

The State of Brazil

Brazil is the largest state in South America, and the third largest political division of the Western continent, the Dominion of Canada and the United States alone being larger. It measures 2,660 miles from North to South, and 2,705 miles from East to West in its widest part. Its area is 3,292,750 square miles. Along the Atlantic coast the land is low-lying; it extends inland by a series of mountains and table lands to its western boundary. The slopes east of the Andes form three great river basins, of which that of the Amazon is the central one. The highest parts of its long slope are the Andes; the lowest are the coastal swamps. On the North the basin slopes from the mountains of Guiana, and on the South from the Central Brazil highlands. The coastal swamps are more than two thousand miles in a direct line from the snowy peaks of the Andes. This is the largest river basin in the world, and comprises one-third of the American continent. It is in the equatorial rain belt and the rainfall is very heavy, so that the Amazon carries more water to the sea than any other river in the world, and its muddy flood is observable many miles out at sea. The length of the main river is 4,000 miles, but the navigable waters of the whole system is equal in length to the circumference of the globe, or 24,000 miles. The following is perhaps the best short description of the Brazilian river system that has been published. It is taken from the London Times. The metric system being used in the description, it may be as well to mention that a metre is three and a quarter feet, and a kilometre is three-fifths of a mile.

The Rivers of Brazil

The French savant, Auguste de Saint-Hilaire in his voyage aux sources du S. Francisco et a Goyaz," Paris, 1847, wrote as follows: "On investigating the distribution of the river basins of Brazil, one is struck by the immense advantages possessed by Brazilians in the matter of their inland navigation.

"It seems that nature, by thus forging the bonds of union between the various portions of this huge empire, desired to point out to its inhabitants the duty of remaining ever united. Indeed, what are our paltry rivers compared with these gigantic courses, traversing so many regions, and whose waters, after irrigating the majestic trees in the torrid zone, pass on to such distant shores to fertilize the most fertile vegetation of temperate climates—rivers which afford an almost uninterrupted water-way between Monte Video and Para, one at the mouth of the River Platte, the other at the mouth of the Tocantins."

Of all these rivers the greatest is the Amazon, without a rival in the world, either in point of volume or depth; the extent of its entire basin representing 6,430,000 square kilometres, with an area equal to five-sixths of Europe; and of this enormous area 3,800,000 kilometres are in Brazilian territory.

The Amazon runs through 2,882 kilometres of Brazilian territory between Tabatinga and its northern mouth, and 3,165 kilometres from Tabatinga to Para at its southern mouth. At Tabatinga the width of the river is 2,775 metres; while at the bar of Japura and of Madeira, it is from 4 to 6 kilometres wide. At Obidos the banks close in, forming the strait of that name, the width at that point not exceeding 1,892 metres. The depth of the channel at Tabatinga is 20 metres, at Obidos it is 70 metres, while at other points sounded by Herndon, the American naval officer, no bottom was sounded at eighty metres. According to this officer the velocity of the current might be estimated at one and a half miles per hour.

The Amazon possesses numerous tributaries, the most notable of which are the Jary, with a course of 1,035 kilometres; the Jutahy, 1,200; the Jurua, with 3,283; the Purus, 3,201; the Madeira, 3,240; the Guapore, 1,716; the Tapajoz, 1,992; the Xingu, 1,980; the Tocantins, 2,640; the Araguaya, 2,627; the Ica, 1,452; the Japura, 1,848; the Rio Negro, 1,551; and many others whose courses extend for hundreds of kilometres.

Apart from the Amazon basin there are also the great basins of the plate, of S. Francisco and the eastern basins.

The main river of the Plate is the Parana, 4,390 kilometres long, 1,871 of which traverse Brazilian territory. The Parana is only navigable for 520 kilometres, but when the 50 kilometres of railway line, skirting the cataracts of the "Sete Quedas" are completed, the river will be navigable over a radius of 3,000 kilometres from this basin. The river Paraguay, the second of this important basin, runs for a distance of 2,078 kilometres, 1,406 of which are in Brazilian territory. Its tributary, the Cuyaba, has a course of 832 kilometres. In the watershed of the Plate there is also the Tiete, 1,122 kilometres long; the Ivalhy, 858; the Iguassa, 1,320, navigable for 366 kilometres; the Uruguay, 1,500 kilometres, and many others of less importance.

