil. They go in pairs or families. While the coatas have only four fingers, the guaribas have five on their hands. The guariba has a habit of howling out his woes in a voice that can be heard for miles. In the rainy season,

when they all howl in chorus with the "crying sais," one could scarcely describe the locality as "the silent woods." The apes of the Amazon are a lazy, bearded class, keeping generally to the mountain regions. The most interesting monkeys of an uninteresting lot are the little barrigudos, who are easily caught and tamed. They are well-proportioned and stand upright. They may be taught many things, and will wash and dress themselves, light fires, and do slight domestic services. The cuxins, the makaris, and the sagouins are very troublesome to planters and fruit-growers because of their fondness for fruit. Just before daybreak is the usual time for monkey raids on orchards. Dogs may be trained to tackle them and guard orchards from their attacks. Monkey flesh is eaten by the Indians and backwoods settlers.

More interesting, though not so numerous nor so easily caught as the monkeys, are the fairies of the forest. The Indians have their fairies and good and bad spirits of the woods and waters. "Jurupary" is the evil spirit of the night who comes to the Indian as he sleeps and torments him with nightmare and fever. "Curupira" haunts the forests and mountain slopes in the daytime. To a man this evil spirit appears in the form of a beautiful woman, and to a woman as a man. Curupira is always inquisitive, and, though ever bent on mischief,

generally lets inquisitiveness lead him aside from his evil purposes. Believing this, the Indian man or woman who lies down to sleep in a strange place during the daytime will first weave a little article of grass or plant stalks and lay it beside them. When Curupira comes this attracts his attention, and while he is examining it and pulling it to pieces to see how it is made, the sleeper finishes the sleep and gets away. "Maty-Tapéré" is a twisted, ugly little dwarf that utters strange cries in the woods at night. He is always after naughty children, but is as seldom seen as the British bogey-man who may come down the chimney if children are not good. The "yaras" come out on moonlight nights and sing on the sea-shores or beside tumbling waters, but woe betide the foolish man who is drawn thither by the song of these sirens. They sing merely to encompass his death. When the "yaras" sing some man about is being reminded that he must stay with his wife and children to be safe. Some of us, while listening to stories of the "yaras'" doings away back in the Amazon Valley, have reflected that there were "yaras" drawing foolish men to destruction by their songs in places claiming higher civilisation. The "mai-d'agua," or mother of the waters, comes out to river-banks or the shores of lakes on warm calm nights and sings. Young couples out on love-strolls must

beware if she crosses their path. If they hear her song, they should stop their ears and turn away at once, otherwise misfortune will come their way or their love for each other will cease. Should a too curious Indian try to see the "maid'agua" he loses his reason and breaks into fits of laughter and delirious joy, following her wherever she leads. She always leads to the water. He follows her in, then she twines her arms around him, and he dies of love in a watery bed pillowed on weeds and water-plants. If a man's body has been found in a lake or river "maid'agua" has won him. There are of course the good spirits and fairies who only appear to help unfortunate people. The greatest of good spirits is "Perula," whom people can always invoke to their aid. Perula will guard the sleeper, care for the sick, and cheer the disconsolate. So will "Uaraci" and "Yaci," spirits of sunshine and moonlight. They will bring good fortune and friends to poor Indians. The fairies of the Amazon Valley do not dance on the green sward. Wild beasts might catch them there. So the magnificent Victoria Regia spreads its great leaves and sublime flowers on the silvery waters for the fairies to revel and dance on. Every leaf and every flower is a fairy circle. The mammoth anaconda encircles the fairy stage till the merriment ends, when each fairy rides home on a butterfly.

Such are the stories an Indian or Kaboclo mother tells her children as the family comes together for the hours of darkness, or the older folks gather the younger round them for companionship and mutual pleasure. Those who would weave these legends and fancies into a religion for the Indians are just as superficial observers as men who would decide our European religious belief by our homely superstitions and nursery tales.

CHAPTER XV

QUEER ANIMALS AND SNAKES

The goaraba or "siren"—Hunting jaguars—Ounces and pumas—Bringing a gato do mattos to London—Biggest rat known—Ferocious little pigs—Giant ant-eaters—An armour-plated rat—Caymans and jacares—A monster serpent, the anaconda—The snake-farm at Butantan—Handling snakes—A snake-eating snake—The Mussurana—Two-headed snakes.

THE hunting propensities of American Indians are probably responsible for the present dearth of big game in South America. Brazil has only a very few large wild animals, but what it has are mostly peculiar creatures. The "goaràba" (*Manatus Australis*), known also as the "river cow," "fish ox," "manatee," "lamantin," and "dugong," is the largest. It often attains a length of 15 to 20 feet. It has the pisciform body terminating in an oval-shaped tail. The females have a well-developed, human-shaped breast. The front fins or claws have five fingers like a human hand. Some naturalists consider it a living representative of the Dinotherium order, and one scientific writer says it is none other than the "siren" (*voce canora*) of the ancients. The goaràba is found in the Amazon Valley. It seems to feed

on herbs. Owing to extreme timidity it is not easily caught, but is reputed to be quite inoffensive. Goaràba flesh and especially its fat is much sought after. The largest pachyderm in Brazil is the tapir (*Tapirus Americanus*), called by the Indians the tapiyerete. It is found all over the country where there is forest cover. Tapirs are about 6 or 7 feet long and about 3 feet in height. A tapir's nose is prolonged to a short trunk. There are four toes on the fore feet and three on the hind feet. The tapir is easily tamed, and its flesh is good eating. It feeds on fruits and roots, and enjoys swimming in the rivers and pools it dwells near. Its cry is a peculiar sharp whistle. Considerable numbers of tapirs may yet be found in the remoter parts of the Amazon Valley. A few specimens of elk and deer have been found, but they present no special features. The stag (*Cervus dichotomus*) is smaller than that of the Scottish Highlands, but when attacked will show much fight. The deer lie in the depths of the forest during daytime, but come out to feed in open spaces in early morning and evening.

There are some thirty species of carnivorous animals, chief among which is the jaguar (*Felis onca*). The largest jaguars are found in the Amazon Valley, where specimens up to 9 feet in length have been secured. This animal is low-set and heavily built, with a broad head,

and extremely strong, well-developed claws and teeth. The jaguar hunts all kinds of animals, and is not averse to a meal of turtles or birds. It is exceptionally cunning and fierce, and will attack an ox or a man on sight. The Brazilians breed a large lurcher dog to hunt the jaguar. The Indians consider that killing a jaguar puts the stamp of a hunter on a man. The jaguar goes to the water-side, where he believes animals come to drink. Secreting himself either in adjacent shrubbery or up in a tree, he waits till his victim is within reach and then springs on its fore-quarters. Fastening his claws in its flesh and his teeth in its throat, he soon kills it. When he has consumed all he can, the jaguar will take the carcass away from the spot where he feasted, and covering it with leaves and refuse, leave it till he is hungry again. If he then fails to get another live animal he will return to the carcass. The deep hoarse cry of the jaguar produces a panic amongst cattle or deer. Dogs of any kind will immediately attack a jaguar, but unless they have had experience with animals of his species, they fall easy victims. A jaguar will dodge about when pursued by a pack of dogs, trying to draw the dogs out singly. If successful in this, he will turn sharply and kill the single dog before the pack can reach him. When exhausted, the jaguar will climb a tree, from which, however, the huntsman should keep a safe distance, for

the animal can spring a wonderful distance and land on its feet. The skin of the jaguar is much prized. The colour of the fur is usually tan, with black rings and spots on it. A female jaguar has two and sometimes three or four kittens. Other animals of the *Felis onca* species found in Brazil are the black ounce or jagurete, and the puma or susuarana. The former is generally black, and the latter, which is often called the American lion, a uniform tan with black tips. Amongst other animals of the species the gato do mattos, or cat of the scrub, is the most beautifully marked. A specimen I managed to secure alive in the State of Ceara, while it was young, became very docile in captivity, though it would never allow strangers to handle it. It eventually succumbed to sea-sickness in the Bay of Biscay while on its way to England. Brazil has a few small animals of the wolf and jackal kind, but they are timid creatures that any dog can chase off.

The rodent order has some very large representatives, found chiefly in the Amazon Valley. The capivara (*Hydrochærus capibara*), the largest rodent in the world perhaps, may be seen here. It is four or five feet long with a thin coat of grey hair, and feeds on grass and herbs, preferring those growing in water. The flesh of the capivara is much liked by Brazilians. Another rodent whose flesh is highly esteemed by

all who have eaten it is the paca (*Cælegenys subnigra*). It is about two feet long and a foot high. Pacas are very clean, gentle animals, easily domesticated. Their food is fruit and roots, and they grunt like pigs while eating. In appearance pacas are like large guinea-pigs with less pronounced colour markings.

The cotia (*Dasyprocta agouti*) is a strange little rodent found in hilly country where it makes its abode in holes in trees and rocks. It is smaller than the paca, though its hind quarters are larger. The fore-legs are shorter than the hind-legs, and it has four claws in front and three behind. The tail is stumpy, like that of a rabbit. Its coat is reddish brown. Its ears are short and round, rising only about half an inch above the skull. The cotia comes out to feed at night and, being omnivorous, takes what food it discovers first. If hunted with dogs it will take to the nearest water and swim, but if no water is near, it will run like a hare swerving and doubling to elude the dogs. Its flesh is very agreeable food, and cotia skins are valuable leather lines.

The tajassù, or peccary (*Dicotyles labiatus*) is a small pig found in herds in northern Brazil. The tajassù is also nocturnal in its habits, and proves a great nuisance to planters and agriculturists, because of its depredations on root crops. The flesh of the tajassù is excellent eating, and it is much hunted. It is a plucky

little pig, and will attack men or large animals very gamely. A herd of tajassùs or peccaries is a dangerous thing to meet. The Indians have a peculiar way of killing tajassùs. The hunter will climb a tree near to a spot where the animals are likely to come and feed. When he sees or hears a herd approaching, he makes noises as if dogs were barking and fighting. The tajassùs become infuriated and rush against the tree, endeavouring to break it down. The Indian, descending to a branch from which he can reach them, strikes them on their snouts with a stick he carries, killing them, and often secures the whole herd.

There are thirty-five species of Edentata, belonging chiefly to the Dasypus, Myrmecophaga, and Bradypus families in Brazil. The tamanoir or tamandua (*Myrmecophaga jubata*), or giant ant-eater, is a notable representative. It is both arboreal and terrestrial in its habits, which has led to some confusion amongst English scientists in placing it. The tamanoir is about 6 or 7 feet long, measured from the tip of its long, peculiar snout to the end of its fine bushy tail. It has long, dark grey hair, with a peculiar scarf of black and white commencing beneath its chin and running up to a point on its back above the hind-legs. The tail is the great feature of the tamanoir. It has a rich profusion of lengthy, whisk-like hair. The animal is furnished with

a long sticky tongue, with which it extracts its food from the ant-hills after these have been opened up by its claws, which resemble bale-hooks in shape. Its eyes are small, as are also the ears which lie far back on a strange, long head. The tamanoir will sleep up in a tree till mid-day, when it will descend for a leisurely taken stroll in search of food. If the sun be too bright, it will return to come out again at night. The tamanoirs seem perfectly harmless if not interfered with, but if attacked use their claws with terrible effect. The tatou (*Dasypus gigas*) is a little animal whose body, legs, and tail are covered with a scaly armour. Its snout is also protected thus. The armour is in movable strips, which permits easy movement of the body. It has five claws, very sharp and strong, on each paw. The ears and tail resemble those of a rat. Tatous live in colonies and underground burrows. They come out only at night to feed on carrion, worms, or fallen fruit. When approached, they emit grunts, and scurry away very fast. If touched a tatou will shrink up into its armour and feign death. After a tatou has eaten enough, it will carry food to its burrow for those who have not ventured out. Tatous are easily domesticated.

Saurians appear in such great variety in Brazil that no authentic catalogue of them has yet been prepared. Alligators, crocodiles, caymans,

and jacarés abound all over the country's waterways, but appear in greatest variety in the Amazon Valley. The most formidable is the jacaré-nassu, or large cayman (*Crocodylus sclerops*) of the Amazon. This reptile attains a length of 20 feet with enormous bulk. It generally lies in still water near a bank, with its head outwards. Frequently jacarés are found amongst logs in a backwash, and travellers in these parts not infrequently step on a jacaré, mistaking it for a log. Owing to the sluggishness of these creatures' movements, they are not very dangerous on land, but extremely dangerous in the water. A jacaré has terrible-looking jaws with two sets of teeth like those of a large saw. Their skins are thick and patchy in appearance. The female deposits her eggs in the sand. They take about three months to hatch out. During this time the female watches the spot, which she carefully covers with dead leaves and twigs. The nest may contain twenty to forty eggs. The jacaré will very rarely attack a man on land, always preferring to run to the water and dive out of sight at his approach. The food of this reptile seems to be animals found alive or dead around its resorts, fish, birds, and tortoises. They appear to have cannibalistic habits, and devour each other after a fight in which one is slain. They are migratory, travelling considerable distances in a time of drought or in the rainy seasons.

When one comes to deal with the snakes of Brazil the difficulty presenting itself is how to give any adequate idea in a few pages of what wonders the order of Ophidians presents there. This order is divided into nine families throughout the world. All these excepting two, Uropeltidæ and Xenopeltidæ, have representatives in Brazil. It is remarkable that the only snakeless country in the world is New Zealand, for even Ireland had its snakes till they were driven out. In Brazil is found the largest serpent known, the anaconda (*Eunectes murinus*) of the Boidæ family, or rather its sub-family Boinæ. This creature is found in the Amazon Valley. Its habits are arboreal, terrestrial, and aquatic. A full-grown anaconda is said to often exceed 60 feet in length with a girth of 15 feet. One hears tales in those regions of 70-foot anacondas having been captured, but this I would be inclined to discount. I have seen several anacondas alive and dead. The largest measured was 38 feet, with a girth of 5 feet. I had what I considered reliable evidence of an anaconda 45 feet long, with a girth of 9 feet, having been caught and measured, and believe it possible that specimens a few feet longer have been seen; but man's tendency to magnify the size of snakes or fish he has caught is the same the world over. The specimen in the British Museum is quite a baby anaconda. Baron Nery, in his book on

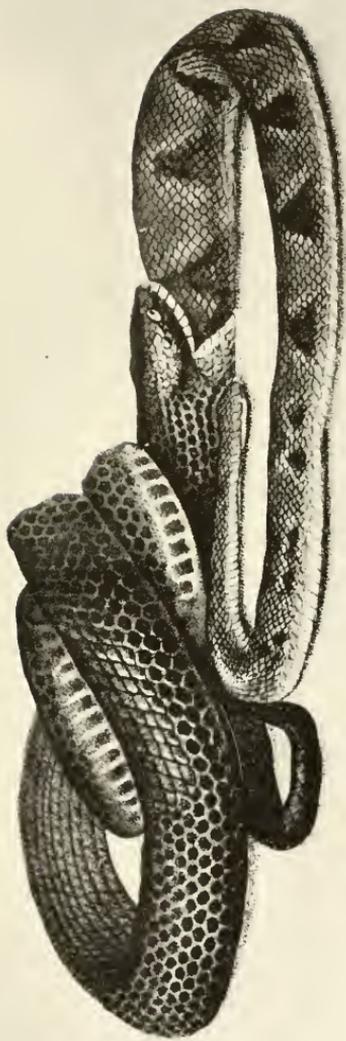
the Amazon, declares these snakes "often attain to over 60 feet." It is to be hoped that the next discoverer of a 60-foot anaconda will capture it, dead or alive. The anaconda, or sucuruju, as it is called by the Indians, feeds chiefly on animals and birds, which it hunts at night. Its body is usually a slate-grey colour with brown markings. On the head, close to the muzzle, it has bony shields instead of scales. When in the water the anaconda will raise its head 10 or 15 feet above the surface to look around. Approaching a vessel thus, it might easily give reason for great sea-serpent tales. Stories are told on the Amazon of the anaconda attacking native canoes and picking out the occupants one after another. The Indians were believed to at one time make human sacrifices to the anaconda, to win its favour and help in protecting their localities from water raids by their enemies. When not hungry, the anaconda likes to lie in the soft mud of some guarapé or lagoon. When hungry it usually climbs a tree and waits there till some animal or bird comes within reach, then it strikes out, and will swallow a deer whole. Hunters secure specimens by shooting them in the tree. A fine live specimen is on view in the City of Para in captivity.

A most interesting place to visit is the Butantan Institute near the City of São Paulo, where Dr Vital Brazil, perhaps the greatest authority

in the world on snake-poisons, has a snake-farm and laboratory. His book, "La Defense contre L'Ophidisme," is an extremely valuable contribution to the question of snake-poisons and their antidotes. At Butantan I found Dr Brazil full of enthusiasm in his researches, with the greatest collection of live snakes around him that could be got together in years of collecting. He had tens of thousands in captivity, ranging from huge boa-constrictors to adders a few inches long. Many of the snakes were kept in enclosed fields and sheds. Others were confined to cages and boxes. It was a weird, creepy place to go round. A large number of assistants are kept, and venom extracted from the snakes is made into an antitoxin to be used as an antidote in the case of snake-bite poisoning. The preparation is put up in glass tubes and sold to snake-infested countries, a considerable business being done with India. In São Paulo the antitoxin is distributed free by the Agricultural Department to landowners. It is said to be completely efficacious if injected immediately after the snake-bite.

