# MOUNTAINS OF COPPER

ROKEN HILL, N. W. Rhodesla, - 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 , 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 esti-mate the value of the ore exposed at over \$1,000,000,000. In the same regions there are the mines running through a belt of more than 150 uiles. The tin is high grade, carrying the value of 3120 to the ton, and that in sight is estimat-ed at \$9,000,000. In addition to this there are gold mines there which are now yielding 1,000 ounces a month, and the gold carries plathnum and palladium of high grade. 100 copper mines have been discovered

THE TANGANYIKA CONCESSION.

THE TANGANYIKA CONCESSION. THE TANGANYIKA CONCESSION. These wonderful deposits are in what is known as the Tanganyika concession, a tract of country in the Kongo 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 be-came interested in the mines of north-ern Rhodesia, and he got from Cecil Rhodes the right to locate 1,000 milling claims with the proviso that the Char-tered Company of British South Afri-ea was to be entitled to 35 per cent of all the minerals found. Mr. Rhodes was induced to give the concession be-enuse he wanted a steamboat on Lake Tanganyika to enable him to push his Cape to Cairo ratiroad scheme, and I am told that Mr. Williams furnished the boat. Among the first deposits discovered were those of the Kinshan-shi copper mines in Rhodesia, not far from the Belgia border. These have already been developed to the depth of 400 feet, and it has been decided to erect a smelter there which in about two years will be yielding several mil-lon dollars per annum. In prospecting about Kinshanshi, Mr. Williams got the idea that there might be important finds over the border. He took his fidea that there might be important finds over the border. He took his mining engineers and went on into the Kongo Free State and the found these enormous deposits which promise to revolutionize the copper markets of the world. He then went back to London and formed his syndicate. A London and formed his syndicate. A concession was gotten from King Leo-pold by offering him and certain Bel-gian capitalists 55 per cent of the stdek. Since then the mines have been parti-ally surveyed and a railroad is now building which will connect them with the Atlantic in Portuguese West Afri-ca. The capital stock is only \$4,000,000, but the possibilities of the company are far beyond those of any other of the great mining syndicates.

### A CONTINENT ROOFED WITH COPPER.

These mighty deposits form a cop-per roof to the lower part of the Afri-can continent. They lie on the height can continent. They lie on the height of land between the Kongo and the Zambesi, 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 above Lake Superior. A little further north the ground be-gins to fall toward Hudson bay. On that ridges are the picked mines of Sud that ridge are the nickel mines of Sud-

bury, containing the greatest bodies of that metal known to the world. A lit-tle farther east are the immense sil-ver deposits of cobalt, the metal lying ver deposits of cobalt, the metal lying in velus 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 de-posits of iron belonging to our steel trust, and also the famous Calumet and Heela comper minas which were and Hecla copper mines, which were for a long time the richest of their kind in the world. A similar wealth of minerals exists

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 zine which I describe further on in this letter, and the syndicate which owns them has found 6000 different deposits of valu-able minerals in this colony. The ore seems to grow richer and more abund-ant near the top of the ridge, and over in the Kongo possessions the whole coun-try near the border is highly mineral-lzed. I am told that the natives there have been mining copper for genera-tions 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 by 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 Fortuguese West Africa is figished. 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 charceal. 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. Speaking of the copper being on the height of land, while I was at Khar-tum in the Egyptian Sudan I learned that there are rich mineral deposits on the ridge which forms the watershed of the Kongo and the Nile, and ft may be that a wealth of copper and from exists there. COPPER, GOLD, TIN AND IRON.

COPPER, GOLD, TIN AND IRON.

So far the minerals found on the Zambesi-Kongo ridge are copper, gold, th and iron. There are large deposits of stream and quartz tin. At Bula-wayo I was shown the nuggets the size of section to show the size of of walnuts which came from the Kon-go Free State, and also bars of pure tin which had been smelted there. At the present time only the smallest of the present time only the smallest of furnaces can be used, as the only mo-tive power is men, and the pleces of machinery must be regulated by what two men can carry. It will be im-possible to do much with the mines be-fore the railroads are constructed. The most of the gold which has so far been taken out convex from placer dependence. 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 three hundred thousand dollars' worth has been washed out. As to the copper, it is of a high grade. The average is from 13 to 15 per cent pure, and there is one place at Katanga where the ore runs as high as 35 per cent copper, and there is

as 35 per cent copper, and there is said to be any amount of it which runs 20 per cent.

