

The Phoenix Mines and the Granby Smelters-How Copper is Made-The Koolenay Country and its Gold and Silver-A Mighty Inland Island-Municipal Ownership in the Far West -Towns Which Run Their Street Cars and Telephones at Low Rates and Big. Profits

(Special Correspondence of the Deseret News by Frank G. Carpenter.)

within a stone's throw of the luternational boundary. This town of Grand Forks is just over the

28

way from the state of Washington, and about five hours by rail from Spokane. It lies here in the heart of the Rockles. Ragged brown hills rise high above it, and the Keitle river crosses its principal street. The place is only a few years old, but it has now about 2,000 people, with building lots sufficient for a city of 20 times that size. It is a mining town, supported by a smelter owned by Americans, which turns out morcopper than any other in the Dominion of Canada,

THE PHOENIX COPPER MINES.

This whole region is a great treasure house with gold, silver, iron and cout scattered here and there through it. Only an hour's ride away are the Pineo-nix mines, which are said to be worknix mines, which are said to be work-ing in one of the biggest copper bads of the world. The ore is taken out with steam shovels. It lies in a great body 200 feet wide and more than half a mile long. The deposities, in fact, wide than Pennsylvania avenue; and if it could be planked down in Washington beginning at the treasury department it would reach just half way to the Capitol. No one knows how far down the ore extends. Diamond drills have been sunk into it for 1,000 feet, and one been sunk into it for 1,000 feet, and one of the shafts is now taking up copper from levels 400 feet below the surface. MINING WITH STEAM SHOVELS.

The output of these mines is now 3000 tons per day, and up to the 'e-ginning of last year something like 2000,000 tons of ore had been shipped. The machinery is altogether modern. The cooper is loaded with steam shov-els, each of which will pick up a ton at a bite; and it comes to the surface in electric cars. in electric cars. The drills are worked by Westinghouse motors, and electric-ity moves the crushers. The economies are such that the ore is hardly touched by man from the time the dynamite blasts it out until it is ready for ship-ment in great bars about as thick as a loaf of bread and as long as a man's arm. These bars are almost pure, each containing 99 per cent of conner show containing 99 per cent of copper, silver and gold.

A BIG SMELTER OWNED BY AMER-ICANS.

The biggest coper smelter in British America is situated here at Grand Forks. It is known as the Granhy, and is fed by these great Phoenix mines. It lies right on the banks of the Kettle river, shadowed by mighty mountains and washed by that stream. The smelting works are bigh above. The smelting works are high above the river; and day and night, Sunday and week days, all the year round, the smoke rises from their mighty stacks and the golden slag of their furnaces rolls down into the waters.

These smelters have no superiors in size anywhere, except those at Butte City, Mont., and no superiors at all in their treatment of ore. They are now producing millions of pounds of copper per annum, and their smelting output last year amounted to about 40,000,000 pounds of copper, and in addition silver and gold to the value of \$1,250,000.

FROM ROCK TO COPPER.

wish I could take you through this mighty establishment. It surpasses any i have seen in the elimination of human labor and the substitution there. establishment. for of economical machinery. The railroad runs high up on the sides of the mountain, and the ore is dropped the mountain, and the ore is dropped from the cars into great bins through chutes so arranged that just the right proportion of ore can be dropped into other cars farther down before it goes to the smelters. Each car carries one charge to the furnace, and this charge, made of coke and coal, is filled auto-matically. It is carried to the furnace by an electric trolley, and it shoots in right over the fires and drops its load. The furnaces themselves are worth The furnaces themselves are worth seeing. They are chormous steel reser-voirs, with double walls, in which cold water is always flowing to keep the in-ner wall from melting. They are sup-piled with air by blasts from smoke-stacks so large that the average city parlor would be lost inside them and so high that their tops kiss the sky at the level of the taller Broadway roofs. During my stay I looked into the fur-The level of the tailer broadway roots, During my stay I looked into the fur-naces. The air blows through like a rushing wind, turning the vast pits to a blazing hell of brimstone and molten gold, out of which roll the fumes of yellow sulphur. The sulphur was so strong that I ware a subhar mask constrong that I wore a rubber mask containing a sponge over my nose and sented to Mr. Pierce mouth to withstand it. My cheeks others in the far east.