At Butantan I was shown good live specimens of all the Brazilian snakes, and was permitted to take up and handle those not dangerous. Here I saw and handled for the first time the wonderful mussurana (*Rhachidelus Brazili*). (This snake is not only non-poisonous, but attacks and

eats the most deadly of the poisonous snakes. It is about 7 feet long, with a chocolate colour, regularly spotted skin, yellow on the belly. When taken up at Dr Brazil's suggestion it coiled around my neck and licked my face with its three-pronged tongue. It offered no resistance to being untwined and held at arm's length. A beautiful golden yellow jararaca (*Lachesis lanceolatus*), one of the most deadly poisonous snakes, was let out on the floor. The mussurana immediately attacked and soon killed it by biting it close to the head. The mussurana then proceeded to swallow the jararaca. Mussuranas are bred in large numbers at Butantan and distributed in districts infested by poisonous snakes, which they soon eradicate. The surucucú (*Lachesis mutus*), a beautifully marked snake in which bright orange is the predominating colour, is the largest of the very deadly snakes. It is found in many parts of South America. It measures about 7 feet in length and weighs about 10 lbs. It is no match, however, for the mussurana in a fight. The cotiaia or urutu (*Lachesis alternatus*) is a smaller, venomous snake with very beautiful markings. The only kind of rattlesnake found in Brazil is the *Crotalus terrificus*, which is found in fields. As it sounds its rattle furiously when alarmed, its presence is indicated, and it may be easily avoided. The boas and pythons are much similar to those



MUSSURANA EATING JARARACA

found in other countries. Of *Amphisbæna* there are over twenty species. The most common is the *A. fuliginosa*, a ringed, black-and-white, two-headed kind which measures about 20 inches. In spite of the number of snakes in Brazil deaths from snake-bite are rare, for those working in localities where there are known to be venomous snakes have always an antidote at hand. The Indians had very efficacious remedies for snake-bite before modern science was applied to the matter.

CHAPTER XVI

TURTLES AND FISH

Turtles and their habits—Fishes as a study—Sea fishes in Amazon—Landing a 2000-pounder—Vampire of the waters—Breathing fishes—Eels that give electric shocks—A fish story—Soles and flounders—Harvest of the waters—Little-worked fishing grounds.

THE Great Arrau Tortoise, called locally the tartaruga (*Podocnemis*), of the family Pelomedusidæ, has its home in the Amazon Valley. About thirty varieties of fresh and salt-water turtles are found here. The best known are the matamata (*Testudo Chelys fimbriata*), aperema (*T. plana sapida*), jaboty (*T. terrestris*), cabecudo, trajaca, uayanury, aiassa, and capitary. The tartarugas live in pools in the forests during the rainy season, and crowd into the rivers in the dry season. Their food consists principally of fruit that drops to the ground, and herbs they gather about the water's edge. When other food is very scarce they have been known to eat insects and small fish. The shell of this species is used for making many household articles. In colour it is olive-brown with darker patches. The female is much larger than the male, and often reaches 3 to 4 feet in

length. The females, which are far more plentiful than the males, are preferred for eating. During the months of September and October, the laying season, swarms of these turtles resort to the sand-banks and small islands in the rivers to lay their eggs. From 100 to 150 eggs are deposited by each female in a hole she makes in the sand. The hatching out by the heat of the sand takes forty days. The eggs have a parchment-like skin, but no shell. They are about the size of hen's eggs. A valuable oil got from them is used by the Indians for cooking, burning, and other purposes. Tartaruga flesh and eggs make excellent food. The eggs are collected by millions every year, and if not reduced for oil extracting are sold for food. Tartaruga meat is the cheapest flesh sold in the Amazon Valley, and tons of it are consumed weekly by residents. When cooked it looks and tastes like lamb or buckmeat. Turtle cutlets as served in a Manaus or Para first-class hotel is a dish epicures of Europe would highly relish. The meat and eggs are prepared in a great many attractive ways by Brazilian cooks. It takes a Brazilian cook to make the best of a turtle. Turtle-pie, roasted and served on the shell, is a dish London diners would greatly appreciate. The tartarugas might be reared in thousands in captivity, and, with a local cold-storage depot, collected and transported to London by the fast mail-steamers

now regularly trading between England and Manaus. Turtle-meat with its beautiful, butter-like fat, is a food one does not soon tire of. Forty to fifty millions of turtles' eggs are destroyed in the State of Amazonas every year to make oil. One setting of eggs yields about a pound weight of oil. This seems the least economical use that can be made of them. The turtles are easily caught, either in the water or on land. The Indians dive into the water after them and bring them up in their arms, or shoot them with arrows. Alligators and caymans as well as large birds of prey catch and eat the young turtles. The female turtles always go up stream to find laying-grounds for their eggs. Sometimes they go together in such large numbers that the smaller rivers seem full of them from bank to bank. Turtles live to a great age.

There is perhaps no branch of natural history affording to-day more scope for the student than the study of fishes. Scientific effort has scarcely dealt with the fringe of this field yet. Every year, however, brings large additions to our store of knowledge about the creatures that inhabit our great rivers, lakes, and oceans. When Wallace wrote on the geographical distribution of fishes, in his excellent natural history works of 1876, he gave us only 116 families, 1090 genera, and 6841 species of known fishes. To-day we have in one of the four groups an order

(Teleostei, Order IV.) divided into 13 sub-orders, 171 families and 11,500 species. Of these families alone, at least one-half are represented in Brazilian waters. Agassiz found 1200 distinct species in a small lake 500 yards across, near Manaos. If all the rivers of Europe do not contain more than 150 species of freshwater fish, it will be conceded that this must be a very remarkable little lake. It is indisputable that the rivers of Brazil are richer in families and species of fish than the rivers of any other country. The Amazon so teems with fish that it might very well supply all the cities of Europe with their freshwater fish and not feel the drain for many years. Fishing is a rapidly developing industry in Brazil, and since the Federal Government established a department to supervise fishery matters, assist by bonuses, and in other ways help the development of the industry, much progress has been made. It has been noticed that many fish found elsewhere only in salt water inhabit the great rivers of Brazil. A visit to any of the municipal fish-markets of the coastal or river cities is quite an education. There may be seen almost daily the most wonderful collection of fish offered in any market of the world, not even excepting the famous Billingsgate of London.

The "Lua do Mar," or sun-fish (*Orthogoriscus mola*), may be seen sporting its barrel-like form in the Amazon. This heaviest of all fish found

in fresh water would rather startle the gentle angler if he hooked it. One can scarcely imagine the landing of a 2000-pounder. Yet sun-fish 10 feet long and 2000 lbs. in weight have been landed on the banks of the Amazon; though not with salmon angler's tackle. The Osteoglossidæ family present some fine species. Notable amongst them is the Pirarucu (*Arapaima gigas*). This fish reaches a length of 20 feet and a weight of 500 to 600 lbs. Its flesh is much appreciated by all who have partaken of it. Pirarucus abound in Amazon waters, and their skin as well as flesh is largely used in Kaboclo households. The Indians have many stories about the doings of this big fish. A peculiarity about the female pirarucu is that she protects her young till they have grown a little. She will swim with them spread out in front of her like a fan. The Batoidei sub-order claims representation by several families in Brazilian waters. The Raia genus has many species, conspicuous amongst them being the Eagle Ray (*Dicerobatis* and *Ceratoptera*) or Vampiro Arraia, a much-dreaded monster of deep waters. These fish resemble huge bats with long, whip-like tails, because, though they are skate-like in shape, they have a prominent head with immense eyes on each side, and a mouth that is several feet wide. In this the eagle ray has several rows of teeth, with which its food, principally shell-fish, is ground. Eagle rays occasionally caught have

been 20 feet wide, and 4 or 5 feet thick. They frequent the deep waters of the Amazon and some parts of the coast, and will attack a man as readily as a shark would. Sharks, dog-fish, and dolphins venture hundreds of miles up Brazilian rivers. Porbeagle sharks (*Lamna cornubica*) to 40 feet long, Basking sharks (*Cetorhinus maximus*) 50 feet long, Blue sharks, 20 to 30 feet long, and hundreds of other species visit the coasts and river estuaries. The Alligator Gar-fish (*Lepidosteus viridis*), which here reaches a length of 10 feet, may be found in the Amazon. Its presence, especially in the shallower waters, is not welcomed, for it is voracious in habits and consumes large quantities of small fish.

Those strange families Ceratodontidæ and Lepidosirenidæ, containing species of breathing fish, have their best representatives in Brazil. The Lolach (*Lepidosiren paradoxa*) is said to be the only species of its genus. The lolach is about 4 feet long, and creeps about on the mud at the bottom of shallow pools in the forests. It breathes through the mouth, rising to the surface at irregular intervals to do this. It feeds on smaller fish, frogs, snails, and small plants. In dry seasons it hibernates in the mud. The lolach has a pair of hind-legs that it uses to propel itself along the muddy bottom with. Indians are very fond of its flesh.

The Tarpon (*Megalops atlanticus*) seen in the Amazon are about 6 feet long and weigh from

100 to 150 lbs. The Indians use tarpon scales for making many domestic articles. The Cariba (Serrasalmo) is a variety of salmon which reaches about the same size as the Scottish salmon. The Poraque or Electric Eel (*Gymnotus electricus*) is a denizen of the Amazon Valley rivers. It grows to a length of 8 feet and a weight of 50 or 60 lbs. It is nearly all, at least four-fifths of its length, tail. In this there is an electric organ with which it can give electric shocks that kill a man or beast. The poraque is found usually in marshes and shallow water. The electric discharge is so powerful that it does not need to come into actual contact with a man in the water to prostrate him with the shock. The story that a municipality in the Amazon Valley is lighted by electricity supplied by a number of poraques kept in an adjoining lagoon need not however be accepted. It is only "a current fish story" of this region. One of the Torpedinidæ family, an Electric Ray, known locally as the Treme-treme (*Narcine brasiliensis*), carries its electric battery in its head. The poraque does more damage with its tail battery than the treme-treme does with all it has in its head. A Catfish (*Platystoma*), growing to a length of 6 feet, is sometimes found to have a small fish called the "Candiru" (*Vandellia cirrhosa*) or a *Stegophilus insidiosus* living in its gill-cavity, sucking its blood. The Perciformes

are represented by many families and thousands of species, none of whom call for special notice except perhaps the Serranidæ family, which has an extremely extensive representation. The Zeorhombiformes are a striking division, especially in Amazon waters. The families in this division include some of the choicest soles and flounders that ever found their way to a breakfast table. Students of the Pleuronectidæ family would find classification work amongst its representatives in Brazil a colossal task. Much remains to be done in properly classifying the hundreds if not thousands of species of this family alone. When one has seen the immense variety and quantity of good fish going to waste in this country, especially in the Amazon regions, and remembers how poorly supplied with the choicest fish cities like London, New York, and Paris are, the question persistently arises why could not some business enterprise tackle the matter? Men will send vessels, to be tossed about at the mercy of every storm that arises around the European coasts, to gather a few tons of sea-fish at much risk and expense; yet hundreds of tons of fish of thousands of varieties may be gathered in daily from waters that know no wrecking storms, and few seem to think of it. Some day yet the banks of the Amazon may see cold-storage and fish-curing depots that supply the waiting tables of Europe and North America with selections from this vast storehouse of Nature.

CHAPTER XVII

IN THE HAUNTS OF COMMERCE

Piling up wealth—Exports and imports—The Republic's best friends—Importance of commercial travellers—Manufacturers must alter patterns as demand alters—What Brazil buys outside—And sells to other nations—Articles and lines increasingly demanded—Cellulose-yielding woods—Subsidies and bonuses offered—Commercial associations—Prominent manufacturing industries.

DURING the ten years ending 1913 Brazil's exports have averaged in round figures £61,000,000 annually, and her imports for the same period were £41,000,000 annually. The Brazilian is content to let political economists go on arguing and theorising about the respective advantages of protection and free-trade, while he can sell the outside world £20,000,000 worth more products than he needs from it in a year. He feels that the £20,000,000 is going to his credit somewhere. If prices of his country's products rise in the world's markets he is so much the richer, but as he buys chiefly manufactured articles whose prices fluctuate very little, he is not affected directly by the shortage in food supplies, through bad seasons, that European countries feel acutely. Sometimes, when the prices secured for leading

products rule low, as in 1913-14, the Brazilian feels the pinch, but only during the period elapsing between his striking the bad market and his getting there later on with other lines he has in the meantime turned his attention to. Brazil's chief exports are :—

Coffee.
Seringa (rubber).
Hides and skins.
Maté (Brazilian tea).
Cocoa.
Cotton.
Tobacco.
Sugar.

These lines constitute 95 per cent. of her total exports. The other 5 per cent. is made up principally by gold, diamonds, manganese, castanha nuts, carnauba wax, wool, bananas, medicine-plant products, cabinet-making woods, glycerine, fruit-jellies, etc. The United States of North America is Brazil's largest buyer. She takes about 39 per cent. of the country's total exports. Germany comes second with 14 per cent., Britain third with 12 per cent., and of the other countries which take less than 12 per cent., France with 10 per cent. leads. Of goods imported by Brazil, Great Britain supplies 30 per cent., Germany 15 per cent., United States 12 per cent., and France 9 per cent. These figures vary a little in different years, but with the

exception that the British share of Brazil's purchases has been seriously diminishing, the relative positions of the countries have not altered in recent years. Between 30 and 40 years ago, Great Britain was supplying 50 per cent. of Brazil's requirements, and the United States and Germany about 6 per cent. each. To-day Britain only exceeds the joint-contribution of her nearest two rivals because of what Canada, Newfoundland, New Zealand, and India contribute to her quota. Portugal's fall from first to sixth place in fifty years, and Germany's rise from sixth to second place in thirty years back from the present time, are other features of this matter. Many reasons might be advanced for Britain losing her former share of Brazil's custom. Prominent amongst these are the following: English business men, even manufacturers, and their agents who must depend so largely on them, continue to discourage travellers or outdoor salesmen. These important auxiliaries to every business have for so long been treated as tramps or beggars as are treated in England, that the good men who will go out selling are getting scarcer every year. It is proverbial that no matter what good line a man may be out to sell, he does not as a rule get a hearing in England unless he and the firm he represents are well known to the firm to be called on, and he is content to be accorded the

reception usually given to a nuisance. Good men have long since got sick of this. They will not engage in a calling that leaves them open to a continual round of snubs and indignities, therefore they go out and leave it to the individual who must submit to this to live, so manufacturers have this latter class mainly to recruit from. The conditions make the man. The U.S.A. or German merchant and manufacturer is far more accessible. He recognises that he has travellers out himself and accords to travellers calling on him the facilities he expects for his own men. The English manufacturer and merchant does not, and so exhibits shortsightedness. Americans and Germans have done all they could think of to make the calling of a commercial traveller a dignified and respected occupation; and they have retained the good men—those who take pains to equip themselves in every way for their difficult vocation. In foreign countries—I am speaking of the new—it is quite common to find the American and German commercial travellers fluent in two or three languages, and they make a point of acquiring the language of the bulk of their prospective clients; but British houses continue to send out men who only talk English, and have had only the slenderest experience of travelling, to compete with the proved experts of other nations. Then the British manufacturer will not make

what the buyer wants but what he, the manufacturer, thinks he should buy. Take a case in point. Buyers of a figured red cotton kerchief, worn by fisher-women and other outside women-workers in a certain country, had been supplied for years by an English manufacturing house. When that house's traveller called round one year he was asked if his house could not make the kerchief a little larger so that a woman wearing it could make a better knot under her chin. The traveller explained the matter to his principals, but they decided to make no alteration in the size because they had always made only that particular size. A German traveller called on these buyers soon after this decision was communicated to them. Exercising that discretion not left usually to British representatives, he booked all the orders he could get for the size sought. His principals made what was required, and not only got from the British the entire business in that article, but a great deal of the other cotton lines required by that country. Instances of the kind could be related by the score. Until British manufacturers and merchants show more sense in these matters Britain will continue to lose her position in these foreign markets.

