

Enormous Mineral Deposits Which May Affect the World's Market

(Copyright, 1898, by Frank G. Carpenter.)
BROKEN HILL, N. W. Rhodesia, (Special Correspondence of The Bee.)—Have you heard of the mountains of copper which are now being developed just above here, in the heart of Central Africa? They cover a territory bigger than the state of Ohio, and they consist of two great belts 200 miles long. So far more than 100 copper mines have been discovered, and the mining engineers say that there are already more than 2,000,000 tons of copper in sight. They estimate the value of the ore exposed at over \$1,000,000,000. In the same regions there are tin mines running through a belt of more than 150 miles. The tin is high grade, carrying the value of \$120 to the ton, and that in sight is estimated at \$8,000,000. In addition to this there are gold mines there which are now yielding 1,000 ounces a month, and the gold carries platinum and palladium of high grade.

Tanganyika Concession.
 These wonderful deposits are in what is known as the Tanganyika concession, a tract of country in the Congo Free State just across the Rhodesian border. They belong to the king of Belgium and a syndicate of English capitalists, led by Mr. Robert Williams, who was practically the discoverer of the mines and who organized the company eight or nine years ago. Mr. Williams became interested in the mines of northern Rhodesia and he got from Cecil Rhodes the right to locate 1,000 mining claims with the proviso that the Chartered company of British South Africa was to be entitled to 25 per cent of all the minerals found. Mr. Rhodes was induced to give the concession because he wanted a steambot on Lake Tanganyika to enable him to push his Cape to Cairo railroad scheme, and I am told that Mr. Williams furnished the boat. Among the first deposits discovered were those of the Kinshanshi copper mines, in Rhodesia, not far from the Belgian border. These have already been developed to the depth of 400 feet, and it has been decided to erect a smaller shaft, which in about two years will be yielding several million tons of copper annually. In prospecting about Kinshanshi Mr. Williams got the idea that there might be important finds over the border. He took his mining engineers and went on into the Congo Free State and there found these enormous deposits, which promise to revolutionize the copper market of the world. He then went back to London and formed his syndicate. A concession was gotten from King Leopold by offering him a certain Belgian capitalists 25 per cent of the stock. Since then the mines have been partially surveyed and a railroad with the Atlantic in Portuguese West Africa. The capital stock is only \$1,000,000, but the possibilities of the company are far beyond those of any other of the great mining syndicates.

Continued Rifeled With Copper.
 These mighty deposits form a copper roof to the lower part of the African continent. They lie on the height of land between the Congo and the Zambezi, and in that correspond to the enormous mineral deposits on the height of land of our continent. The great ridge of North America comes to its top just north of Lake Superior. A little farther north the ground begins to fall toward Hudson bay. On that ridge are the nickel mines of Sudbury, containing the greatest bodies of that metal known to the world. A little farther east are the immense silver deposits of Cobalt, the metal lying in veins on the very top of the rocks, and so close to the surface that you can polish it with your heel as you walk over it. Below on both sides of Lake Superior are the enormous deposits of iron belonging to our steel trust, and also the famous Calumet and Hecla copper mines, which were for a long time the richest of their kind in the world.

A similar wealth of minerals exists on this great ridge of South Africa. Northern Rhodesia is peppered with copper and iron. Here at Broken Hill are hills of lead and zinc, which I describe further on in this letter, and the systems of veins of valuable minerals in this colony. The ore seems to grow richer and more abundant near the top of the ridge, and over in the Congo possessions the whole country near the border is highly mineralized. I have been told that the natives there have been mining copper for generations past. They have smelted the ore and have wrought from it their hoes, spears and axes. Some of their implements made by the natives are shown here. Both handles and blades are made of solid copper. I have a copper axe before me as I write, and a copper hoe stands at my side.

On the Kongo watershed the copper lies right on the top of the ground. The mines can be worked like quarries, and they will probably be handled with steam shovels when the railroad from Portuguese West Africa is finished. The ore used by the natives comes from little holes, which have been dug in the mountains. They have their own furnaces and do much of their smelting with charcoal. One of the chiefs has a large number of men and women at work, and is producing a number of tons of copper a year.