WORN

FROM

OCEAN

TO OCEAN"

(Copyright, 1996, Frank G. Carpenter.) RAND FORKS, British Columi-bia.-I am. in British Columbia the Scriptures.

bach and Abednego waiked in the days of the Scriptures. The Granby has eight such furnaces, such the molten stream of copper, gold and silver flows through them day and silver flows through them day and silver flows through them day and solution of the stream as big counds forth in a golden stream as big around as your waist. If fails into from poits, each arge enough to boll an ox without cutting off its legs or horns. Each poi is on wheels, and a little dum-my engine takes it when full and dumps it in a blazing stream down the bill. The metals come forth in a smal-her stream. flowing into tanks, each of which will hold five tons. As these index fill they are eaught by a traveling crane and nourd into converters. Alt is introduced the sulphur and iron are burnt out and within a few moments the metal has become an almost oure mixture of sliver, copper and gold. It is new run off into molds or bricks and it needs only to be refined and the gold and silver removed before it is ready for telephone whee, electric con-ductors and the other things for which internation is not and the stread in the stread is and the gold and silver removed before it is ready for telephone whee, electric conductors and the other things for which pure copper is use L

WHERE OUR COPPER COMES

The most of the copper now produced in Canada comes from the Phoenix nines. These are also mines above take Superior and elsewhere, and it is believed that other deposits will be found in British Columbia. The great-er nave of the senter of the world is er part of the conner of the world is mined in the United States. The total production in 1904 was 660,000 tons, of which 322,000 were produced in our country. Our chief copper states are Michigan, Montana, Arizona and Utah, all hours considerable is which is Call although considerable is mined in Cali-fornia and a less amount in the eastern formia and a less amount in the eastern and southern states. Canada stands comparatively low among the world's copper producers. Her output is be-tween 40,000,006 and 50,000,000 pounds annually, while Chile turns out 70,000,-600 pounds, Germany about the same, and Australasia 64,000,000. Spath and Portugal produce 114,000,000 pounds and Mexico 107,000,600 pounds zer annum. Our product in 1904 was considerably over 750,000,000 pounds.

THE KOOTENAY MINES.

For the past week I have been trav-eling through the Kootenay country This is in British Columbia far belo the main line of the Canadian Pacific

NO 10439 1. Aug. 1 HERBERT HD PEIRCE



NELSON. A NEW MINING TOWN OF THE KOOTENAY COUNTY. Mr. Carpenter, Who Photographed it for the "News," Tells of Its Growth and Importance.

satiway. of that road, and parts of it are now, being surveyed by the en-gineers, of the Great Northern, which evidently intends to fight for Caoada and all that is in it. The Great Northern has a branch running from Spokane to Grand Forks, and it is already doing a large part of the hauling of the Phoenix mines. This Kootenay country comprises some of the richest mineral deposits of the Rockies, It has gold, silver, copper, coal, iron and lead. In coming

copper, coat, from and read, in coming here I passed the coal mines of the Crow's Nest valley, which are said to have somethoing like 22,000,000,000 tons of coal in sight, and near them by the side of the track I saw a thousand coke overts blazing away. Not far from these coal deposits are mines of hematite iron, upon which the Canadians expect to build up a manu-facturing industry, backed by a high

tariff against our goods. Coming further on into British Co-lumbia, I stopped at the town of Nelson, which has 7,900 population, and also at Fernie. Slocan City and other places. There are about a dozen min-ing gamps in this region and a large number of fine gold properties near Rossland, a town of 6,000. One is the Le Roy, which produced a million and a half dollars worth of ore in 1904, and another, the Center Star, which did about two-thirds as well.

did about two-thirds as well. At Nelson I met Bruce White, an American miner, who opened up one of the biggest silver and lead deposits at Blocan. He told me how he hap-pened to make the discovery. Said he: "There had been a rush to that re-gion, and I came in with five other prospectors. When we got to the camp I looked at a mountain across the way and suggested that our party see there to see what we could find

It is reached by what is ; and thousands of feet. The water is so clear that one can stand 1.000 feet above it on the slopes and see the fish swimming in the streams far be-low. The sides of the hills are covered with firs and tamaracks, and their tops are often capped with snow

A GREAT INLAND ISLAND. Among these mighty hills are the head waters of the Columbia river. In-deed, the Columbia and Kootenay wind in and out among them, now in narrow streams and now in wide winding lakes which make one think of Como and Maggiore on the borders of Switzerland and Italy. The Columbia and Koo-tenay flow in some places side by side. They turn tais way and that and to-gether they have made a mighty island right here in the heart of the continent. If you will imagine two gigantic wish bones, the feet of which are touch-ing each other, inclosing a diamond of mountainous land bigger than the state of Ohio you will have one of the cur-

or Onio you will have one of the cur-ious formations which nature has cre-ated here. The rivers almost meet, and a short canal has been made to connect them, so that the island is now complete. The island contains some-thing like 30,000,000 acres, and it has, I am told, mineral deposits of extraor-dinary value dinary value.

These mining towns are up to date. Nelson has waterworks, electric lights Action has waterworks, electric lights and a streetcar line. It has seven churches, a public library, and gun, cricket, la crosse and lawn tennis clubs. Grand Forks is lighted by electricity and so are most of the larger mining camps. In some of the larger the lights and waterworks are owned by the municipalities, and I find a strong sentiment almost everywhere in favor of municipal ownership.