Brazil's purchases from Britain consists mainly of coal, cotton piece goods, steel and iron manufactures, machinery, woollen goods, hemp and

jute, paints and varnishes, soap, biscuits, metal alloys, rubber goods, and paper. From Germany she buys cotton piece goods, iron and steel manufactures, machinery, porcelain, earthenware and glass, cement, woollen goods, arms and ammunition, sewing-machines, umbrellas, wines, and rubber goods. The United States sell her oils, wood-pulp, cotton manufactures, machinery, furniture, flour, leather, ammunition, coal, steel instruments, and lard. France and Italy send motor-cars, wines, butter, perfumery, paper, potatoes, seeds, cheese, hats, pipes, arms and ammunition. Of Brazil's exports, coffee and seringa constitute more than three-fourths. Britain takes two-thirds of her seringa, 15 per cent. of her cotton, 8 per cent. of her coffee, some gold, cocoa, carnauba wax, nuts, and medicinal-plant products. The United States buys from her large quantities of coffee, cocoa, seringa, hides and skins, nuts, and manganese. Germany takes coffee, seringa, cocoa, skins, carnauba wax, and bran.

There is a fast increasing demand in Brazil for paper, newspaper and wrapping, motor vehicles of all kinds, agricultural machinery and tools, meats and foods, dairy products, woollen goods, jewellery, seeds, silks, and electrical appliances in about the foregoing order of urgency. The demand for paper has sent the prices of that article of commerce up so high

that paper is at present dearer in Brazil than in any other country in the world; yet she has almost unlimited forests of wood suitable for making wood-pulp. In the Amazon Valley more than forty different species of trees have been found, upon testing by experts, to be eminently suitable for making cellulose or wood-pulp. One expert, writing to the leading London newspaper, said, "Most of these are of very rapid growth, and at the age of seven or eight years reach a diameter equal to that of our European resinous woods at 25 years. Nearly all of them have a white or very light-coloured physical texture with long, flexible fibres. Apart from the pinho and almecega, none of them contains resin. Almost all attain a height of 66 to 112 feet and a diameter of 30 to 100 inches." An analysis showed that nearly all of them yielded from 60 to 72 per cent. of cellulose to 1 to 2 per cent. of ash in the case of dry timber, and a cubic metre of wood weighing 1212 lbs. would yield 441 lbs. of mechanical pulp. This points to the possibility of Brazil's paper difficulty being attended to in the near future by paper manufacturers within her borders. Subsidies and bonuses to help the establishment of certain industries are offered by the Federal Government and some of the State Governments. Concessions, with exclusive rights in the businesses for which they are granted, may also be obtained from the city councils and

municipal bodies as well as from the governments. Owing to the way some of these privileges have been abused, getting a concession is not now the easy matter it once was, and any concession of real value is an expensive thing to secure. By a Federal law passed in 1912, provision is made for great encouragements to the seringa industry. For instance, a premium of £26,000 is offered to the first factory established at Manaus or Para for the refinement of seringa of a uniform type, superior to the present exported article; and £33,000 bonus is offered to the first factory for the manufacture of rubber articles opened in Manaus, Para, Pernambuco, Bahia, or Rio de Janeiro. Premiums are also offered for the establishment of coal depots, fishing and fish-preserving establishments, and other industries in the Amazon Valley. Inducements for the provision of cold-storage food supplies for the cities and municipalities of that region have also been granted. Earnest efforts are also being made by the various Commercial Associations in Brazil to secure all the help and protection possible for struggling industries. The various Governments respond readily to such appeals, and the pioneer of a new industry can rely on good faith and every reasonable encouragement.

The Commercial Associations, found in every city of Brazil, are as a rule well conducted and

commendable in every way. They are interesting too because of the proof they furnish that men of all nations can work together for the mutual good, even when keen business rivals, if they are unfettered by the whims of European politicians who may not be business men. In nearly all these Associations I found British, French, Germans, Americans, Portuguese, Spaniards, Italians, and other nationalities working together in perfect harmony with their Brazilian brethren. There seemed to be no jealousies as to who should occupy the positions of control. All got and took their turn, or the ablest man, even if he belonged to the smallest Power represented, took the lead. Their headquarters was always found well-equipped and much frequented. In fact, the Commercial Association buildings always appeared to be the heart, supplying the life-blood and energy to the city's organism. The visitor is tempted to spend much time in these haunts of commerce, for he will acquire in a day there a better conception of the city's interests than in weeks of aimless rambling. The men connected with them are always the substantial business men and financiers of the city. They keep their fingers not only on the pulse of the nation, but to a degree on that of the outside world. They have their daily cable or wireless service from all parts. The momentary fluctuation, even by

the smallest fraction, in Mincing Lane, London, in New York, or Hamburg, reaches them promptly, if in a line anyone in the Association is concerned with. The Brazilian Governments continually seek their guidance in commercial questions, and in some States the Commercial Association makes or unmakes Governments.

Of the manufacturing industries cotton-weaving occupies pride of place. There are over 200 cotton mills with nearly 100,000 looms, a single factory having over 2000 looms in some cases. The mills are located chiefly in Minas Geraes, São Paulo, Rio de Janeiro, and some of the coastal States. Most of the machinery used is British, with British overseers controlling the departments. Woollen and jute mills also exist in some States. About £1,000,000 is invested in woollen factories in Rio Grande do Sul; and São Paulo has a jute mill with 15,000 spindles. Silk-spinning is a fast-growing industry in São Paulo. Sugar factories number several thousands throughout the country. Of these about 200 are fairly large, modernly equipped factories, located principally in the coastal States. Pernambuco is perhaps the greatest sugar centre. Flour-milling is carried on in the Federal Capital and São Paulo, and saw-milling is found in every State except perhaps Ceara. Meat-canning is an important industry in Rio Grande do Sul and Matto Grosso. Tanneries and boot factories

employ many thousands of workers, and in São Paulo the hat factories are quite a feature of its industries. The hats made by some of these challenge seriously the best work of the kind turned out in Europe. Soap and candle-making is a small business not in the hands of those likely to lift it along. About 50 factories are spread over many States. Match factories turn out matches to the value of one or two million pounds sterling yearly; and there are a number of breweries and cordial factories. Iron and steel foundries to the number of 300 or 400 exist, the most being in the States of São Paulo and the Federal Capital.

The tobacco industry maintains thousands of factories spread over almost every State. Bahia leads in tobacco manufacture, its exports exceeding 100,000,000 lbs. annually. The City of Bahia is an important cigar and cigarette-making centre. Bahia cigars and tobacco are little if anything inferior to Havanna. The best Bahia cigar after being kept for a short while in Paris or London has a flavour much akin to the best Havanna. Brazilian cigars are rapidly winning their way into European favour, though they are not yet much sold as Brazilians in London. A little more enterprise on the part of those engaged in their production might bring good results. After Bahia, Minas Geraes, São Paulo, and Goyaz produce the most tobacco.

Goyana tobacco is in most request for cigarette-making. It has been estimated that some 70,000,000 cigars are made every year in Bahia alone. Germany takes 90 per cent. of Brazil's exports of tobacco, which amount to about 60,000,000 lbs. a year. Britain's share of this is approximately 150,000 lbs.

Minor industries are lace-making in Ceara, making artificial flowers principally in São Paulo, manufacturing furniture, ornaments of metal and porcelain, tiles and pottery, perfumes, writing and printing inks, parasols, confectionery, cheese, wearing apparel, glass and crystal ware, cement, and wines.

The commercial system of distribution is just what prevails in older countries, with the exception that, where manufacturers find wholesale houses side-tracking their lines in favour of imported goods, they open wholesale and often retail depots stocked with their products, which are offered at cut prices till the importers with competing lines give the national lines a fair chance. Labour is well organised in the factories and business houses, but strikes are rare, except with outside unskilled labourers.

CHAPTER XVIII

RICHES OF THE BACKBLOCKS

El Dorado excelled—Who finds goldfields and world treasure stores?—Men covered with gold—Animal, vegetable, and mineral wealth—Curious belief regarding foods—Vegetable-growing on the Madeira River—A chance for farmers—Black diamonds' home—Anyone can go diamond-seeking—Other gems and precious metals—Coal deposits—A record large beryl.

FROM the supposed site of El Dorado between the Rio Negro and Rio Branco in the north to Lake Mirim in the far south, Brazil is a country full of possibilities. A comparatively few days' steaming from Europe, it is strange that the resources of this region have not been more exploited. Only a fringe around the coast has been thoroughly examined so far. Yet that fringe has yielded greater riches in gold, diamonds, all manner of precious stones, and plant products than the wildest dreamer about El Dorado could have imagined. When Europe was excited over the tales of El Dorado brought back by voyagers to South America it is little wonder that there were wiseacres who shook their heads incredulously. History furnished no precedents for such finds: New Zealand, Australia, California, Transvaal, Kimberley, and the other

storehouses of gold and gems were not known. The marvel is that so many people were found to believe in the possibility of a region of untold riches anywhere. Were the doubting wiseacres of the sixteenth century alive to-day, and could they be confronted with the wealth in gold, diamonds, precious stones, and rare minerals already taken out of Brazil, they would surely die of shock at the sight. In spite of the many instances of vast treasures of wealth being opened out in unexpected places, there are still the "ne'er-believes" holding back enterprise. It seems readily forgotten that geologists and scientific men scoffed at the idea of there being gold in the Rand, and it was left for some Australian working diggers to open that storehouse of gold to the world. Scientific men have never had any hand in the discovery of either the great gold or diamond mines. Geologists told us not so long ago that there could be no coal in the Amazon Valley, yet I have handled and burnt coal dug out there during my visit in 1912, and we may soon see mines of it worked. Indians and Kaboclos in the Amazon Valley have legends of tribes whose chiefs painted their bodies with gold and made their domestic utensils out of it, but locating the place of its origin interests Europe less to-day than it did centuries ago. Once a year or so Indians and half-breeds come into the farther-back towns of Goyaz, Minas,

and São Paulo, and barter gems for food and other requirements. There seems no great anxiety to see how much more of the gems might exist where these came from. Some of the Indians seem to be able to lay their hands on diamonds very readily if they see something they covet much. If you ask them where they got the gems they will say "away far back many days."

The riches of the backblocks may be classified thus—wealth from the animals and fish, the trees and plants, the rocks and earth, or animal, vegetable, and mineral. The wealth in the animals consists of what they produce in skins, hides, hair, wool, oil, and meat. The birds yield food and plumage, the fish food, oil, and skin. The trees and plants give timber, seringa, nuts, fibre, wax, tan, tea, coffee, cocoa, other drinks, foods, starch, oil, resin, dyes, ornamental plants, and medicines. The earth holds gold, silver, platinum, copper, manganese, tin, antimony, nickel, iron, lead, zinc, bismuth, wolfram, asbestos, mica, plumbago, graphites, sulphur, lime, saltpetre, galena, cinnabar, monazitic sand, salt, marble, oil, coal, lignite, peat, mineral waters, and building stones, diamonds, rubies, sapphires, beryls, topazes, garnets, agates, crystals, amethysts, tourmalines, emeralds, aquamarines, hyacinths, cymophanes, and triphanes.

In all three departments of wealth much

remains to be done. The wild animals have, it is true, been decimated almost to the point of extinction, but there is great scope for the rancher. Cattle-breeding on a large scale has been tried successfully in several States. British ranchers have done well in Matto Grosso. The country is much nearer the world's great meat markets than the Argentine, and that country finds it extremely profitable to go largely into the meat trade. The Southern States of Brazil provide millions of acres of good sheep country. I do not believe Brazil would ever be noted for its wool; but good marketable kinds are being obtained from sheep bred there; and there is no reason why the breed of sheep should not be improved. The country is experiencing an increasing demand for beef, mutton, and lamb. I could see no apparent reason why this demand should not be met locally. My experience in Asian countries has been that, once fresh meat is put on sale at reasonable prices, it makes a permanent place for itself amongst the foods of people not previously using it.

There is a curious belief held by people who have never lived in hot countries respecting this question of a meat diet. They believe that only fruits and vegetable products can be largely used in the tropics. Let me correct this idea at once. Fresh meat is the best diet to live and work on in the tropics. It is Nature's food for

those regions. I have lived in all the countries on the tropical belt, and after spending a quarter of a century in hot climates feel I know a good deal about them. It has sometimes been my lot to have to get the utmost possible work out of numbers of men labouring in trying heat. I always got the best results from those enjoying plenty of good meat food. I could always work better and stand great heat easier when living largely on fresh meat. A strong diet gives a resisting power against heat as well as cold. Whoever found a race of aboriginals in a hot country that did not eat meat, and did not prefer it when they could get it? The trouble at present in Brazil is that meat is scarce and dear; and the Argentine jerked beef is widely used in the absence of supplies of better fresh meat. One of the potential gleaners of wealth from the animal kingdom in this country will be cold-storage companies circulating fresh meat, fish, and dairy produce food supplies.

Apart from the trees and plants already dealt with, such as seringa, coffee, carnauba, castanha nut, and tobacco, there is wealth lying ungathered in the virgin forests, in the grasses and small plants. The older world needs the new varieties of cabinet woods, the little known nuts and fruits, the spirit that may be extracted from so many different kinds of trees, the fibres, and the cellulose. The grasses may have

qualities long sought by graziers and commercial men. The extent of helpfulness of the medicinal plants is not known yet. There are places for profitable industries in these fields surely. The soil will grow anything. I saw turnips, cabbages, onions, potatoes, and other European common vegetables grown to perfection in many States, yet cabbages are imported from France and often bring three shillings each in the northern cities. There should be a lot of money quickly earned in growing cabbages alone in the Amazon Valley. One enterprising seringueiro on the River Madeira has made a start growing what we call kitchen vegetables, and he finds he can sell everything he grows without conveying it any distance. Market-gardening would pay handsomely in any of the Northern States. Orange, vine, and apple culture is a business offering good prospects to those who have a little capital and can wait for their returns. The people of Brazil are just as ready to welcome fruits not already growing in their country as the folks of other places are. The initial shipments of New Zealand fruits to Rio de Janeiro were quickly absorbed, and a regular trade is now arising. The Southern States should produce more wheat, oats, barley, and rice. In such cereals the field has scarcely been touched. At present the flour-mills have to import all their wheat. Oatmeal is little used, and what is

consumed is imported. Breakfast cereal foods are fast becoming popular in the hotels following European and American meal-hour customs, and there seems to be a chance for cereal farmers. There should also be money in bee-keeping, where the climate is so good and flowers plentiful.

The great hoards of wealth in the backblocks of Brazil will be reached perhaps quickest by the uncovering of its mineral and precious-stone resources. There is gold still untouched in several States besides those already engaging attention. I have seen gold in streams where the presence of gold has never been suspected, at least by the present generation. Where one finds the colours there should be the quartz matrix not far away, or at least more loose gold. I went up some hundreds of miles of Amazon tributaries and feel sure that on the northern side payable gold will one day be got about there. Though I did not go nearer than where I got a far-off view of the El Dorado country, I was much impressed with what I saw of the territory extending out from it, and came away sorry the time at my disposal did not admit of my reaching it. The rivers are navigable by steamers right up to, and I was told through, the only part of it yet explored. I believe that those people who sink a great deal of money in equipping ships to search for sunken Spanish galleons, or secret treasure troves in far-away islands,

would get a much better chance for their money if it were invested in an expedition to one of these unexplored recesses of Brazil.

Not less important than the gold, which has not been troubled about much lately, except by a few British companies operating in Minas Geraes, are the diamonds., Most of those got were found in Minas Geraes, Bahia, and Goyaz. The Brazilian diamonds are superior to the African diamonds in several respects. They excel in brilliancy, colour, and light. The diamonds found in Matto Grosso and Minas Geraes are the most valuable, their crystallisation being usually perfect. They are found in quartzitic sandstone, much similar to that of the African diamond fields, excepting that this is light pink in colour. Of this diamond-bearing ground there appears to be still very great areas unexploited. Most of the stones taken out have been gathered from the river-beds and alluvial deposits. "Carbonados," or black diamonds, the production of which Brazil has the monopoly, are found in several states, notably in Bahia. Here they are got in alluvial ground, washing it for their recovery being the usual process of extraction. These carbonados also exist in hard "blue ground." Little has been done yet to deal with this. It is astonishing to find scarcely any up-to-date machinery on these diamond fields. If Brazil had the machinery to be seen

in Kimberley and the Transvaal diamond areas to deal with diamond ground, her export of these stones might soon be a great feature of the nation's output. The largest carbonado was found at Lençoes in 1895. It weighed uncut 3150 carats. Carbonados of 300 to 600 carats are frequently found. Their value ranges from £3 to £5 a carat with an increasing demand. Anyone may go and seek diamonds in Brazil, provided they spend a few shillings on a miner's license. The State Governments give every encouragement to those wishing to take up and work areas, and the taxation is extremely nominal compared to that of Africa.

