AMERICAN MINERS TO TAP RUSSIAN GOLCONDA AS WAR AID

Vast Mineral Wealth, Much of It Essential in Making Munitions, Scarcely Has Been Touched by Natives

Conference of Engineers in London and Calls for Experts Here Point to Full Working Capacity

By JOHN WALKER HARRINGTON

RUSSIA from her lofty mountain summits to the very centre of the earth is a land of promise. Her mines yield useful stores; her sands flow with oil, and the rocks hide precious ore, and yet although her millions walk on the roof of a great treasure house of mineral wealth she does not obtain enough of her own metals to meet her needs.

The recommendation of the Mining Commission of the Ministry of Trade, as recently reported in the newspapers, that the exploitation of the buried riches of Russia be given to American hands, shows the new republic in an effort to solve that great problem. The mineral resources of Muscovy through all these centuries have scarcely been broached, and the time has come when Russia must use to the full her coal, her iron, her copper and her oil.

For the last ten years there have been mining developments in various parts of the giant realm. The British have been furnishing most of the capital, and the engineering skill has been largely American. The proposal to enlist American capital and American ingenuity in further development of the mines and oil fields of Russia draws attention sharply to the skill and ability of the engineers who, although born in this country, have given their talent to all parts of the world. There used to be a saying in the Rand: "Who is your American expert?" When the Russians and the English, the French and the Belgians began early in this century to develop actively the mines in what was then the domain of the Czar they employed technical men from the United States to plan and direct their operations.

Many Signs Point to Task.

The recent conference of American mining engineers in London, where the future of Russia was considered; the fact that within the last few days several well known members of the profession in this city have been called to Petrograd, and the inquiries made in this market for mining machinery all indicated that our technologists, at least, are to be entrusted with larger responsibilities.

Many obstacles have for centuries interfered with Russia utilizing the riches which lie beneath her feet. The methods of mining in vogue in many parts of the great domain are archaic. Gold is obtained by the placer method, which was old when Agricola was born; peasants find nuggets of gleaming yellow in mountain streams; rich iron ore is wheeled out in barrows from great open mines, and pure copper is often found on the surface. There are even regions where petroleum has for two or three centuries been scooped up from sand pits in buckets. Wherever the mining operations, especially those in precious metals, have been conducted, there were large losses due to the corruption of officials under the old regime. Many of the richest mines have been on vast feudal estates controlled either by the family of Nicholas Romanoff, formerly a Czar, by the nobility or by the Cabinet of the autocratic Government which is now no more.

Before the war, the foreign capitalists, especially those who were developing the gold mining, were struggling to get the graft out of the industry, but with little success, because the taking of the hidden gold was a manifestation of a system. Now that the time has come for Russia in transition to consider anew the titles of her underground possessions, the demand comes for new management and the American doctrine of 100 per cent. efficiency. Russia, to get the benefit of the great stores beneath her soil with which she would build up railroads, equip new armies and provide munitions, is therefore seeking the best advice she can get. The experts who are with the commission sent to Russia under the leadership of Elihu Root, especially those concerned in railroad building and metallurgy, are already giving much service, and it is understood that the recommendation of the mining commission was made after consultation with them. The new republic is therefore looking forward to the days after the war, for the future of her mines will depend to a large extent upon political conditions.

Views of Two Experts.

Sidney H. Hall and Bela Low, prominent mining engineers of this city, who have been deeply interested in Russian development for several years, bring out this fact in a recent number of the *Engineering and Mining Journal*.

"The war," they write, "has democratized the Russian people and awakened their social conscience. The Government will eventually have to grant reforms which will result in the training and the educating of the Russian workingman. This factor is of the greatest importance, as the lack of properly skilled and intelligent workingmen is one of the main reasons for the backwardness of the industry. The prohibition of vodka has had a wonderful effect, as it has increased the productivity of labor. Perhaps of equal value will be the return to his field of labor of the soldier peasant used to discipline and acquainted to some degree, at least, with the wonders of the world beyond the confines of his own neighborhood."

Carrying coals to Newcastle is outdone every time a ton of iron or steel is taken into Russia for, as the American engineers have demonstrated there are vast deposits of rich iron ore which have not been worked. Russia stands fifth among the nations of the world in production of pig iron, those which excel her being the United States, Germany, Great Britain and France in the order given. What with American iron and steel being controlled by embargo, she will be obliged to depend more upon her own resources for the material from which artillery and rifles are made.