Shortly after I arrived in Nelson I was told that the city owned its wa-

It used to be said that the lation. Canadian Pacific ran the government, and it is now charged that the Grand Trunk railway, which, with the govern-ment, is now building the Grand Trunk Pacific at a cost of \$125,000,000, has taken its place. As to these things, how-ever, my information is based upon ru-

ever, my information is based upon ru-mors and I do not give them as facts. There is no doubt, however, but that municipal ownership is advancing in favor in all parts of British America. Edmonton has its own electric light plant, and it has taken possession of the telephones within the past year. It owns the waterworks and sewers and it charges a mininum cost for its vari-ous services. The telephone rates are \$20 per year for dwellings and \$30 per year for business, and the light rates are low. are low.

Winnipeg is now managing its own waterworks, and it is giving at \$24 a year service for which in the past a householder paid \$80. It paves its own

streets and has a municipal asphalt plant. It now gets a part of the earnings of the street cars and at cer-tain hours of the day insists on a three-cent fare in order to benefit the three-cent fare in order to benefit the workingmen and school children. I am told that Toronto has made a contract as to the oberation of its street railways which will give a three-cent rate at certain hours of the day and that a certain percentage of the street car earnings is to go into the city treasury. The contract is to run for 20 years, after which the plant goes back to the city at an appraised valuation of its stock and materials. CHEAP MUNICIPAL TELEPHONES CHEAP MUNICIPAL TELEPHONES. All of these city ownership institu-tions give cheap telephones. In Port Arthur the city rate is \$1 per month for residences and \$2 a month for business

cipality makes money. Fort William expects eventually to cut its residence 'phones to 50 cents per month and busi-ness houses to \$1, while radical reduc-tions have been made in other quarters.

Regina has taken over its electric light plant, has cut the rates 20 per cent and is making money. Medicine Hat owns natural gas works and is Hat owns natural gas works and is furnishing light and heat to that town of four thousand at the lowest rate. The charge is 17 cents for lighting and heating, and all cooking is now done over gas. The town is also offering its gas at 5 cents per thousand for fac-tories, and several woolen mills and brick-making plants have already been started. The city gas works are only and is started. The city gas works are only a little more than a year old, and even at these low rates they have made a profit of \$25,000. FRANK G. CARPENTER.



GORGEOUS INDIAN PRINCE TO TOUR AMERCA

On the Celtic, of the White Star line, which sailed from Liverpool for New York on May 5, the most important passenger was his highness, the gackwar of Baroda. Hs is accompanied by his wife and daughter and intends to tour the States and Canada in an official visit to friends.

The gackwar is a Mahratta chief of the highest caste. Baroda, his native state, is in the Bombay presidency, and he ranks as one of the most capable and advanced rulers. If he sees fit on any occasion during his visit to this hemisphere to don his robes of office and his own jewels he will undoubtedly dazzle all beholders. He has a great collection of precious stones, many of which have been in the possession of his family for more than 500 years. He carries a large part of these with him on his travels.



CONGRESS TO PROBE PIERCE'S CONSULAR TOUR.

Herbert H. D. Pierce, third assistant secretary of state, has sent back to Robert McWade, former consul-gen-eral at Canton, the \$500 tiger-skin rug which McWade says he was persuaded to give him while Peirce was in Can-ton on his tour of inspection of the consulates. On top of this alleged gift, Fierce, its his report, made charges of irregularities against MeWade, which resulted in McWade losing his

The committee on foreign affairs of The committee on foreign affairs of the house of representatives, it is prob-able, will ask for Pierce to appear and explain about the rug; also to go into details about some of the charges he made against McWade. The commit-tee desires also to inquire as to the great number of presents Mr. Pierce

great furnier of presents Mr. Pierce is said to have brought home with him from the Orient. Members of the com-mittee have been told that there was more than a carload of mementoes pre-sented to Mr. Pierce by consuls and others in the for easy

go there to see what we could find. We did so, cutting our way across the valley and through the woods. We had only two days' provisions, and could not hope to stay long. Almost as soon as we started up the hill. as soon as we started up the hill, however, we struck some float rock which showed signs of silver and lead, and on the following day we discov-ered a great mass of galena, which was from twenty-five to thirty feet wide. There were boulders of lead ore close to it, and we at once staked out our mine. It proved to be a very rich one, and was eventually sold for more than a million dollars. Since that time it has yielded about \$2,500,-000 worth of ore and \$500,000 in div-idends." idends."