The principal river in the Sao Francisco basin is the Sao Francisco, with a course of 3,161 kilometres, 2,494 of which are navigable, but with varying depths. In this river is the famous "Paulo Affonso" cataract, by many regarded as outrivalling the beauty of Niagara. Among others is the Velhas, with its course of 1,135 kilometres, 805 of which are navigable; the Rio Verde Grande, with 792 kilometres; the Paracatu, of 627 kilometres, partly navigable; and the Rio Grande, navigable for 297 kilometres out of its total course of 660.

In the eastern basins the most prominent rivers are the Marim, with a source of 1,095 kilometres; the Itapicuru, in Maranhao, with a course of 1,650 kilometres, partly navigable; of the course of the Piahy, 1,716 kilometres,

668 are navigable; the Jequitinhonha, with its course of 1,082 kilometres, is partly navigable; the course of the Rio Doce is 977 kilometres, and that of the Parahyba do Sul is 1,058 kilometres.

The lengths of the great rivers of the hydrographic basins of Brazil are as follows:—Amazon basin, 40,092 kilometres; the Plate basin, 21,260 kilometres; the S. Francisco basin, 7,915 kilometres; eastern basins, 25,351 kilometres. Altogether, 94,618, or, in round numbers, nearly 100,000 kilometres.

Climate

As to temperature, Brazil is divided into three great zones, viz.: the tropical zone, the sub-tropical zone, and the temperate zone.

The first, which is termed tropical, torrid or equatorial, comprises all that part of Brazil where the mean temperature rises above 77 degrees F.

The line by which this zone is bounded passes to the south of the State of Pernambuco, intersects part of the State of Goyaz, and descends as far as the State of Matto Grosso, below Cuyaba. The States of Pernambuco, Parahyba do Norte, Rio Grande do Norte, Ceará,

Manaos, the latter some distance up the Amazon, are large and important towns. The total population of Brazil is about 15,000,000.

NO CHANCE FOR JOKES

Editor—What are you scowling about? Funny Man—Why, you know I got married yesterday.

Editor—Well? Funny Man—And my wife can make the lightest kind of bread and biscuits, and her mother isn't coming to live with us.—Los Angeles Express.

MODERN PAVING

One of the best loved clergy in the Church of England is the Rev. A. H. Stanton, curate of St. Alban's, Holborn. He is popularly called "Father Stanton," and has been curate of St. Alban's from the time of its opening in 1862, and has just completed his forty-seventh year there. He is fortunate in having the gift of humor. One of his best stories concerns a church in a slum district, where he was preaching about the present day social conditions among the rich. Warming to his subject he kept his audience in rapt attention. "I tell you, my friends," he said, "that figuratively speaking, the road to perdition is paved with flowers and diamonds and motor-cars." He paused, and from the back of the church there



Piahy, Maranhao, Para and Amazonas are all situated within this zone.

The second sub-tropical or warm zone extends between the isothermic region, 77 degrees F. and that of 68 degrees F., which passes to the south of the State of Sao Paulo and intersects the State of Parana, completely separating the States of Catharina and Rio Grande do Sul, as well as the greater part of the State of Parara, and a portion of that of Sao Paulo, which form the third milk temperate zone, where the mean temperature fluctuates between 69 degrees F. and 68 degrees F.

The tropical zone may be divided into three distinct parts, according to the rainy season:

1. The Upper Amazon;
2. The interior of the States of Maranhao, Para, Matto Grosso, Piahy (and even Bahia and part of Minas Geraes);
3. The coast region of the States of Bahia, Maranhao, Piahy, Ceara, Rio Grande do Norte, and Parahyba do Norte.

Chief Cities

Rio de Janeiro is the capital. It is the second largest city in South America, only Buenos Ayres being larger. It has an excellent harbor with an area of 68 square miles. The area of the city is very great; its population is about 780,000. It has a wonderful botanical garden, in which are exotics from all parts of the world.

Bahia is the second Brazilian city in size and importance. It has a population of 175,000. It is the oldest European settlement in South America. The bay on which it stands was discovered by Amerigo Vesputci in 1493, and a town was founded there seven years later by a Portuguese navigator. Pernambuco, Para, Santos, Rio Grande and

came a soft voice, quite audible in the silence. "Oh, death, where is thy sting?"

