## STATEMENT

### THE BRAZIL COMPANIES

GENERAL OFFICE
BULLITT BUILDING
PHILADELPHIA

1912



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### STATEMENT

S. E. ADAIR

# The Brazil Companies

Officers

S. E. ADAIR, President
WHARTON BARKER, Vice-President
H. B. REEVES, Sec'y and Treas.

GENERAL OFFICE
BULLITT BUILDING
PHILADELPHIA

#### STATEMENT OF SAMUEL E. ADAIR.

The Brazil Companies control the exclusive mining rights over an immense extent of mineral-bearing ground in Brazil. This area, in addition to having deposits of silver, copper, iron, zinc, lead and many other minerals, is known to contain a great number of gold bearing veins that have never been worked, and vast areas of gold bearing gravels and sands.

As the country rock carries gold also, these gold bearing gravels and sands must, of necessity, be very rich in many places because of the long period of time in which the present streams, creeks and rivers have been at work cutting down or eroding the general surface. Not only must this be true by reason of the action of these natural forces, but every explorer and every traveler who has ever been in this section, as well as scores of government officials, have reported upon and pointed to this section specifically as having been found enormously rich in gold in the places worked by the old miners, a hundred and fifty, and more, years ago. These miners had only a few crude instruments and, with the poorest of all labor (slave labor), extracted fabulous amounts of gold and diamonds..

The writings of the explorers are to be found in public libraries, some of them having been written more than a hundred years ago; others, forty and thirty years ago, and several of quite recent date.

(See Baron Von Eschwege, Counts Castlenau and St. Hilaire, Cunha Mattos, Guimaraes and others).

Every engineer, that we know of, who has ever been in this section, has written not only of the large amount of work done by the old miners and the immense riches that the government records show to have been taken out by them, but has also reported that he made such examinations and tests as convinced him that still vaster areas of virgin gold bearing gravels and sands remain to be worked in the coming years, and that these gravels and sands are so situated as to require only the effort to take out the gold at great profit. They have invariably recommended that their principals acquire control of these virgin placers, and most of them have pointed out that the modern man,

by reason of his greater skill and experience and the use of present modern appliances, can surely make even greater fortunes out of small portions of the ground than the old miners were able to do,—if only the intelligent man can be given a chance and will apply himself faithfully to the work.

Illustrating this particular point, we note that Cunha Mattos, the great geographer and historian, in his itinerary of Mining Works in Brazil, says that twelve thousand slaves worked nine months building the dam and making the rock cut at the Machadinho Falls in this section, and that, although the dam and cut were inadequate, yet, during the brief space of a few hours in which the water was held back before the dam gave way, enough gold was recovered to pay for all the work of the twelve thousand men for nine months. The noted engineer, Hiram Shipman, in his report says that inasmuch as the course of the river was through a region wonderfully rich in gold bearing soil and rock this account is not improbable, and that these old operators knew nothing of rock excavation; that fifty men with modern appliances can complete this work in three months' time.

The government records show that many millions of dollars of taxes were paid to Portugal in colonial days on the gold and diamonds that were taken out by ordinary hand labor, and the records are full of references to this particular section as the richest in all Brazil, and as the source of the many great fortunes that citizens of Brazil were known to possess in the eighteenth century.

Gold was discovered in this part of Brazil in 1723, and so rich were the gold bearing gravels and sands that, although nearly a thousand miles from the coast from which all supplies had to be carried on mule back, fabulous fortunes were drawn from them by the adventurous miners of those days. Several quite large towns grew up on the profits of this mining, all of which was hand labor. Washing the gold-bearing gravel was continuously carried on from 1723 until 1746 when diamonds were discovered in this and other sections.

At that time Brazil was a colony of Portugal, and Portugal had a law which gave all diamonds to the King, and forbade any mining, especially mining in gravel and sand, in a section where diamonds were

Immediately upon its becoming known that these gold bearing gravels and sands were also diamond bearing this law was rigidly enforced by the Intendente of diamond mining who forcibly stopped all mining. When mining was thus stopped, those who could get away did so in order to enjoy the fortunes they had gained or to operate in other fields. Very few remained except those who were the mixed descendants of the Portuguese, natives and slaves. The old race of Portuguese miners completely disappeared.

Nowhere in this region was gold mining again possible until about 1840, and by that time the section had been depopulated and forgotten. Discoveries in California and Australia drew the attention of miners away from this section, so that, even now, nowhere

is mining, as such, being carried on.
A few natives living in small hamlets along the streams, completely isolated one hamlet from the other, do take out a limited amount of diamonds and gold from these rich gravels and sands which are right at their very doors; but, being totally without education or ambition, they take out only enough for their immediate wants. Having enough for their few wants, and knowing that they can always get more in the neighboring gravels, they remain in this condition of idleness.

We have noted that the section was closed to gravel mining for nearly one hundred years. generations had passed before the restriction was removed, and, because those who knew of the riches of this vast area, once the scene of great gold extraction, had long since died, its history was forgotten by all but a few. Engineers and explorers, however, call it "The Eldorado," and it is now awaiting the coming of the modern miner to become again a section of even greater activity and gold production.

Speaking of this section, Mr. James W. Wells, F. R. G. S., in his lecture before the Chamber of

Commerce in London, says:

"Let gold mining commence in this region of yet rich virgin placers, and the roads from Rio de Janiero and the rivers from Para will soon be thronged with adventurers."

Whenever any modern engineer happens to pass into this section he at once recognizes that immense values are here, and that great fortunes can be made if only possession can be obtained. From several of these engineers—John Seyler, Colonel Crawford, Milton Adams and others—we have learned how they tried to get possession of parts of this territory.

They were unable to get possession because the exclusive mining rights had already been given to others, and these very mining rights which prevented the Germans under Seyler, and the English under Crawford, from obtaining a foothold, are the self-same rights that The Brazil Companies have secured.

It has remained, therefore, in this condition for The Brazil Companies; and now the exclusive mining rights over this vast area of gold bearing sands and reefs have been acquired and are to be operated under a plan which has not heretofore been adopted anywhere in the world.

This plan is one which will prevent litigation, strife, claim-jumping, and the expense of guarding the claims day and night; a plan which will secure to the owner the gold which usually goes to lawyers, gamblers and others; a plan which will maintain the owner in as peaceful and quiet possession as one usually has of a farm or town lot, and which will fully protect him in his right to mine the property from all interference. So that, because it will secure to the owner the full measure of profit that ought to have been his all these years—but never has been—this plan will enable him to make a comfortable fortune out of a fairly good placer claim if he will apply himself strictly to the work.

This plan is one which governments having rich placer ground should have adopted long ago, because it will lay down so carefully and exactly what a man's property right is, that it can in no way be confused with that of others; and, at the same time, it will show actually that gold is in the ground, and can be mined at a profit.

Before describing the plan, it is deemed best to explain what placer mining is, how it is conducted, and the conditions that are necessary to success—and success with profit.

Gold mining, particularly washing gold from gravel and sand, is the most ancient form of mining. Fully ninety per cent. of all the gold recovered, up to this time, has been obtained by washing the gravel and sand in which the gold occurs. Much the greater part of this was gotten by hand labor, and in no other way. Hand mining, therefore, is no new thing, but, in reality, the very oldest form of mining.

The origin of gold no one yet knows, but it is found in some veins of quartz and calcite, and sometimes in the country rock. When the country rock and the veins are ground down by the action of the air and water, which act is called erosion, the rocks are broken up and the gold freed, so that, when those parts of the rocks that are broken and ground fine enough are carried away by the water, the gold, which is far heavier, remains behind in the crevices of the bedrock and mixed with the sand and gravel lying on top of the bedrock. The gold thus found in the gravel is sometimes in nugget form, but, more usually, in fine grains or specks. When in nugget form it is called coarse gold; in other cases, fine, or scale, or flour, or flake gold—according to its condition.

Now in whatever form gold is found its recovery from the gravel and sand is made possible by its greater weight and the sorting power of running water. These two principles have always been used and are in universal use today.

In the ancient days all of the gold was recovered by washing the gravel and sand in a wooden bowl, and this method is even now in use in Brazil and some other places.

After a while a pan, made of iron or steel, and shaped like a milk pan, was used for washing. This pan is called a gold pan. Sometime before the discovery of gold in California an invention was made which, by means of a metal screen, permitted the larger gravels to be washed at once, and thrown away, leaving behind only the fine sand mixed with the gold. This was set upon two rockers like a cradle, and it is called a Rocker or Cradle. It can easily be made by any man with a hammer, a saw and a few nails.

In course of time it was learned that if a long trough were made, and cross pieces of wood or metal, or even if blocks of stone, metal or wood were set in the bottom of this trough, and water allowed to run through with some force, and then the gold bearing sand and gravel shovelled into the trough, the sand and gravel would be rapidly carried away, leaving the gold behind in the crevices. This box is called a sluice box.

Only a limited amount of gravel can be washed in a day with a pan or a bowl, as only one man can use it at a time. A larger amount of gravel can be washed in a day with a rocker, because two men can work together with that instrument. With a sluice box, however, a greater amount of gravel can be handled than with either the pan or rocker, because eight, ten or twelve men can shovel constantly into the sluice box, and the water, if of sufficient quantity, will carry away at once all the soil and sand and gravel, leaving the gold behind, lodged in the crevices with a heavy black sand. This black sand is magnetic and is taken away from the gold by a magnet.

Therefore, while the pan is universally used by prospectors and miners, it is simply for testing the gravel to show if gold is present at all, and it is used for that purpose because it is light and portable.

The main operation of modern days of separating gold from gravel, soil and sand is, by means of the sluice box.

The tools necessary to work with a gold pan are the pick and shovel only. The tools necessary with either the rocker or the sluice box are the same pick and shovel, with the addition of a hammer, a saw, a few nails and a bit of canvas, to which should be added a plane for smoothing the bottom of the trough, to make cleaning up of the fine gold easier. These are all the tools necessary, and, as no especial training or skill is needed, it can be easily understood why placer mining (that is, mining by hand) is called "poor man's mining"—because no capital or skilled labor is required, whereas, all other forms of mining do require skilled labor and expensive machinery,—in other words, "Money."