The ore at the Rio Tinto mine, which is the richest in Europe, contains only about 3 per cent of copper; and it is said that this African ore, even

One Billion Dollars' Worth of Ore in Sight-Rich Mine of Gold, Iron and Tin-A New Transafrican Road-Queer Features of Prospecting in Rhodesia-The Broken Hill Mines and Their Native Labor-A White Settlement in Mid-Africa.



#### LEAD MINERS AT BROKEN HILL.

NEW TRANS-AFRICAN RAILROAD. The king of Belgium and his as-sociates of this syndicate are now building a railroad from Portuguese West Africa across the continent to these mines. This road will be about 1,200 miles long, and loss than 200 miles of it are already constructed. It begins at Lobito bay, near Benguella, in about the center of the province of Angola, and runs through the low lands a short distance, climbing the hills. The grades go up almost a mile in the first two hundred, and the road will pass over three ranges of mountains pass over three ranges of mountains before it gets to the African plateau. It will cost altogether 25 or 40 million dollars, 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 consid-

LEAD MINERS AT BROKEN HILL. 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 lovel, and if half the statements are true the deposits must be worth far more than any others on the globe. NEW TRANS-AFRICAN RAILROAD. The king of Belgium and his as-sociates of this syndicate are now building a railroad from Portuguese West Africa across the continent to these mines. This road will be about 1,200 miles long, and less than 200 miles of it are already constructed. It begins at Lobito bay, near Benguella, in about the center of the province of Angola,and runs through the low linds a short distance, climbing the hills. The grades go up almost a mile in the

, the understanding is that the copper syndicate will continue the line from there through the copper belt to Ruke.

PROSPECTING IN RHODESIA.

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 zine. 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 usu-ally broken and mountainous. In north-ern Rhodesia the country is comparaabout among the native miners. There are 600 at work under the charge of 22 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 a short distance, climbing the hills. The grades go up almost a mile in the first two hundred, and the road will pass over three ranges of mountains before it gets to the African plateau. It will cost altogether 25 or 40 million dollars, but it is estimated that it will annually carry minerals of the value of \$50,000,000, in addition to its local Lobito bay, where the road starts, Lobito bay, where the road starts, tively level and there are but few out-croppings. From December to May the land is covered with grass, which reaches so high that a man riding on 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 \$ 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 nativos have a utilizer of the

ENORMOUS MINERAL DEPOSITS ON THE KONGO-ZAMBESI WATERSHED WHICH MAY AFFECT THE WORLD'S MARKET

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 arc first panned, and any minerals found are traced to the mother lodes. THE BROKEN HILL MINES.

A LITTLE ZINC MOUNTAIN.

These natives have a village of their

own some distance from the European quarter. It consists of a hundred or

clay huts running around a acres. Each hut accomm running around a five acres. Each hut accommodate or six natives, and not a few of have their wives with them. have their wives with them. Their for is cornmeal, each man being always three pounds per day. The meal made from Kaffir corn and it is groun by a portable engine right at the mine A WHITE SETTLEMENT IN MIL. AFRICA.

THE BROKEN HILL MINES. THE BROKEN HILL MINES. Take, for instance, these great min-eral 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 dis-tance, 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 zine and lead. Take hill No. 1, over which I have just gone with the miners. It has at the base a diameter of abot 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 crosscuts or tunnels have been run through it on a level with the plain, and there is nothing but lead or zinc all the way. The lead in the main tun-nel is 58 per cent, the whole con-taining high values throughout. By means of a diamond drill the mine has been tested for 100 feet below the sur-face, and the drill is still in the ore. Borings in the plain two miles to the southeast and northwest have disclosed or equally rich. A LITTLE ZINC MOUNTAIN. As to the white officials and the assistants, they live quite comfortable away off here in the heart of the blac continent. Their town is right in the wilds and half day's ride will give the almost any kind of big game. The have comfortable bunglows built brick and native huts made of limit chinked with clay from the soft limit brick and hattve huts made chinked with clay from the y hills nearby. They are that straw. I understand that thes huts are more comfortable bungalows. They have only windows, so that the air ca blow through. Their roots shared and so thick they are blow through. Their roots are co-shaped and so thick that the sum ca-not penetrate them. They rise 15 f above the walls and extend out or them so that there is no danger of t rains coming in. The bungalows has them so that there is no danger of the rains coming in. The bungalows have roofs of gulvanized iron, which make them hot at midday. Many of the native huts are equipped with harmocks, bads and easy chairs Some of them have other filthe hus nearby, which serve as kitchens and as

hearby, which serve as kitch the homes of the black serva paratively few of the miner the hotel. Several have their them, but they are housed i dens. I understand that the healthy and that one can live well here as in the mining regions far ther south FRANK G. CARPENTER

CURED HAY FEVER AND SUM.