Although Russia has great supplies of coal, she is reducing her iron ores with wood, even in regions where coal may be readily had. The effect of this is to consume valuable forests. In addition to her rich and undeveloped iron mines, Russia has the largest deposits of manganese in the world and despite the fact that many of the methods of obtaining this valuable metal are antiquated she was producing 37 per cent. of the international supply.

More Copper Mined 100 Years Ago

Surveys indicate that Russia has at hand limitless stores of lead ores, and yet in 1913 it is shown that she produced only 1.7 per cent. of the lead which she consumed in her manufactures, or less than one-tenth of 1 per cent. of all the lead produced in the world.

The fame of Russian copper ware has travelled far and it is known to engineers that her mountains contain abundant stores of the rich red metal. Her copper mining even now gives smaller returns than it did a century ago. According to the last statistics available before the world was thrown into chaos, those of 1913, Russia contributed only 3.4 per cent. of the earth's supply of copper. She took rank as eighth in copper production, which represents 85 per cent. of all the metal consumed in the country. With untold riches within her mountains Russia was therefore not able to get out enough for her own use, for the shortage was 15 per cent. When a new era comes it will be only a question of a few months when Russian copper production would greatly exceed the amount used in the nation's manufactures.

Most of the copper now produced in Russia comes from the Ural Mountain district. Some idea of the few hands in which the industry has been held may be judged by the activities of the Bogoslovsk estate, which has an area of 2,000 square miles, to say nothing of its 1,350 miles of leased crown forest lands. The property was taken over by a corporation in 1912. The estate has a standard gauge railroad 120 miles long, various narrow gauge lines communicating with the mines and smelting works and maintains its own trade school and a well equipped geological museum.

Another important copper mine is the Myednorndyansk, which is on a great domain which Peter the Great conferred upon Prince Demidoff. Here is an area of 2,150 square miles of rich territory, a vast hereditary realm from which the Russian aristocracy for generations has drawn the funds which enabled it to build palaces, collect old masters and mingle to the full in the gayeties of the palaces of Petrograd. This mine is noted for its specimens of malachite, which are of wondrous beauty and are famed throughout the world.

One of the best known of the modern copper enterprises is that of the Kyshtim Corporation, which about ten years ago was brought to the attention of foreign capitalists by the Anglo-Siberian Company.

The Caucasus Copper Company, of which H. H. Knox of this city was consulting engineer, is a British American corporation which has been operating for years in one of the oldest fields in the world through capital furnished by an American group headed by J. P. Morgan. This property, which is forty-five miles from Batum, was worked five centuries ago by the Genoese and the metal which came from it found its way into great works of art in the time of the Italian Renaissance and was consumed in many of the modern arts.

Russia is more efficient in the production of zinc, for she can under normal conditions and with ancient smelters turn out 22 per cent. of the world's supply.

Great Store of Platinum.

The wealth of the Urals does not fail even in these days in the store of platinum, for in this gray metal Russia is producing 95 per cent. of the amount produced in the world each year. It is estimated, however, that owing to the antiquated methods of working the stone and sand that fully as much platinum is thrown away as is gained. For that reason it would not be long, should modern efficient methods prevail, before the tailings and black sand would all be reworked. Though some of the Russian aristocracy had a large share in the enterprise, the platinum output of Russia has been mostly in the hands of a French-Belgian syndicate. Nearly all the platinum is refined in France, Belgium and the United States, although now there is a strong movement on foot to have the whole industry conducted under Russian auspices.

The production of gold in Russia will undoubtedly be greatly stimulated by American mining engineers, once the political fortunes of the country are on a stable basis. The production of gold was practically a monopoly under the autocracy and the name of the Romanoffs appears in the directorates of some of the companies. Considerable gold was discovered in the neighborhood of the Yenisei River in 1830, and according to Mr. Ball the total production of gold in the bleak land of exile to this date has been valued at $1,000,000,000. British capitalists and American engineers had already begun an extensive development here before the war began.

Hoover Much Interested.