THE ROAD OF LIFE

Along the road of life we go,
Rich and poor and great and low;
Proud and humble, good and bad,
Weak and strong, and gay and sad;
Wise and dullard, wit and fool,
Like a class let out of school.

Helter-skelter, one and all,
Headless when our brothers fall;
Self for self and each for each,
Grabbing all within his reach;
Climbing high, and tumbling low,
On the road of life we go.

Rushing blindly here and there,
Where, we neither know or care;
Chasing rainbows to their end,
Making now and then a friend;
Journeying mile after mile,
Resting for a little while.

Here we are upon the road,
Each one carrying his load;
Each one travelling along,
Some with groan and some with song;
Some with laughter, some with sighs,
Each one looking for the prize.

Do your best, go where you can,
Make your distance like a man;
Rich or poor, still forge ahead,
Just as far as you can tread.
In the end, if you have tried,
You will find God satisfied.

The only reason we care to be a millionaire is for the purpose of inducing bill collectors to cut our acquaintance.

Ancient European Writing

(By Andrew Lang.)

The Anti-Semites of the Continent, a fierce people, must be glad to see that the ancient reputation of the Phoenicians as inventors of the alphabet is being sadly shaken. Mr. Arthur Evans examines the old opinion that Phoenicia invented the alphabet in the first volume of his "Scripta Minoa," and at least seems rather to lower the Semitic claims on the alphabet. It never seemed *prima facie* probable that such a civilization as Homer describes, and as the diggings of Dr. Schliemann revealed at Troy and Mycenae, could have failed to develop some form of writing, while Egypt and Assyria had so long been able to write. But Schliemann found no inscriptions on his prehistoric sites, and in 1894 M. Perrot defined pre-Homeric civilization as "innocent of writing." Mr. Evans, however, has proved that, unlike the old hermit of Prague, the ancient people of Crete could not only make scratches with definite meanings, but actually "saw pen and ink." Mr. Evans could not agree with M. Perrot. Rock faces of unknown antiquity in Southern Europe, and bones engraved on by palaeolithic man, showed pictures becoming conventionalized into signs, and even signs of the very same shapes as some letters of our own alphabet. These things are common in savage countries, and a touch with Egypt, was certain to proceed from the record of a song in pictures on birch-bark to hieroglyphs, and from hieroglyphs to signs indicating syllables if not letters. In 1889 Mr. Evans saw a four-sided cornelian seal, engraved with such signs as a wolf's head with protruding tongue, a bent arm, a thing like a barred gate, or a ladder with three rungs, and a bull's skull. The wolf's head was a sign in the syllabary of the Hittites, and the other marks on the seal suggested hieroglyphs. The seal came from Crete, and in 1893 Mr. Evans found similar seals from the same island containing about sixty symbols. Going to Crete in 1894, he found many examples of such hieroglyphs, and also of "linear" writing, tending to present alphabetic forms. In 1896 he obtained, from the Dictaeon cave of Zeus, part of a slab, with basins for the reception of libations, and on this was a fragmentary incised inscription. On the left was a figure of a ladder with four rungs, then one like a horse-shoe, with the Greek letter psi, or, at all events, a stick forked into three tips within it; then another ladder, then two signs like the small Greek gamma, our G; the rest were fragmentary. Here was undeniable "monumental writing"; perhaps a dedication to a god. Mr. Evans now purchased the Hill of Kephala, Minoan, Knossos, and he not only found the remains of a magnificent palace, but abundance of clay tablets inscribed with linear writing, and cups in which writing had been executed with pen and ink. It has, at first sight, a rather Chinese look. We notice the ladder sign, a sign like A—I, another like a goal at football with the ball lying beneath it, and many more. Quite a different, probably a foreign, set of pictorial signs appears on a circular clay disc found at Phaestos by the Italian excavators. One recurring sign is a human head in a crested skull cap, like those worn by northern invaders of Egypt under the Twentieth Egyptian dynasty. A second figure is a stout lady, not one of the wasp-waisted Minoans; there is an arrow, a shield, a running man, a smock, or chiton, and so forth.