BEAUTIES OF THE KOOTENAY.

am surprised at the scenery of this region. I have crossed the Rockthis region. I have trossed the freak trunk-fes on every one of the great trunk-lines, but none of the others passes through a region like this. The Kootenay is filled with long winding lakes walled in by peaks which rise almost straight upward for hundreds | tain railroad interests controlling legis.

was told that the city owned its wa-terworks, electric lights and streetcars. I thereupon remarked: "I think I will go and see the mayor." The reply eame with some embarrassment: "Stranger, we haven't got no mayor. Our d-n mayor has run off." Upon inquiry I found that this state-ment was correct. There had been some trouble about taking over the power plant by the city and the mayor had grown disgusted and left. I sup-pose he has returned by now or that another has been chosen to take his place. place.

GRAFTING IN CANADA

GRAFTING IN CANADA. As to the matter of grafting, I find evidences that it is quite as much of a profession north of the boundary as south of it. Many of the older towns are steadily milked by public officials, and the only trouble with the new set-tlements is that they are too near the calf age to give milk. The accusations of grafting are by no means confined to the towns, and ex-officials of the do-minion government are said to have made fortunes out of their positions. There is considerable talk about cer-tain railroad interests controlling legis.

ELIAS MORRIS & SONS CO.

MANTLES GRATES



If you are not already moving or cleaning house, you will probably do one or the other soon. Every time you do either, your furniture becomes more or less scratched and marred. You may frequently be tempted to discard a piece of furniture because of its shabby appearance. JAP-A-LAC is made especially for the purpose of saving such articles. Take a chair or table for instance, -almost any kind will cost you at least \$2.00 or \$3.00. If you discard an old one, you will be compelled to buy a new one to take its place. You can JAP-A-LAC the old one at a cost of 15c and save the difference. There is absolutely nothing else mule which will equal JAP-A-LAC for its beauty, durability, ease of application, and non-fading qualities.



JAP-A-LAC is colored with the best pigment, -pigment is the only coloring substance used in coloring paint or varnish, which will not inde. Cheap imitations of JAP-A-LAC, which are colored with aniline, have recently been sold under other names. (frequently names containing the word LAC); and although they sometimes produce beautiful results when first applied, they soon (ade and lose their brilliancy, because aniline is nothing but a dye.

Ask your dealer about JAP-A-LAC. If you want the rich, smooth anish which is produced by this superb article' only, - insist on geting JAP-A-LAC.

Prices from 15c to \$2.50. Made in fifteen beautiful colors and Natural or Clear.

NPA-UA

HAD AT BENNETT GLASS & PAINT CO.,

67 WEST FIRST SOUTH ST.

Where the Best of Everything in the Paint Line Can Be Found.

Buy a can today and try it. For sale by Paint, WEATHER-BEATEN Hardware and Drug dealers.





OAK, MAHOGANY, NATURAL CHERRY or WALNUT

used on a TABLE, covers scratches and mars, and produces a finish which is hard and smooth. Don't let any table which has become scuffed and rusty looking, remain in such condition. JAP-A-LAC does its work with magical results. If you have never JAP-A ... AC-ED a piece of furniture, get a can of any color you desire, and try it. You will then know just how wonderful this most superb finish is. Every little scratch can be covered.

A WARNING AGAINST THE DEALER WHO SUBSTITUTES.

When you go to a paint dealer's store to buy JAP-A-LAC, it's because we have convinced you that every word we have said in its favor, is the gospel truth. If the dealer tries to sell you something else which he claims is better, does he not virtually say to you that YOU DON'T KNOW WHAT YOU WANT? Who is the best judge of YOUR intelligence? You,-or some one else?

Insist on JAP-A-LAC.

If you contemplate building a home, insist on having GLIDDEN'S GREEN LABEL VARNISHES used. They are the standard of quality. Descriptive price list mailed on application.



\$350 TO \$400 LECTURE No. 10 The "Friedman Shoemaker" There's a Knack in giving a Shoe a "Finish" that will make it look perfect to the Eye. "ATLANTIC" Shoes must be Perfect from Tip to Top before the "Finishing Touches" are applied. The Materials must bear the closest Scrutiny; every detail of the Work must be fully up to the high "FRIEDMAN STANDARD"; Style and Wear must be virtually "breathed" into every Production. Then when my good "Finishers" do their part-nothing stands between ATLANTIC and PERFECTION. That's the "Reason Why" of the great Sale of "ATLANTIC" Shoes and the 52 years' Success of the "HOUSE of FRIEDMAN." Let your next Shoe Experience be with the "ATLANTIC". the Best Product of the Greatest Shoe Market on earth. COLLECTIONS SPECIAL REPORTS. A CONTINUED SUCCESS FOR 52 YEARS ONLY I HOUSE IN 10,000 HAS SUCH A RECORD. GILES' AMERICAN MERCANTILE AGENCY, ST. LOUIS.