Very few tools and very little skill is necessary in any of the three ways of washing gravel for gold, and as they contain all the principles of gold mining in gravel, it is obvious that washing gravel for gold is a very simple operation indeed, and anyone can learn it in a day.

With such small need of capital, it is plain that if a man can, without great loss of time or great expense, get possession of a placer claim that has good goldbearing gravel and sand, and if he be allowed to work it without interference, he ought, with his own labor, make a small fortune quickly, or soon make sufficient profit to enable him to employ others, and thus in a short time amass a comfortable fortune for himself. We have said that IF a man gets possession of a plot of good gold bearing gravel, and IF he be permitted to mine it without interference, he can, under certain conditions, make a comfortable fortune, either by his own labor or by employing others to work it for him.

But the trouble is with these "IFS."

How is he going to get possession of such ground, and how is he going to be protected in his right to work it?

It is easy to get a plot of gravel but not easy to find one that is gold bearing. Even after the gravel is known to be gold bearing, how much time, money and work is it going to cost to find out whether the gravel can be worked at a profit. A curious paradox is seen at this point in describing placer mining. Under all former methods and under present ones, the richer the gravel is in gold the more trouble the owner has to keep it for himself.

It is natural to suppose that once having gotten possession of gold bearing gravel, the government would in some way secure for him the right to work it for himself, and in one sense the government does try to protect him in this right. But a review of the way in which gold bearing claims have been obtained, the difficulties and dangers attending the search, how these difficulties and dangers grew and multiplied with the richness of the gravel, will make it seem that governments and legislatures, learning of the richness of the gravels in gold, became envious and jealous and purposely made laws that would keep the owner from making more than a bare living.

As illustration, before the Klondike was discovered, placer claims in Northwest Canada were lawfully 500 feet long and in width from rim rock to rim rock. But, as soon as the Ottawa government heard of the great richness of the gravel there, the size of the claims was at once reduced to very small areas. Claims on the streams were cut to 250 feet or less in length and the width could be only a few feet, while claims not on the stream were limited to 100 feet square. Yet the ground was so rich, that in spite of this government regulation, many of these 100 feet claims on French

Hill, Gold Hill and the Old Channel, produced more than \$100,000 the first year, with the labor (by hand only) of two men for the few months that work could be carried on.

It should be noted that the ownership of a mining claim does not mean that one owns it as he does a farm or a town lot. He simply owns THE EXCLU-SIVE RIGHT TO MINE IT. This right is subject to many restrictive laws and in every case these laws require money to be paid-miners' licenses, fees for leasing, recording fees, transfer fees, taxes on the gold, and even taxes for the use of water and fuel have to be paid in nearly every country. In fact every imaginable thing has been considered a legitimate source of taxation on a man who is taking money out of the ground. Bear in mind gold is money everywhere. many countries only a year's lease can be gotten-work must be carried on continuously-absence for longer than a certain number of hours sometimes results in forfeiture of the claim—the United States requires \$100 worth of work each year, failing which the claim reverts to the government, and even if the owner does perform \$100 worth of work, often men are on hand who will swear that the work is not done. A lawsuit or a killing becomes the next step.

So many and so heavy are the restrictions, that in addition to all natural difficulties, and those due to the greed of men, governments have found every possible way to hamper and confuse the owner of a good gold bearing placer claim, so that he is prevented from working freely, and especially prevented from making too much.

A description of the methods by which placer claims have heretofore been made could be truthfully labeled "How not to do it" and a description of the work of governments in protecting the operators in their right could be called "The absence of all security."

Let us see how gold bearing gravel has heretofore been obtained—at any rate so as to see how not to do it, and at the same time let us see whether the operator was protected in his right to work it, or whether it did not cost him all the gold he could take out and

more too, very often, to get any security of possession. We have said a placer mine is known among miners as a "poor man's mine" because no capital and no skilled labor are needed for working. While this is a deserved name, nevertheless, by the methods heretofore customary, it has been impossible to acquire such a mine, without risking life and health. When it was finally acquired the owner was able to operate it only after endless trouble, litigation and expense. For instance, the ownership of some of the most valuable claims in the Nome District has not yet been settled, though located more than 12 years ago.

In the western part of the United States and in Western and Northern Canada and in Alaska and Australia, a class of men, known as prospectors, live a life of exposure and hardship, and with a horse, a mule or a dog-team, far from civilized communities, search among the foothills and along the banks of streams and gullies for indications of mineral.

These men buoyed up by the certainty that, in the foothills of the mountain ranges, vast riches are to be had if they can only find them, subsist in a precarious way and suffer all manner of deprivations and exposure.

In general they do not even own the animal they use and this, together with portable food supplies, bedding, a piece of tent and a couple of tin cooking utensils, a pick and shovel, are obtained as a grubstake from some acquaintance or keeper of a retail store usually found near the lines of travel. Even before starting out with the grubstake so obtained, the prospector must enter into an agreement by which the ownership of half of all that he locates is lost to him and belongs to the one who furnishes the grubstake. If no agreement is made, then the law steps in and gives half ownership to the person furnishing the grubstake.

The prospector is usually at his wits' end for a grubstake and he is so glad to get it and get started that he never provides for the future working of the property. His business is to find good mineral if he can—and he forgets that after it is found it may be necessary to do a great deal of work to prove that the mineral can be extracted at a profit and so he starts out handicapped from the beginning by the loss of half his claim, and with no provision made by which, he, without money or resources, can prospect the claim

even if he should be lucky enough to find it. Therefore, even if he does, after several years of loneliness, exposure to sun and rain, bad food, worse water, innumerable hardships and constant danger to life and limb, even if he should be fortunate, it is a ten to one chance that he has retained only a small interest in the claim, and his profit is practically nothing.

It is only one out of many hundreds of prospectors who succeed in retaining for themselves any interest and seldom is that interest a substantial one. The immense fortunes of the late Senator Nixon, of George Wingfield, of Governor Oddie of Nevada—of the Mackeys, Floods, Fairs, O'Briens, Sharons, Haggins, Hearsts, Clarks, Noyes and many others, did come through the discoveries made by prospectors, but in no case through their own work of discovery or location. After the discovery was made by somebody else, those great fortunes grew from the operation of mineral ground that was proved to be good.

There are many reasons why it always turns out that way, but as our business is at present with gold bearing gravel only, we will confine our remarks to that particular mining industry, IN WHICH ALONE, A MAN WITHOUT CAPITAL, CAN HOPE TO MAKE A FORTUNE BY HIS OWN LABOR.

The prospector usually carries with him a gold pan and when, in a gulch, he has reason to believe he will find gold, he goes through the performance known as panning, that is, washing the gravel in this gold pan. As a rule he finds no gold—but if he should find a few specks of gold—he knows that the gravel is at least gold bearing—that is about all he does know,—he knows nothing yet of the richness of the gravel nor where the pay streak runs. He immediately drives a stake or erects a monument of loose stones and posts a notice there stating he has on a certain day at this point found mineral and that he claims such and such ground for mining purposes.

In the countries mentioned above, the law gives him the right to keep and mine for himself for a certain time a certain area (in Canada a lease for one year, while in the United States his claim is subject to the conditions that he shall do \$100 worth of work for each of five consecutive years or \$500 worth of work can be done the first year, and then he has the right

to buy the claim outright). In all cases he must define his claim by means of corner and side monuments and place notices in each as to what the monuments mean.

Having done all of this work he hurries to the nearest recording office and there records the fact of his discovery and what he thinks his claim actually is as staked. The area must, of course, not exceed the area allowed by law.

The requirement that he go to the recorder's office and make a record there results in many ways to his disadvantage.

First—He records before he has been able to prospect his claim, or learn by using his pick and shovel and gold pan, where the pay gravel is, its direction or its width or its depth. Therefore, he nearly always fails to stake ground that can be profitably worked, and he is sure to stake a large amount of worthless ground.

Second—The prospector could not carry surveying instruments and would not know how to use them anyway—therefore as the stakes and monuments are not surveyed into place—this necessary absence to record his claim leaves it open to claim jumpers. All traces can be and are often removed, his stakes thrown away or placed in positions he never intended. The richer and more accessible the property the more certain it is his claim will be jumped or his stakes and monuments changed.

Third—The moment he records his claim, the public will know it and immediately a gold rush, called a stampede, occurs and all the creeks and gulches on all sides of him are speedily staked and located.

As none of this is surveyed and as generally no measuring instruments are at hand, and as haste in every instance is necessary, there results a tremendous jumbling and overlapping of claims. Constant quarrelling and bickering takes place and the harvest is reaped generally by lawyers, saloonkeepers and gamblers.

Each of the stakers takes oath that he found gold on his claim whether he did or not, and every claim that has value or seems to have it must be guarded day and night, for no other reason than that the stakes and monuments have not yet been surveyed into place. The rough way in which they have been laid out and the haste, because of the stampede, result in claims overlapping in all directions and in inconvenient fractions. Many rich claims have been tied up in litigation for years before ownership could be determined.

What chance has the man of no means, when such conditions are permitted? It is easy to see that he is obliged to sell his right for the means to live, and so although, he may have a splendid claim, he can profit but little. Wherever he has made a few thousands out of such a claim, lawyers, gamblers and speculators have made scores of thousands by helping him or by loaning him a few dollars from time to time.

As a rule before he can even defend his title, and at any rate, in order to do it, he finds that he must have his claim surveyed by mineral land surveyors, whose charges are always as high as the laws allow. In Canada he must have it surveyed and a plot made and furnished to the Gold Commissioner. And also, before he ventures to locate a claim or even to search for one he must purchase a miner's license from the government, and each year this miner's license must be paid for again, and fees for recording are not only demanded everywhere, but renewals must be paid for regularly, so that should there be no litigation the cost of surveying, the legal fees, the restrictions, and the work necessary to hold the claim would amount to a sum far greater than a thousand dollars.

In the course of time, after years of quarrelling and destructive litigation, the gold bearing claims fall into the hands of men of property, who alone could successfully fight the battle through, and so acquire the fortunes that should have been the fortunes of men without property who originally staked these claims, if only some means had been devised by which their claims could have been legally surveyed into place at the time, and if they had been properly protected in their right to mine them.