Copper, Gold, Tin and Iron.
 So far the minerals found on the Zambezi-Congo ridge are copper, gold, tin and iron. There are large deposits of stream and quartz tin. At Bulawayo I was shown tin nuggets the size of walnuts which came from the Congo Free State, and also bars of pure tin which had been smelted there. At the present time only the smallest of furnaces can be used, as the only motive power is men, and the pieces of machinery must be regulated by what two men can carry. It will be impossible to do much with the mines before the railroads are constructed. The most of the gold which has so far been taken out comes from placer deposits. The grains range from dust to nuggets the size of one's finger, and they are absolutely pure. Something like \$300,000 worth has been washed out.

As to the copper, it is of a high grade. The average is from 15 to 25 per cent pure, and there is one place at Katanga where the ore runs as high as 35 per cent copper, and there is said to be any amount of it which runs 30 per cent.

The ore at the Rio Tinto mine, which is the richest in Europe, contains only about 8 per cent of copper; and it is said that this African ore, even if it ran as low as 6 per cent, would, notwithstanding the great cost of transportation and treatment, yield a profit wherever copper sells over \$200 per ton. So far all estimates made as to the value of the copper here take into account only that above water level and if half the statements are true the deposits must be worth far more than any others on the globe.



LEAD MINERS AT BROKEN HILL.

road from Portuguese West Africa across the continent to these mines. This road will be about 1,200 miles long and less than 20 miles of it are already constructed. It begins at Lobito bay, near Benguela, in about the center of the province of Angola, and runs through the lowlands a short distance, climbing the hills. The grades go up almost a mile in the first 200, and the road will pass over three ranges of mountains before it gets to the African plateau. It will cost altogether \$35,000,000 or \$40,000,000, but it is estimated that it will annually carry minerals of the value of \$50,000,000, in addition to its local traffic, which will probably be considerable.

Lobito bay, where the road starts, has a wide and deep harbor. There is already quite a town there. The railroad has its offices, and there are warehouses, restaurants and a hotel. The company has erected a hospital. It will build steel piers and will probably make that place one of the chief ports of entrance for western Africa. Half a dozen different lines of steamships are already calling there, and the tonnage entered has doubled within the past year. The road so far built is doing a good business. When it is completed there will probably be an extension to the Cape to Cairo road, which at Tanganyika will have its connection with the road which the Germans are now building from Dar es Salaam, across German East Africa to Ujiji, so that one will be able to go across the continent from west to east by steam.

Long before this Lobito road is completed the copper mines will probably be connected with Broken Hill by a branch of the Cape to Cairo road, and the first ore will be shipped out over that road by way of Cape Town or Beira. The Cape to Cairo syndicate has already surveyed the line of track from Broken Hill to Mabaya, an important point on the Congo frontier. This is 200 miles from Broken Hill, and the understanding is that the copper syndicate will continue the line from there through the copper belt to Ruwe.

Prospecting in Rhodesia.
 The Rhodesia Copper company, which operates the Broken Hill mines, has a large number of properties scattered here and there over this part of the world. Not long ago it had 6,000 claims registered, and these were mostly lead, copper and zinc. There is plenty of iron about here and many of the streams carry some gold. Broken Hill has several mining engineers and a number of prospectors.

Prospecting in Rhodesia is far different from the same business in our country. Our mineral regions are usually broken and mountainous. In northern Rhodesia the country is comparatively level and there are but few outcroppings. From December to May the land is covered with grass which reaches so high that a man riding on horseback through it cannot be seen at a distance of 100 feet. This is in the wet season, when it rains so heavily that it is impossible to travel rapidly or to examine the surface of the ground. It is only when the rains are over that the prospecting begins. The grass, which is soon parched and dry, is then fired, and the flames sweep over the country burning everything close to the ground. The fire scorches the bushes and trees and makes

the earth black. It thus exposes any outcroppings or rocks and enables the prospectors to see the various formations. The streams are first panned, and any minerals found are traced to the mother lodes.

Take, for instance, these great mineral deposits at the end of the Cape to Cairo road. They lie right out on the prairie. The land is almost dead level, and with the exception of a few hills that run up to a height of less than 100 feet there is no sign of minerals. The most of these hills are so low that they cannot be seen at a great distance, and they are usually covered with grass. They rise right up out of the plain like mounds, each independent of the other. There are seven in sight of Broken Hill, and they all consist of great bodies of zinc and lead. Take hill No. 1, over which I have just gone with the miners. It has at the base a diameter of about 300 feet, and it rises to the height of a four-story house. It is pear-shaped, rather than round, with the lower half of the pear below the surface. This mighty pear is composed of nothing but lead and zinc ore. Two cross cuts or tunnels have been run through it on a level with the plain, and there is nothing but lead and zinc all the way. The lead in the main tunnel is 88 per cent pure, and the zinc runs over 8 per cent, the whole containing high values throughout. By means of a diamond drill the mine has been tested for 100 feet below the surface, and the drill is still in the ore. Borings in the plain two miles to the southeast and northwest have disclosed ore equally rich.