And HAY FEVER AND MER COLD.
A smuch 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 leachings from this body. Ten thousand tons of ore have already been taken out of the pockets near the reef, and it is calculated that the main body tons of zinc, and that there are 300,000 tons or zinc, and that there are 300,000 tons of zinc, and the volues the water level, which occurs a tig five others here—all of them mighty nuggets of lead or zinc rising above the surface.
In addition to these two hills there are five others here—all of them mighty for five years if they were smelting at the rate of 100 tons per day.
AMONG THE MINERS.

Sept. 14. Whe Brigham Young University comprises a College offering course leading to the degrees of Bachelor of Arts (A, B,) and of Bachelor of ence (B, S,); and the following ondary Schools; A normal School High School, a Commercial School School of Music, a School of Arts Trades, and a School of Agricult also a Preparatory School for go up young people who have not find the grade work of the public scho A catalogue giving detailed in mation will be mailed upon appli-

Salt Lake Photo and Supply & Kodaks, Finishing, framing, 142 Mat



20

One dot Ladies Jackets, others want and get \$3.00, \$10.00. We cut 'em loose Come gulck, 69c

## Battles Have Been Won and Lost for Centuries

The Ball opens at 8 a. m. Get in line. Tickets free.

Back in the '60s the cannons pealed forth and thousands fell in line of duty. San Juan Hill has only been finished a few short years and now hear! In the far way lands war Kryes beyond the seas, and it will be one Right Royal, if they get in front of the big guns. We soon will land the boys in Manilla Bay, and then the roll call may come backed by thousands of cannon, in line of battle. But, fellow citizens-A battle within our own midst is at hand, but it's a Merchandise Battle never before heard of in these parts. It will go by leaps and bounds. The call is here and the bugle rings out. A SQUARE \$100,000 of HIGH GRADE MERCHANDISE is to be turned over to the people of Salt Lake and vicinity at prices that would make the sheriff ashamed, if he were in charge. We have over-bought on many lines and we are overstocked on all lines, and

# NEXT TUESDAY MORNING AT 8 O'CLOCK SHARP

as this great store swings open its doors a sight will confront your eyes as never before witnessed in this city. The Great Red Mark of Destruction will appear throughout this Great Dry Goods Store as never before. New methods will be put to the test. It's unload and that quick.

#### OPPORTUNIT A LIFETIME. GOLDEN OF THE

Fall styles and fashions will predominate in this Great Store and reach the hearts of all mankind; our force will consist of a half hundred salesman or more, to meet your exact want. nothing shall be left undone to make it the Greatest Shopping event in the history of your lives. The whole City will be awake as never before-thousands will be in line. Our Prices will almost talk out loud. The reputation of this Great Store is at stake and facts and figures of the Plain kind can't mislead you. No matter what you have seen or heard of, here you will find all things much different and at Prices that mean a straight saving to you and your family, of from 20 per cent to 75 per cent. We can and will show you! Don't miss the straight saving to you and your family, of from 20 per cent to 75 per cent. We can and will show you! Don't miss the opportunity to come and hay in your supplies for the next six months. It will pay you well for your visit to our store. NOW WE COMMENCE THE BATTLE AND WE STAND AS SOLID AS THE ROCKS OF GUBRALTAR; IN THE FRONT RANKS ON THE FIRING LINE. Over 1,000 Children's Coats, age 4 to 12 years at the astoundingly low price of—

### \$1.69 to \$4.98

Ladies and Gentlemen. It means here under this roof, you can fit the girls out for school and winter at one Half Less than you can elsewhere. Come, we will show you and we are not going to overlook he Ladies as we expect everyone within the walls of this City. Hundreds of Ladies Coats direct from fashion's headquart-ers correctly tallored, the newest, nobbiest and neatest to be found on Parth at

found on Earth

\$3.75 up to \$75.00

That knocks all Comers and Goers in this great line. Your exact wants here at BUT LITTLE KOST. A lady in one of our coats has the best money will buy and in this forced—advanced sale at a saving of from \$3.00 to \$25.00 on each and every Garment.

on each and every Garment. Come! We will show you many big lots of silk waists, piled out for your inspection at the price of cotton ones—elsewhere. We mean just what we gay, come, get 'em at \$1.98, \$2.69 and up—Worth double in gold in any other store in this city. Come early and stay late. It's the Greatest Merchandise Fair ever held in Salt Lake.