Many hundreds of the claims, located in the manner described, have been extremely valuable, some worth thousands, some scores of thousands, some hundreds of thousands, and many even a million or more. Yet the discoverer or the locator seldom reaped the harvest.

Henry Bratnober, the Rothschild's mining expert in 1897 offered \$100,000 per claim for ten consecutive claims in the Klondike, but could not get them. No doubt he could have gotten ten claims at the price, but not ten together. The N. A. T. & T. Co. paid \$100,000 per claim for ten claims. There are no doubt hundreds of claims in the Klondike that were worth a good deal more than a hundred thousand dollars each, and many that had from one to five millions in gold in them. Because of the great richness of the gravel many poor men did become rich and the same may be said of Nome, and Fairbanks, California and of Australia, British Columbia, and Montana. But the great fortunes came to others who obtained the property after the claims were surveyed and proved.

These conditions, as noted above, always have resulted in frittering away the immense wealth in lawsuits over lines and stakes.

We think we have shown that the methods heretofore used produced conditions which have resulted very often in wrong, injustice, distress and crime, even when the Government did allow men to ultimately secure possession and work the ground if they If the Government had not hampered the worker by restrictive legislation, and if it had arranged a simple system by which all doubt as to rights in the property had been eliminated—the losses mentioned above would not have occurred.

In course of time, the gold actually was taken out of the ground and the owners worked long and hard when they could, but so much time and money was used up by contention, that the gold taken out by the workers many times has been consumed in law suits, or spent in gambling, drinking and in other ways, too often the direct result of the state of mind of men har-

assed as they were.

Nevertheless, one can see that, IF THE NAT-URAL OBSTACLES ARE ALREADY COME AND THE UNNATURAL ONES MADE IMPOSSIBLE, AND IF THE BRUNT OF GOV-ERNMENT (INTERFERENCE IS BORNE BY SOME ONE ELSE, then surely a man can make a comfortable fortune by his own labor, if he can only get good gold bearing gravel to work.

Because almost all the gold bearing gravel of civilized communities has long ago been worked out, and only the gravel occurring in distant regions remains, it would seem, at first thought, that the difficulties and privations incident to finding and locating good

gold bearing gravel could not be prevented.

It would seem also impossible under existing conditions to prevent the loss of time and money due to these lawless efforts to get the richest of the ground by foul play or by force.

But The Brazil Companies has adopted a plan by which both of these things can easily be remedied.

The plan is so simple and, in a sense, so easy of execution, that people hearing of it wonder why it has not been done long ago.

While the plan is simple enough, it is, however, expensive; in fact, it costs a good deal of money and the work of a good many people. No one could afford to do it unless he absolutely controlled the mining rights of a very large extent of mineral ground containing great areas of gold bearing gravel, some of which must be very rich indeed.

Usually, the Government itself is the single owner of all these mining rights, but the Government will never carry out this plan until private enterprise has shown the way. When, at times, the Government has given away the exclusive right to mine large areas, the temptation to the private owner has been to mine the rich ground out at once, or, to work the rich ground and hold the entire area by working in one place.

The plan of The Brazil Companies depends upon the following fact: If the Government or the private owner of all these mining rights had not thrown open the locations of gold bearing gravel to a jumble of men made wild by a sudden chance to get rich, but had withheld it from location until the ground was carefully prospected by engineers and cut up into plots whose boundaries were surveyed, it is clear that these troubles would not have occurred at all.

This is exactly what The Brazil Companies is go-

ing to do.

It is obvious that before any placer mining work of any kind should be done the ground ought to be thoroughly and systematically tested. It is also obvious that if this testing and proving is accurately recorded, the good gold bearing gravel can easily be separated from that which is not so good. If, at the same time that the accurate drilling records are made, all the conditions pertaining to those areas are also noted, it can readily be seen which parts of the area are sufficiently valuable for either hand or machine labor. Thus those parts can be determined in which it is possible for men to make a handsome profit by hand labor.

This also The Brazil Companies will do.

During the time ground is being thoroughly tested the direction of the pay streak, as well as its general width and thickness, can be determined. If, after this determination of values, areas of the gravel are staked out across this pay streak and these plots with their corner stakes and drill holes, each surveyed into

place and referred to a base line, it is plain that no moving of stakes or questions as to lines can thereafter arise.

The plan of The Brazil Companies is to have engineers work continuously, month in and month out—year in and year out—testing the gold bearing gravels by machine and hand labor, and locating and surveying those parts of the ground which are found to be good enough to make hand labor profitable.

To this end The Brazil Company has sent to Brazil, and has now in operation there, five separate engineering parties, fully equipped with surveying, testing and proving instruments.

A contract has been made with the operators in Brazil by which the exclusive right to select the plots of this ground, so surveyed and proven, has been secured for The Brazil Companies. These exclusive rights are what The Brazil Companies are now offering through the local agent.

Arrangements have been made to keep these five engineering parties, and additional engineering parties, continuously testing, proving and laying out these gold-bearing gravels and sands.

The operators in Brazil guarantee to The Brazil Companies the accuracy and truthfulness of the engineers' reports and records, and The Brazil Companies in turn guarantees to the purchaser of its lease-holds this accuracy and truthfulness.

The Brazil Companies will soon be in a position to offer these plots through its agent, and in doing so will guarantee to guide the purchaser to, and locate him upon, one of those plots so tested, proven and staked out. The Brazil Companies, however, does not make the selection.

From among a great number of these plots tested, proven, staked out and guaranteed, the selection is to be made by the purchaser himself, or by his own agent. This selection can be made at any time within eighteen months from the time that the leasehold is purchased. On file at the office of The Brazil Company at the railroad station in Brazil will be found the drill sheets which have been prepared by these engineers, and on the ground in Brazil will be found the stakes and plots corresponding to these drill sheets,

so that no confusion will arise. The purchaser may make his selection from an inspection of the drill sheets, or from an examination of the ground in Brazil, or from both. He is not confined to one examination, but can make it as often as he likes.

It occurred to us that some purchasers of leaseholds might buy rights to mine and yet, on account of sickness or other reasons, be unable to go at once and make the selection. To cover such cases we adopt the rule that each one should have ample time and should not be hurried. We therefore decided to give all alike the full eighteen months in which to make selection.

As the engineers are continually progressing with the work, they are sending in their drill sheets often and making their reports to the offices of the Company in Brazil. It is not at all certain that the best and richest gravel will be located and laid out in the earliest stages of this work, and, therefore, because no one knows just where the richest gravel is and where the places best adapted to making a large fortune by hand labor are, it will be well for the purchasers to proceed to Brazil as early as possible after purchasing the leasehold.

These drill sheets and reports will always be open to the inspection of any person holding a certificate of Right to Mine, or a Leasehold from The Brazil Companies, but to no other person whatsoever except the Companies' officers.

The Brazil Companies fully intends that each purchaser of one of its leaseholds shall have every opportunity to make a fortune for himself. Each purchaser can do this if he will only apply himself faithfully to the work.

At no time will even one more plot be sold than the engineers in Brazil have reported as having been staked out across a pay streak sufficiently good to be worked by hand at a profit.

The chief engineers in charge of each of these five separate parties have been carefully selected from among those engineers recommended by dredging and other gravel mining companies as not only the most skillful, competent and accurate, but also as thoroughly reliable.

The contracts with these engineers will carefully guard the rights of our purchasers so that the inside

information which, of necessity, will come first to the engineers, will not be disclosed to anyone, but will be sent direct to the office in Brazil for inspection by our purchasers, and no one else.

The Brazil Companies gives to the purchaser of each of its leaseholds the right to mine the plot selected by himself or agent for a period of five years from the day upon which he makes the selection and the

selected ground is given into his possession.

The Brazil Companies further agrees that if, at any time before the expiration of these five years, he desires to exchange the unworked part for an equal area anywhere else within its control, all he has to do is to ask for it. Provided it is not already held by a purchaser having a similar certificate, the new plot will be given him. Our intention is that we shall not at any time withhold any information from the purchasers of our leaseholds, nor withhold any portion of the ground. The Brazil Companies fully intends that it shall be in every case, "First come, first served."

No certificate of Right to Mine—no Leasehold, will be sold to anyone until the gravel has been tested and proven, and no greater number will ever be sold than the number of plots proved to be good by the work of the engineers on the ground.

What is guaranteed is this:

First, that the ground can be profitably worked by hand, as shown by engineers' records on file.

Second, that the purchaser shall have the exclusive right to mine it for five years from date of his location thereon.

Third, that the purchaser may mine it by his own labor, by hiring other labor, or by any kind of machinery.

Fourth, that we will pay all taxes and government royalties.

Fifth, that the purchaser shall have the right of renewal for an additional five years at the same price.

We further guarantee that all of the ground and all of the information we have is free, as set forth above, to our purchasers.

Regulations with regard to tailings and use of water will be made for each locality according to the conditions existing there. But in this case, as in every other case, no favoritism will be permitted.

We have now explained what placer mining is, and how, in general, it has been conducted. We have also pointed out that while the methods in use now and in former times were very far from helping to success with profit, even when rich gravel was to be had, yet there did exist one right method and all the rest were wrong. We have also pointed out that The Brazil Companies intends to use this right method, to wit: Prospect, survey and divide into plots those parts of the vast area of gold bearing gravel that are rich enough for hand labor; that, having done this, and having the exclusive right to make selections of the ground, it will lease them to individuals or associations of men at a fixed price of \$1,000 each and a gross rovalty of 25%. And further, we have shown that the purchasers of these leaseholds shall have the right to make selections themselves in the order in which they make known their selection from among the whole number of such plots as the engineers certify fulfill the necessary conditions.

Many other advantages The Brazil Companies will give to the purchasers of the leaseholds, because it fully intends that it will give every purchaser every chance to make a fortune for himself, depending, of course, upon the plot he chooses and the manner in which he works it. But we have not yet shown the conditions that are necessary to success with profit, nor have we shown that in very many places in the vast area under the exclusive control of The Brazil Companies, all these conditions are amply fulfilled.

We will, however, first speak of the cost to the lessee, in order to show that the price and royalty are neither of them excessive.