Platinum as well as gold occurs in diamond districts. This rare metal was originally discovered in Brazil, and though deposits of it are known to exist in three or four States it has never been systematically worked. The lodes have been traced in places almost on the coast-line, so that it has not been the cost of getting machinery to the beds, to extract the metal from the ore, that has held up enterprise. Manganese-mining has developed rapidly in recent times. The ore, which usually contains over 50 per cent. of metallic manganese, is found in Matto Grosso, Minas Geraes, and Bahia. Silver and copper have not been much exploited, though the latter metal is abundant in the Northern States, and worked on a small scale

in some of the Southern. Wolfram has been got in Rio Grande do Sul. Monazitic sand, which gives us the thorium so largely used in making mantles for incandescent lights, is found in large quantities in the States of Rio de Janeiro, Minas Geraes, Bahia, and Espirito Santo, generally on the coast or the shores of lakes. Brazil now contributes the greater part of the world's ever-increasing requirements of monazite. Asbestos has been worked on a small scale in several States, principally in Minas Geraes, where graphite, plumbago, sulphur, and lime are also found. Rock crystals are plentiful everywhere. Coal has been found but not worked in the Amazon Valley, and a good steam coal is mined in Santa Catharina and Rio Grande do Sul, though the output of the mines is not very considerable yet. Lignite and peat deposits are found in nearly all the States. Oil shale has been discovered in Espirito Santo and Goyaz. All the inland States have an abundance of precious stones; and sapphires, rubies, and emeralds are obtained in coastal States. During my visit to Brazil a beryl of record size was found in the interior. It was described as of a bluish-green colour, with the appearance of a crystal of six irregular facets, 20 inches long, 17 inches in diameter, and capable of giving when cut 200,000 carats of first-class stones. This will serve to show Brazil's possibilities in the matter of precious stones.

Of the marbles, granites, and other building stones it is not necessary to say here more than that the country is rich in them, and they are being used with good effect in its buildings. A general recapitulation of what I have seen in the backblocks gives very inadequate expression to the effect produced on the mind by beholding it. Here I saw in limitless aggregation the rich men everywhere are struggling to secure a share of, yet so much lay piled up there unclaimed. While men are crowding on each other's heels, and almost snatching at their brothers' food in our great cities, a few days' voyage off there is elbow-room and wealth enough for tens of millions more. It leads one to the reflection that as keeping plants crowded together in a nursery bed, instead of transplanting them out into larger areas, never produced a forest, so keeping people herded in cities will never produce a great race. The efforts of statesmen should be to relieve congestion, and spread people out over the many beautiful, but yet unoccupied, parts of the world.



A SERINGAL HOMESTEAD

CHAPTER XIX

WHAT YOU SEE IN THE CITIES

How to see the cities quickly—Hints about baggage—Brazilian hotels—Architecture and paving—Bahia a city of churches—Choice national food dishes—Bahia cigars—Caravans of the North—Tram-cars-de-luxe in Para—Manaos a coming commercial centre—Alcoholic drink in the Tropics—Mansions and humble homes—Conquistadores and their vagaries—City police.

SHOULD one wish to visit only the cities of Brazil, and see as much as possible without undue repetition, an itinerary I recommend is as follows: Go first to Manaos. Take then in this order Para, San Luiz, Fortaleza, Natal, Pernambuco, Bahia, Victoria, Rio de Janeiro, Ouro Preto, Bello Horizonte, São Paulo, Santos, Curytiba, Florianopolis, and Porto Alegre. This selection, which can be taken, after the return from Manaos to Para, on a forward run, includes nearly all the main cities and a representative of every kind of city found in Brazil. A traveller can use good coasting steamers, and in most of cases large ocean liners, to visit the coastal cities, and railways for those in the interior. The only baggage and equipment necessary are such as might be taken on a cruise round Mediterranean ports. The hotels

in all these cities range from fair to excellent. Hotel porters and "carregadores" meet steamers and trains in all cities. I would warn visitors to Brazil about the average carregador or porter. As soon as a steamer or train arrives, these men, easily distinguished by their white jackets, and caps with their calling and number affixed, rush to take luggage. The carregador is the most expensive means of conveyance for luggage you can hire if you are a stranger. His fees will appal you. My experience was that two or three taxicabs, or even a motor-car, could be engaged for the price asked by a carregador. Taxis, cabs, and in many cities, motor-cars can be hired very reasonably. Such means are quicker, and more satisfactory in every way, than the carregador. It is usually best to leave all baggage to the hotel porter, who in Brazil I found always quite honest and painstaking in his duties. Hotel rates are, class for class, rather above those ruling in Europe and North America. In the cities I have given, the best hotels provide good meals and accommodation, though exceptions must be made in a few cases. The Brazilians are not a great success as hotel-keepers, but British, French, German, Spanish, and American hotels are found in most of the larger cities. Here, as in other new countries I have visited, the Swiss hotel-keeper fails to rise to what is expected of him, unless he has a woman's

active assistance. His hotel is chiefly noteworthy for the elaborate strings of rules posted up everywhere, and the scantiness of the bill-of-fare. The restrictions and "thou shalt nots" are apt to get on the nerves of tourists, and, little wonder, they prefer a hotel with more food and fewer restrictions.

The cities are as a rule well laid out, and, where this was not originally done, desired improvements are now being made. The City of São Paulo is a striking instance of this. It grew up from a town the laying out of which had been badly muddled. Recently the municipal authorities began a huge scheme of reconstruction, involving the expenditure of millions of pounds sterling. Whole blocks of buildings were demolished, acres of land reclaimed, ravines transformed, streets wiped off the map, avenues, gardens, bridges, lakes, fountains, and terraces made—so that when the scheme is completed the city will be transformed from an unattractive to a very attractive capital. Other cities too are undergoing more or less complete re-arrangement. The mosaic paving on the side-walks is a feature in most of the larger cities. This idea is extended to public squares and gardens in some places. Brazilian cities are rich in magnificent architectural studies. Here she takes a high place amongst the nations of the world. The chief public buildings command

admiration for their imposing beauty. The Avenida Rio Branco, Rio de Janeiro, possesses more beautiful buildings in a half-mile of its length than is found in the same distance in any other street I have seen. Its Monroe Palace, Municipal Theatre, and one or two of the newspaper offices would be ornaments anywhere. The municipal theatres are imposing structures in many of the smaller towns as well as the cities. With the cathedrals, hospitals, and educational institutions, these always stand out prominently. The legislative and municipal buildings are usually not so prominent. In Bahia the number of churches, 365, one for every day in the year, is the great feature of the city. The visitor has two other things to remember when there. In the hotels and restaurants food peculiar to the place is served. The best dishes are known as "Papa a Bahiana" and "Vatapa a Bahiana." Having previously enjoyed the famous "Rice-tafel" of Batavia, and the curries of India, I tried these much-talked-of dishes. I found both quite up to their high reputation. They are varieties of curries with Bahiana flavourings. The other thing to remember in Bahia is that a box of the best cigars can be got for a very small amount. These too I sampled, and found so good that I ultimately secured enough to last me for weeks after returning to London. To get the best cigars in Bahia, it is advisable to

leave the purchase to a local friend knowing where to go, for there are also very bad cigars made up to look like the best. In Bahia and Pernambuco there are some good streets, but generally they are not so well paved as in other cities of the country. The likeness of Pernambuco to Amsterdam in many respects struck me. Both have the bulk of the city merchandise distributed by canals. The residential part of Pernambuco at the back of the city is its most striking feature. The houses are surrounded by ample gardens, and, though the locality is much hotter than the sea-front, it is also much cleaner, and better served with trains and trams.

The cotton caravans that come from the interior to Fortaleza and Natal attract a visitor's attention there. Sometimes four or five caravans, each of 50 to 100 mules and horses, may be seen passing through the streets to the exporting warehouses. On each mule or horse there are two large packages of cotton or other produce of the interior, and many of the animals carry bells that tinkle as they proceed. With the shouts of the drivers riding alongside and the tinkling of the bells the caravans make some stir as they come in. Where there are no railways these caravans carry back the stores and merchandise required by inland towns. The caravan drivers are a swarthy, unattractive-looking set of men, whose rough and risky occu-

pation seems to have eliminated all traces of softness or gentleness from their dispositions. In the backblocks of Pernambuco and Ceara they frequently encounter "cangoceiros" or banditti infesting these parts, to whom a caravan with supplies from the coast is a prize worth trying for. These caravan drivers are therefore all armed and are reputed to be very courageous fighters. In Fortaleza there are many fine garden squares much frequented by residents in the evenings, when military bands play for a few hours.

San Luiz is a quaint old place whose public buildings, though not beautiful in themselves, have been made to look imposing through the setting of lovely gardens given them. In its people I found much to remind me of its former French and Dutch occupation. Para, or Belem as it is often called, has good public buildings, set also in gardens or ornamented squares. The custom of beautifying the town with tree planting, gardens, and ornamental spaces prevails throughout Brazil. Every little village must have its public gardens, almost as soon as its streets are formed. The sewage and water-supply schemes must wait till the gardens and municipal theatre are complete. In Para I saw for the first time tramcars-de-luxe, that is street cars fitted and furnished like a modern drawing-room, with cane and upholstered chairs, carpets, mirrors, and ornaments. Of course these were

not for general use. I believe they are reserved for the use of distinguished visitors to the city, and I felt duly complimented when taken by an official party for a tour of the city in such a luxurious conveyance. The Zoological Gardens in Para is a place of much interest, because it contains many animals, birds, and snakes not seen in any other zoo existing.

Manaos is one of the prettiest cities in Brazil. Located on rising ground on the northern bank of the Rio Negro, the city extends from the river in terraces to the hills behind. Splendidly laid out, with wide avenues and many garden squares, it has several imposing buildings, prominent amongst which are the Amazonas Theatre, Palace of Justice, and Hospital. Manaos boasts a university, cathedral, large public library, and museum. There is no doubt that Manaos is destined to be one of the world's greatest cities before the end of this century. It occupies not only the central position in the largest and richest valley of the world, but it occupies a commanding site at the confluence of immense waterways opening up a continent. The Rio Negro is $1\frac{1}{2}$ miles wide in front of the city, and berthing accommodation might be provided there for hundreds of ocean liners. Connected as it must eventually be by rail with the British, Dutch, and French seaports on the north coast, Manaos will surely become the distributing centre

for the eastern parts of Colombia, Ecuador, Peru, and Bolivia, as well as for Northern Brazil. Its climate, though hot, is tempered by cool breezes from the river. During my stay of over three months there the temperature in the daytime averaged 80 degrees in the shade. The nights were always four to six degrees cooler than the days. The Rua Marechal Deodoro is famous as the headquarters of the seringa business. It is a narrow street running parallel with, and close to the central avenue. Here are found the offices and warehouses of the "aviadores" and exporters. When the rush of business is over the commercial men resort in hundreds to the cafés, and to chairs and tables spread out on the wide side-walks of the central avenue where they drink coffee and smoke. Later on in the evenings they whirl around the avenues, in motors, enjoying a rush through the cool air. It is said that some even spend their evenings in the cafés, drinking whiskies or beers; but these must be only the men who do not propose living long in the place. Drinking alcoholic spirits in the Tropics is one of the most glaring indiscretions imaginable. Some men may do it for years without its killing them, but the hard drinker is always the first to succumb, and the moderate tippler in alcoholics follows next when a fatal epidemic comes along. After twenty-five years' experience in every country on the

Tropical Belt, during which I have passed unscathed through epidemics of yellow fever, cholera, smallpox, bubonic plague, malaria, beriberi, and many other tropical plagues, I am convinced that total abstinence from alcoholic liquors is the only perfectly sane and safe course for the Tropics. Very little drunkenness is to be seen in the cities of Brazil. What there is foreigners are mostly responsible for, the British being the chief sinners. I was three months in Brazil before I saw a drunken person, then I met two very drunken English clerks. Britons going abroad are too often apt to forget the dignity of conduct that once won for our people the respect of those they went amongst. The silly young ass who seems to act on the idea that it is an Englishman's privilege to get drunk where and when he likes is losing for our nation much of the respect we used to enjoy in other countries.

Victoria, in Espirito Santo, is a strangely arranged little city with a great belt of natural forest bordering it. Views of its beautiful surroundings from the heights behind should be the first mission of the visitor. At Ouro Preto one gets into touch with the mining people of the country. Like all mining cities, its buildings are erected with a large forgetfulness of beauty in design. Its one great statue, that of Tiradentes, stands in what looks like a roughly paved stable-yard, bare of garden plot or vestige of shrub.

The successful Brazilian loves a good home, and the cities have many mansions of handsome design and roomy proportions, standing in well-kept gardens or grounds. The best of these are to be found in São Paulo and Rio de Janeiro, although nearly every city has one or more striking residences. Social clubs abound, and one many find in Rio de Janeiro clubs so expensively furnished that a stranger is puzzled to account for it. The secret of it often is that the clubs make large incomes from taking a percentage of the monies changing hands at the gambling tables in them. Although roulette, baccarat, and such forms of gambling are contrary to law, saloons, open to the public, where such gambling goes on are to be found in nearly all the cities. They are often in close proximity to theatres and music-halls, on whose patrons they largely depend. Closely allied to the gambling saloons and lower-class music halls is the white slave traffic. This reprehensible business is allowed to flourish almost unchecked throughout Brazil. Entire streets are in many cities given up wholly to dens of infamy. Recruits for these are imported principally from France and Roumania, with a few from other nations, Britain and the U.S.A. also providing some victims. They are brought in usually as music-hall artistes and given a few appearances on the stage by way of advertisement. Many of the

casinos and music-halls are conducted principally for this introducing business, and their programmes rarely present any artistic merit. The matter is one that serious politicians are likely to deal strongly with in the near future.

The homes of the poor in the humbler quarters of the cities are not as a rule as squalid as some I have visited in London and New York. The coloured people form the bulk of the poor, and they contrive to be happy on very little. They do not drink much intoxicants, and spend any spare cash they have on lottery tickets or celebrations of some kind. They all have musical instruments, and seem to love to pass leisure time singing and chattering, if they have no money to go to the cinemas. Their food has little variety. It is always coarse and cheap, but very sustaining. The poor Brazilian is wise enough not to pine after dainties and waste his small pay on them rather than have plenty of the plainer food he can afford. The furniture of a labourer's home is extremely simple. It is usually a few hammocks, pots, dishes, a table and chairs, a trunk to keep his best clothes and treasures in, and a few religious pictures and images around the walls. In some of the cottar homes, notably in Ceara, the women are continually making lace, and the men articles of wood and horn, for sale. The cottage industries have a wide range throughout the country.

I have seen workers in their humble homes making lace, hammocks, curtains, mats, bedspreads, hats, slippers, ornaments, pottery, tinware, household utensils, furniture, musical instruments, medicines, wines, jams, confectionery, clothing, and a variety of other articles of merchandise. In São Paulo many works of art come from the poorest Italian homes.

The cities have their idlers too. Most of these seem to be the sons of rich men, whose sole occupation seems to be running around in motor-cars with their lady friends, or sitting about the side-walk cafés watching the passers-by. This useless class, called "conquistadores," has never been firmly enough dealt with by the authorities. These idlers often inconvenience business men, and become objectionable to ladies having to use the side-walks; yet, because of their social position, their vagaries go unchecked. As a rule the people met on the side-walks are extremely polite, far more so than in our European cities. Courtesy, as in Japan, is a national characteristic, and you would never find a Brazilian brushing through a group of people talking, even if they impede his way on the side-walk.

The window-displays made by leading retail establishments are not far behind what is seen in London or Paris. The arrangements for serving buyers inside are yet in the crude stage. It is always difficult to get British goods, unless

one visits British retail shops, of which there are a few. Clubs where British and American people meet are found in nearly all the principal cities. There one can see the leading newspapers in the English language, and a few of the magazines. English periodicals and newspapers are on sale in many of the bookstalls. There are comparatively few street hawkers, and those licensed are not permitted to stand long in one place. They usually carry heavy loads of food and confine their attentions to the workers' quarters. In Carnival time they have more liberty. The lottery-ticket seller roams around everywhere and may enter hotel dining and sitting-rooms. Turks, Armenians, Greeks, and Italians constitute 90 per cent. of the street traders. One seldom sees a Brasileiro peddling, unless he be a poor coloured man.

The street and traffic police are not, excepting in São Paulo, a smart-looking lot. They do not seem to be chosen for their height and physique, though in São Paulo the standard is much above what I noticed in any other city of Brazil. There are two classes of police, an armed military and a civil force, on the streets. The military police is the smarter. Traffic is well regulated by these men, and I have noticed they exercise a good deal of tact in the discharge of their duties.

CHAPTER XX

ARTS, SCIENCE, AND HOBBIES

Earliest painters—Development of a Brazilian school—Who excel amongst the modern artists—Famous sculptor and his work—Schools of Art and their work—Music and composers—Beautiful operahouses—The Press reviewed—Poets and poetry—Her greatest poets and writers still living in Brazil—Historians and dramatists—Stalwarts of science—Orchid-collecting—Some famous collections—Women's hobbies.

THAT a distinct Brazilian school of painters has been evolved will not be denied. When this was first recognised is not so easily determined. The earliest missionary ecclesiastics brought with them to the country the art they had acquired in Europe. Some of them were art enthusiasts, and naturally imparted what they knew in art to those they came to teach in other things. Thus drawing, painting, sculpture, music, and literary composition were taught in the first schools established. Amongst the pupils were children of Portuguese, Spanish, French, and Italian artists, who no doubt inherited their parents' talents.