And now comes a KRASH—THAT SOUNDS LIKE A FLASH OF LIGHTENING FROM THE HEAVENS, It's R. K. Thomas, directing the Great Work. One big lot of Wash Waists others can's and won't sell for three times the money the Red Mark says: Come and Take EM away at 39c. WHO EVER HEARD OF THE LIKE?

EM away at 39c. WHO EVER HEARD OF THE LIKE? When the Cold Blasts come from the canyons you want to be prepared and thus save the DOCTOR'S Blll. Our repu-tation is at stake and must be maintained. We have always been the ACKNOWLEDGED LEADERS IN FURS as well as the Lowest in Price. Now we offer you next Tuesday morn-ing at 8 a. m. over one 1.000 thousand Furs. Muffs, Collars and Scarfs for less than Half what you pay for them else-where. A great opportunity to come and be among the first to select from the Greatest Purchase ever made in this City direct from the Manufacturer—thus a saving to you of 50 per direct from the Manufacturer-thus a saving to you of 50 per

The Children's Fur Sets, the entest things you ever saw-and they go out in the same low way. A beautiful Christmas present for the Little Ones,

And now-we are shouting from the House Top-one ten, 10 Bushels box white, black and collored knitt shawls-at the low Price of 29c and up.

If you ever wanted a nice knift shawl here is your op-portunity—now listen and hear competition weep out loud. Circular shawls, beautiful styles and patterns would cost you elsewhere 75 per cent more to be turned loose at 59c and up. It means a Great Saving to you.

Just be on the lookout for the Big Bin of new corset cov-ers—priced less than elsewhere—that's the whole story,—And now, the Kold winds that are sure to come from the Great Canyons and make your Demands greater from warm things

Great stacks of Ladies' knitt vests at 25c to 39c worth almost double elsewhere, Come early and get your fall and winter wants. All of our Ladies' and Children's union suits at 29c and up. How do you like the price? While we have stacks of Ladies' half sleeve vests to turn loose at 19c.

NOT GOING TO OVERLOOK THE BABIES. NO NEVER! Beautiful Bear skin coats in white and colors at \$1.98. Cost elsawhere \$3.75 seeing is believing.

HEAR 'EM HOLLER! Direct from the looms of Old Ireland Hundreds of mill lengths in table linens at about the price of table cloth elsewhere. All Salt Lake will be here to attend the Greatest price-smashing sale ever inaugurated in this

NOW DON'T WORRY! DON'T FEEL BLUE! COME SEE! Watch and hear the sale go on! It's simply subshine for your homes. Blue days and bad feelings will be forgotten! All former attempts of our lives out Done, our great showing of new styles, new weaves and new creations in our great Dress Goods Dept, to be cut-smashed and slaughtered to get thousands of dollars in the next few days. The like was never seen before and never will be again in this City. It never rains but what it pours and we have got the rem-

edy. One wagon load of unbrellas and parasols to cut loose (2) at about the price of one elsewhere.

Our Big line and assortment of Dressing Sacks and Kimonas should bring every lady in Salt Lake to this store next Tues-day, while we are showing a great assortment of Ladies' sateen Pettleoats, the high priced kind and at the price of the lowest kind elsewhere Beautiful patterns in all-over emboderies and all-over netting that can't be found elsewhere for double the money we ask for OURS. Come, see for yourself. It's cash we want, and want that quick. You get the benefit.

We are still showing wash dress goods not to be found elsewhere-Creations that attract all lovers of nice soft clingg effects at 20 to 50 per cent less than the market value today.

In our Party and Ball Dress goods you will be able to find your exact demands and wants. Can you do that elsewhere?

your exact demands and wants. Can you do that elsewhere, We think not. And now we fling our Banner to the Breezes and say to every lady in this City that all our sllks go under the Hammer at prices that sets would-be-competition wild. Just come see for yourself and you will take home 2 or 3 new silk waist pat-terms at the price of cotton clsewhere.

The Covert Jackets, Just what you are looking for to meet the fall breezes and between seasons. Our styles and prices will surely meet with your approval.

Our Dress Skirt Department for the Ladies as well as for the Misses that are soon going to start school, will be very at-tractive especially when you can save

35% to 50%

It's facts.

Just received a wonderful array of beautiful Kimona Out-ings and Crepes—that go in this Great Sacrifice Cash Getting Sale that sets all Salt Lake to Talking.