The commercial centre of the Siberian gold fields is Irtysh. A corporation bearing the name of that city was financed in London to take over the Riddersk concession, which just before the beginning of the European war was leased on a long term from the Cabinet of Russia, which was the administrator of the private properties of the former Czar. The prime mover in this enterprise at that time was Herbert C. Hoover, a noted American mining engineer, who is directing the food destinies of the United States. Mr. Hoover was interested in mining enterprises throughout the world and at the time he felt the call of duty to take charge of the work of Belgian relief he was engaged in many plans for the promotion of mining. He is a typical American mining engineer of the type which for the last ten or fifteen years has been so much in request by the foreign capitalists.

Should the war end with victory to the allied arms it would be naturally expected that Mr. Hoover would become a factor in the affairs of the development of the new underground Russia. Mr. Hoover is a graduate of Leland Stanford University, where he specialized in mining engineering. After an extensive experience in the West, where he worked as miner and superintendent, he established himself as a consulting expert in London, where he was busily directing the development of various corporations when the European war began.

Another American engineer who will undoubtedly have a wide influence in the development of Russia's gold mining and other metal industries is Chester W. Purrington, originally of Boston, who has long made his home in London. He has done much for the improving of conditions in the Russian mines. The Lena district, in which he was especially interested, has been yielding about one-third of the store of Siberian gold. The company which operated in this region has for years been engaged in efforts to prevent leaks in its gathering of the gold from the placers. As the metal comes from the breaking up of the granite rock of the region the small spicules of the precious metal can be easily concealed by workmen who have advanced ideas of "Mine and Thine." A report of the proceedings of a directors' meeting in London deals with this phase of the work very gravely. Under old conditions companies were actually buying from their own employees gold which they believed to have been stolen by these men on their own property.

Among some of the mines gold dredges have recently been introduced, but so far they have not been attended with much success.

The stories of the stream which ran golden to the sea is repeated in the Amur province in Siberia, where the rivers carry down gold in quantities. Extensive mining operations for many metals of importance could be conducted in Russian Poland and in Finland. There are vast tracts both in Asiatic and European Russia which were being visited by prospecting parties when the mining industry developments were checked by the war.

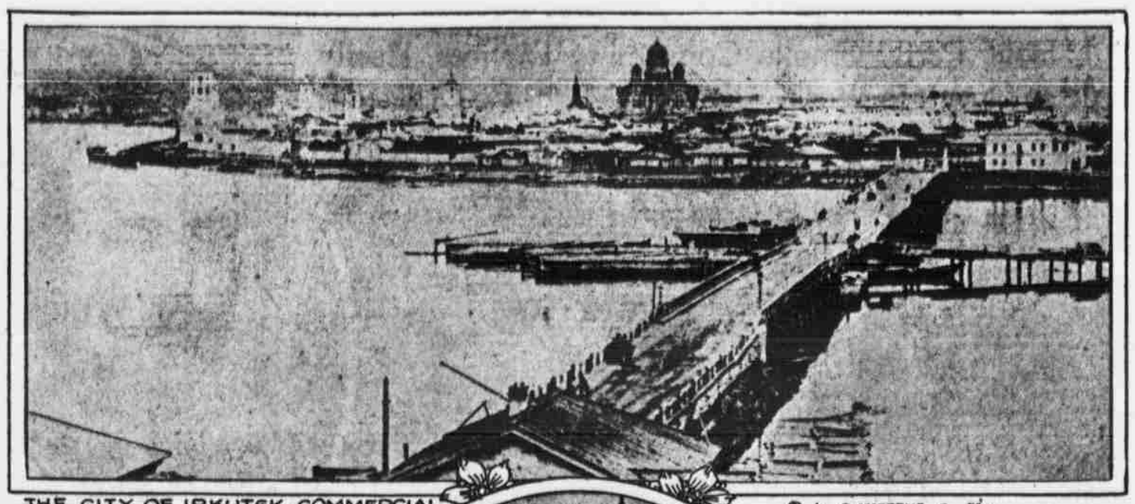
When activities in these regions are resumed such American engineers as J. P. Hutchins, Norman Steins, Harold Titcomb, T. J. Jones, Nelson Fell, A. Chester Beatty, H. W. Turner and R. Gilman Brown are likely to be factors.