One of the first painters to produce in Brazil pictures of high value was an ecclesiastic named Ricardo do Pilar, a specimen of whose work

may be seen in the Church of the Benedictine Convent in Rio de Janeiro. He was a foreigner, however, and to Jose de Oliveira, born in 1700 at Rio de Janeiro, belongs the honour of being the first Brazilian to become famous as a painter. Many specimens of his work may be seen in cathedrals and churches. Later famous names were Jose Leandro, Emilio Taunay, the first to take up Brazilian landscape painting, Correa de Lima, Manuel de Araujo of Porto Alegre, known later as Baron de Santo Angelo, whose works are known in Europe, Pedro Americo de Mello, who has left many notable pictures, Victor de Lima, whose best-known picture is "The First Mass in Brazil." There were many others, including some first-class portrait painters, whose works are still acknowledged to be in the foremost rank. Perhaps Jose Fleming de Almeida, a nineteenth-century landscape and figure painter, could put in the best claim to have originated the Brazilian school. Born in São Paulo, he studied for years in Europe, and returned to give his country some boldly original conceptions. His style was Lepagian with marked devotion to elaborate technique. Of the modern men Bernardelli, excelling in portraiture; Amoedo, an imaginative painter of scriptural subjects; Belmiro, a figure painter; Weingartner, the cowboy painter of Rio Grande do Sul; Visconti, a follower of Velasquez, and Da Costa, a landscape

painter of exceeding ability, are names I can most easily remember amongst the nationals. There are a number of good foreign painters living in Brazil whose works are welcome additions to the local art galleries.

The first sculptor to turn out any noteworthy work was Francisco Pinheiro, a coloured man born in Rio de Janeiro. Several statues of the Emperor Dom Pedro II, and various other works stand to his credit. None of the other sculptors who have passed away achieved anything like greatness. Several of those still living are doing first-class work. Bernardelli, at present director of the Fine Arts School in Rio de Janeiro, has given ample proof that he must be regarded as one of the world's great masters. His marble group, "Christ and the Adulteress," exhibited in Europe, attracted high commendation from famous artists, and every year he continues to turn out further masterpieces. Other prominent sculptors are Franca, Berna, Correa Lima, a pupil of Bernardelli, and D'Assis. There are quite a host of less prominent men, whose labours are devoted to producing what is required in the erection of public buildings. Schools of Art exist in nearly all the capitals, and exhibitions of the pupils' work frequently contain the product of unmistakable genius. I was much struck with work shown by Italian and Brazilian boys in the great School of Fine

Arts of São Paulo. In drawing, oil, and water-colour painting, modelling in compositions, woods, and metals, the average of results was excellent. At the Affonso Penna Institute, a school for boys on the Rio Negro, over a thousand miles inland, I was amazed to see what could be accomplished in artistic work by some of the poorest Brazilian children. A box with lid of many hundred pieces of Amazon woods artistically inlaid, made entirely by Indian boys, was a trophy given me, which evoked much admiration in London. It could scarcely be credited that the article was not turned out by a first-class cabinetmaker's workshop.

Efforts have been made to cultivate a public taste for the highest class of music in Brazil, so far without conspicuous success. The maxixe, tango, and ragtime melodies are the national music. The Brazilian national anthem belongs to that school of inspiration. All the musical races of Europe contributing to the production of the Brasileiro of to-day have failed to instil much musical genius into him. There is not, however, a total absence of musical ability in the nation. Brazil has produced musical composers, players, and singers of commanding genius; but they appear as pedestals in a wilderness. The national idea of music is far from high. Yet the people like band performances and musical entertainments. Having said that,

let me point out it is all the more strange that Brazil's leading composers and musical artists should have shown a preference for the scholarly side of music. Francisco Manoel, Jose Mauricio, and Carlos Gomes were three of the earliest notable composers. The first gave the country its national anthem, the second much of its sacred music, and the third a great deal of opera and dance music. Of the modern composers, Henrique Oswald is perhaps the greatest. Besides composing several operas, concertos, and symphonies, he has published many pieces for the piano and violin. His work is original in character and finished in style. Francisco Braga, an opera and song composer; Henrique Braga, whose piano pieces are known in Europe; Arthur Napoleon, pianist and composer for the piano; Paulo Faulhaber, dance music composer; Lima Coutinho, orchestral music; Barrozo Netto, violin and piano pieces; Delegado de Carvalho, lyrics and dance music; Carlos de Mesquita, operas and fantasias, are men in the front rank. Assis Pacheco, a librettist and opera composer, is one of the most prolific stars of the musical world. Itibere da Cunha, Minister for Brazil in Germany, is a composer whose compositions find favour all over Europe. His "Rhapsodies Bresiliennes" is perhaps the best known. João Itibere da Cunha, a musical critic of Rio de Janeiro, has

also composed some excellent song and piano music. Few of the leading Brazilian musical artists have been heard in Europe, though most of Europe's leading artists have been heard in Brazil. The country has for many years been included in the tours of our great musical stars. Its magnificent opera-houses provide all that could be desired for musical performances. Singing is taught in all schools and colleges, and during many visits to these I have often been amused and pleased to hear the children's efforts to sing the British national anthem in my honour. I wonder how many English schools could sing the Brazilian national anthem if suddenly called on. I noticed too that quite a number of schools and colleges produced a brass or reed band that invariably managed "God save the King," "Rule Britannia," or something appropriate in their minds to my entrance. I noticed on one occasion at least I was greeted with the "Marsellaise," which, considering how frequently it takes the place of the other selections at London gatherings nowadays, was perhaps a pardonable mistake for the Brazilians. Elocution is taught to the smallest children in the schools, the teachers taking pains to see that the children use the right inflections of voice and dramatic gestures. The stage possesses many able actors and actresses. Opera and musical comedies are

most favoured, though drama and melodrama have considerable support.

The first newspapers published in Brazil appeared in 1707 in Pernambuco, and later in Ouro Preto, or Villa Rica, as it was then called. These journals seem to have been suppressed by the authorities of that time. There was also a journal published in Rio de Janeiro in the eighteenth century; but it too disappeared. The official Press, inaugurated in 1808, and represented to-day by the "Imprensa Nacional," is the only connecting link with the times of over a century ago, for newspapers issued in Minas Geraes in 1807, in Bahia in 1812, and Pernambuco in 1814 do not now survive. From 1817 to 1827 a number of newspapers appeared in different States. Several of these are being published yet, though in most cases they have changed their names. The oldest of the surviving unofficial newspapers is the "Diario de Pernambuco," first issued in 1825, and the "Jornal do Commercio," established in 1827. When these newspapers appeared there were about thirty other newspapers in Brazil. At the end of 1913 there were over one thousand. Some of the leading daily newspapers are housed in palatial buildings. The home of the "Jornal do Commercio," Rio de Janeiro, is a seven-storey building which cost £100,000 to erect. This newspaper varies in size from twelve to twenty-

four eight-column pages daily, with occasional special numbers of up to eighty pages. It has morning and evening editions, and issues coloured illustrated supplements weekly and monthly. The "Jornal do Commercio" has never allowed itself to become a political partisan, and thus exercises a powerful influence. Its articles aim at representing correctly Brazilian thought on matters of national importance. Other notable daily newspapers are the "Jornal do Brasil," "O Paiz," and "Correio da Manha" (Rio de Janeiro), "O Estado de São Paulo," "Correio Paulistano," "Platea," and "A Tarde" (São Paulo), "Diario de Pernambuco," "Jornal do Recife," "Provincia" (Pernambuco), "Gazeta do Povo," "Diario de Noticias" (Bahia), "O Amazonas," "Jornal do Commercio" (Manaos), "Provincia do Para," "Folha do Norte" (Para), "A Pacotilha" (San Luiz), "O Jornal do Ceara" (Fortaleza), "Diario de Minas" (Bello Horizonte), "Jornal do Commercio," "Pharol" (Juiz de Fora), "Diario" (Porto Alegre). Every State has its daily newspapers, and I may have omitted from this short list some that should have been included; but what I have given fairly represents the outstanding daily newspapers.

The humorous journals are well got up and entertaining to those who can enter into the spirit of their fun. Those seeming to have the

widest circulation are the "Mosquito," "Fon Fon," "Careta," "O Malho," and "Revista da Semana." They are nearly all profusely illustrated, several in colours, and though the majority of the cartoons do not come up to European standard, many of the colour sketches excel. Features of the daily and weekly journals are their art and literary criticisms, notes on current events, and in the dailies the wide field gleaned for their news. Leading dailies usually have more than a page devoted to cables and telegraphic news from all parts of the world.

There are a few magazines, one of which, "Ilustração Brasileira," is a distinctly fine production, and it has a wide circulation.

Poets and writers have abounded in Brazil almost from its first settlement; and, as the printing-press soon followed, the country has to-day a most extensive store of books on all sorts of subjects. It is claimed for Brazil that its literature already runs into hundreds of thousands of separate works. One is not inclined to doubt this after visiting most of its national libraries and seeing many of its citizens' private collections. One of the earliest poets to leave work that will live was Bento Teixeira. A lofty spirit runs through his epics. Gregorio de Mattos Guerra was a poet of the people who flourished in the seventeenth century. He was a master of satire, and fearlessly attacked

the aristocracy of his time. Manoel Botelho left some meritorious verses written also in the seventeenth century.

"Eustachidos," by Manoel de Itaparica, is one of the earliest poems of the eighteenth century to attract attention to its author. This poet's other efforts scarcely reached the same excellence. Antonio da Silva favoured the classic style, and produced much that, though not easily understood by any but masters of the highest Portuguese, must live. Basilio da Gama was inclined to express political ideas too freely in his compositions. Alvarenga was an accomplished satirist whose writings often got him into serious trouble. Thomaz Antonio Gonzaga belonged to a considerable school of satirical poets who flourished in the eighteenth century. His "Lyras" and "Chilean Letters" were typical of that school's productions. Claudio Manoel da Costa, author of "Villa Rica," a heroic poem, was a great sonnet writer. Santa Rita Durão was perhaps Brazil's most notable epic poet. The nineteenth century produced some great poets, amongst them being Magalhaes, author of the "Confederation of the Tamoyos" epic; Goncalves Dias, who wrote lyrics such as "Tymbiras," "Cancao do Maraba," and "Y-Juca-Pyrama." This poet also produced some notable prose works on historical and ethnographical subjects. One of these was "Brazil

and Oceana," a work on the origin of American races. Baron de Santo Angelo, author of the epic "Colombo," wrote of animals, birds, and flowers. He was also a painter of ability. Cazemiro de Abreu and Lamindo Rabello were also popular poets of this period.

Towards the end of the century, Brazilian literature was enriched by a number of works of exceptional merit from quite a host of poets. It is difficult to select names from this period, but Alberto de Oliveira, Olavo Bilac, Raymundo Correa, Luiz Delphino, and the negro Cruz e Souza, have given their nation works of distinctive character, bearing on every effort the stamp of genius. Bilac's "Via Lactea," several of Raymundo Correa's poems, and Oliveira's songs of a sunny land and its wonderful forests establish a Brazilian school of poetical expression, charming as it is unique. The living poets of Brazil are extending this. Emilio de Menezes, Augusto de Lima, Mario Pederneiras, Luiz Murat, Arthur Lobo, Oscar Lopes, Humberto de Campos, and several others are to-day writing and issuing poetical works that will live. While in Britain our master poets seem to have all or almost all passed away, Brazil has to-day many of her greatest living. This is true too of her prose writers.

One of the ablest writers Brazil ever produced is Ruy Barbosa, a journalist, jurist, and writer on political and serious questions, who was the

unsuccessful candidate for the Federal Presidency at the last two elections for that distinguished post. Ruy Barbosa writes in classical style on subjects his mastery of which is indisputable. His books on jurisprudence are standard works in law schools everywhere. His contributions to the Press of Europe as well as Brazil, are marked by the wide command of several languages and correctness of style in every language used he displays. Dr Jose Carlos Rodrigues, who has lived many years in London and New York, and is now editor-in-chief of Brazil's greatest newspaper, the "Jornal do Commercio," is one of the most distinguished prose writers of Brazil. His wide knowledge of the world and command of several languages has enabled him to produce works of the highest international value. Of imaginative writers, Coelho Netto, a very prolific writer of stories, deserves first mention because he has published about eighty books on different subjects. He is a master of descriptive writing, and his "Sertão," in which he deals with life in the wilds, is a masterpiece. "Sertões," by Euclides Cunha, shows a somewhat similar high standard of descriptive work. Afranio Peixoto is a writer with a peculiar style. His "A Esfinge," described somewhere as "a romance of ideas," attracted much attention when it came out a few years ago. Aluizio Azevedo deals in his

books with types of people found in Brazilian cities. His "O Mulato" is a most readable romance. A lady writer whose romances dealing with city dwellers show a thorough grasp of present-day conditions of the humbler folks is Julia Lopes de Almeida. She has also written some clever plays. Mentioning plays reminds me that Brazil has in such men as João Luso, Roberto Gomes, Coelho Netto, and Oscar Lopes worthy dramatists. Of the twentieth-century writers now dead Machado de Assis and Baron de Santa Anna Nery stand out most prominently. Machado de Assis wrote poetry, fiction, drama, or serious works with equal brilliancy. His versatility as a writer was wonderful. His "Quincas Borba," "O Memorial de Ayres," and "Braz Cubás" rank amongst the greatest Brazilian books. He was the first President of the Brazilian Academy of Letters. Santa Anna Nery gave the world the best book on the Amazon Valley yet written. It has been translated into English and other European languages.

Going back to the nineteenth century, authors deserving mention are Tobias Barreto, who wrote philosophical works, João Lisboa, an essayist, the brothers Mendes, Baron de Guajara, and Machado de Oliveira, who left behind good work. John Manoel da Silva, Abreu e Lima, and Joaquim Caetano da Silva wrote valuable historical works. Lima's "Compendium of the History

of Brazil" is widely known. Varnhagen (Visconde de Porto Seguro) wrote the "General History of Brazil," covering the period from 1500 to 1822, and his many other valuable contributions to historical record were supplemented about the time of their production by Mello Moraes, a chronicler of these times. Other historians of the last century were Ayres de Casal, Pizarro, Lisboa, Goncalves dos Santos, Visconde de Leopoldo, and Accioly de Cerqueira e Silva. Martins Penna, Taunay, Agrario de Menezes, Alencar, and Macedo were the most popular dramatists of that time.

The eighteenth century was richer in poets of merit than prose writers. The works of Pedro Leme, a Paulista, such as "History of the Capitania of São Vicente," and "Nobiliarchia Paulistana," give much useful information not found elsewhere. The seventeenth century gave Brazil Frei Vicente do Salvador, who wrote the first "History of Brazil," covering the period 1500 to 1627, and many other works. To Pedro de Magalhaes Gandavo belongs possibly the credit of writing the first locally written book on Brazil. In his "History of the Province of Santa Cruz" we get a record of what happened in the various capitaneas up to 1576. Gabriel Soares de Souza also wrote a "Descriptive Treatise of Brazil" in the sixteenth century.

In the field of science no name can rank higher

than that of Dr Oswaldo Cruz, born in San Luiz, to whose scientific researches the world owes the most it knows about combating yellow fever. To this distinguished medical man Brazil is indebted for its riddance of the plagues of yellow fever that in early days decimated the population of its cities. As chief health officer of the country, he is still busy clearing out the pestilences from the backblocks towns. It may be said of Dr Oswaldo Cruz that perhaps no living scientist ever rendered so great a service to his country as he has done to Brazil. His work in making healthy cities out of dangerous fever zones, and reducing the general mortality rate of the country, till Brazil has come to be the safest of all tropical countries to live in, is a triumph of medical science that the whole world applauds. In private life Dr Cruz is modest and unassuming. Having had the privilege of making my journey to Brazil in a steamer where he was a fellow-passenger, I can testify to his quiet charm of manner and enthusiasm in his life-work, also to the great esteem in which he is held by all Brazilians. It seemed to be very fitting that tugs with bands on board should come out to greet him at the first Brazilian port we reached. The people seemed overjoyed to have their country's benefactor once more amongst them. Other great men in scientific circles are Dr Orville Derby, the geologist ; Dr

Afranio Peixoto, meteorologist ; Dr Carlos Moreira, naturalist ; Dr E. R. Pinto, archæologist ; and Dr Sampaio Vianna. These have an international reputation. Scientific research laboratories are maintained in different cities ; and the Liverpool School for the study of Tropical Diseases is also represented in the country.

Exploration has not received much attention from Brazilians ; but the most valuable work done here in recent years must be credited to a lady, Dona Leolinda Daltro, and Colonel Rondon, both Brazilians. Their explorations in the interior, covering in each case periods of several years, have added much to the hitherto meagre fund of knowledge of the central States. Various expeditions have in recent times been made by foreign travellers, but with scant addition to accepted facts.