After leaving the hill I went with Mr. Donald, the mine manager, to another about a half mile distant over the plain. This is known as hill No. 2. It is ninety feet high, containing about four times as much ore above the surface as the hill I have mentioned. Its ore is almost altogether zinc, the main body containing 35 or 40 per cent of that metal. A wide vein or reef takes up the greatest part of the hill, and the remainder is composed of leadings from this body. Ten thousand tons of ore have already been taken calculated that the main body has more than 40,000 tons of zinc, and that there are 300,000 tons more above the water level, which occurs at sixteen feet below the surface.

White Settlement in Mid-Africa.
 As to the white officials and their assistants they live quite comfortably, away off here in the heart of the black continent. Their town is right in the wilds and a half day's ride will give them almost any kind of big game. They have comfortable bungalows built of brick and native huts made of limbs checked with clay from the white and hills nearby. They are thatched with straw. I understand that these native huts are more comfortable than the bungalow. They have only holes for windows, so that the air can always blow through. Their roofs are cone shaped and so thick that the sun cannot penetrate them. They rise fifteen feet above the walls and extend out over them so that there is no danger of the rains coming in. The bungalows have roofs of galvanized iron, which make them hot at midday.

Many of the native huts are equipped with hammocks, beds and easy chairs. Some of them have other little huts nearby which serve as kitchens and as the homes of the black servants. Comparatively few of the miners board at the hotel. Several have their wives with them, but they are housed in the bungalows, which are surrounded by gardens. I understand that the climate is healthy and that one can live quite as well here as in the mining regions farther south.

Painted Paracrafts.
 The chesty man usually wears a smart hat. Many a man has a kick coming that never reaches him. It is the fickleness of women that makes them interesting. Where a girl is smart is to be so pretty nothing else counts. Flattery is harmless to the woman who doesn't flatter herself. Fiction by any other name would be falsehood just the same.

No, Cordelia, blunt sentences are not always written with a stub pen. The older a man grows the surer he feels that he won't be found out. Show a disposition to be an easy mark and everybody will help you make good. The trouble with too many people is that they must trouble more than halfway. A cynic is a person who knows he is the real thing and that all others are mere imitations. Beware of the man who never overlooks an opportunity to tell you that honesty is the best policy. A girl may refuse a man because she feels sure that he will propose again, but a widow never takes any chances.—Chicago News.

Among the Miners.
 I have spent some time here going about among the native miners. There are 650 at work under the charge of twenty-two white foremen. The natives are Bantu negroes from the tribes of the vicinity. They are small in stature, but they are said to be good workmen, and they furnish the mineral regions with a steady supply of cheap labor. The wages which are now paid are only 5 cents per day, to which must be added the cost of food and shelter, bringing the labor charge for

each miner up to 25 cents. These natives have a village of their own some distance from the European quarter. It consists of a hundred or so of clay huts running around a court of five acres. Each hut accommodates five or six natives, and not a few of them have their wives with them. Their food is cornmeal, each man being allowed three pounds per day. The meal is made from Kaffir corn and it is ground by a portable engine right at the mines.

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SAWING TIMBERS FOR THE MINES—THE HILL BEHIND IS SOLID ZINC.

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Porto Rico Celebrates Its Four Hundredth Anniversary

HERE are some pictures of the pageant and ceremonies with which Porto Rico has just been celebrating the 400th anniversary of its settlement by the Spaniards.

It is now just a little more than 400 years since Ponce de Leon, conquistador, from the citadel he occupied as governor of eastern Santo Domingo, looked across what was years afterward named the Mona passage and decided that he liked the looks of the swelling green hills of the land to the east of him. What charts and maps the Spanish conqueror had told him that the land should be the island of San Juan Bautista de Puerto Rico, the somewhat ambitious title that Christopher Columbus gave it when he touched there hastily in 1493.