Much more advanced is the linear writing, signs resembling letters, found on tablets, at Haghia Triada, which are not of the same class as the writing found at Knossos. Here writing has made a great advance. The characters are upright, and of a simple and definite outline, which throw into sharp relief the cumbersome and obscure cuneiform system of Babylon." The writing, like our own, is from left to right. The tablets, records of stores, arrows, chariots, spears, bows, were pictorially indicated; in two cases there were recorded 6000 and 2530 arrows, and two deposits of written records of them. At what was probably a later period, one may add, the people of Mycenae were using stone arrow heads of obsidian. A large tablet contained lists of men, and another of women. What the writing had to say about them is unknown. These things are all official records and documents. If there was a written literature it may have been consigned to materials more handy, but more perishable than clay tablets. Some records are lists of golden ox-heads, like those which the Cretans bring to Egyptian kings in payment of tribute, and of golden cups like those with pictures of bulls and men in reposse work found at Vaphio. The writing continued to be used after the sack of the great palace in the Fourteenth Century B. C. The ancient civilization now flourished best in the Greek mainland, as in Thebes, whither, in the old story, Cadmus brought the Phoenician alphabet. But now we are told that "Cadmus" only represents a place-name, and which is still more revolutionary, that "Phoenicia" has nothing to do with Phoenicians. "The prehistoric past of Boeotia now proves to be not Phoenician, but Minoan, and no single trace has even a single object of Phoenician import." Minoan signs may have been adapted to the Greek language long before the Phoenicians had an alphabet. The Philistines were, at least to a considerable extent, Cretan military adventurers. Perhaps Goliath was a descendant of Idomeneus, the Philistines had their own written archives, as appears from the memoirs on a papyrus of an Egyptian envoy, a clergyman named Wen Amon, who travelled

about 1100 B. C. The Philistine prince assured Wen that, if he died in Philistia, his epitaph would be engraved for the readers of his countrymen. Surely this looks as if the Philistines used either Egyptian or cuneiform characters, not Minoan signs. As for the poor Phoenicians, their name only means "Red Men," and was originally applied to "the red-skinned Aegean race," who certainly were not Semitic. In Canaan the Babylonian cuneiform writing was used till about 1100 B. C. The tablets of the Law may have been written in cuneiform. After criticizing various other theories Mr. Evans suggests that the Phoenician alphabet (for example, on the Moabite Stone of about 900 B. C.) may be derived from a Minoan source, from the linear writing of Crete about 1400 B. C. Tables are given of Minoan characters which closely resemble Phoenician letters, the characters being ultimately derived from pictures of objects. By a curious coincidence the late Sir John Evans conjecturally restored the original pictorial forms of the Phoenician, and his designs correspond remarkably with actual Minoan characters since discovered by his son, Mr. Arthur Evans. Starting from the characters of Cretans settled in Philistia, the Semites would make a selection from these, and even adopt some of their names and translate others.

It is a most interesting fact that this theory was also held by the Cretans of Knossos themselves in the late age of Diodorus Siculus. "They have an answer," says Diodorus, "to those who attribute the invention of letters to the Syrians, and who say that the Phoenicians learned them from the Syrians, and passed them on to the Greeks, through Cadmus and those who sailed with him to Europe, so that the Greeks call the letters 'Phoenician.' To this the Cretans reply that the Phoenicians were not the original discoverers of letters, but that they simply changed their shapes." Let us be fair and say that the Phoenicians did a great deal more than that: out of a large number of what were probably Cretan signs of syllables they made an alphabet of not many letters. Still the Cretan tradition is probable, and there are several classical accounts of the discovery of an unknown form of writing in Boeotia. One inscribed tablet of bronze in an Egyptian grave was sent by Agesilaus to Egypt, where the learned merely made an imaginative statement about its meaning. Then of the Trojan War by an eye-witness, Dictys done into Latin, and the Latin was the main source of our mediaeval Tale of Troy. The book, since after Shakespeare's time, was taken to be a Latin forgery, with no Greek original, but the original Greek has been found by Messrs. Grenfell and Hunt on a papyrus at Tebtunis. The copy is of about 206 A. D., but the original may be of a century earlier or more—it purports to be of the reign of Nero, when an earthquake at Knossos laid bare a deposit. The manuscript in a tin box was said to be written on linden bark, which must have perished. Probably clay tablets were taken for bark, and the tin box was a stone cist, lined with lead, such things are found at Knossos. Nero turned on Semitic experts to decipher the manuscripts, and somebody who had written the Greek book of the Tale of Troy tackled his curious forgery on to the story of the discovery. The book itself is a tissue of post-Homeric Ionian and Athenian perversions of Homer, rationalized; the gods being omitted, and the mediaeval poets thought that this was a genuine contemporary record of the Trojan affair. Meanwhile the Cretan writing cannot be read, and if the words could be made out they are probably in an unknown tongue, such as appears in some Cretan inscriptions in Greek letters. However, in later volumes, Mr. Evans may make further discoveries.