Of the hobbies which came under my notice the most important and useful seemed to be orchid collecting. In every city I visited I found orchid collectors. They were nearly always men of culture and ample means. Some of them had acquired gigantic collections, while others specialised. I learned from them that Brazil possessed many of the most remarkable orchids known. She has contributed about 1500 of the 8000 known varieties, and every year fresh discoveries are made. One of the foremost collectors is an Englishman, Mr John Crashley of Rio de

Janeiro, who has an extensive and valuable collection which includes specimens of all the known Brazilians and many strange hybrids. The greatest collection of orchids I have ever seen was that of Dr Fred Lane of São Paulo. It extended to tens of thousands, and included many very rare plants. Here I saw the *C. sororia*, a rare lemon-yellow *Sophronitis*, and a yellow *Sarcodes*. His collection of Brazilian *Laelias* and open-air varieties of the *Oncidium* was wonderful. Dr Lane specialises in small-flower plants, and has a plant with white flowers no larger than a pin-head. A beautifully kept collection I inspected was that of Dr Ramos de Azevedo of São Paulo, where I saw the white Cattleya, *Labiata Warneri*, and some rare colours in hybrids. It is natural that Manaus should have a collector, for the Amazon Valley has an abundance of beautiful varieties. Here, in the forests, I saw orchid collections that would mean a fortune to anyone who could transport them to Europe as I beheld them.

Ancient Indian pottery collecting has a few devotees, but the few collections I saw did not possess any striking features. A coin collection seen at Manaus contained some very rare Spanish and old Roman specimens. Collectors of rare books are to be continually met with, and I found one collector of daggers and fighting knives. Ladies' hobbies seem to be painting,

music, lace-making, and costume designing. I noticed that in every home there appeared to be one of the women-folk expert at costume designing and making. I would not be surprised to find Brazilian women eventually setting the fashions for tropical countries, as Paris women seem to for the rest of the world. This lead for tropical countries must come soon from either Australia or South America. India is out of the question.

CHAPTER XXI

OUTDOOR SPORTS AND AMUSEMENTS

Football in Brazil—Spectators' cries—Cricket not popular—Tennis and rowing much indulged in—Golf's increasing vogue—A corner in the Anglo-American Club, São Paulo—Horse-racing and breeding—Where the best thoroughbreds came from—Gymnasium getting popular—Athletic sports meeting in São Paulo—Shooting and fishing—Dancing everywhere indulged in—The Carnival.

BRITISH outdoor sports are gaining a hold of every country under the sun. Brazil has taken them up with avidity. She has even developed a national pastime that attracts crowds in city, town, and village all over the Republic. When I asked "What is your most popular national sport?" I was told it was football—soccer at that. This I found to be correct. Every town in Brazil has its football clubs and grounds. Even away in the interior, on the fazendas, I found them playing soccer football. It was first introduced by the British at São Paulo about 1886 and immediately appealed to young Brazilians. The honour of introducing it I think belongs to the São Paulo Athletic Club, whose representative teams have always taken a high place in cup contests. In the cities there are now many senior clubs

competing for trophies. Inter-State matches are occasionally played, the contests attracting the greatest crowds being those between the Federal Capital and São Paulo. These matches are now witnessed by tens of thousands. It was my privilege to see many matches in various parts of the country. The game is seen at its best in São Paulo and Rio de Janeiro, though I've seen quite a good match in Manaos. Brazil has been visited by Argentine and English teams, who did much to popularise the game. Rugby football is also played, principally by British residents. It has not made the strides soccer shows. Occasional inter-club games may be seen at Santos, São Paulo, Rio de Janeiro and Pernambuco. An amusing feature of football in Brazil is the retention by the Brazilians of the English terms for much connected with it. So a football crowd whose language is naturally Portuguese, may be heard yelling "shoot," "pass," "kick," "take it forwards." From what I have seen and heard around the world, if there is going to be a universal language, English leads for the honour, and British sports, especially football, will help to secure it.

Cricket is played principally by the British in most of the capitals, but it has never caught on with the Brazilians. There are good grounds in São Paulo, Santos, Rio de Janeiro, Nictheroy, and Pernambuco; and on these a few club

games are played every year. Visits have been received from Argentine and English teams. The best games are the long-established contests between São Paulo and Santos.

Next to football, lawn tennis has caught on better than any other of the British games. It is played as widely almost as football, but by a different set of people. It is yet the pastime chiefly of the wealthier classes. Both grass and hard lawns are used. The school and public playing grounds are mostly cement-covered courts. The standard of play is far behind European tournament form. No organised effort to promote competitions seems to have been made, except for club championships. The game is becoming so popular that State or national organisation of the clubs seems desirable. The visit of Australasian or European leading players might help to correct mistaken ideas in style. Some Brazilian players I saw at the game showed great promise if given a little expert tuition.

Rowing is a very popular pastime, and in Rio and Santos harbours I saw some good crews racing. There are many hundreds of rowing clubs to be found around the coasts and on the rivers. These clubs are organised into groups and associations which promote regattas at frequent intervals. In Rio Bay the famous clubs have been the Guanabarenses, Botafogo,

Gragoata Group, Flamengo, and International ; while the São Paulo leading clubs are Club de Regatas, Sport Club Nautico, São Paulo Rowing Club, International, and Argonautas. The racing members of the clubs train consistently, but lack expert coaching in style and effective methods. The rivalry between the States is very keen ; and a victorious party returning from a regatta make just as much noise as an English college football excursion. Yachting has many devotees in the various ports, and races are sometimes organised between different States. There are good yacht clubs in Rio, Santos, Pernambuco, Para, and Porto Alegre. Motor pleasure boats are making their appearance in fast increasing numbers.

Baseball is played in Rio, but has not made much headway. Golf is one of the outdoor sports that shows signs of winning much popularity. Golf-links have been opened in Rio, Santos, São Paulo, and a few other places. The São Paulo links are in the heart of the city, and are largely used by players all the year round.

Good athletic and sporting clubs with grounds, lawns, bowling-greens, and indoor recreation accommodation have been opened in a number of Brazilian cities. It was my privilege to enjoy much appreciated hospitality at the São Paulo, Manaos, and Pernambuco Athletic Clubs, where I found the members of all nationalities anxious

to do everything they could think of for a visitor. They are a fine sporting lot right through Brazil. Every city and town extended a welcome to its social, automobile, sporting and athletic, literary and musical clubs. There is one little club, however, right in the centre of the city of São Paulo, that must always seem like a home from home to the Briton, especially should he be a Scot. It is the Anglo-American Club, where the Scots in exile "forgather." There are English, Irish, Welsh and Americans in it, but it is seldom you would find it without a few cheery-faced broad-tongued Scots cracking jokes together in a corner. Entire stranger though you may be, if you are not assimilated by that group before you know where you are, the fault is your own. The rooms are cosily-furnished, and you will find the latest British and American newspapers and magazines on the tables. The company was always jovial, even unto hilarity at times, and I felt that one needed such surroundings occasionally to exercise one's English (or Scottish) after so much Portuguese. The credit of founding this useful club is largely due to an Irish British Consul, Mr O'Sullivan Beare.

Horse-racing has become firmly established as one of the outdoor pastimes. It was introduced at Rio de Janeiro in 1849. The first racing club was called the Sociedade Jockey Club Fluminense, which held its meetings on a course seven or

eight miles from the city. Although honoured by the patronage and presence of the Emperor Dom Pedro II. and his nobles, the meetings were poorly supported by the public and eventually abandoned. The sport experienced spasmodic revivals during the following twenty years or so. By 1870-71, when stud-books for imported and national-bred thoroughbred horses had been compiled and published, a club called the Jockey Club Fluminense showed signs of life. In 1873 English racehorses appeared on its course which was in an easily-accessible quarter, and public interest began to be manifested. Two years later, in 1875, a strong club was formed in São Paulo and held a meeting which brought to light several good national-bred horses. In the eighteen-eighties there was a boom in the sport and clubs held meetings in nearly all the principal States. Rio de Janeiro had four clubs in 1890, amongst them appearing the Derby Club, which with the Jockey Club are the survivors there to this day. From 1893 to 1905 there was such a serious falling-off in public interest that few of the clubs survived it. Those two mentioned in Rio, with the clubs of São Paulo, Parana, Rio Grande do Sul, Amazonas, and Ceara struggled on and are now in a healthy active condition. In Rio de Janeiro and São Paulo the racecourses are now well equipped and ornamented, and the principal meetings attract many thousands of spectators. The leading

events in Rio de Janeiro are the Grande Premio Cruzeiro do Sul (Grand Prize Cross of the South) for animals bred in the country, entries to be made within three months of entrants' foaling. Another big prize for national animals is the Derby run by the Derby Club Rio, while the São Paulo Jockey Club have recently been providing big premiums for this class. The Grande Premio Jockey Club, Grande Premio Rio de Janeiro, and Paulista Cup are the biggest events open to imported horses. The distances are usually a mile to a mile and a half, and the prize money for these races fluctuates from ten to thirty contos of reis or roughly £700 to £2100. The foundation of the Brazilian studs was laid by importing animals from England, France and Argentina. The most successful English horses have been Bend d'Or, Sans Pareil, Petersham, Twickenham, and Carnival. Other successful imported runners have been Moltke, Maestro, Damietta, Phrynea, Soberano, Osman, Tut, Corneille, and Aventureiro. The English sires leaving the best stock were Sans Pareil, Petersham, Cesar, and Corneille. The French were Nicklauss and Osman II. Of the Brazilian-bred animals the best turf performers have been Guayanaz (by Sans Pareil—Kittie), Hercules, Ibitina, Kaffina, Jacobino, Ratazzi, Judea, Fritz, Albatross, Casulo, Adonis, Cicero, Boreas, Pery, St Silvestre, Sylvia, Rapido, and Evohe. I saw the last-mentioned win an impor-

tant event at São Paulo, and having previously selected the animal as the most likely winner of the event, I felt he had justified my expressed opinion of him. Evohe was certainly a picture of the best type of racing thoroughbred, light chestnut, good head and neck, nicely-shaped quarters, clean and not too fine in the limbs,—a Flying Fox type. The horse was bred in São Paulo. On this course I saw in operation a system of photographing starts and finishes, which was brought to perfection by a local British amateur photographer. The São Paulo Jockey Club, which had I was told some 500 members was presided over by Dr Ellis, one of those citizens of the world whose home is the country that treats him best, and who takes no end of trouble to make the visitors to his city enjoy their stay.

The race-meetings held in States other than those I have dealt with do not rise to the same high standard. In Fortaleza and Manaus the horses engaged are merely hacks and ponies, and the prizes offered are not large. Considering how the south and east of Asia and the East Indies are flooded with Australian horses, I was surprised to find none of these running in Brazil. The absence of trotters and pacers also struck me. The Brazilian rider prefers his horse to go at an amble, and rarely indulges in trotting. The horses used on the fazendas are fair animals, and the cavalry regiments are well mounted. Yet there is much

to be done in the way of improving the breed of horses especially in the northern States. The Australian walers ought to do well in Brazil where the climate and other conditions are similar to what they flourish in. The Government of São Paulo has spent a good deal of money with a French commission, trying to improve the breed of the State's horses. From what I saw of it, I would say the Government would get more return for the money if spent on Australian horses, and experts. In Australia they know how to produce a horse for mixed work in rough countries with warm climates. British jockeys and trainers are finding their way to Brazil in increasing numbers.

Every college and school has its gymnasium, and even the girls are at last being permitted to use this. Until very recent years athletic exercises for girls were strictly tabooed, and those that to-day dare to take part in outdoor games are the "anglicised" girls, or the foreigners only. Cycling has been the limit of their outdoor pastimes. The success of the large British and U.S.A. colleges and schools has carried with it the success of the gymnasium. I attended an athletic sports meeting at the Anglo-Brazilian College, São Paulo, where the pupils' performances were little behind those of English, American, or Australian boys of their ages. The manual exercises under an English director were excellently gone through. The founder and principal of the college, Mr

Armstrong, an Englishman, has taken a delight in introducing amongst his hundreds of boys all the popular British outdoor games, with the result that wherever the boys settle after their schooldays they invariably foster these games. The Mackenzie College, a U.S.A. institution in São Paulo, has also done much to help on the interest in field games. The Military College in Rio de Janeiro is doing good work in physical training, as well as swimming, riding and shooting. Swimming is an outdoor sport that has not received much attention. A few professional swimmers have attracted attention by meritorious performances; but swimming is little taught or seriously engaged in. Shooting and fishing are popular pastimes. There is always some game to be got, and all the rivers are well stocked with fish. Some of these fish give as good sport as salmon, and are fairly good table fish. As a field for hunting game Brazil is not to be compared with Africa or Australia.

Of indoor amusements dancing is easily the most popular. They dance everywhere in city, town, village, fazenda, camp and coloured settlement. The waltz is the universal dance, but there are many round and figure dances peculiar to the country. The maxixe (pronounced masheesh) of Bahia is one of the best known. Billiards is most extensively played. Billiard saloons obtrude themselves on your notice in

every street of some towns. The game played is the French. Aviation as a pastime has recently come into favour, especially in São Paulo. Here I saw the first race across the Serras to Santos and back to the city of São Paulo. The competitors were the European Garros and the Brazilian Chaves. The flight was successfully completed by both, Garros arriving first at the aerodrome, though Chaves was in close attendance.

One of the events of the year in the way of out-door amusement is the Carnival. This usually extends over three days in April. During the days of the Carnival the whole nation gives itself up to nonsense. Great numbers don fancy costumes and masks, and parade the streets engaging in such hilarity as occurs to them. Glass tubes holding an extremely volatile perfume, called "Lanca Perfume," are carried, and this is squirted in the face of anyone met. The perfume if squirted in the eyes occasions a stinging which quickly passes away. The unwritten law of the Carnival is that you can attack anyone you choose with this, or with confetti, but everyone must keep good-tempered. Many ride in gaily-decorated motor-cars and carriages throwing serpentes or flowers at all they meet or pass. It is an occasion when a servant can attack his master with impunity under cover of his disguise; or a person can deliver harangues on the peccadilloes of public men without disclosing his identity. It

is seldom nowadays that the Carnival is used for any other purpose than a few days' relaxation and good-natured revelling. The number who enter into the fun without any disguise is growing every year. Owing to the Rio de Janeiro celebration being postponed a few weeks because of the death of a statesman in 1912 I was able to attend both the São Paulo and Rio Carnivals. Entering into the spirit of the affair I had many amusing combats and experiences. The evening of the third day is devoted to processions of novel displays, and after this to supper parties by friendly groups and those who have come together during the Carnival. The police do not like Carnival time for thieves and pickpockets disguised as revellers make it their harvest-time. This was impressed on me in an unmistakable way.

Federal and State lotteries sanctioned by the Governments are drawn daily and attract wide support. For the investment of a milreis it is made possible for the investor to win up to fifty thousand milreis. The right of conducting the lotteries is sold to companies or individuals, who must be approved by the Government. Even the poorest people save their coppers to invest in a ticket. The system locks up a very large part of the floating cash of the nation, and does much to unsettle people from close application to work and the cultivation of habits of thrift.

There are a number of semi-religious celebra-

tions carried on amongst the negroes and coloured people. These feasts are known by different names in the various States. They generally consist of processions with singing, dancing, and the carrying around of figures, followed by feasting. Other "festas" (feasts) are celebrated by performing sketches taken from the Scriptures. One celebration I took part in ended with fires being lit in front of the dwellings, and passers-by, who were friends, were asked to jump through the fire with those who lit it. I perforce jumped through quite a lot of fires that night.

CHAPTER XXII

RAILWAYS AND DEFENCES

Some successful railways—Apologies for railways—Notable construction feats—Railway outlets for Bolivia—Government lines—Political handicaps—Great trunk lines to come—Revolutions of small consequence—National compulsory military service—Brazil's standing army—The fighting police—Navy and Dreadnoughts—Personnel of the fleet.

THE first railway in Brazil was opened in 1854. It ran from the Bay of Rio to Petropolis and was only about ten miles long. This was followed by the construction and opening of what is now known as the Great Central Railway of Brazil, Bahia—San Francisco, São Paulo, and other lines. To-day there are over 14,000 miles of railways in operation throughout the country. About a fourth of the total is State railways, a seventh part consists of railways owned and controlled by the Federal Government, a third is lines owned by the Federal Government and leased, and the remainder are concessions granted by the Federal Government. Some of the privately-owned lines have been conspicuously successful as dividend payers. The São Paulo Railway, referred to earlier in this volume, has been a gold-mine to its shareholders. This

British company has about 130 miles of line working between the heart of the coffee country and the Port of Santos. Its passenger station in the city of São Paulo is the finest railway building in Brazil. With its extremely strong financial position the company might improve the character of its first-class passenger coaches, which are not in keeping with the rest of the railway's equipment. Amongst the other foreign-owned railway systems showing signs of being very profitable are the Leopoldina, the Brazil Railway Company, State of Bahia South-Western, Great-Western of Brazil, and Great-Southern railways. The Leopoldina system was taken over by a British company when its holders seemed unable to run it much longer. A vast sum of money had to be spent to make the lines safe to travel on; but to-day the entire system is in good working order, and the rolling-stock apparently sound also. As the system serves three States in which close settlement is rapidly progressing the enterprise seems to have good prospects. It fell to my lot to travel a great deal over the Brazilian railways, and I could not help observing how some were built to last for all time, while others seemed to have been built to get something and get away quickly with it; that something not however business that required haulage over the tracks. Never outside of Siam and the East Indies have I seen such apologies for railways as I saw in

some parts of Brazil. The worst of them were not built by Brazilians. Some were of that flimsy character too often seen in certain parts of the U.S.A. Then there were a few evidently built on the payment by kilometre principle. When the line approached a stream it ran for miles up the bank till the stream was only a rivulet requiring a culvert, and down the other side to opposite where it reached the stream ; then it would wind for miles round to avoid a tunnel or a cutting of any depth. This was not characteristic of any British enterprise I saw. That would go sheer down mountains even when the trains had to be lowered by cables.