Russia has in the last two or three years greatly stimulated her output of petroleum. Now that the needs of the war as well as the fuel requirements for the enterprises of peace require it, new wells have been bored. The work of petroleum development would also be much assisted by the advice of American experts.

One of the most significant proposals of the Commission of Mining has to do with the call to American capitalists and engineers to aid in the development of the island of Sakhalien, off the eastern coast of Siberia. Half of the island is owned by Russia and the other half by Japan. There is always a delicate question of the relations of the two countries to be considered in dealing with the interests of Sakhalien. The island is 600 miles long and is as wealthy as one of the oldest of principalities, if one considers what is beneath the surface. There are extensive deposits of coal there, as shown by surface indications, and the mineral resources of the place afford fascinating subjects of analysis and speculation for the American expert. There are many signs that a profitable petroleum industry could be established.

The plans which the Minister of Mines of Russia are making for the freeing of the great [illegible] beneath the rocks so that he may [illegible] the people realize their destiny represent only a portion of the projects which might be developed in that country.

With the proposed increase of metals and petroleum the statesmen and economists of the Russia that is to be, link the development of her agriculture, the promotion of forestry and the utilization of the power from cataracts and waterfalls. The conversion of the churned and seething waters of the streams, "the white coal" of Russia, would in itself, be a mighty factor in the transformation of the ancient domain of the Romanoffs into a land of freedom and opportunity.



THE CITY OF IRKUTSK, COMMERCIAL CENTRE OF THE SIBERIAN GOLD INDUSTRY.

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GENERAL VIEW OF NEW SMELTER OF CAUCASUS COPPER COMPANY.

TYPICAL DRILL HOUSE IN SIBERIAN GOLD FIELDS

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SMELTING WORKS OF A RUSSIAN COPPER COMPANY.

PANORAMA VIEW OF MINING REGION AT DZANSOUL TRANS-CAUCASIA.

SIMPLE PLEASURES SOMETIMES FAIL TO MAKE AN APPEAL

By ROY K. MOULTON.

NEW YORK, July 14.

DEAR BUDDY: I had always been given to understand that there were a thousand and one ways in which a poor man could have a regular double barrelled heck of a time around this big town with the outlay of little or no money. In fact, some people led me to believe that a poor man might even have a good time and collect from the city for it.

The people who gave me this valuable information had never lived in New York and had never seen it excepting in those double jointed photographs which you look at through those parlor binoculars which always rest on the whatnot along with the wax flowers and the horsehair watch chain worn by grandfather when he went West with the forty-niners.

New York looks great in photographs. It takes a good picture, but one can hardly catch all the temperamental tricks of the subject by gazing at exteriors. You don't get the true inwardness of the animal until you have been peregrinated around in its midst for a while. There may have been a thousand and one ways for a poor man to have a heck of a time around this town, but I have not discovered one way, to say nothing whatever of the paltry thousand. But a friend of mine named Bob Rohde knew of a way. Bob is an old New Yorker. He has lived here nearly two years. He is not rich—no richer in fact than I, which means that one in our condition is never more than two healthy jumps ahead of the blue envelope.

"It is a simple matter for a poor man to breeze along and have a perfectly corking time if he only knows how to go at it," said my friend.

I realized at once where I had made my mistake. I had been trying to breeze along and have a perfectly corking time without knowing how to go at it. Knowing how to go at it really is the key to a good many situations here.

"There are a thousand and one ways," he continued. "The one way is to go on one of those steamboat excursions. It is better than the other thousand put together."

I had always had a preve against excursions because I never knew one that seemed to work out just right. I had a friend once back home who went on one of those cute railroad excursions. My friend always rode with his head out of the window. Once his head hit a telegraph pole and broke the pole all up. The railroad company collected the cost of the pole from my friend and that cured him of the excursion habit. It is one of the hardest habits to break, being something like morphine and cocaine and frumenti. Many persons spend their entire lives in the excursion business. They are either on an excursion, just going on an excursion or have just been on an excursion. I never knew a person who had a good time on one of the things, but most of them keep on experimenting, hoping to accomplish the impossible. Perhaps that is what makes us a great people.