The American State Department has undertaken a large problem in its campaign for a "Court of Arbitral Justice" at The Hague. The object of the court is stated to be nothing less than the settlement of all disputes arising in peace as well as in war. There at present exists an international prize court—the result of a suggestion made at the Peace Conference of 1907 by the United States; and now that government is addressing the powers with a proposal to widen the jurisdiction of this court so as to include all international disputes.

Whether the new court will have the power of compulsion has not yet been stated; but it is improbable that it will have. Such a proposition would imply the organization of an international police force which might have to enforce its will—against Germany, for example. At present there is machinery at The Hague by which a court can be constituted to hear any case which is submitted to it voluntarily by the powers concerned. It is likely that this new American proposal is for the extension of this machinery, and possibly it includes the establishment of a court which shall be always in session. Grist might be provided for such a legal mill by the reference to it of many questions which are now settled through the ordinary diplomatic channels. This would educate the nations to the use of arbitration and pave the way to the establishment of a real world court, with the strong arm of an international law behind it. But such a consummation is a long way off; and Dreadnoughts and Super-Dreadnoughts will be obsolete before that day dawns.—Montreal Star, January 10.

"O, dear, I guess I must be getting old."

"What's the trouble?"

"I stood up in the street car all the way home tonight, and not a single man offered me his seat."

WANTED—A

Sooner or later a game as things are now the ish Columbia has advanced rapidly that we are selves quite how much ing. A few years bad game appeared inexhaustibly few who finally did not know what the possibility of poor. Things are different now a dozen years ago I could hear a report from I should be scared to bring day of the season plated coat and pants.

The numbers of responsible men, who kno in the woods and pursuit in a legitimate manner have increased enormously. The "responsibles" are also in which may well be called the serious accidents of now drawing to a close. tention, and also for the sport, the former class, whom I have met, are ing for a system of government realize that the is a highly important maintenance of a fair game is of the greatest both visiting sportsmen; the government has serious attention to this has shown a desire to responsible sportsmen and tions for the improvement is all very well to say stand now have given satisfaction is a mistake to do too them. All legislation to be progressive, and the policy mean in many cases, as un this one, an inactivity which masterly.

As regards the close game on Vancouver Island, little need for change from sued this season, if those properly and energetically to good measure to help to en be the adoption of a gun lice obligations similar to those holding of a Manitoba deer described in these columns u ber 28 of last year. Any in possession of a permit u this act legally issued to h fact a game guardian for the enforcement of the act during and under the same act it is game guardian to institute, c stituted, prosecutions against fringing the provisions of th them.

In present conditions, and impossibility of adequate pat of the enormous game country the people of the province, th excellent way of assisting th better game protection, putti considerable part of the onus game on those who are most ed, the sportsmen who take o shoot it. All who took out li act up to the full power and them by the holding of them, I doubtless serve as a great de doers in the shape of game-h poachers, and it would help t woods the "irresponsible" with ing weapon which he is not e safely and legitimately. The si for the licenses would hurt non money raised would be a consid voted as it should be to the p salaried wardens.

That the latter are needed, needed, is a statement which w questioned by any sportsman country and with the best inter heart. This implies no criticism ent game wardens; they are al want more of them, if they ar amount of good which we expect not respected to the extent which if we are to retain a decent sto afford us fair sport; we read wit articles in foreign sporting papers the good work which has been British Columbia game warden game grounds, and it is pleasant visiting foreign sportsmen are the way they are treated and assi quest for new trophies here by ou representatives. Our big game is a session, which is being for more and far better looked after now th merly. Granted, and for this much let the good work continue, and warden be given more power and safeguard and increase our stoc game, which after all is far th nant to the average man who m make his home and his fortune, a day's fishing or shooting occasio lication from the cares of daily b richer man's pastime of big-game h

These few lines are not written of carping criticism, but realizing the effort does now recognize the and value of our game, both small a