So Ponce de Leon put an expedition on board of ships and sailed the narrow passage over to the island. It was in 1508, in the middle of the summer, that he landed there on the north coast, and the Spanish conqueror conceived a most favorable impression of the place. The fact of his having been the first person to lead to the island an expedition of foreigners in a determined attempt to wrest the place from the Indians and to put it with the rest of the new world that Columbus gave to Castile and Leon is what impelled the Porto Ricans last month to hold a celebration over the house of the conqueror. About all that most folks know

about Ponce de Leon is that he tried to discover a fountain of eternal youth. But Ponce de Leon was something more than a tourist taking the waters in the new Americas and Indies. He started a settlement in Porto Rico in 1509 on the site of what is now the city of San Juan and he introduced negro slaves into the island, for which the present inhabitants

may be grateful or not, just as they like it was some time after his activities in Porto Rico that Ponce sailed out from the harbor of San Juan on his voyage after the fountain of youth which led him in 1513 to Florida. About nine years later, when he came to be an oldish man about 41, he started off again to make a conquest of Florida.

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CARRYING THE BONES OF PONCE DE LEON FROM THEIR OLD RESTING PLACE AT SAN JUAN TO THE ALTAR IN SAN JUAN CATHEDRAL.



LANCERS DRESSED AS IN TIME OF PONCE DE LEON.



LEAD CASKET CONTAINING BONES OF PONCE DE LEON, WHICH WERE TAKEN OUT OF AN ALTAR IN SAN JUAN CHURCH, SAN JUAN.

and his men met with stiff resistance from a party of Indians when they landed and Ponce was wounded in the knee by a poisoned arrow. The Spaniards at once hurried to Havana and there Ponce died. According to report, his body was taken back to San Juan and buried there.

That is how the people of Porto Rico were able to hold a fitting celebration of the 400th anniversary of the settlement of their island last month. In order to mark it thoroughly the leaden casket containing the remains of the conquistador was taken from the Church of San Jose, where report has

Pizarro and the others were habituated. The weapons were as near the originals as imitations could attain. It made a great contrast, these lie men in the dead armor of an older period.

So with great pomp and parade the casket of the long dead Ponce was taken from the church to the cathedral. In the latter it was placed for the time being on a prepared platform, while the services were being held. Then it was arranged that it should be put in another resting place, where it is designed that it shall remain until the end of time.

Ponce's remains are not likely to be claimed by the Spaniards as were the bones of Columbus, or perhaps the supposed bones, which were taken in 1899 from Havana and sent across to Spain, there to lie in magnificence in the Cathedral of Seville. Of course it is a matter of considerable doubt whether the bones in Seville are those of the great explorer. There is doubt whether the bones in Santo Domingo are those of Columbus either. But no one seems to question that the remains called those of Ponce de Leon are those of the man who died in Havana in 1512.

In one way it is rather curious to note the enthusiasm in Porto Rico for the man who was responsible for the bad thing that the Spaniards in general brought to the West Indies. When Ponce de Leon came over to Porto Rico in 1508 he was brought partly because he believed that there was gold to be found in the new country. In that he was right, because there was some to be gained through placer mining.

Ponce after a time got the appointment to be governor of the island. He returned to Spain a very wealthy man and with his influence was able to obtain permission to introduce into the country slaves from the African coast. Before that time there had been only a few slaves who had come to Porto Rico, and these as holy servants of the Spaniards who brought them in.

Under the conditions of the Spanish conquest this was only natural. The Spaniards were busy with warring on the natives and until they accomplished the conquest, which meant killing off the natives—there was time for little else. Therefore the slaves had nothing to do but personal services.

But once the pursuits of war were put aside the lust for gold impelled the Spaniards to seek for persons who would do for them what they were unwilling to do for themselves—manual labor. It was with this idea in view that Ponce obtained permission to bring into the island the first importation of slaves for other than personal services.

These were brought there to work for gold, to mine for it. They could not all stand the climate and at any event it was not long before the gold supply gave out. Also the news of discoveries in Mexico and other countries took away the greater part of the adventurers to the new territory.

With the gold gone the invaders turned their attention to the earth itself and began the agricultural occupation. These slaves were, indeed, doubly useful, because in the trying climate the Spaniards wanted to incur no more exertion than pertained to the duties of an overseer. The brutalities of those times were beyond description. It might, therefore, be thought that some Porto Ricans might object to honors paid to the memory of the man who was the prime cause of all the hardships and cruelties.

It is recorded that the negro population of Porto Rico is slightly under that of the whites, but that of the negro population, only about 15 per cent, is free negro. The rest is of mixed blood. This is a condition very like that in other West Indian islands.