Stated briefly, this is what The Brazil Companies will do:

The Brazil Companies sells a five years' exclusive right to mine a gold mine that has been proved and so guaranteed; that is, it gives the exclusive right to work a guaranteed gold mine of your own selection, either by one man or a dozen, or any number, or by machinery of any kind, at a rental equivalent to 55 cents per day payable in advance.

When one realizes that all the searching and testing and all the surveying has been paid for, and that the lessee will not have to pay for it at all, and when one realizes that The Brazil Companies also protects the lessee in his right to work the propery in a miner-like manner without interference from claim jumpers and law suits, one cannot help seeing that a very much larger sum could have been justly asked.

As for the royalty, it need only be pointed out that Cecil Rhodes and associates charged 50% royalty and guaranteed nothing, and that leasing in the Klondike, in Nome, Fairbanks, Goldfield, Tonopah, and every mining camp known to us, has always been at a much higher rate. In all these cases, not only was no guarantee made, but all taxes, royalties and fees of every kind had to be paid besides. It is therefore clear that The Brazil Companies takes a very moderate royalty, particularly when one considers that the whole mineralized territory of sixty thousand square miles is open to selection by the owner of one of its leaseholds.

The Brazil Companies realizes that its own profit is bound up in the success of the lessees, and it has determined to give even greater advantages than those already set forth.

Remember that we do not hurry you in the least, but give you many months in which to make the selection. On the last day as well as on the first, and each one of the intermediate days, you have the benefit of all the knowledge we gain by the continuous work of at least five engineering parties, headed by men of exceeding skill and probity. Nothing shall be kept from you. Not only do we do all these things in our efforts to give you every chance to make a fortune for yourself, but, remember, that the entire great area is at your disposal with only one reservation—that is, "First come, first served."

Do not forget that you have the right to exchange the unworked part at any time during the five years, because this is of immense importance. Having made your selection and being at work there does not confine you to that one spot. Nor do we anywhere say that the owner of a leasehold is compelled to select gold bearing gravel in making the exchange. It is gold bearing gravel that we guarantee to have been tested. That is all.

We know from the many reports available that there are large deposits of other minerals. That virgin gold bearing veins, silver bearing veins, deposits of copper, zinc, lead and iron exist within the limits. Reports also show that diamonds are found in many gold bearing gravels places in the and We make no special point of these at this time; nevertheless, the Right to Mine is intended to be so broad as to take in any kind of mineral or precious stones, and you can during the five years exchange the unworked part of the gold bearing gravel selected by yourself for a similar or equal area of any other part (also selected by yourself), no matter what mineral or precious stones it may contain.

We have said practically nothing about diamonds, but it is obvious that inasmuch as they are found with the gold bearing gravel, some of our purchasers will make fortunes out of them. They add to the richness of the gravel wherever found. But we do not guarantee anything except gold bearing gravel.

Probably the richest piece of ground in the world was that small area worked by a Brazilian citizen in the eighteenth century, which produced in one season 160,000 carats of diamonds of fair size and quality. This area was not within the territory under the control of The Brazil Companies; nor do we say that anything approaching it in richness exists therein. Nevertheless, the contrary cannot be said either. No one can say that areas equally or nearly as rich do NOT exist within those limits. This thing is certain, however: If one or more of such areas do exist therein, the purchasers of our leaseholds will know of it and have the benefit, in the order as they make selection.

The same thing may be said of the gold bearing gravel and sands, and the gold and silver bearing rock in place. While we do not yet know that any of the ground will be as rich as Tom Lippey's claim in the Klondike, from which several millions were taken in 1898-99-1900, or No. 2 claim on Anvil Creek, "Lindeburg's Claim," but, considering that Mr. Shipman, Mr. Clinton and other engineers report, and all explorers write, that the area is covered with a sheet of gravel which is gold bearing, and that these engineers, as

well as Cunha Mattos, Father Luiz Antonio da Sousa e' Silva, and also many government officials, report the country rock and soil as gold bearing, and considering that there are more than three thousand miles of running streams traversing this gold bearing soil and rock, gravel and sand, we say—considering all these things—it is clearly impossible that there should not exist innumerable gulches in which the gold has been concentrated by the sorting power of these swift streams.

Read for yourself the reports of Hiram Shipman, B. de Witt Clinton, James W. Wells, F. R. G. S., Guimaraes and what is said by Baron Von Eschwege, Count Castelnau, St. Hilaire and the host of reports in the government records set forth in the Official Geographical Dictionary of the Mines of Brazil (published in 1885 at the National Press in Rio de Janeiro by the Chief of Bureau of Agriculture, Commerce and Public Works), and you cannot doubt thereafter that placers fully as rich as those of Nome, Fairbanks or Alder Gulch in Montana, or the Klondike, will be found by the prospecting work of the engineers. The fact that rich placers do exist in this region of Brazil is conclusive. And rest assured of this: The purchasers of the leaseholds of The Brazil Companies will surely have the right to mine them.

The Brazil Companies will do no mining whatsoever, and therefore every bit of ground, however rich in diamonds, gold or other mineral, will be and is open to selection by the owners of the leaseholds, and IN THE ORDER IN WHICH IT IS ASKED FOR.

Reference to the reports of the eminent travelers and explorers, the skilled engineers and the Commanders of Captaincies in Brazil, will show what the conditions there were, and are now. These reports and writings cover the period from 1724 to 1908, and there has been no change in nearly 200 years. then, the conditions found by these great travelers and explorers, and these engineers of international reputation, are such as to fulfill the conditions necessary for successful placer mining with profit, and if they all say the conditions are ideal for the work, we ought certainly to be able to satisfy you that, not only does The Brazil Companies intend to give its purchasers every chance to make a fortune by their own labor and ingenuity, or by employing others, but that, if the owner of a RIGHT TO MINE has been wise in making his selection—and does really apply himself to the work—he cannot help making a very satisfactory return. And moreover, many will surely make a larger fortune or a greater competence than can be hoped for in any profession.

In general, what we have written refers to working gold bearing gravel and sand by hand labor—no skilled labor—no costly machinery, and, therefore, no capital is required. We have said that a man without friends, without property and without money, can make a comfortable living, a small fortune, and in many cases a large fortune, by his own labor, in gold bearing gravel and sands, depending upon several things.

First—He must have the right to work it. This The Brazil Companies gives him.

Second—He must be allowed to work it for some considerable time without interference. This, too, The Brazil Companies insures.

Third—The natural conditions must be favorable. The natural conditions necessary for successful placer mining in gold bearing gravel are three:

First and Foremost-The gravel and sand must

contain gold in paying quantities.

Second—Water must be at hand, or near enough to be brought to the gravel with little labor.

Third—The climate should be such that a man can work in the open air as many days as possible during the entire year.

All these conditions may vary more or less and still profitable work be carried on, but the ideal conditions are these:

The gravel and sand very rich. Water in quantities near at hand.

Climate salubrious and healthy and such that work may be carried on the entire year without cessation.

No matter what the conditions are with regard to water and climate, there is no chance to make a profit unless the gravel contains gold, but if it should contain gold, then the size of the profits are more or less dependent upon the nearness and quantity of water and the number of days in the year in which it can be used. If it should happen that water was difficult to obtain, or that the climate is either so hot or so cold as to make several months unsuitable for work in the open (as in the heated desert on one hand and the north with frozen water that cannot be used for gold washing on the other), even then, if the gravel be rich in gold, it is possible for a man to make a fortune out of it. Longer time will be needed to get started, and less work can be performed during the year, and, therefore, reduced profits—that is all.

Examination of the reports of the many engineers, explorers and travelers, and of the government reports and records in Brazil, makes one absolutely certain that there are vast areas of gravel in this region that do contain gold. While entirely satisfied with these reports, yet, for the purpose of being sure that the purchasers of the leaseholds shall have good gold bearing gravel immediately, and suitable for hand mining at a profit, The Brazil Companies determined to take this further step that has never heretofore been taken in the history of the world. It is going to test the gravel by means of those engineers who have been testing gravel for years and who have been found to be the most skillful and accurate ones in this identical work. In doing this, The Brazil Companies makes it absolutely certain that the first natural condition, namely, "The gravel and sand must contain gold in paying quantities," is fulfilled on those areas which it offers through its local agent.

This will more plainly appear when you realize that no leasehold or RIGHT TO MINE will be sold until after the ground has been tested and proven by the engineers.

With reference to the water and the climate, a reading of the reports of Hiram Shipman, of James W. Wells, of B. de Witt Clinton, will show that the area in which the exclusive mining rights are controlled by The Brazil Companies is a well-watered, elevated plateau, ranging in elevation above the ocean from 2500 to 5000 feet, a rolling campos country with the most healthy and salubrious climate in the known world.

There is water everywhere, so that only the mountain tops and sheer elevations are any distance from water. Therefore, the moment the Local Agent of the Brazil Companies offers the LEASEHOLD for sale, the ideal conditions noted have been and are fulfilled for a limited number of these plots. That is:

They do contain gold in paying quantities, some probably very rich.

Water is abundant and near at hand.

And this all in a country accessible by steamboat and railroad, whose climate is the most delightful, healthy and salubrious, and such that work can be carried on every day in the year.

#### EIGHTEEN MONTHS TIME.

We have said that eighteen months time will be allowed a purchaser in which to make his selection, but from that statement, it must not be understood that The Brazil Companies thinks it wise to take so much time, unless illness requires it. Above all things—The Brazil Companies advises that the purchaser proceed at once to the ground in Brazil examined by the engineers. The reasons for this advice are these:

The five engineering parties are testing and surveying day in and day out, they are continually sending in their reports on one piece of ground and passing on to the examination of another; as fast as these reports come in they are filed in the office in Brazil for inspection by the owners of Leasholds issued by The Brazil Companies. This office is the only place these reports can be seen and therefore the only place in which information as to the results of the testing can be had. These reports, which are known as drill sheets, will accurately set forth the facts as found by the engineers and the value in gold, foot by foot, of each drill hole made. There is no way of finding out anything about the result for each area plot by plot, nor what the probable value (and therefore profit) is of each plot except by examining the drill sheet records. Examination of the ground itself will show only the physical condition; what labor, if any, is necessary before gravel can be shoveled into the gold saving sluice box.