When Bob advocated the excursion and offered to go along, just to show that he was in earnest about it, I objected. But he offered to buy the tickets and I hadn't the heart to refuse. I figured, anyhow, that I might just as well be unhappy on the excursion as to stay in town and be unhappy, and besides I love Bob's optimism. He is the sort of an optimist just as long as he is alive. He doesn't ask much. I have even seen him having a good time at Coney Island, and I claim that any man who can do that has got Epictetus backed off the boards.

When Bob said we could have a good time on the excursion he was sincere. I didn't know then that his idea of a good time and my own idea of it were slightly at odds. He is the sort of person who can sit perfectly still on one of those shark jawed camp stools for hours at a time and have a corking time just so long as nobody comes along and hits him with an axe. He can sit and look at the sad sea waves and imagine that they constitute a group of merry maidens in a Gus Edwards revue. When he is engaged in having a good time he is a dreadfully earnest person and he doesn't care to be interrupted. If somebody should approach Bob and hand him a check for $10,000 while he is having one of those good times he would wave said person away and say: "Don't bother me now, I am enjoying myself."

By main strength and awkwardness we elbowed our way through the crowd to the ticket office on the pier. I was ready to quit then. The trip down in the subway with Old Man Fahrenheit hitting on all twelve cylinders had been enough excursion for me, but my friend said the day had just started.

"I thought you said there would be only a few people here," I remarked.

"Well, there are not very many," he replied. "When you come to compare this crowd with the six million population sweltering up town there this crowd looks blamed small. If we get on quick we can get a couple of camp chairs."

Getting a place to sit down is the main object of any excursion. After one has accomplished that he has generally used up the entire day. Usually when he finds a place to sit down he is so tired from looking for that place that he doesn't care to move.

An excursion crowd is not patriotic. When the orchestra plays the national anthem very few get up and those who do get up lose their camp stools. There is a reason for this lack of patriotic ardor. I have no doubt excursion crowds are just as patriotic as other crowds, although, to my mind, they have no apparent reason for being so.

They had an orchestra on our boat. It was one of those pass the hat orchestras. An orchestra of this sort comes around every five minutes with the hat to see how much you will give it to stop playing. It is generally constituted of musicians who can't get good jobs playing with the German street bands or in the Hester street cabarets. Our orchestra was composed of a bass fiddle, or "doghouse" as known to the old masters; a violin, a slide trombone and a ukelele. Before we started they all tuned up except the ukelele player.

It is a sheer waste of time to tune a uke, because after it is tuned everybody thinks it is out of tune. The thing to do with a uke is to let it alone. When you try to curb it its artistic temperament goes on a rampage which is painful to every person within earshot. If you let it alone and don't pick at it it won't bite. The piano player couldn't come that day so, as Bob put it, there was something to be thankful for right on the start. It promised to be an unusually pleasant excursion.

As we were pulling away from the dock the orchestra staggered at a tune and several persons stood up. They were the ones who had no camp stools. They stood for all the tunes that were played on that trip.

"What might be the name of that tune?" I asked Bob.

"The name of that tune is 'The Star Spangled Banner,'" he replied.

"How do you know?" I asked.

"Because I came on this boat last week and the week before that," he said. "Last time I asked the leader and he told me. Oh, it is no secret. You don't recognize it because they are playing it in Italian. These boys are artists."

The player who is supposed to put the patriotic punch into the rendition of this piece is the slide trombone player, but on this trip he was working under a tremendous disadvantage. He didn't have room to exercise his talents. Whenever he reached for a long distance note the end of his slide knocked over a man and five children. After he had hooked three or four ladies' hats and had planted one jab in Bob's eye he gave up in despair and banged away at one note. So the national anthem wasn't much of a success, even in Italian.

"That boy can never play any of Sousa's work at all," said Bob, "the boat is so crowded. If they would give him a fair chance on the Hippodrome stage once he could pull some good stuff. I don't believe he would hit anybody back of the first three or four rows of seats."

Well, I sat in that campstool until I thought I was reposing in the jaws of a man-eating tiger. Bob pointed out the Statue of Liberty. "There she is", he said. "She's the grand old girl, all right."

After putting his arm up to point out the Statue of Liberty he couldn't get it down again and he had to leave it sticking up in the air until the man next him got up some time later to go and get a glass of water. I couldn't see the statue while sitting down and I didn't dare get up. Anyhow, I had seen it many times, and I don't think she had changed much excepting to get a little older, as most women do.