A remarkable piece of railway is the Madeira-Mamore line, owned by the Brazil Railway Company, and the Port of Para. It is 224 miles long, and runs between Porto Velho and Riberalta on the Madeira River. It was constructed to convey traffic past a portion of this river not navigable to the upper waters which are again navigable. The funds for its construction were largely provided by the Federal Government, in accordance with a treaty with Bolivia, in which she was promised an outlet to the Atlantic. So deadly was the country through which the line runs that it is said a man was lost by fever for every sleeper put in. The construction was abandoned different times because of fever killing off the bulk of the workers. Various kinds of workmen were

tried, but fever swept off every nationality. At last large sums were spent in efforts to stamp out the fever. Hospitals and sanatoriums were opened, camps built on the strictest hygienic principles superseded the older fatal camps, fresh men were brought in and the line was completed while I was in the region. It is now opened and doing well. This is one of the greatest triumphs of U.S.A. constructional work in South America. The railway gives Bolivia an outlet by the Amazon Valley to Europe; from a commercial standpoint alone an advantage of incalculable value.

The railway lines of Ceara, at present leased by the Brazil North-Eastern Railways, Limited, a British company, open up country that should bring them much traffic in the near future. The line running south from Fortaleza, over the entire length of which I had the privilege of travelling at the kind invitation of the management, seems likely to one day be the first part of a great trunk system connecting the north coast with the south and Argentina. The main line already taps the back country of Ceara, Piauhy and Pernambuco, rich in vegetable products and minerals. It passes through the irrigation area of Quixada, rich inland plains of Ceara, and also country that may yet yield rich stores of diamonds.

An important line approaching completion is the North-Western Railway, connecting Corumba in Matto Grosso with the coast, through São Paulo.



VEGETABLE-GROWING AT PORTO SANTO

This line is likely to be continued on into the heart of Bolivia, thus giving that country a second outlet to the ocean through Brazil. The Brazil Railway Company holds the gates to the south. From the city of São Paulo this company's system spreads over the four southern States and reaches the frontiers of Uruguay, and Argentina. The company controls or is interested in about 5000 miles of running tracks, and has close on 2000 miles more under construction. These railways run through a great deal of the richest country in Brazil, and give alternative outlets to the inland parts of Argentina, Uruguay and the eastern part of Paraguay. I travelled over most of the company's lines, and, though not impressed with the local management in some States, could not fail to notice the rapidity of settlement in the districts through which they passed. There are important railways in course of construction that will eventually give the rich State of Goyaz an outlet to the ocean on the east coast at Rio and Victoria ; in the north to San Luiz ; and, probably later on, to Para. Many small railways in the coastal States run from the hinterland to the ports linking up with the greater systems on their way. The Paulista Railway, serving the north-eastern coffee districts of São Paulo, Victoria Minas Railway, giving Minas Geraes an outlet through Espirito Santo to Victoria, and the Great Western of Brazil, linking up and serving

the small States in the north-east corner of the Republic, are the most important.

The chief of all the government railways is the Central, owned and managed by the Federal Government. There are two main lines in operation, one connecting the cities of São Paulo and Rio de Janeiro, and the other running from Rio to Contria in the State of Minas. Altogether there are 1212 miles of track in the system. This railway is notable for the many engineering difficulties successfully surmounted. The first section, undertaken and completed by British engineers, was 32 miles in length. This section was opened to traffic by the Emperor Dom Pedro II. on March 29th, 1858. From that time piece after piece has been added till the Central became what it is to-day. The railway winds up from Rio to an altitude of 1200 feet in the first 60 miles through 16 tunnels, one of which is 2445 yards long. There are also several large viaducts and about 40 bridges in this section. The scenery as the train negotiates spur after spur, crossing rivers, valleys and mountain chasms in its steady climb up to the mountain tops, is wildly rugged. On the Ouro Preto branch the railway reaches at Figueira Gorge an altitude of 4540 ft. above sea-level. It is altogether a striking piece of railway engineering. The sad feature of it all is the lamentable state this wonderful line is falling into. Its record of accidents, especially on the Rio-São Paulo section,

show it to be either a very unsafe or an indifferently managed railway. It is not under-staffed. Men seem to be treading on each other's heels. An inquirer into the reason of such a multitude of servants with so little if anything to do is told that these men are largely politicians' dependents, whose political services are thus rewarded. There are many excellent high officials and officers whose efforts to bring about a better state of things are being continually frustrated by burdens of this kind being thrust on them. A railway system that might be made a matter of pride for the nation, has thus become a continual source of anxiety, and the butt for much jeering criticism in the great newspapers. The journey between Rio and São Paulo is timed for 10 hours, but my experience of it, and I travelled it many times, was it usually took 12 to 18 hours. A train-de-luxe runs at night, whose coaches are divided into small sleeping cabins elegantly furnished. The day trains take longer, but are usually safer, especially in wet weather. The entire track from the summit of the mountains above Rio to São Paulo badly requires re-laying and better ballasting. If the Federal Government delays attention to the matter much longer those important districts between the two great cities are bound to be greatly handicapped in their development. Important towns like Taubaté, Guaratingueta and Lorena on the Central Railway are already

showing signs of suffering from the unreliable railway service.

The great trunk lines to open up and develop the interior have yet to be built. They will come in due time. Corumba will be connected with Cuyaba in Matto Grosso, and Cuyaba with Santarem or Para in the Amazon Valley. While even now a railway to connect Manaus with Georgetown, the British seaport on the north coast, is being spoken of. From Cuyaba to Bahia via Goyaz is another trunk system that will yet be constructed, while railways from San Luiz and Fortaleza to the Tocantins River are not far-distant projects. The excellence of the water highways in Amazonas furnishes a reason why the construction of railways, other than those I have indicated, does not seem urgent.

Unfortunately for Brazil it is of the doings of her Army and Navy, in revolts at various times, that the world has heard most. Therefore I do not purpose dwelling at length on either. It cannot be repeated too often that the revolutions made so much of by some European newspapers are very often affairs of small consequence. Brazil, though peopled largely by descendants of the Latin races, exhibits to-day no more tendency to fight over internal matters than England does. In fact it is open to question whether the relations between her military leaders and the industrial

classes are not on a much more peaceable footing than they are in England. Brazil has a system of compulsory service. Citizens, with a few exceptions, between the ages of 21 and 44 may be compelled to render military service in peace or in war. Two years' service in the army is required from young men between 17 and 21 years of age. This system provides already 500,000 men in the first line. The permanent forces kept under arms range from 25,000 to 30,000 effective cavalry and infantry, with five artillery regiments. The Republic is divided into thirteen inspection areas under generals of divisions and brigadier-generals. Soldiers in the ranks get the equivalent of a shilling a day and a mess allowance; bandmen get twice as much. Officers' pay runs up from a sub-lieutenant's £30 a month to a marshal's £187 a month, with pensions. There are hundreds of rifle clubs coming under Defence Department supervision. The infantry is at present supplied with the Mauser magazine rifle, 1908 model, with short sabre bayonet. They have also Nordenfeldt-Maxim field guns. The cavalry carry a steel lance, short Mauser, and straight sword. The artillery use Krupp guns of various patterns. All ammunition for small arms is made in government factories in Rio de Janeiro Federal District and at Piquete in São Paulo. The President of the Republic is commander-in-chief of the land and sea forces. In time of peace he delegates

this command to Ministers of War and Marine respectively, who have organised departments for administrative purposes. In war time the supreme command is entrusted to an army marshal. The various States may not maintain armies or military divisions, but many of them get round the prohibition by extending their military police until they are really State armies. When police are armed with rifles, and in some cases quick firing and mountain battery guns, and include armed mounted regiments, they are more a military than a police force. Conflicts in the States between the Federal regulars and this military police are not rare. The appearance of this police as an effective fighting force impressed me much more than the regulars I saw. In fact the Brazilian army failed completely to impress me favourably. I saw the regulars turned out three times to suppress revolutions that occurred while I was in Brazil. The soldiery reminded me much of what I had seen in Siam. The general physique was poor. The most of the men were round-shouldered, narrow-chested, poor fellows, who shambled along anyhow. The drill and marching was loose and indifferent. The best turn-out I saw was a parade of military police in São Paulo, where the instructors were French officers. Here the general bearing and appearance of the 5000 men who marched past us one morning was distinctly better. In none of the many parades of regular

soldiers I attended in Rio de Janeiro did I see anything to equal it.

With her great coast-line there is perhaps some excuse for Brazil's ambitions respecting a navy. She has to-day fifty war vessels including three Dreadnoughts, two other battleships, five first-class and two second-class cruisers, eight gun-boats, about a dozen torpedo boat destroyers, and several submarines. She has recently sold to European powers some of her vessels building in England, to build larger. In two of her Dreadnoughts, the " Minas Geraes " and " São Paulo," the armament includes twelve 12-inch 50-calibre guns. Docks to accommodate the largest battleships are nearing completion at Rio de Janeiro. A floating dock, capable of taking vessels up to 23,000 tons is already installed there. The personnel of the navy consists of 950 officers and 7000 men. The Federal Government experiences much difficulty in maintaining the crews of the vessels at full strength, owing perhaps to a sea-faring life possessing little attraction for the young Brasileiro. The Brazilian Navy seems, however, destined to become a not unimportant factor in southern seas. In combination with the forty Argentina men-of-war it would present a fleet that no single navy outside the leading powers of Europe, and two other nations elsewhere, could hope to tackle with success.

CHAPTER XXIII

PROBLEMS PAST AND PRESENT

From Empire to Republic—What Brazil lost—Her position in South America to-day—Absorbed in domestic matters—Brazil and U.S.A. compared—Secret of national success—"Hoje nos mesmos"—New land laws wanted—Style and appearance before effectiveness—Revolution fomenters—Nervous capitalists frightened—More information about country needed—Advertising bureaus suggested—Money matters.

IT is over four hundred years since the first European settlers landed in Brazil. Nation building has progressed during these centuries rapidly at times, and in a lethargic manner at other times. The national movement has been ever upwards towards becoming a recognised world power. In the later days of the Empire this ambition was nearing realisation. Brazil's Emperors were strong men who carried some influence in the Courts of Europe. After securing this position, Brazil, in exchanging her monarchical for a republican constitution, lost touch with the great monarchies of Europe. The Republics of France and the U.S.A. maintained their close touch with her, and proved valuable friends when she was re-arranging her national affairs. Yet it cannot be denied that the new Republic lost much

ground, all of which has not yet been recovered, by the deposition of her very popular sovereign. Brazil's Emperors worked towards making Brazil the dominating Power in the South American continent, and aimed at her recovering for the Latin races their former prestige in Europe ; but it was not to be. Italy, Spain and Portugal had then no prospect of doing as much for the Latin peoples as a great Brazilian Empire might ; and the prospect of their doing much to-day seems even less bright than in those days. The Braganza dynasty could get the ear of the monarchies of Europe. Republican Brazil lost it, and will feel the loss for some time yet. Countries rushing into Republicanism are apt to overlook the disadvantages which inevitably come with any advantages gained by its adoption. The first decades of Republican government in a country used to a monarchy, are always very trying periods. Untrained rulers are just as apt to give a country big troubles as an untrained general would if leading its forces in a war. It is only when a Republic has become old enough and wise enough to choose its leaders from those who have used their opportunities to demonstrate in responsible executive positions their capacity for leading and guiding, that failures in the highest offices become almost impossible.

It is an arguable matter whether Brazil, led by the far-seeing Braganza House, might not to-day

have been sufficiently influential to impose her will on the South American continent. Instead she is but a voice in a concert of Republics, dominated by a superior Republic in the North. This when from her area and opportunities she ought to be the first Power to be consulted in any matter concerning the acquisition of territory by European Powers on that continent. If a Monroe doctrine required to be introduced and persisted in, Brazil is the Power that should enjoy its bargaining value. Her Republican leaders let this opportunity slip from their grasp. They have so far not evolved anything to counter-balance it.

It seems that while Brazilian statesmen have had their attention closely focussed on the doings of their immediate neighbours, great movements by remoter Powers have escaped their notice. Domestic problems, too, have occupied so much of the time of Brazilians that there is some excuse for their lack of vigilance respecting foreign matters. There has been a tendency on the part of Brazil to look in the wrong direction when desirous of judging what national progress she is making. She has little if anything to learn from any other South American Republic; but much to learn from the United States in the Northern continent. This great nation has had quite as difficult problems to face as ever confronted Brazil.

U.S.A. development was hampered by a climate that held up work in quite half of the country for several months each year. She never had the time to work Brazil has had. Her early settlers did not find the food resources those going to Brazil did. Difficulties with Indians were no less severe. Labour problems were similar to those Brazil encountered. The U.S.A. tried to solve them the same way—by a slave system she had to abandon, and her freed slaves created fresh perplexities as in Brazil. The northern country was troubled in the early years of its colonisation by its home government's mistakes being quite as numerous and as serious as those Brazil experienced, yet the U.S.A. people built quicker and developed in every way faster. To-day the U.S.A. has over eighty millions of people to Brazil's twenty-five. A look, too, at the remarkable progress of those young British countries, Canada, Australia and New Zealand, might be helpful to Brazil. They all have a secret she must learn and apply. Many young Brazilians learnt it while abroad in these countries, and quickly saw its value. It is the sacrifice of personal ambition to the promotion of the general good. In other words Brazil must not only cultivate patriotism, Brazilians are patriotic, but have more personal self-sacrifice in national effort. The politician who goes into office to help himself, his friends or his party, instead of to make a

sacrifice that Brazil might go forward, should get no quarter from patriotic Brazilians. How to get disinterested effort from her politicians is Brazil's first and greatest problem. She has had great men who died poor because they loved her strongly enough to give their lives for her advancement. She has some to-day who can rise above personal selfish interests and party considerations, to help Brazil forward; but they are fighting single-handed here and there, while so many are saying, "Brazil *amanha*" (Brazil to-morrow), "*hoje nos mesmos*" (to-day we ourselves). A young *Brazileiro* I knew very well had a good idea when he said, "I will never take an oath to serve any named military or political leader, but I will swear any time to die if necessary for Brazil." Brazil suffers much from a party loyalty that is too often mistakenly supposed to be identical with the larger patriotism.

Not the least of Brazil's problems has been what should be done with her lands. How should they be allotted to the people rushing in to take up areas for cultivation? Many settlement schemes have been tried by State governments, but none have been entirely satisfactory. At present the close settlement of agricultural areas is being encouraged by several of the coastal States; and help in dealing with farms occupied is given by agricultural departments, who carry on experimental farms, and devise also other means for

the assistance of farmers. A "titulo definitivo," definite title, securing to the purchaser the freehold, may be obtained, when land is bought. Freehold is the popular tenure. New land laws dealing with the much-altered condition of affairs in recent years, through the opening up of the country by railways and the arrival of floods of immigrants, are now much needed. The labour problem is acute in many of the States. Brazil could find work at once for a million labourers. Italian and Japanese labourers were being brought in by thousands while I was in São Paulo, but they were absorbed as fast as they landed. In Ceara, Para and Amazonas I found there was a scarcity of labour; though a subsequent fall in rubber prices would release a lot of the seringal labourers for other work, in all these States. The best national worker appeared to be the Cearense, while of those coming in the Italians were always preferred. In spite of its apparent scarcity, labour does not yet command good wages in some States. It takes time for the peasants from the country districts of Italy, Spain and Portugal to discover that they cannot live as cheaply in Brazil as they did at home. City workers have their trades unions, and get better pay and easier hours. One notices how quickly the immigrants arriving give up employment to strike out for themselves. I watched this subsequently in Canada for a few months, and after making

much inquiry am satisfied that men get going for themselves much quicker in Brazil than in that dominion. The arrangements for receiving and dealing with immigrants seemed to be better in Brazil, at least in the State of São Paulo, than they are in other new countries.