Also note this—the drill sheets and nothing else will disclose when the Engineers are in Bonanza Gravel, as very rich gravel is called. Of course, those who see these drill sheets will have the first chance to make selections and one cannot see them without being on hand to look. No one can possibly tell in advance when these richer parts will be found and tested and surveyed—it might occur in any month or on any day; therefore it is plain that one should not delay, but should proceed at once to the only locality where this information can be had.

Remember that even if one has made a selection, he is not estopped from changing to other ground and that this privilege is part of what we sell and for five years. There is always one richest and best claim, and there will be, no doubt, in this case, many others, very much richer than ordinary. But because neither The Brazil Companies, nor its engineers, nor anybody else, can possibly know beforehand how one claim will compare with another, until after the testing has been made and the record completed for each section, no one can know the day or particular area in which these richer gravels will be found. Some purchasers will get them, and of course those who do will be among those that are on the ground at the time, or represented there by an agent. Therefore, since the rule will be always "first come—first served," there can be no question as to the soundness of advice, which is-"Go to the place where you can be first and where alone the best chance for a rich claim can be obtained."

The reports and writings of engineers and explorers demonstrate that even though the gold bearing gravels and sands were a thousand miles by trail from the Coast, and even though the only method of getting supplies was by mule back or bullock cart, and even though the fierce Cayapo Indians dominated the country, and even though there was no law or order, nevertheless in the face of all these obstacles, dangers and privations, fabulous fortunes WERE made by the hardy adventurous Portuguese miners of those days. How much more certain now, must be the expectation of making a comfortable fortune in these same districts from similar gold and diamond bearing gravels, where all these difficulties, obstacles, privations and dangers are removed.

Two railroads now run from the Coast directly toward and partly through these regions. Of the two navigable rivers, one has a regular line of steamboats carrying passengers and mail. Thus we see that transportation of supplies is no longer difficult, expensive or precarious. Moreover, the country in the old days had no source of supplies nearer than the Coast, nearly a thousand miles distant. Now, great cities are several hundred miles nearer, agriculture and cultivation have reached to the border, and countless herds of cattle roam the rolling prairies immediately south and west, and some are right at hand;

game, fish and birds are abundant—so that the question of food supply need never arise.

The Cayapo Indians once so fierce and unconquerable have been tamed and brought into peaceable villages by the wonderful work of Catholic missionaries, and as for outlaws and desperate criminals, the State is and has been for many years far more peaceable and orderly than any of our own western mining States, and life far more secure. The Brazilian people themselves are peaceful and lawabiding in the extreme, and the percentage of criminals in Brazil is far lower than in our own country. Each of the States of Brazil maintains troops, whose duties are similar to those of State Constabularies and rangers in the United States and Canada. As the State DOES make life secure and The Brazil Companies guarantees. property rights to purchasers of its Leasholds-there can be no country in which there is greater security of life and property to our people.

It is stated that neither now nor at any future time will Leaseholds or rights to mine be sold by The Brazil Companies until after ground has been tested and surveyed into plots, and only those will be offered that are certified by the Engineers to contain gravel good enough to be mined by hand labor profitably. The chiefs of these parties are by name as follows: John T. Gibson, John Holm, Henderson Scott, John F. Gurney, Walter J. Radford.

These Engineers are men of great skill and ability, and have a long and honorable record behind them. The purchaser can therefore absolutely depend upon the accuracy and honesty of the reports they will make, and The Brazil Companies as well as the operators in Brazil guarantee the truthfulness of the records that will be open to the inspection of the purchasers of the Leasholds.

We have quoted the eminent mining engineer, Mr. Hiram Shipman, as pointing out that the course of the river was through a region wonderfully rich in gold-bearing soil and rock, and as Mr. Shipman spent about a year on the property making examinations, and as we will make extracts from his report, it is well to know who Mr. Shipman was, and so we will quote the late Professor George A. Treadwell.

Prof. Treadwell, an American, at one time Director of the School of Mines of London, England, was associated with the great operators of the Comstock Lode, Mr. D. O. Mills, Mr. Ralston, Mr. George Hearst, Mr. Haggin and other men high up in the mining world. He was a creator of both the United Verde Mine, now belonging to Senator Clark, and the Greene

Consolidated, now a part of the Cananea.

Prof. Treadwell in a letter written to Wharton

Barker says:

"Mr. Shipman was a mining engineer of the highest reputation as to honesty and the carefulness and exactness of his examinations. The banking interests of the Southwest have the utmost confidence in his reports on mining properties, and the banks did not hesitate to make loans on the strength of his certificate as to the value and condition of a property. In fact, Mr. Shipman was known as a man of wide experience in all classes of mining work and was looked upon as a high authority.

"After Mr. Shipman's return from Brazil I had many conversations with him concerning the value of the gravel, both in gold and in diamonds, and I have read his original report and have seen the results of his tests in his own books. I have always been convinced that there were enormous areas of gold-bearing

gravel on this Concession, much of it very rich."

Prof. Treadwell also says in this letter that since that time he has met many engineers who have been in this district, and from them he learned that the property remains just as it was at the time Mr. Shipman came back from it, having rested idle except for the scattering work of the few natives.

The engineers' statements concerning the gravel

fully confirm Mr. Shipman's report.

Mr. Shipman built the first 80 stamp mill ever erected and was known in all mining circles as one of the most conservative men in his great profession.

With complete confidence, therefore, we quote from

Mr. Shipman's report as follows:

"Through the whole southeastern part of Goyaz, from the borders of the Province of Minas Geraes, the country traversed, coming and going by the two different routes, is not only the most beautiful and fertile country the sun ever shone on, but everywhere I saw evidence of immense mineral wealth. Wherever I sampled the gravel I found astonishing results. I verified this by numerous pannings, using also the native wooden bowl, called "botea."

The results of my work with pan and bowl, made at a great many places, are absolutely convincing. I have never seen anything to compare with this region, although I have worked in the richest diggings in California, Utah and Montana.

You know that until I built the Vulture Mill I had been making my living by examining mines for other people, and that I try to say less than I can

prove.

Well, I say to any mining man that this Maranhao region contains enormous beds of rich gold bearing gravel, and that while fabulous amounts have been taken out in former times, there yet remains untold millions, so situated that the extraction of the gold at immense profit requires only the effort.

The gravel is everywhere present and gold is

everywhere present in the gravel.

What would a California miner think of panning, without a blank, covering a distance of one hundred and fifty miles, taken of course as a miner would take them?

The prevailing geological formations are mica schists and talcose slates, and, singular to say, these formations appear to be, and are, gold bearing. The surface soil seems to be decomposed gneiss, quartz, mica schists, talcose slate, with frequent ferruginous admixture.

The old gold workings which are to be seen along the banks of almost every stream disclose the fact that a sheet of gravel, or "cascalho," as it is termed by the natives, is spread over the whole country. It is found on the elevations as well as in the valleys. Another curious feature of the formation of mica schists and talcose slates is the fact that they are rarely tilted and are almost always horizontal."

Referring to the quartz veins, Mr. Shipman also says: "I noticed well defined quartz veins cutting through the mica schists and talcose slates. I made no examination of these veins, or dykes, having no time for prospecting rock in place; which was, moreover, unnecessary, as the evidence of gold in placers was everywhere present.

In my examination from Meia Ponte, the first indications of extensive gold placers were found very near that place. A vast amount of work was evidently done, at an early date, on the principal streams in the The adjacent ground neighborhood. along the streams had many years ago been turned over. the Abaddie Mine, a league and one-half from Meia Ponte, I was struck by the singular fact, here disclosed, that the mica schist and talcose slates, in a decomposed state, had been worked, recently, in a desultory way, by hydraulics to the depth of one hundred feet or more. A hydraulic outfit had been working for a little while on the side of a ridge with a maximum elevation of probably between six and seven hundred feet. Curiously enough, the ignorant miners did not know how to utilize their labor saving machinery, because they had carefully refrained from washing into sluices, but had contented themselves with driving the debris only into the sluice ditch and were laboriously cleaning up by "panning" with "boteas"—wooden bowls. Crossing over the ridge I was shown, some three or four miles distant from the workings, quite rich earth which I tested, showing that the pay dirt, or the "lead" ran right through the mountain, or rather the rounded ridge, for miles. This demonstrated to my satisfaction that the gold placers of this section are hardly touched.

There are also, in the immediate vicinity of this locality indications which go to show, that in the early period of the history of Goyaz a vast amount of work had been done along streams and gulches by the ancient miners. But with all this work the fact

remains that even here the surface was merely scratched.

From the Abaddie locality I proceeded over a beautiful country with indications of placer gold on every hand. There were plenty of evidences of former workings, such as old ditches for conveying water, the soil turned over along the streams, large mounts of gravel excavated from the hill sides, with plenty of the same character of ground remaining to be exploited. least one hundred and fifty miles I traveled through the same character of country, seeing all the way evidences satisfying me that the surfaces of its vast "placers" had only been skimmed in a few places, and that there remained untold millions to be extracted during the coming years. The gold quartz veins show no indications of ever having been touched by the early miners, but are in the same condition that nature left them. The gold "placers" everywhere seen are the result of the disintegrating forces which have been at work for ages upon ages.

The sources of the vast amount of gold extracted from the soil of this country during the early part of the last century, and the still vaster quantities to be taken out in the future, are the virgin veins which, when worked, will doubtless be found wonderfully rich. It cannot be otherwise."

Mr. Shipman also says that at the terminus of his journey he found the remains of an old mining town, with perhaps only a dozen poor specimens of humanity too lazy to enjoy good health. During the early mining period, in the last century, this town must have had a population of some thousands of inhabitants. The extent of the streets and the number of houses, tumbled down, in ruins and overgrown with vegetation, are sad reminders of the decay of a once populous and flourishing place. This decay was caused by the strict enforcement of the law prohibiting gold mining after diamonds were discovered.