The only excitement caused on the trip was furnished by a man who had several children with him. He made nine trips to the lunch counter for graham crackers and bananas and when he wasn't going for these he was getting ice water. Every time he got up everybody else had to get up, picking their camp stools up with them. When they sat down everybody tried to beat everybody else so as to gain two or three inches more room. We passed a battleship and all I could see was the fighting top. So far as I was able to judge it was a perfectly good fighting top.

I believe the temperature in town that day was 52. On the deck of that boat, wedged in as we were, the temperature was 115 in the shade.

Bob and I tucked our camp chairs under our arms and fought our way to the lunch counter. We started at noon and got next to the bar about a quarter after 1. The clerk asked us what kind of a sandwich we would have.

"Ham," said Bob cheerily. Bob was having a corking time.

"No ham," snapped the clerk.

"Cheese," said Bob.

"No cheese left," said the clerk.

"Sardine would be appropriate," I ventured.

"Do you think you are in Rector's?" asked the clerk.

"Chicken," said Bob.

"No chicken," said the clerk.

"What kind have you?" asked Bob.

"All gone," said the clerk. "I can give you a box of soda crackers. All we have left."

The soda crackers were damp, having been leaked upon by the drippings from the bar most of the morning, but we got away with them, but Bob lost his straw hat.

"I never liked that hat anyhow," he said.

Before we had finished the crackers the boat arrived at its destination.

"Now here's the proper gag," said Bob. "We won't get off the boat at all. Everybody else will get off, but we will stay right on and go and cop the best place on the boat for the trip back. She lays here only two hours anyhow."

A few got off, but they did hate to give up those camp stools. One or two who tried to smuggle them off the boat were sent back. But Bob didn't have any patent on that stay on the boat thing. Nearly everybody did that. Most of them had picnic lunches. The man with the seven children had brought fried chicken.

All the good places on the boat were taken when we tried to get them so we sat down in a poor place and waited for the boat to start home. At any rate we succeeded in retaining our camp chairs. We were just about to beat the man with seven children over the head with a camp chair and take his chicken away from him when the boat started to whistle. It was time to start back. But an excursion boat doesn't start back as soon as it begins to whistle. That is only a preliminary. The whistling lasts an hour or an hour and a half, depending largely upon the supply of steam. They are very careful to leave no one behind. If many were left behind it would make the return trip more comfortable for those on board, and if there is anything that an excursion company just naturally hates to do it is to make people comfortable.

I elbowed my way down to the lunch counter to get a couple of cigars. I thought Bob and I might as well have a little pleasure out of the trip. When I got there the cigars were all gone.

"That's another thing to be thankful for," said Bob, when I returned. "Now we will just sit here quietly and enjoy the trip home."

The trip home really was an improvement over the trip down, for they moved the orchestra to the other end of the boat. Nothing happened on the trip up the bay. Nothing could happen. It was so crowded nobody could do anything. A man who stood up behind me reached over my head and bought an ice cream cone and it developed a leak. After it had dripped down the back of my neck for the better part of ten minutes I asked him to kindly put his thumb over the hole in the bottom of his ice cream cone. He stared at me as though he were looking right through me and thinking about the price of pearl buttons in Peru.

"You have got to put up with a few little inconveniences on a trip like this," said Bob laughingly. You see the ice cream was not dripping down Bob's neck.

"A man with half an eye could see that," I replied. "Please spring something which is not quite so obvious. If ever you were subtle, be subtle now."

Yes, we got back to the dock. Ordinarily I am not fond of docks, but I could have kissed this one. The trip home had been slow. They had used up so much steam blowing the whistle down at wherever it was we went that they had barely enough left to navigate.

A friend asked me where we went and for the life of me I couldn't tell him. Bob knew, but I had forgotten to ask him.

The next time I want to be really comfortable I am going to ride in the subway all day. There one can at least get off once in a while and rush to the surface for a mouthful of air.

A poor man certainly can have one heck of a time if he only knows how to go at it, but the first thing to do in going at it is to go and hunt up a lot of money somewhere—rob a bank or something—and then go somewhere where everybody else isn't going. By the following Thursday I had recovered sufficiently from my trip to get back on the job.

Hoping you are the same, I remain,

Yours,

LEM.