Brazilians, though not so extravagant in their personal habits as some writers assert, are not exactly thrifty. It is often a feast or a famine with them in a great deal pertaining to their lives. They have a country that for centuries has been astonishing the world with her quickness in getting over bad times. They are used to rapid transitions from stress to prosperity, and they look for them in their personal experiences. That perhaps accounts for the Brazilians' disinclination to hoard up anything. They will live well, dress well, and keep a motor-car if every cent coming in goes to do it. That characteristic is carried into national affairs. The cities must have expensive public buildings, boulevards ornamented with gardens, statues and fountains; railways must have magnificent stations and liveried servants; there must be wireless telegraph stations and telephones all over; a big up-to-date navy, and a lot more that is very costly and not urgent, before necessary roads and bridges are made, or proper wharves for the merchant traders are constructed. Palaces are built for petty administrations in little States, while the

Legations abroad are housed in buildings too mean to put an army colonel in at home. Too much money is spent in what the nation could do without, before all that the nation should have has been secured. Brazil must be wiser in her spending. A great deal of the money spent in big warships would have done her more good if spent in keeping her great resources and possibilities more persistently before the capitalists of Britain, Europe, and North America, or in helping her seringa industry. Brazil must face the question of serious competition from Asia in the seringa business. She ought to do something bigger yet for her seringueiros and the Equatorial States. They have been neglected by the Federal Government too long. While millions upon millions of money have been spent around the south-eastern coastal cities, the Amazon Valley States have been left to struggle along as best they could. It is a great tribute to their public men that they have done so much with so little outside assistance. The Federal Government should take up the duty of raising money to lend to municipalities obliged to hold up necessary street-forming or other public works for lack of means. When money has to be borrowed from outside, the Federal Government should guarantee the loans required by little-known municipalities or public bodies, or get the money for them, in order that it might be secured on the best terms. A strict Federal

supervision over the State and municipal accounts might dispose of many present complaints. It should never be possible for unscrupulous men to steal either State or municipal funds. I do not suggest this is done more in Brazil than in other American countries ; but it is surely a thing to be safeguarded against. A Federal auditor-general with a competent department and strong powers would keep things safer.

The man who goes into politics for what he can make for himself is generally the fomenter of revolutions in Brazil. He cares but little how much damage his action may cause his nation's prestige or her stocks, as long as he can get some personal advantage. Men of his kind often pose as political chiefs, and gather behind them a multitude of unthinking people ready to become their tools. Even if the petty demonstration lasts but a day, and not a life is lost, because it is described in Europe as a revolution the whole of Brazil suffers. Stocks and markets are affected, and a bad impression is formed of the nation's government. As this is so, the Federal Government should deal very severely with the promoters of such disturbances. Brazil needs money continually from Europe. Capitalists are very nervous people. They lock up their safes if a squib goes off, when a scare is started. It suits financiers and their newspapers to start scares occasionally. If there is nothing in it, the capitalist soon finds it out ;

but if the scaremongers can point to a little smoke, into the safe goes the money. Brazil cannot afford to let the scaremongers have even a puff of smoke to point to. Europe does not know her well enough yet to understand and ignore it. Therefore all that is possible should be done to keep Europe well informed, and to keep down everything that misleads her Press and investors.

A system of commercial and advertising bureaux, such as the British Overseas Dominions maintain in Europe, especially in London, would be a good thing for Brazil. She has much to gain from being better known. Her products, notably seringa, coffee, sugar, wax, cocoa, medicine plants, ores, gems, and pulp-woods, would find little of their character showing against them. The bureaux and their windows could be stocked with quite new subjects of interest for the public. In London we have all got used to the displays of rosy apples, pears, fruits of various kinds, corn, wool, vegetables, meats, cheese, etc., shown by British Overseas Dominions. What a change it would be to see displays of Brazilian diamonds, black and white, rubies, sapphires, beryls, amethysts, and all the gems of Brazil, with changes to displays of other peculiar products from time to time.

While Brazil was a dependency of Portugal her monetary system was regulated by Portuguese law. The value of an oitava of gold, that is one-

eighth part of a Portuguese ounce of 445.7681 grains troy of 22 carat fineness, was, by an Act of 1688, declared to be one thousand six hundred reis. That of an oitava of silver of the fineness of 111d. was declared to be one hundred reis; the ratio thus established between gold and silver being one to sixteen. Subsequent enactments slightly altered these standards and the ratio. On October 8th, 1833 the first law under the Brazilian Crown was promulgated regulating the currency. By this the value of an oitava of gold of 22 carats was declared to be two thousand five hundred reis. By an enactment of October 18th of that year the ratio between gold and silver was declared at 1 to $15\frac{625}{1000}$. In 1846 the value of an oitava of gold of 22 carats was declared to be four thousand reis. In 1849, by executive decree, the relation of gold to silver was declared to be 1 to $14\frac{222}{1000}$; and the value in sterling of one thousand reis (a milreis) was declared to be 27d., which is still taken as the par value of the milreis gold. By the Conversion Law of December 6th 1906 the sterling value of the milreis for conversion of new issues was taken at 15d., and a "Caixa de Conversão," or Office of Conversion, was created to receive gold coin of legal currency and deliver against same notes payable to bearer of an equivalent value to the gold received. When the notes issued reach a total value of three hundred and twenty thousand contos of

milreis and the gold deposited amounts to the sterling value of £20,000,000, the Caixa de Conversão shall cease issuing notes, and the National Congress may raise the rate of exchange. The object is to secure stability for the value of the country's money. The function of the Conversion scheme is to regulate the supply of bills by receiving gold on deposit when the supply is excessive and letting it go when it is insufficient. Notes convertible and inconvertible of the value of 10 milreis upwards are issued. The coinage is decimal. The coin of lowest value is the copper 20 reis, and there is also a copper 40 reis. Next up the scale come in order the nickel pieces of 100, 200, and 400 reis. Then silver coins of 500 reis, 1000 reis (a milreis), and 2000 reis (2 milreis). There are also notes of 1, 2, and 5 milreis. An American dollar gold is of the value of $3\frac{1}{4}$ milreis nominally, an English shilling 800 reis, a franc 635.942 reis, a mark 785.110 reis. Large payments are made in cash, people as a rule carrying considerable sums of money in their pockets. There are a few national banks, but the banks doing the bulk of the business are British, German, and French.

CHAPTER XXIV

A PEOPLE REACHING OUT

Gleaned facts against impressions—Exploration in the Tropics—Rivers' peculiarities—People at work—Old and new country spirit—The incentive to work hard—Prominent Brazilians, past and present—The new President—The ABC trio—Britain's friendly relations.

I HAVE always felt that one must live in a country at least a year, acquire its people's language, read their literature, and travel through its cities, villages, and country settlements as well as its unsettled wilds, before one should attempt to write authoritatively on it. Impressions gained while hurrying through in a few weeks or even months are too frequently wrong impressions. It was my privilege to spend fourteen months wandering about Brazil, encountering all sorts and conditions of people, from its rulers to its humblest native citizens, and I came away feeling how much there was I must leave ungleaned. My journeys into the backblocks, especially to the bandit-infested mountains of the Ceara-Pernambuco frontiers, were invariably made in comfort and without remarkable adventure. Where books and articles I had read led me to expect "impenetrable forests" and

“hordes of savage Indians” I saw and got photographs of peaceful agriculturists tilling their fields. Some of these photographs, from the much-written-about Madeira River, I have reproduced here. Though I do not suggest Brazil is an easy country to explore, I found graver difficulties in the jungles of Siam; and from what I have seen of the countries I believe it is a much more formidable task to cross Australia or Africa than to cross Brazil. Yet the latter country has difficulties peculiarly its own. Many of these may be surmounted or accentuated just as the traveller has or has not experience of exploration in this kind of territory. Brazil’s network of rivers is a great aid to its exploration. In the rainy months, April and May, the traveller unused to the peculiarities of these rivers might easily get puzzled. Sometimes they overflow their banks, and, finding new courses, run scores of miles away from their original beds to join their flood waters with other mighty overflows, seeming for the few weeks of the season to be new rivers. The dwellers in the backblocks take advantage of this circumstance frequently to convey their seringa by water over many scores of miles where land transport would be required in the dry season.

The people of Brazil are hard at work on the land, in the forests, and in their factories. From observation, without going into statistics, I would

say that a larger percentage of the people are actual producers than would be found in England. Though in the coffee business there are many middlemen, yet generally there does not seem to be the proportion of middlemen one finds in England. The remnant of the old aristocracy of Empire days are at work, too. In all its twenty-five millions of people there are very few wealthy idlers. The wealthiest men usually take up some active, useful occupation. A nation so largely at work is sure to become eventually a rich and influential nation. What an education it is to watch for a time the new—the coming nations at work. Who that has seen it has not been impressed with the difference in the spirit, methods, and movements of the workers in the old countries of Europe compared with that of the workers in the new. In new countries, like Brazil, Australia, New Zealand, Canada, Africa, and the United States, an eagerness that betokens interest, enjoyment, hopefulness, with a bright outlook, characterises the worker. In the old countries workers seem to take up their work in a spirit of resignation to a hard lot, accepting hopelessly a fate from which there is little chance of escape, even if they were to work for it. The visitor to England, looking for the “Merrie England” he has read about, looks in vain for it in the workers’ quarters. A sullen discontent with their lot is more in evidence, murmuring here, threaten-

ing there, and unrest everywhere. Still to the detached observer there are hopeful signs rising above the horizon. Discontent is generally the precursor of movement. Movement, if wisely guided, should mean progress. The spectacle of a people reaching out to a larger life, a better human experience, is surely a grand sight to the beholder. This is what appeals to the close student of national life in Brazil. The people are working with an object that is a powerful incentive to effort. A comparatively few years' close attention to business or labour ensures future leisure and the means to take up one's hobbies, or more direct efforts for national advancement. The country that gives the opportunity to win an early competence secures the worker's gratitude and love. He will strive the more eagerly to secure its advancement to greater prominence amongst the nations. The nation that permits its humblest citizen to rise by personal effort in a few years to its chief executive position gives an incentive to its workers that excels any other honour that might be dangled before him. If individual effort is giving place anywhere to co-operative action amongst workers, it may be because the path upward is being made increasingly difficult for the unit unsupported.

Brazil has produced statesmen who in their time have made world-wide reputations. Dom Pedro II, her last Emperor, was a shrewd and

far-seeing statesman. Senator Ruy Barbosa, to whose lot it fell to pay off and deport this sovereign, has also made his mark outside the confines of his country. His grasp of international matters and his oratorical powers surprised the great assembly at the last Hague Conference. He yet occupies a prominent place in Brazilian politics and is the leader of the Civilista Party now in opposition. He is a frail-looking, little man, with a sharp, nervous manner, but is a most formidable opponent in debate, with a wonderfully well-stored mind. Dr Rodrigues Alves, who has been Federal President and was President of the State of São Paulo during the latter part of my stay there, has also won a name outside America for his great political and business achievements. His successful engineering of the coffee valorisation scheme, one of the biggest "corners" in a national product ever tried, gave the whole world a sample of his ability. Dr Alves' life has been crowded with distinguished public services. He never spared himself in his work, and has now, unfortunately for his country, to retire in ill-health to his beautiful country home at Guaratingueta (Indian for "where the sun turns back"). Here he might rest in luxury and lovely surroundings, finding all the occupation an ordinary man would care for in superintending work on his fazenda and in his factories, but, if his health permits and Brazil needs him, Dr Rodrigues

Alves will be ready to "turn back" again to the helm of state.

One of the most notable men Brazil has produced passed away while I was there. He was the Baron Rio Branco, statesman and diplomatist, the greatest Foreign Minister not only Brazil but South America ever had. I enjoyed the privilege of meeting and conversing with him a few weeks before his death. His removal was a heavy loss to Brazil at this juncture in her affairs. He was greatly mourned. It will not be left to the statues of imperishable bronze, raised by loving hands and hearts to his memory, to keep the record of his life before Brazil. In deepest recesses of the nation's heart will gratefulness for his life's work dwell, while ever on the lips of its citizens will reverent praise be found for this man of the people who fought so hard and won so much for his country, without unsheathing a weapon.

Any reference to modern notabilities of Brazil would be incomplete without mention of Dr Wenceslão Braz Pereira Gomes, the new President of the Republic, who assumes office this year, 1914. He was born in Itajuba, Minas Geraes, in 1868, and is therefore a man in the prime of life. He graduated in law in São Paulo in 1890. After practising for some years, he was elected to Minas Geraes State Congress, and in 1898 became Secretary of the Interior there. Upon

his retirement from that office he took up private practice for a while until he was elected to the Federal Assembly. Here he was chosen as leader of his State's representation. During the Presidency of Dr Rodrigues Alves, Dr Braz was leader of the majority of the Chamber, a position he held from 1902 to 1906. About this time he handled a threatened insurrection with such ability as indicated he was a leader of strength and tact destined for high office. While sitting as a Federal Deputy he was chosen to be President of his native State, and left Congress to assume that honourable post. In 1910 he was elected to be Vice-President of Brazil, along with President Marshal Hermes Fonseca, on whose retirement Dr Wenceslão Braz succeeds by election to the higher office. In personal appearance the new President is as much Scottish as Brazilian. He gives the impression of being a genial, level-headed man, with shrewd, perceptive faculties and an iron determination. He has associated with him as Vice-President a man of equal strength of character; and together they should prove a most capable pair to steer Brazil through all difficulties.

Brazilian people possess qualities that education and intercourse with other nationalities are rapidly transforming into striking features, and should make them an object of watchful interest to Europe. They are a people reaching out to

fuller recognition as a potential World Power. With the Republics of Argentine and Chili, Brazil will soon have an understanding that will enable the A B C trio, as it may be called, to claim a voice in the settlement of any matter affecting the American continent. It is very stupid and short-sighted for any European statesman to sneer at or ignore the rising power of these South American Republics. Within a very few years they will be factors in world politics, however much European nations may choose to disbelieve it. Some man or men will succeed in uniting them firmly to secure an object of common advantage. Brazil will surely be the dominating influence, therefore her aspirations should receive early attention and close study. Britain's relations with her have always been of the most friendly character. More than once in her history British squadrons have stood by Brazil in her times of peril. When there was not a very ready disposition in other quarters to give financial assistance, Britain gave money freely to finance her great undertakings. To-day Brazil can confidently count on Britain as her warmest friend amongst the nations. As the Brazilian people reach out to secure further honours in the avenues of commerce, industry, and financial achievement they will find none more ready to applaud their successes than their British brethren.

GLOSSARY

OF BRAZILIAN WORDS USED

- Agua*, water.
Agua-doces, term applied to Britons born in Brazil.
Almoço, first meal of the day.
Amamma, Indian name for cotton.
Amanha, to-morrow.
Avenida, avenue.
Aviador, merchant supplying goods to seringá estates.
- Baducca*, a Brazilian dance.
Bandeirantes, banner-bearers.
Term applied to earliest São Paulo settlers.
- Cabo*, cape, headland.
Cacique, Indian chief.
Caixa, office.
Camara, council.
Cangoceiros, banditti, highway-men.
Capitaneas, captain's areas.
Carbonados, black diamonds, carbons.
Carregador, hand-porter.
Casamento, betrothal.
Caucho, inferior rubber.
Cearense, person born in Ceara.
Civilista, anti-militarist politician.
Cobras, snakes.
Congress, federal parliament.
Conquistadores, applied to young men idlers, synon. "Piccadilly nuts."
Consumo-tax, tax collected by stamps on articles retailed.
Conversão, conversion.
Coralitjes, hair-curls.
- Estradas*, forest paths.
- Fazenda*, landed estate.
Fazendeiro, landed proprietor.
- Fluminense*, person born in Rio de Janeiro.
- Goyana*, pertaining to Goyaz.
Gringo, name applied to first British sailors seen, because they always sang "Green grow the rushes O." Now applied to a tenderfoot or new arrival.
Guarapè, inlet in river or lake.
- Hoje*, to-day.
- Jantar*, evening dinner.
- Kaboclo*, European-Indian offspring.
Kawa, Indian drink.
- Malocas*, communal Indian dwellings.
Mameluke, name applied to São Paulo halfbreeds.
Mandioca, shrub with edible root.
Maté, tea of herva mate shrub.
Maxixe, a negro dance.
Montezuma, head Indian chief.
- Nos mesmos*, we ourselves.
- Oitava*, eighth part.
- Paje*, Indian doctor.
Papa a Bahiana, a Bahia food.
Paranaenses, persons born in Parana.
Paraenses, persons born in Para.
Paraora, forest workers born in Para.
Pongo (*Span.*), rushing water.
Porto, port.
- Quilombo*, place of refuge.

Rio, river.

São (pronounced sowan), saint.

Santista, person born in Santos.

Seringa or *Borracha*, India-rubber.

Seringal, rubber estate.

Seringaes, plural of *seringal*.

Seringueiro, *seringa* estate proprietor.

Sernamby, third-class rubber.

Sociedade, society.

Tabas, Indian villages.

Terra, land.

Terra incognito, unknown land.

Vatapa a Bahiana, a Bahia food.

Veldt (*African*), open country.

Wharepuni (*Maori*), communal dwelling.

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