Speaking of the work done at Machadinho, Mr. Shipman said: "In the near neighborhood are the rapids of Machadinho, where an attempt was made, early in the 18th century, to turn the stream from its natural channel, in order to work the gold-bearing gravel in the bed of the rapids. The remains of this work yet to be

seen attest how great an undertaking this must have been to the poorly equipped and unscientific miners of that day. The Maranhao makes a bend where the rapids occur, and just above where they begin, in the middle of the stream, is an island. On the right hand side of the river, coming down, the bare rocks on the bank are exposed. A dam was, at low water in the dry season, thrown across from the mainland on each side to the island, and a rock cut made on the southeast side to draw off the water of the river. This cut was about 50 yards long and probably 30 feet wide. It is related by Cunha Mattos and other old writers who left accounts of Goyaz mining operations in their itineraries, that twelve thousand slaves were worked for some nine months in the construction of the dam and making the rock cut. This probably was no exaggeration. The appliances of the ancient miners were of the rudest description. Goyaz was in the far interior and everything—even provisions—the actual necessities of life, had to be transported on mules or by bullock carts from the coast. The slaves were half starved, wholly ignorant of the character of work they had to do, and their overseers, of course, knew but little more about engineering and rock excavation. They did not make even an approximate estimate of the volume of water they had to deal with in the rainy season. water was the lowest, the ditch they cut was altogether inadequate to carry the water of the Maranhao, which was as broad as the Hudson River at Poughkeepsie and twelve and more feet deep in the main channels. The result was the inevitable one. The cut was completed just as the rainy season set in, and the dam was finished, and for a few hours enough water was carried off and held back to lay bare the upper part of the rapids, where the rocks, even when the river is running full, show at the surface. During this short period, and in a very limited space, the miners were able to take out enough rich pay gravel to yield MORE THAN SUFFICIENT GOLD TO PAY THE EXPENSES OF THE NINE MONTHS' WORK.

When it is borne in mind that the entire course of the Maranhao is through a region wonderfully rich in gold bearing soil and rock, this account will not seem improbable. The gold being of the greatest specific gravity would be piled up in the crevices of the rocks in the bed of the rapids, and, in all probability, every "Botea" full of sand and gravel would yield enormously—even as high as one hundred dollars to the bowl. Of course, the water of the river, being greater than the capacity of the ditch, backed up above the dam, until the accumulating pressure carried away the barrier and the pent up flood swept all before it; it is said that all the tools and several slaves were lost and that the destruction of life would have been much greater had not most of the people left off work to eat breakfast, which, in that country, is a midday meal.

This work was done more than one hundred years ago and no attempt has since been made to repeat the experiment. And just about this period diamonds were discovered in great quantities in the Rivers Piloes, Cayapo and Claro, tributaries of the Araguaya, and the government absolutely prohibited washing or mining for gold. This restriction was enforced and was not removed until about 1840. At the same time the government in prohibiting searching for gold only permitted diamond mining to be carried on under certain conditions. A large area of territory was leased to individuals, or companies who were bound to return all diamonds found to officers of the Royal Treasury, who estimated their value and paid therefor accordingly.

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The result was almost the depopulation of Goyaz. Those who could get away went as soon as gold mining was interdicted to enjoy what they had gained, or to find new fields of enterprise. Those who remained were the poor and shiftless, escaped slaves, outlaws, or the worthless progeny of intermarriages between whites, negroes and Indians. A few took to agriculture and stock raising, and while almost all mining has been neglected for a century, farming and pastoral pursuits have grown to considerable proportions in parts of the Province.

Further along in his report Mr. Shipman says: "That it is very rich in diamonds of the first water and an abundance of gold cannot be doubted. I saw in Rio de Janeiro quantities of diamonds brought from the Cayapo. One man with two slaves had just come down from that region before I arrived in Rio de Janeiro with more than \$100,000 worth of rough dia-

monds.

I saw some of these and they were of large size, and lapidaries told me, very fine.

Mr. Shipman says that the extent on this river and its tributaries cannot be less than 10,000 square miles and is probably 20,000. It has in no place been worked to any extent for the following reasons: The adventurous miners of the last century were never able, with the assistance of the government, to subdue the brave and hostile Indians who held the Cayapo region. is only within recent years that these savages have been brought into peaceable relations, chiefly through Catholic missionaries. The white and mongrels of Goyaz are and have been for generations too lazy, thriftless and unenterprising to seek new fields. They are contented to gain a few dollars by "panning" gold along the streams in their neighborhood. If they have something to eat today they do not think of what tomorrow may demand. Mr. Shipman was informed that the finest diamonds in Brazil had been found there and Mr. Moraes says there has never been any work of importance done there. The only people who have mined, even in a crude way, are a few refugees from justice who have managed to make fortunes there and afterwards bought exemption from prosecution for their crimes. Mr. Moraes is a gentleman of high standing in Brazil, a native of Goyaz, and one in whom I placed great confidence.

The diamonds of the Cayapo district are undoubtedly of a superior quality and for them alone the industry of mining can be carried on profitably for many years. Its gold fields are practically inexhaustible.

Either one of these tracts are mines of vast wealth and combined their value can scarcely be estimated. In all there will be 2000 miles of river navigation draining a country which I unhesitatingly say is the MOST BĚAUTIFÚL. THE MOST FĚŔTIĽE IN SOIL, THE RICHEST IN MINERALS AND WITH THE MOST DELIGHTFUL AND SALUBRIOUS CLI-ANY PART MATE OF OF THE WORLD. In all my experience I have never seen any country comparable to that of the Province of Goyaz. It is an elevated plateau whose height above the sea level ranges from 3000 to 5000 feet, with Serras Pvrenees and Cayapos running up in peaks from 9000 to 10,000 feet. The country is rolling and about equally divided between prairie and forests. Everywhere the soil is rich red loam and exceedingly fertile. My visit was during the hot season and I experienced less discomfort from heat than I frequently have in New York State. I fully agree with Mr. J. W. Wells, who, in his book entitled "Three Thousand Miles Through Brazil," speaks so enthusiastically of the delightful and exhilarating climate of the "campos" country of the Goyaz.

You know me well enough to know that I am not an enthusiast, and yet I assure you I cannot command language to adequately express my opinion of Goyaz as an agricultural, grazing and MINERAL country. All that nature can do for a country, Goyaz has been blessed with, and all that it requires is to be opened up to the world and the truth in regard to its capabilities disseminated.

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Water is everywhere abundant and can be led at trifling expense where it is wanted.

There is an abundance of labor in the country, such as it is, to be had at the rate of 40 cents per day. While it is not the kind of labor we command in the States, still, properly directed, wonders can, with our modern methods, be accomplished by it.

The products of Goyaz in an agricultural line are varied and her forests and other natural resources, aside from MINERAL wealth, will yield an enormous traffic to a navigation company."

While the examination of Mr. Hiram Shipman, the eminent engineer, consumed about twelve months of time, it is evident that even in that long period only a small part of the area controlled by The Brazil Companies could have been looked over. The favorable character of this report is fully borne out by additional evidence relating to the great areas of gold bearing gravel by the published writings of:

Baron Von Eschwege, German Engineer;
Count Castelnau, and
St. Hilaire, French Engineers;
Guimaraes, Portuguese Engineer;
Luiz Antonio da Sousa e Silva, Portuguese Explorer;
B. DeWitt Clinton,
Milton F. Adams,
G. C. Walker Crawford,
John Seyler, and other Amercian Engineers; and
James W. Wells, F. R. G. S., the English Engineer,
and the writings and official reports of

Alford de Tauney,
John de Sousa,
Thome and Milliet de St. Adolphe,
Jose Martins de Alencastre,
Manoael Ayres de Cascal,
Alexandre de Sousa Menezes,
Joachin Manoael de Macedo, and
Cunha Mattos,

all of whom speak of the great richness and the vast area of gold bearing gravel within the limits controlled by The Brazil Companies. Some of these whose names are Brazilian were for a time the commanders of the captaincies, and copies of their reports can be found in the Geographical Dictionary of the Mines of Brazil, published by the National Press, Rio de Janeiro, 1885, by Ferreira, Chief of Bureau for the Departments of Agriculture, Commerce and Public Works.

The authentic character of this evidence is such as to satisfy any one, that because these reports have been entirely disinterested and have covered such a long period of time, they make conclusive evidence that the vast areas of gravel do exist there and that

the miners working there have found it in many places to be very rich. Mr. Adams built the telegraph line for the Government of Brazil into the city of Goyaz. In his report to the Brazilian Government he stated that the soldiers who were then his escort deserted and the men under his employ left him and went to washing the gravel on the banks of the stream and he asked for and was supplied with other escort and men.

Mr. Seyler wrote that he had personally tested the gravel on the Rio Verde and that he found it very rich, often running as high as three or four dollars per cubic yard.

Colonel Crawford cabled to his principals in London suggesting that his clients should obtain control of these vast areas of gold bearing gravel, and stated that he found the gravel to average in some places two and a half and three dollars per cubic yard.

The following are extracts from a letter written by . B. DeWitt Clinton, manager of the Conceciao do Ferro

of Minas Geraes, Brazil:

"Perhaps I had better state that I have been in Brazil about seventeen years; in fact, the greater part of twenty-four years, but the seventeen have been spent within the limits of that country. I have worked properties in the State of Goyaz and I have been back and forth in that territory on many occasions and have had many friends and known many people who have worked in that State and in that particular district. It is needless to say that Goyaz is far and away the richest State in Brazil. It is known to everybody that has had anything to do with mining that this is a fact; and it is also known to any one that has had anything to do with the State of Goyaz or has mined therein, or has had friends interested in that territory. There are at present several hundred natives of my knowledge who are working in the territory comprised within the limits under your control, and in general the conditions will be found like this: The land around the district is what is known in our country as more or less rolling, with large expanses that are treeless, but invariably with considerable heavy timber near the streams. If you go up any of the tributaries or any of the small streams pertaining to it, you would think the country uninhabited, but once in a while you will come to a little path, and following that path back a distance from the water you will find a little clearing or habitation containing twenty or more people. These people live upon the small crop of vegetables that they plant in their spring, which does not take them two weeks to put in, but their principal living is derived from diamonds and gold which they obtain at their very doors. As soon as the crop of vegetables is put in they go down to the river or creek and work an hour or two a day in the water, digging out gravel, which they carry to the banks and pile up, and having gotten in the course of weeks a pile of gravel containing one or two cubic yards, they go away and wait until the water rises, and then when the water does come, they go down and wash out the gravel by throwing water on it, or in a bowl, and when they obtain a small amount of gold or a diamond, as they invariably do, they take it to the nearest place where rum can be obtained, get drunk and stay drunk until it is all used up, then they go back and work again.

"It is needless to say that nobody is hungry in that country and nobody is without clothes, and gold can be bought from the natives at from forty per cent. and diamonds can be bought at ten per cent. of their selling value.

"There is hardly a native to be found, lazy, worthless and thriftless as they are, that has not one or

more diamonds in his or her possession.

"If you should attempt to lay off along the banks of the main river or any of its tributaries plots of ground, five acres in extent, one adjoining the other, and you should go blindfolded and make a selection of them as to which would contain gold-bearing gravel, nine out of ten would fulfill that condition. Of course, it would be richer nearer the smaller streams than along the larger rivers. The country is very, very rich in both diamonds and gold and it needs only that men should apply themselves to make fortunes out of small portions of it.

"My friends, Mr. Mullen and Mr. Yampert, both worked as telegraph men in that country. Mr. Mullen came out within a short time with three hundred and twenty carats of diamonds and fifteen pounds of gold. Mr. Yampert in the course of two or three

years made a very large fortune, up to hundreds of thousands of dollars.

"The country is enormously rich and produces

diamonds of the first quality.

"You have in your Company's possession two exceedingly rich concessions on which it is very hard to make a mistake in attempting to mine them. They are rich enough to stand hand labor and there are many places there where you can afford to pay ten dollars per day for labor, but, of course, that is not necessary, as we ordinarily pay from fifty to seventy-five cents per day for native labor. We had no difficulty in obtaining native labor, nor do they seem to have any trouble in obtaining that class of labor in Brazil, the people living from hand to mouth to be sure, but if you have the good will of the Priest they will work for you.

"The country is covered with a sheet of gravel known as "Cascalho." This Cascalho is gold and diamond bearing; it is over the hill top as well as in the valleys, but in varying thicknesses. In very many places it will average from ten to twenty dollars per square yard of bed rock surface. If that section of the country should ever be handled by machinery in a careful, methodical manner, it will produce, in my opinion, more diamonds than are now being produced in South Africa and there is no comparison in their value, the Brazilian and Indian diamonds being very superior to those of South Africa. They can be told apart at once. In addition to the fact that the gravel is so exceedingly rich in diamonds and gold, the country has sapphires, tourmalines and various other precious stones. There is no mining for any other minerals, but there are large deposits of iron and copper and in years gone by there has been mining for silver.

"I do not think there is anything richer under the sun than the State of Goyaz, and your Company owns what is known to be the richest part of the State. So far, in all my travels through it, I have not seen a well-defined vein of quartz. Native rock is commonly schistos in character and is full of quartz kidneys. These quartz kidneys invariably carry gold and the schist itself is gold-bearing. When this schist and quartz is disintegrated in place, it can be washed as readily as gravel and the gold that is found in the streams, in the gravel, in the quartz and in the schists is rough and not rounded as placer gold ordinarily is, plainly showing that it has not traveled any distance. These quartz kidneys and schists seem to be the original matrix of the gold, which in a measure accounts for its being so uniformly distributed over all the country. If you desire to lay out this gold-bearing gravel in plots, the actual expense in laying it out will be very small if boring machines are used. The gravel averages so uniformly after you get down to it from the debris that you have only to strike gravel to know you have gold-bearing gravel, and usually pay gold-bearing gravel at that.

"The country, as I have said before, is covered with this gravel, but over the top of this gravel is more or less soil formed by the decaying vegetation.

"There is room for mining for several hundred thousand individuals and you will never be able to get enough men to thoroughly mine the gravel by hand labor."

In confirmation of Mr. Clinton's statement, reference is made to the report of Guimaraes, the Portuguese Government Engineer, who was sent by his Government to investigate the conditions in Brazil and to recommend as to which district would be the most desirable for the settlement of Portuguese emigrants. Guimaraes reported and recommended (1899), as the best place for these emigrants, the land around and included in this district in the State of Goyaz.

In addition to the favorable soil and healthy salubrious climatic conditions, he stated that the gravel and streams were both diamond and gold bearing, and that, in his opinion, if these gravel beds were ever worked by machinery in a methodical manner, the production of diamonds from this district would equal the production from South Africa.

Further recent testimony bearing upon the great extent and richness of the gold bearing gravel in this district in Brazil was set forth in a lecture delivered before the Chamber of Commerce in London, April 5, 1889, by James W. Wells, an eminent English mining engineer and Fellow of the Royal Geographical Society, who had spent some nineteen years in Brazil.

Besides describing the various commercial oppor-

tunities, Mr. Wells, in his lecture, dwelt strongly upon the great discoveries of gold, silver and diamonds that will ensue from the construction of the inland lines of communication.

Among many other interesting things, Mr. Wells said:

"I believe the time will come for a gold rush to Brazil that will lead eventually to its being peopled as California, Australia and South Africa have been.

"I could show any one certain districts where many thousands of miles are literally peppered with gold, where the river sands abound with it, where I panned it from the dust of the high roads.

"Amongst the gold districts of Brazil that really are found in the North and in the South, in the West and in the East, and in the central regions, I could point out many fields where I could demonstrate the existence of very profitable places and reefs, but I will only point out one locality. Here it is in South Goyaz, in the heart of Brazil, what I believe will be the long sought El Dorado.

"It is a grandly beautiful and well watered country, with a good soil and healthy climate. In this district of Goyaz, thousands of square miles in area, here and there, far and wide apart, the land was superficially scratched by the old miners, one hundred to one hundred and fifty years ago, who, ignorant of scientific principles, even of a pump, and with thousands of slaves, and the crudest of appliances, certainly extracted a fabulous amount of wealth in diamonds, gold and silver. But great as were the riches thus obtained, they were probably a mere fraction as to what yet remain. Old contemporary writers have stated that as a fact, a modern explorer has stated it as a fact, and I now repeat it, yet it is only wasting breath to utter it, for no ones gives credence to it, but I repeat, let gold mining commence in this region of yet virgin placers and the roads from Rio de Janeiro and the rivers from Para will soon be thronged with adventurers, as are the waters of the Amazon by the Indian rubber gatherers. It may naturally be asked if so much profitable mining has been done in these 1egions that are more or less populated, why have mining operations ceased? In the old days these regions were dominated by the numerous tribes of the fierce and unconquered Cayapo Indians, and it can easily be realized with what tremendous difficulties and privations those hardy old pioneer miners had to contend in a region so far inland, where, often devoid of the various necessities of life, they continually had to fight the savage aborigines for their very existence. Great fortunes were made, but eventually in consequence of the dangers and privations of the life, the region was abandoned. Now, all those Indians are widely scattered and civilized and the untouched virgin placers and gold reefs of these once Indian territories now await the advent of a new mining era."

The foregoing references and reports in respect to the extent and richness of the gold bearing gravel in

this area are all of recent date.

The old records of Brazil, however, are also full of reference to the rich placers and lode mines of this district. Most of these old writings are available in public libraries. Reference to these writings will show that whatever part of the district the writers visited, they invariably pointed out that they found large areas of rich gold bearing gravel, and in many places indications of large deposits of other minerals.

Baron Von Eschwege, in "Pluto Braziliensis," says: "Of the whole of Brazil the Province of Goyaz is the most rich in gold. At most there has been scratched off only gold that was on the surface."

Count Castelnau says, in 1847:

"Diamonds are found in the Rivers Claro, Piloes and Cayapo; also in all the small tributaries of these three rivers. It is finally the Rio Cayapo that furnishes the most gold."

He stated that he met a friend returning with his slaves and that this friend was bringing out a very great quantity of gold dust and a few diamonds.

Marquez de Palma, in his "Relatorio, 1809," states:
"In all Brazil there is nothing like this captaincy.
It is the only one in Brazil that comprehends within its limits many fertile plains, two great navigable rivers and a great many mines of gold of surpassing richness."

Father Luiz Antonio de Silva e Sousa says:

"Gold is found in almost the whole earth of this

province in more or less abundance, and there yet exists the richest workings. Neither is it to be thought that all the wealth of this country, so vast and so unknown, was stored in the places that were first worked. The mountains are almost entirely intact and even now the deposit of great riches."

Cunha Mattos, in his "Revista Trimensel," of 1874,

says:

"The greater richness of the ground there will enable the diligent to heap up the greater quantity of gold."

A review of the various statements made by Brazilian officials, German, French, English, Portuguese and American explorers and engineers, shows that each and every one, in the words of Mr. Hiram Shipman, saw conclusive evidences of immense wealth in the regions over which The Brazil Companies control the exclusive "Rights to Mine." While this would be ample evidence under ordinary circumstances that the person going to Brazil and visiting these districts would be fairly sure in time to find gold bearing gravel sufficiently rich to be worked by hand labor at a profit, and in all probability many places so rich that a comfortable fortune could be taken out by one man in a few years, if allowed to work there continuously without interference—nevertheless, it happens that the entire area is so under exclusive control that the right to work in these gravels can only be obtained by purchasing the same from The Brazil Companies.

In order that every purchaser of a Leasehold or Right to Mine in this region shall have the fullest and fairest opportunity, The Brazil Companies has made it a rule that no Leasehold or Right to Mine can be purchased by any one in Brazil or out of it except through its local agents and at the head office in Philadelphia.

The five engineering parties and such additional engineering parties The Brazil Companies will employ there in the future will, in all cases, make their reports to the office in Brazil and in this region. As said before, this information will be solely for the purchaser of the Leaseholds, and no one else will be permitted to learn either in Brazil or anywhere else what these reports disclose. These reports will be

open daily to the inspection of every man who holds a certificate of Leasehold from The Brazil Companies, as often as he chooses to look at them and as long as his Lease endures. Even on the last day of his Lease, he will have the right to the inspection of the drill sheets showing what the engineers have reported in each and, every locality under the control of The Brazil Companies.

#### FROM "BRAZIL" By Pierre Denis Charles Scribner's Sons, 1911.

# SUPPLEMENTARY CHAPTER. Mineral Resources, Trade and Commerce By Dawson A. Vindon.

It is somewhat difficult for the European mind to comprehend the vastness of the territory of the twenty States comprised in the United States of Brazil, within the boundaries of which nearly the whole of the countries of Europe could be comfortably stowed away. And yet this huge area has a population estimated at but 22,000,000, inclusive of Indians and negroes. It is only since the establishment of the Republic in 1889 that the progress of Brazil has been at all commensurate with the enormous natural resources it possesses. It will be seen by the following statistics that the trade of the country is rapidly expanding, the

wealth of its people becoming greater.

The motto of the Republic is "Order and Progress," and unquestionably this is the guiding spirit of the present generation of Brazilians. Small revolutions may occur from time to time, but these should not be regarded seriously. The habits of centuries are not changed in a decade or two; but the mass of the people and particularly the governing classes, are all for peace and the development of the resources of the country. In this connection it is interesting to note that the Constitution of the Republic expressly stiputhat Brazil shall not enter upon any war of conquest nor join with any other country in a war of Brazil is fortunate inasmuch that her aggression. wealth is almost wholly derived from products of the soil for which there is a world-wide demand; hence the measure of her prosperity will be relative to the increase of her population and the industry of her people.

Mineral Resources.

Although Brazil is known to have produced gold to the value of over £100,000,000—these figures being from official records—diamonds to the value of many millions, and is also the home of silver, platinum, lead, copper, iron, manganese, mercury, coal, monazite, graphite, and almost all varieties of precious stones and rare marbles, yet it may truly be said that mining as an industry plays a very small part in the prosperity of the country. I have no doubt, after having made a visit of inquiry and looked up all available information, but that Brazil will within a few years demand considerable attention from mining men, as there are few countries in which there are greater opportunities for profitable investment. Hitherto very little attention has been given to mining by either the Federal or the States Governments, with the exception of the State of Minas Geraes.

I understand that there is a likelihood of the States interested waking up to the importance of encouraging the development of their latent mineral wealth, and it would be well for them to consider that the great prosperity of California, Australia, and South Africa is largely due to the endeavors of the men who were first attracted to these countries in the search after precious metal. It seems evident that many of the first settlers in Brazil were drawn there by the tales of gold discoveries in the early days, but it would appear that most, if not the whole, of the gold won came from the banks of rivers or from near the surface of the soil. The amount of development of reefs at any depth has been very slight, and it is this work in the future that promises to find profitable employment for tens of thousands of workers, and besides adding to the general prosperity of the States yield good results to those who provide the capital. It is this need of capital and necessity of waiting for returns that disinclines the Brazilians to undertake mining operations; it is consequently to European and American investors that the work will fall and by whom the rewards will be reaped. The fact that most of the mining lands throughout the country are the property of private owners, and that under the Federal and State Constitutions all minerals are the property of the freeholder, and not liable to any Government tax, renders any systematic searching or prospecting for minerals almost of no avail.

The bulk of the gold produced in Brazil is obtained by the natives by washing the sands from the banks of the rivers in primitive wooden pans. At this they are extremely skillful and lose very little of the metal. Judging from the amount of gold recovered in this way throughout the country, and the fact that these washings must have been carried from gold bearing reefs outcropping on the surface, it is clear that when laws permitting prospecting on private lands are passed there will be many rich plums awaiting the experienced gold-seeker.

Next in importance to gold come the iron deposits. During the last two years a number of eminent mining engineers from the United States, Canada and Europe have visited Brazil in order to examine and report upon the iron deposits of the country, which are now considered to be the richest and greatest in the world. The ores are mostly oxides; the carbonates are rare and usually associated with carbonate of calcium. The ores are found in plenitude at Minas Geraes, San Paolo, Matto Grosso, Goyaz, Santa Catharina, Espirito Santo, and Rio Grande do Sul.

The production of diamonds has been the means of adding greatly to the wealth of Brazil in the past; but since the advent of the Kimberley mines in South Africa the industry has been under a cloud, although finds of valuable stones are still of frequent occurrence.

From 1844 to 1845 the Customs of Bahia registered as being received 876,250 carats, and it must be borne in mind that Brazilian diamonds are considered to be of much finer grade than those produced from South Africa.

Beyond the metals mentioned and the precious stones enumerated, Brazil is also the possessor of deposits of tin, mercury, wolfram, copper, salt, sulphur, nickel, mica, ochre, marbles of great beauty and quality, "and what not." Only time, investigation and development will discover and reveal the commercial possibilities and values of these multitudinous mineral indications, but it is fully evident that the study of mineralogy in Brazil furnishes a most fascinating occupation.

Series	No

## CERTIFICATE OF LEASEHOLD issued by

#### THE BRAZIL COMPANIES

То	٠	 •	•	•	•	 	•	•	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	•	•	•	• 1	W	'n	ıc	S	e	8	ıc	lC	ļľ	·e	SS	3	18	,

The Brazil Companies agrees to place the holder of this Certificate or his duly authorized agent in possession of a plot of gold-bearing gravel in Brazil four hundred by five hundred feet in area, within the territory which The Brazil Companies has the exclusive right to select for mining purposes, giving and guaranteeing the right to work or mine the same either personally, by employes, agents, or using machinery, for five years from the date of selection and assignment as hereinafter provided. The holder of this Certificate or his assigns to have the exclusive right to such plot, as may be selected either in person or by agent, from among the plots surveyed not already selected or assigned to other holders of like certificates, and which shall have been previously tested and proven to contain gold-bearing gravel or sand.

Skilled engineers will survey the territory and lay out plots four hundred by five hundred feet and test the same; only those plots located across pay gravel or sands sufficiently rich for hand work at a profit as shown by the examination and report of the engineers will be offered for sale.

The Brazil Companies will pay all government royalties and taxes and will protect the holder of this Certificate, his agents or assigns from interference by other claimants, in working in a miner-like manner such plot as may be selected and assigned.

At any time within five years after the selection of a plot the holder of this certificate may exchange the unworked part of such plot for an equal area of any other portion of the ground of which The Brazil Companies controls the exclusive mining rights, and not at that time selected by or assigned to other holders of certificates.

Twenty-five per cent. (25%) of all gold, diamonds, other minerals or precious stones extracted by any method from the ground selected by the holder of this certifiate, his agents or assigns, shall belong to and be the property of The Brazil Companies and shall be accounted for and paid over to the agent or representative thereof on the first of each and every month. Failure to so account and pay over, shall forfeit all rights under this certificate, and all ground selected shall immediately revert to The Brazil Companies, all persons in possession to immediately vacate and remove therefrom.

Possession of this certificate and written notice to The Brazil Companies will be sufficient authority to secure the recognition of an agent in Brazil as the representative of the owner of this certificate, all and every act of which agent shall be binding on the principal.

Representatives of THE BRAZIL COMPANIES shall have the right to inspect and examine at any time all work or mining operations carried on or conducted on any ground selected and held under this certificate. Refusal to allow such inspection and examination or interference therewith shall render void this certificate, cancel and forfeit all rights thereunder.

TO SECURE FULL FIVE YEARS' WORK, SE-LECTION MUST BE MADE AT THE OFFICE OF THE COMPANY IN BRAZIL BY OR BEFORE EIGHTEEN MONTHS FROM THE DATE HERE-OF. IF SELECTION BE NOT MADE IN BRAZIL BY THAT DATE, THE FIVE-YEAR PERIOD OF LEASE WILL COMMENCE ON THE DAY FOL-LOWING AND TERMINATE FIVE YEARS THEREAFTER.

The trustees and shareholders shall be in no way personally liable to holders of this certificate.

All the	terms	and	conditions	of	this	certificate	are
binding on	assign	s.					
Dated	_						

(L. S.) THE BRAZIL COMPANIES

By

Vice-President.

Attest:

Secretary.

RECEIVED from THE BRAZIL COMPANIES Certificate No. ......, leasehold, right to mine issued to me, all the covenants and conditions therein contained are hereby agreed to.

Dated

Witness:

#### ESCHWEGE, WILHELM LUDWIG VON (GRAF)

Born 1777—died 1855.

Called to Brazil in 1809 by Dom Pedro.

Made Director General of Brazilian goldfields in 1821 and head of Department of Minerals in Rio de Janeiro.

Returned to Portugal in 1824.

Recalled to Brazil in 1834 by Dom Petro and by

him appointed Lieutenant General.

Issued many publications and his writings are of interest as pertaining to the Mountains and Villages of Brazil with especial reference to the diamond and gold fields.

#### CASTELNAU, FRANCOIS DE, COUNT

Naturalist and French traveller. Born in London 1812 and died in Melbourne, 1880.

#### ST. HILAIRE, DE, AUGUSTE

A French naturalist born in Orleans in 1779, spent six years in botanical exploration of Brazil, to which he went in 1816.

Among his published writings are "Travels in the Provinces of Rio Janeiro and Minas Geraes (1830); and "Journey of the Diamond Districts of Brazil (1833)."

#### WELLS, JAMES, W., M., INST. C. E., F. R. G. S.

Author of "Exploring and Travelling Three Thousand Miles Through Brazil from Rio de Janeiro to Maranhao."

#### HARTT, PROF. FREDERICK C.

In 1865 accompanied Prof. Agassiz as geologist upon his expedition to Brazil. Made careful study of geology of coast which forms an interesting portion of his report.

In 1875, at request of Brazilian Government, organized a Geological Commission and was Director of National Museums of Rio Janeiro, 1866 to 1878.

Prof. Hartt was assistant to Prof. Agassiz at Cambridge, 1861-64; and was Professor of Geology at Vassar and Cornell Colleges.

Born in 1840. Died 1878.

In the preparation of this booklet, reference has been made to the writings of the following authorities:

Extracts from their works can be found in

Diccionario Geographico
das
Minas do Brazil
by
Francisco Ignacio Ferreira
Rio de Janeiro
Imprensa Nacional

Raymundo Jose da Cunha Mattos
Padre Luiz Antonia da Silva e Souza
Alfredo de Escragnolle Taunay
Joao de Souza
Alexandre Metello de Souza Menezes
Thome Gomes Moreira
Milliet de Saint Adolphe
Jose Martins Pereira de Alencastre
Manoel Ayres de Casal
Joaquin Manoel de Macedo
Marquez de Palma

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